

**Supplementary Planning Document (SPD) for
the Kidbrooke Development Area**

Final Sustainability Appraisal Report

June 2008

London Borough of Greenwich Supplementary Planning Document (SPD) for the Kidbrooke Development Area

Final Sustainability Appraisal Report

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Non-Technical Summary

BACKGROUND

This document is the Final Sustainability Appraisal Report (SAR) for the Sustainability Appraisal (SA), incorporating Strategic Environmental Assessment (SEA), of the Kidbrooke Development Area (KDA) Supplementary Planning Document (SPD), prepared for the London Borough of Greenwich.

The aim of the SA is to assess the effect of the SPD's proposals from an environmental, economic and social perspective. It is intended to test the performance of the SPD against the objectives of sustainable development, and thereby provide the basis for its improvement.

This Sustainability Appraisal Report summarises the findings and results of the SA process. The SA process involved three main stages:

- ◆ Identifying other relevant plans, programmes and sustainability objectives, establishing the sustainability baseline, identifying sustainability issues and problems and deciding SA objectives;
- ◆ Consulting on the scope of the sustainability appraisal; and
- ◆ Developing and refining options and assessing the effects of the SPD, identifying measures to reduce or counter act the negative effects and identifying significant effects that will form the basis for the establishment of a future monitoring programme.

MAIN OBJECTIVES OF THE SPD

The SPD identifies a set of objectives to achieve the overall vision for the area. These are:

1. The Kidbrooke area will represent an exemplar community incorporating a mix of high quality housing which will include the replacement of existing affordable homes and the provision of market housing.
2. The Kidbrooke area will have a clearly identifiable character which will establish a positive sense of identity. It will incorporate the establishment of a number of neighbourhoods which will include several different character areas.
3. The neighbourhood will be a place where public and private spaces are clearly distinguished to provide a sense of continuity and enclosure.
4. Kidbrooke will be a place that is easy to get to and move through and be well integrated with surrounding areas. Provision will be made for a variety of travel modes including walking and cycling.
5. The layout and form of development will be adaptable and provide variety for a range of different uses.
6. Kidbrooke will incorporate a variety of attractive open spaces providing a range of recreational uses.
7. A new mixed use Local Centre (known as the Hub) will be created which combined with the railway station and transport interchange will establish a focus of activity.
8. The development will include a transport interchange which enables easy access between train, bus, cycling and pedestrian route networks.

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9. The development will be an exemplar of the principles and practice of sustainable development which will consider the economic, social and environmental dimensions and incorporate carbon reduction consistent with the Council's UDP renewable energy targets.

SUSTAINABILITY BASELINE AND KEY ISSUES

Establishing the sustainability baseline is a key component of the SA process. It provides the basis against which the effects of the plan are judged. Key issues which resulted from an analysis of the sustainability baseline for the Kidbrooke area are as follows:

- ◆ The Ferrier Estate experiences high levels of crime and vandalism.
- ◆ Residents of the Ferrier Estate suffer from high levels of unemployment and there is poor access to local employment opportunities.
- ◆ The Ferrier Estate's general appearance and design layout is problematic and no longer reflects urban design 'best practice'.
- ◆ A range of community facilities are provided within the Ferrier Estate however they are of poor quality and difficult to access.
- ◆ The condition of school buildings in the area is poor being difficult to expand and adapt to changing requirements.
- ◆ Kidbrooke Park Road acts as a barrier between the eastern and western parts of the development area, particularly within the Ferrier Estate.
- ◆ The railway line acts as severance between the northern and southern parts of the development area.
- ◆ The poorly designed local road network results in unnecessary congestion.
- ◆ A number of private open space sites are inaccessible to the general public.
- ◆ Open spaces are poorly organised, under-utilised and unattractive.
- ◆ Bus services are poorly organised and routed.
- ◆ Car usage in the Ferrier Estate is significantly higher than in both South Greenwich and London.
- ◆ Four Sites of Nature Conservation Importance lie within or near the development area.
- ◆ There is potential for protected species on the site, including the possible presence of Great Crested Newt within the Kidbrooke Green and Birdbrook Road Nature Reserves.
- ◆ A significant proportion of the development area is adjacent to the Blackheath Conservation Area, and a small part of the site borders a second Conservation Area, Eltham Green.
- ◆ Eltham Palace Scheduled Ancient Monument (SAM) and the World Heritage Site (WHS) of Maritime Greenwich lie outside the regeneration area however there is potential for the development to affect the setting of the SAM and WHS.
- ◆ The River Quaggy and Kid Brook are the main watercourses traversing the development area and there is the risk of flooding along these watercourses.
- ◆ There is a poor visual and physical relationship between the Ferrier estate and Kidbrooke station.
- ◆ The station building is very small with limited parking for 30 cars on the station approach road, which results in parking congestion on adjacent roads.

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- ◆ There is potential for ground contamination due to the historical usage of the site. The main sources of contamination are likely to be the former RAF station and the former Post Office Depot.
- ◆ There are limited retail facilities serving the local area other than Telemann Square within the estate itself and a Homebase store nearby.
- ◆ The Eltham West ward (within which the KDA lies) has a high unemployment rate of 7.0%. In addition, there are limited employment opportunities in the immediate area.

SUSTAINABILITY APPRAISAL OBJECTIVES

Following the review of relevant plans and programmes that influenced the development of the Kidbrooke SPD, the sustainability baseline and the key environmental issues identified for the Kidbrooke area, the following SA objectives have been developed using an iterative process taking into account comments from the previous scoping consultation.

SUSTAINABILITY APPRAISAL OBJECTIVES
Social
To improve access to health facilities and reduce health inequalities.
To meet identified housing needs.
To promote safe communities, reduce crime and fear of crime.
To improve education facilities and skills of local population.
To improve opportunities for access to education, employment, recreation, health, public transport, community services and cultural opportunities for all sectors of the community.
To reduce adverse impacts of noise and vibration.
To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes.
Environmental
To limit emissions to air to levels that will not damage natural systems or affect human health.
To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car.
To reduce greenhouse gases emissions and promote CO2 emissions fixing.
To conserve sites of nature conservation importance and protect fauna and flora which are important on an international, national and local scale.
To avoid damage and fragmentation of habitats.
To protect and enhance the quality of landscape of recognised value.
To safeguard important built, historic and archaeological features.
To increase energy efficiency and the use of renewable energy in the built environment.
To make the best use of previously developed land.
To reduce the generation of waste and encourage re-use and recycling of waste.
To improve the quality of surface and ground waters.
To reduce risk of flooding.
To promote the use of materials and products produced by sustainable methods.
To reduce contamination and safeguard soil quality and quantity.
Economic

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SUSTAINABILITY APPRAISAL OBJECTIVES

To strengthen the local economy.

To improve employment and access to employment opportunities.

To enhance the viability and vitality of Kidbrooke centre.

STRATEGIC OPTIONS

The London Borough of Greenwich, in consultation with stakeholders, considered four options for achieving the vision of KDA and the Ferrier Estate. The four main options considered for the KDA were:

- ◆ Option 1: No change
- ◆ Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area
- ◆ Option 3: Partial refurbishment/partial development of the wider area
- ◆ Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.

The clear preferred option was Option 4 – the comprehensive redevelopment of the Ferrier and the wider areas. The least preferred option was Option 1 – no change followed by Option 2 – refurbishment of the Ferrier Estate as both options would not address the current problems associated with the area resulting in negative effects on the majority of the social objectives and the economic objectives as the existing centre, Telemann Square offers no potential for inward investment and support for local businesses given its current state.

ASSESSMENT OF SIGNIFICANCE OF EFFECTS OF THE KIDBROOKE SPD

Responding to the Vision and Objectives and taking into account the environmental context of the site, the SPD has divided the KDA into 7 broad neighbourhood areas which are clearly defined in terms of land use, mix, density, massing and form of development.

The development concept is for four predominately residential neighbourhoods clustered around a mixed use hub adjoining Kidbrooke railway station. The Hub will accommodate retail, commercial and community uses. A new green link will be established adjoining the Hub, Eastern and Western Neighbourhood areas incorporating Sutcliffe Park.

The assessment has been undertaken by neighbourhood type. In addition, the movement strategy is subject to a separate assessment. The assessment of the sustainability strategy was integrated into the assessment of the proposals within each neighbourhood area.

- ◆ Neighbourhood Area Type 1: The Hub;
- ◆ Neighbourhood Area Type 2: North East Neighbourhood Area;
- ◆ Neighbourhood Area Type 3: North West Neighbourhood Area;
- ◆ Neighbourhood Area Type 4: Western Neighbourhood Area;
- ◆ Neighbourhood Area Type 5: Eastern Neighbourhood Area;
- ◆ Green Infrastructure (incorporating the Green Link and Sutcliffe Park - neighbourhood area types 6+7); and
- ◆ Movement Infrastructure (including movement and permeability, movement framework, public transport, accessibility, road network, cyclist and pedestrian routes, car parking).

SUSTAINABILITY APPRAISAL RESULTS

Overall, the SPD is likely to have positive effects on most social, environmental and economic SA objectives, with significant positive effects predicted on:

- ◆ Improving access to health facilities and reducing health inequalities;
- ◆ Meeting identified housing need;
- ◆ Promoting safe communities, reducing crime and fear of crime;
- ◆ Promoting the enjoyment of open spaces for recreational and amenity purposes;
- ◆ Conserving sites of nature conservation importance and protecting fauna and flora which are important on an international, national and local scale;
- ◆ Avoiding damage and fragmentation of habitats;
- ◆ Protecting and enhancing the quality of landscape of recognised value;
- ◆ Increasing energy efficiency and the use of renewable energy in the built environment;
- ◆ Making the best use of previously developed land;
- ◆ Reducing the risk of flooding;
- ◆ Strengthening the local economy;
- ◆ Improving employment and access to employment opportunities; and
- ◆ Enhancing the viability and vitality of Kidbrooke Centre.
- ◆ Slight positive effects were also predicted on the following objectives:
- ◆ Improving the education and skills of the local population;
- ◆ Safeguarding important built, historic and archaeological features;
- ◆ Reducing the generation of waste and encouraging the re-use and recycling of waste;
- ◆ Promoting the use of materials and products produced by sustainable materials; and
- ◆ Reducing contamination and safeguarding soil quality and quantity.

However, the assessment also identified the potential for positive and negative effects on the following objectives:

- ◆ Improving opportunities for access to the local community;
- ◆ Reducing adverse impacts of noise and vibration;
- ◆ Limiting emissions to air that will not damage natural systems to affect human health;
- ◆ Reducing traffic congestion, promoting more sustainable modes of transport and reducing reliance on the car;
- ◆ Reducing greenhouse gas emissions and promoting CO₂ fixing; and
- ◆ Improving the quality of ground and surface waters.

Potential negative effects on noise and vibration, air quality and water quality are related to construction activities and are likely to be limited in duration and spatial extent. Whilst the SPD endorses sustainable construction methods to mitigate dust, emissions and noise generation from construction related activities, there is likely to be temporary residual negative effects against these objectives.

A mixture of positive and negative effects was identified against the SA objective of reducing traffic congestion and promoting more sustainable modes of transport. Whilst the priority of

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the SPD is to promote sustainable modes of transport, through the provision of a public transport interchange, pedestrian and cyclists through the KDA, there will still be vehicle transport through and within the KDA. This will contribute to congestion and an increase in residents within the area is likely to result in an increase in cars and journeys made resulting in minor negative effects. This increase in vehicle use is likely to have a slight negative knock on effect on greenhouse gas emissions.

Slight negative effects on accessibility for the local community were in relation to the eastern neighbourhood area that does not fall within the 1000m Eco Homes Access to Services Criteria resulting in negative effects in terms of accessibility to the main Hub and interchange.

RECOMMENDATIONS FOR SUSTAINABILITY IMPROVEMENTS TO THE KIDBROOKE SPD

The following recommendations were made to improve the Kidbrooke SPD:

- ◆ Improving the accessibility of the eastern neighbourhood area needs to be further explored.
- ◆ The sustainability strategy should be embedded into the SPD rather than being a separate chapter. If it is decided to have a separate chapter, this should be included at the start of the SPD i.e. within Section 2 which sets out the vision and objectives for the Kidbrooke SPD. In particular objective 9 could be expanded to mention the particular aspects of sustainability covered in the Sustainability Chapter.

Further sustainability considerations should also be added covering the following:

- ◆ Percentage of renewable energy to be generated on site should be increased to 20% in order to meet the Mayor of London's draft further alterations to the London Plan for development to achieve a reduction in carbon dioxide emissions of 20% from onsite renewable energy generation;
- ◆ Minimum targets for use of recycled materials in construction should be referred to in line with the Mayor of London's SPG – Sustainable Design and Construction Standards published in May 2006.
- ◆ The Green Infrastructure could refer to the creation of meadows (i.e. leaving parts of the open space to become overgrown) and small pockets of woodland in order to enhance biodiversity within the KDA.
- ◆ The wording of the SPD should be strengthened to protect existing trees where possible. Additional tree planting should ensure that there is no net loss, as a minimum but preferably a net gain, of numbers of trees on the site.
- ◆ The SPD should state that a % of workforce for the new commercial Hub or construction workforce should be local workforce. This could be sought in any future S106 agreement and could be referred to in the Delivery Framework.
- ◆ A strategy for waste management should be outlined in greater detail in the SPD such as the provision of recycling banks at the transport interchange and Hub as well as for residential areas.

MONITORING OF SIGNIFICANT EFFECTS

The SA has identified the following significant effects arising from the implementation of the DPD that will form the basis of the monitoring programme:

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- ◆ Effect on improving health and reducing health inequalities
- ◆ Effect on meeting identified housing needs
- ◆ Effect on promoting safe communities, reduce crime and fear of crime
- ◆ Effect on improving opportunities for access
- ◆ Effect on promoting the enjoyment of open spaces for recreational and amenity purposes
- ◆ Effect on reducing traffic congestion, promote more sustainable modes of transport and reduce the reliance on the car
- ◆ Effect on conserving sites of nature conservation importance
- ◆ Effect on avoiding damage and fragmentation of habitats
- ◆ Effect on protecting and enhancing the quality of the landscape
- ◆ Effect on increasing energy efficiency and the use of renewable energy in the built environment
- ◆ Effect on making the best use of previously developed land
- ◆ Effect on reducing the risk of flooding
- ◆ Effect on strengthening the local economy
- ◆ Effect on improving employment and access to employment opportunities
- ◆ Effect on enhancing the viability and vitality of Kidbrooke Centre

CONCLUSION

The Kidbrooke SPD has been subject of a sustainability appraisal incorporating strategic environmental assessment and significant positive effects have been identified with regards to most social, environmental and sustainability objectives.

The findings of this appraisal concluded that the sustainability performance of the draft SPD could be further improved by taking account of the recommendations above.

Following discussions with the London Borough of Greenwich and with the planning team prior to the finalisation of the Final SPD and SAR, the wording of the relevant parts of the SPD has been revised to take into account, where possible, the recommendations outlined in this SAR.

1. Introduction

BACKGROUND

- 1.1 The London Borough of Greenwich (the Council) has a vision to transform the Kidbrooke area from one of Greenwich's most deprived neighbourhoods into an attractive area with good transport facilities and improved access to the economic opportunities available in the north of the Borough.
- 1.2 The Kidbrooke area comprises 109 hectares of land on either side of the A2 Blackwall Tunnel Approach. It includes the large Council estate known as the Ferrier Estate, surrounding areas of public and private open space and a number of other development sites mainly located around Kidbrooke train station and the A2 junction. There is a concentration of local educational facilities including the Thomas Tallis secondary school, Wingfield and Holy Family primary schools.
- 1.3 The area is isolated and excluded from the surrounding area and contains areas of poorly organised open space that is under-utilised and inaccessible to the public. The area is dominated by the Ferrier housing estate which suffers from poor planning and the many social and economic problems associated with inner city areas. The Ferrier Estate consists of a total of 1,906 dwellings made up of 74 blocks of maisonettes, flats and terraced houses ranging from eleven storey tower blocks to two storey houses. Despite substantial capital investment in the past, the estate retains its poor reputation and the communal areas and the general layout of the estate remain problematic with the design problems of the Kidbrooke area and the Ferrier Estates impacting negatively on opportunities for residents and businesses to improve their economic and social prospects.
- 1.4 Two teams of specialists at Atkins were commissioned by the London Borough of Greenwich in March 2005 to undertake the Sustainability Appraisal of the Kidbrooke Supplementary Planning Document (SPD) and to produce the SPD itself. The Atkins Sustainability Team, working independently from the planning team responsible for the production of the SPD, undertook the sustainability appraisal for the production of the Sustainability Appraisal Report.

VISION AND OBJECTIVES

- 1.5 The vision for KDA is:
'The Kidbrooke Vision will provide around 4,400 new homes in a range of sizes and tenures providing homes for rent, key worker housing, shared ownership and homes for sale. The new housing will enjoy facilities which encourage the development of a living, learning, interactive and healthy community'
- 1.6 The London Borough of Greenwich Unitary Development Plan (UDP) (July 2006) defines the Boundary of the KDA and Policy H4 of the Adopted UDP sets out the key objectives for the area. These are:
 - ◆ Creating a mixed neighbourhood and community integrated with the surrounding area and providing a sustainable environment;

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- ◆ Provision of a total of 4,400 dwellings which include the replacement of 1,900 affordable homes;
 - ◆ Creating quality open spaces;
 - ◆ Providing a local shopping centre which acts as a commercial hub for the area;
 - ◆ An improved transport interchanges and public transport for the area; and
 - ◆ On Greenfield sites in the development area identified for housing development, in recognition of the economics of housing provision 50% of affordable housing will be sought.
- 1.7 A SPD for the Kidbrooke is currently being prepared which will supplement the policies of the UDP to provide a robust planning framework in which the objectives and proposals envisaged within the Kidbrooke Vision Masterplan can be implemented to achieve regeneration of the KDA.

SPD OBJECTIVES

- 1.8 The objectives have been established by reference to policies in the London Borough of Greenwich UDP (in particular Policy H4), national/regional planning guidance and best practice. In addition, the London Plan (adopted in 2004) outlines the KDA as an 'Area of Intensification' where development opportunities should be promoted through higher density redevelopment at transport nodes to achieve more intensive use, especially residential development.
- 1.9 The objectives of the Kidbrooke SPD have been confirmed as follows:
1. The Kidbrooke area will represent an exemplar community incorporating a mix of high quality housing which will include the replacement of existing affordable homes and the provision of market housing.
 2. The Kidbrooke area will have a clearly identifiable character which will establish a positive sense of identity. It will incorporate the establishment of a number of neighbourhoods which will include several different character areas.
 3. The neighbourhood will be a place where public and private spaces are clearly distinguished to provide a sense of continuity and enclosure.
 4. Kidbrooke will be a place that is easy to get to and move through and be well integrated with surrounding areas. Provision will be made for a variety of travel modes including walking and cycling.
 5. The layout and form of development will be adaptable and provide variety for a range of different uses.
 6. Kidbrooke will incorporate a variety of attractive open spaces providing a range of recreational uses.
 7. A new mixed use Local Centre (known as the Hub) will be created which combined with the railway station and transport interchange will establish a focus of activity.
 8. The development will include a transport interchange which enables easy access between train, bus, cycling and pedestrian route networks.
 9. The development will be an exemplar of the principles and practice of sustainable development which will consider the economic, social and environmental dimensions and incorporate carbon reduction consistent with the Council's UDP renewable energy targets.

REQUIREMENT FOR STRATEGIC ENVIRONMENTAL ASSESSMENT

- 1.10 The EU Directive 2001/42/EC on assessment of effects of certain plans and programmes on the environment (the 'SEA Directive') came into force in the UK on 20 July 2004 through the Environmental Assessment of Plans and Programmes Regulations 2004. The Directive applies to a variety of plans and programmes including those for town and country planning and land use and applies to both Development Plan Documents (DPDs) and Supplementary Plan Documents (SPDs) as they a) set the framework for future development consent and b) are likely to have a significant effect on the environment.
- 1.11 The overarching objective of the SEA Directive is:
"To provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans... with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans... which are likely to have significant effects on the environment." (Article 1)
- 1.12 SEA is an iterative assessment process which plans and programmes are now required to undergo as they are being developed to ensure that potential significant environmental effects arising from the plan/programme are identified, assessed, mitigated and communicated to plan-makers. SEA also requires the monitoring of significant effects once the plan/programme is implemented.
- 1.13 The SEA Directive and the SEA Regulations state that the SEA must consider the following topic areas:
- ◆ Biodiversity;
 - ◆ Population;
 - ◆ Human Health;
 - ◆ Flora and Fauna;
 - ◆ Soil;
 - ◆ Water;
 - ◆ Air;
 - ◆ Climatic Factors;
 - ◆ Material assets;
 - ◆ Cultural heritage, including archaeological and built heritage;
 - ◆ Landscape; and
 - ◆ And the interrelationship between these factors.

REQUIREMENT FOR SUSTAINABILITY APPRAISAL

- 1.14 Under the regulations implementing the provisions of the Planning and Compulsory Purchase Act 2004, a Sustainability Appraisal (SA) is required for all Local Development Documents (LDDs) and Supplementary Planning Documents (SPDs). The purpose of SA is to promote sustainable development through better integration of sustainability considerations in the preparation and adoption of plans. The Regulations stipulate that SAs of LDDs and SPDs should meet the requirements of

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the EU Directive 2001/42/EC on assessment of effects of certain plans and programmes on the environment (the 'SEA Directive').

- 1.15 Planning Policy Statement 1 (PPS1) describes Sustainability Appraisal in Paragraph 9 of Annex B:

"A Sustainability Appraisal is intended to assess the impact of plan policies from an environmental, economic and social perspective. It is intended to test the performance of a plan against the objectives of sustainable development and thereby provide the basis for its improvement."

- 1.16 SA thus helps planning authorities to fulfil the objective of contributing to the achievement of sustainable development in preparing their plans.

- 1.17 There are many definitions of sustainable development, however the most commonly used and widely accepted is that coined by the World Commission of Environment and Development in 1987 as:

"Development which meets the needs of the present without compromising the ability of future generations to meet their own needs."

- 1.18 The UK Strategy for Sustainable Development 'A Better Quality of Life' has been revised in March 2005. The new strategy outlines a set of shared UK principles which will be used to achieve the goal of sustainable development. The guiding principles have been agreed by the UK government, Scottish Executive, Welsh Assembly Government and the Northern Ireland Administration. They bring together and build on the various previously existing UK principles to set out an overarching approach. The 5 guiding principles will form the basis for policy in the UK. For a policy to be sustainable, it must respect all five of these principles in order to integrate and deliver simultaneously sustainable development:

- ◆ Living within environmental limits – respecting the limits of the planet's environment, resources and biodiversity to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations;
- ◆ Ensuring a Strong, Healthy and Just Society – meeting the diverse needs of all people in existing and future communities, promoting personal well-being, social cohesion and inclusion, and creating equal opportunity for all;
- ◆ Achieving a Sustainable Economy – Building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (polluter pays) and efficient resource use incentivised;
- ◆ Promoting Good Governance – Actively promoting effective, participative systems of governance in all levels of society – engaging people's creativity, energy and diversity; and
- ◆ Using Sound Science Responsibly – Ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle) as well as public attitudes and values.

THE SA PROCESS

- 1.19 The requirements to carry out SA and SEA are distinct, but the ODPM's (now Communities and Local Government (CLG)) guidance of November 2005 states that it is possible to satisfy both through a single appraisal process and provides a methodology for doing so. This methodology goes further than the SEA methodology (which is primarily focused on environmental effects) requiring the examination of all the sustainability-related effects, whether they are social, economic or environmental. However, those undertaking the SA should ensure that in doing so they meet the requirements of the SEA Directive.
- 1.20 According to the same guidance, the main stages in the SA process are as follows:
- ◆ Stage A – Setting the context and objectives, establishing the baseline and deciding on scope;
 - ◆ Stage B – Developing and refining options and assessing effects;
 - ◆ Stage C – Preparing the Sustainability Appraisal Report;
 - ◆ Stage D – Consultation on the plan and the Sustainability Appraisal Report; and
 - ◆ Stage E – Monitoring implementation of the plan.
- 1.21 The interrelationship between these main stages and between the tasks in each stage of the SPD process is illustrated in Figure 1.1.
- 1.22 The ODPM guidance also sets out a requirement for the preparation of the following reports:
- ◆ Scoping Report (summarising Stage A work) which should be used for consultation on the scope of the SA; and
 - ◆ Sustainability Appraisal Report (documenting Stages A to C work) which should be used in the public consultation on the Preferred Options.

Figure 1.1 – Incorporating SA within the SPD process

Figure 9 – Incorporating SA within the SPD process
SPD Stage 1: Pre-production – Evidence gathering
SA stages and tasks
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope
• A1: Identifying other relevant policies, plans and programmes, and sustainable development objectives. • A2: Collecting baseline information. • A3: Identifying sustainability issues and problems. • A4: Developing the SA framework. • A5: Consulting on the scope of the SA.
SPD Stage 2: Production – Prepare draft SPD
SA stages and tasks
Stage B: Developing and refining options and assessing effects
• B1: Testing the SPD objectives against the SA framework. • B2: Developing the SPD options. • B3: Predicting the effects of the draft SPD. • B4: Evaluating the effects the draft SPD. • B5: Considering ways of mitigating adverse effects and maximising beneficial effects. • B6: Proposing measures to monitor the significant effects of implementing the SPD.
Stage C: Preparing the Sustainability Appraisal Report
• C1: Preparing SA Report.
Stage D: Consulting on draft SPD and Sustainability Appraisal Report
• D1: Public participation on the SA Report and the draft SPD. • D2: Assessing significant changes.
SPD Stage 3: Adoption
SA stages and tasks
• D3: Making decisions and providing information.
Stage E: Monitoring the significant effects of implementing the SPD
• E1: Finalising aims and methods for monitoring. • E2: Responding to adverse effects.

Source: Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, ODPM, November 2005.

SA AND CONSULTATION

- 1.23 The requirements for consultation during a Sustainability Appraisal arise directly from the requirements of the SEA Directive. These are:

“Authorities which, because of their environmental responsibilities, are likely to be concerned by the effects of implementing the plan or programme, must be consulted on the scope and level of detail of the information to be included in the Environmental Report. The 2004 SEA Regulations indicate four Consultation Bodies as follows: Countryside Agency, English Heritage, English Nature and Environment Agency. The SA guidance goes further by suggesting consultation, in addition to the four Consultation Bodies, of representatives of other interests including economic interests and local business, social interests and community service providers, transport planners and providers and NGOs.”

- 1.24 The public and the Consultation Bodies must be consulted on the draft plan or programme and the Environmental Report (Sustainability Appraisal Report in the case of SA).
- 1.25 The consultation timetable for the preparation of the KDA SPD and its Sustainability Appraisal is set out in Table 1.1.

Table 1.1 - Consultation Timetable for the SPD and its Sustainability Appraisal

Consultation	Date
Sustainability Appraisal Scoping Report	August-September 2005
SPD and Sustainability Appraisal Report	24 th October 2007- 5 th December 2007

- 1.26 The Scoping Report consultation took place between August and September 2005 for five weeks. The four main statutory consultation bodies: Countryside Agency, English Heritage, English Nature, and the Environment Agency were formally consulted in accordance with the SEA Directive.
- 1.27 Appendix A summarises the main consultee comments on the Scoping Report and indicates how these comments have been addressed in the preparation of this Sustainability Appraisal Report.
- 1.28 The Sustainability Appraisal Report consultation took place alongside the public consultation on the preferred options for the SPD. Public consultation on the SPD and SAR involved the following:
- ◆ A six week consultation period commencing 24th October until 5th December 2007;
 - ◆ Publishing of a relevant notice in the local press on 24th October 2007;
 - ◆ Draft copies of the SPD and SAR were placed on 24th October 2007 at the Ferrier Library, Blackheath Library, Woolwich Library and at St. Mary's Community Centre, Eltham;
 - ◆ Copies of the documents were also placed at the Council's Development Planning Reception in Peggy Middleton House on 24th October 2007; and

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- ◆ All documents were published on Greenwich Council website on 23rd October 2007.
- 1.29 A newsletter summary was also produced and circulated to the Kidbrooke Stakeholder Group (comprising residents groups in and around the Ferrier Estate) and Kidbrooke Network Group (made up of service providers working on the Ferrier Estate). Copies of documents were also sent out to statutory consultees.
- 1.30 Two drop-in sessions were also held; on 3rd November 2007 between 10am – 2pm at Thomas Tallis School; and on 8th November 2007 between 6.30pm and 9pm at Holy Family School.
- 1.31 Appendix B summarises the main consultee comments on the Sustainability Appraisal Report and indicates how these comments have been addressed in the preparation of this Final Sustainability Appraisal Report.

PLANS AND PROPOSALS PRIOR TO THE PREPARATION OF THE SPD

- 1.32 Regeneration options for the Kidbrooke area including the Ferrier Estate were first considered under round 5 of the Single Regeneration Budget (SRB) in 1999. One of the SRB actions was to consider future regeneration options for the Ferrier Estate in the South Greenwich area. Residents of the Ferrier Estate were actively consulted and were involved in the preparation of the SRB bid and the formulation of proposals.
- 1.33 The original options appraisal for the future of the area set out the potential options for the future of the KDA, providing the key costs and benefits of each of the following options:
 - ◆ Option 1: No nothing;
 - ◆ Option 2: Refurbishment;
 - ◆ Option 3: Part Development, Part Refurbishment; or
 - ◆ Option 4: Comprehensive redevelopment.
- 1.34 The comprehensive redevelopment option was found to provide the greatest opportunity for the KDA, with the potential for the Council to achieve a mixed and integrated neighbourhood.

EXTENT OF CONSULTATION PRIOR TO SPD

- 1.35 The Council has undertaken a robust and comprehensive community and stakeholder consultation programme with extensive consultation having been undertaken on a number of occasions. Consultation has shown widespread support from Ferrier residents, the broader community and key stakeholders for the Masterplan proposals and the actions taken by the Council.
- 1.36 Prior to the appraisal of various development options, Greenwich Council established the Ferrier Residents Advisory Group (FRAG) to represent residents' interests. After some initial consultation with this group, a tenant and residents' survey was undertaken to establish tenants and residents' views on services provided to the estate and provide a snapshot view of their living conditions.

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- 1.37 Consultation during the preparation of the Masterplan was widespread and comprehensive incorporating a range of methods to involve residents and stakeholders. The most important elements of the consultation programme were the design workshops that were driven by local stakeholders and underpinned the consultation process. A total of six workshops and exhibitions took place with nearly 700 people attending the workshops and the Masterplan exhibition on 7-9 September 2001. In the process of developing the Masterplan, other stakeholders that included Railtrack, Environment Agency, Department of Transport and London Regions (DTLR) and the GLA were consulted to ensure Masterplan proposals were broadly in line with agency objectives for the area.
- 1.38 Once the Council had agreed to approve the Kidbrooke Vision Masterplan as the way forward in April 2002, market research was conducted in 2003 to gauge residents' satisfaction with the specific Masterplan proposals relating to housing, open space, and community services. A total of approximately 4,400 questionnaires were distributed to residents of the Ferrier estate and surrounding community. The main findings of the market research consultation were that:
- ◆ At least 80% of Ferrier resident's responses and at least 50% of non-Ferrier responses were satisfied with each aspect of housing mentioned.
 - ◆ At least 85% of Ferrier resident responses and at least 66% of non-Ferrier responses were satisfied with each aspect of open space mentioned.
 - ◆ Eighty-four percent (84%) of Ferrier residents and 60% of non-Ferrier residents were much more or a little more likely to use the proposed community facilities.
- 1.39 In addition, consultation was also undertaken on a number of sites identified in the Masterplan as "possible future development sites" to ensure the overall configuration of the Kidbrooke Vision Masterplan.
- 1.40 The conclusion drawn from the consultation identified that the Kidbrooke Vision Masterplan could be seen to have significant community/stakeholder support. The results of this survey provided the Council with a solid base for taking the project forward and informed a report requesting the Council to make a decision for final proposals for the KDA. The Council agreed the final proposals for the Kidbrooke area on 16 December 2003.
- 1.41 Following the Council decision to agree final plans, the Kidbrooke Stakeholder Group (KSG), comprising local stakeholders from the Kidbrooke area, was established to regularly meet to inform the development of proposals for the area and to continue ongoing consultation processes.
- 1.42 On 27 April 2004 the Council applied to the Secretary of State for Housing and Planning approval to designate Kidbrooke as an area of redevelopment. The Council was required to undertake extensive consultation with all residents of the Ferrier estate. The results of statutory consultation showed considerable support for the Council's proposals. Of the 311 written responses received, only 10% were opposed to the Council's proposals, while 52% expressed clear support for the scheme. The remaining 38% did not express either support or opposition and were more concerned with the detail of the proposed phasing and rehousing. On this basis the Cabinet of the Council on 27 April 2004 again confirmed the final scheme for the area and agreed to apply to the Secretary of State for approval to designate the Ferrier Estate an area of redevelopment. This was received on 15 July 2004.

PURPOSE OF THE SUSTAINABILITY APPRAISAL REPORT

- 1.43 The requirement to prepare a Sustainability Appraisal Report arises directly from Article 5.1 of the SEA Directive which states that:

'An Environmental Report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.'

- 1.44 In sustainability appraisal the Sustainability Appraisal Report replaces the Environmental Report as required under the SEA Directive.
- 1.45 This Sustainability Appraisal Report reports on the work undertaken during the initial stages of the SA process and takes the process further by reporting on the significant social, environmental and economic effects of the preferred proposals outlined in the SPD, proposed mitigation measures and proposals for monitoring significant sustainability effects and accompanies the final KDA SPD.

2. Sustainability Appraisal Methodology

MEETING THE REQUIREMENTS OF THE SEA DIRECTIVE

- 2.1 As mentioned in Chapter 1 there is a fundamental difference between the SA and SEA methodologies. SEA is primarily focused on environmental effects and the methodology addresses a number of topic areas namely Biodiversity, Population, Human Health, Flora and Flora, Soil, Water, Air, Climatic Factors, Material Assets, Cultural Heritage and Landscape and the interrelationship between these topics. SA, however, widens the scope of the appraisal to include social and economic topics as well as environmental as it is intended to assess the impact of a plan from an environmental, social and economic perspective.
- 2.2 This Sustainability Appraisal has been undertaken so as to meet the requirements of the SEA Directive for environmental assessment of plans. Table 2.1 sets out the way the specific SEA requirements have been met in this report.

Table 2.1 - Schedule of SEA Requirements

Requirements of the Directive	Where Covered in Report
Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated. The information to be given is:	
a) An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes	Chapters 3 and 5
b) The relevant aspects of the current state of the environment and the likely evolution without implementation of the plan or programme	Chapter 3, Appendix C
c) The environmental characteristics of areas likely to be significantly affected	Chapter 3, Appendix C
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directive 79/409/EEC and 92/43/EEC	Chapter 3, Appendix C
e) The environmental protection objectives established at international, community or national level which are relevant to the programme and the way those objectives and any environmental considerations have been taken into account during its preparation	Chapter 3
f) The likely significant effects on the environment, including: short, medium and long term; permanent and temporary; positive and negative; secondary, cumulative and synergistic effects on issues such as: biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.	Chapter 5 and Appendix E
g) The measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse effects on the environment of implementing the plan or programme.	Chapter 6
h) An outline of the reasons for selecting the alternatives dealt	Chapters 1 and 4

Sustainability Appraisal Report

Requirements of the Directive	Where Covered in Report
with and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	
i) A description of measures envisaged concerning monitoring (in accordance with regulation 17)	Chapter 7
j) A non-technical summary of the information provided under the above headings	Non-technical summary

Consultation with:	
Authorities with environmental responsibility when deciding on the scope and level of detail of the information to be included in the environment report	Chapter 1 and Appendix A
Authorities with environmental responsibility and the public to be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan and accompanying environmental report before its adoption	Consultation on this SA Report
Other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country	Not applicable
Taking the environmental report and the results of the consultations into account in decision making	
Provision of information on the decision: When the plan or programme is adopted the public and any countries consulted must be informed and the following made available: The plan or programme as adopted A statement summarising how environmental considerations have been integrated into the plan or programme in accordance with the requirements of the legislation The measures decided concerning monitoring	To be addressed at a later date
Monitoring of the environmental effects of the plan or programmes implementation must be undertaken	To be addressed at a later date

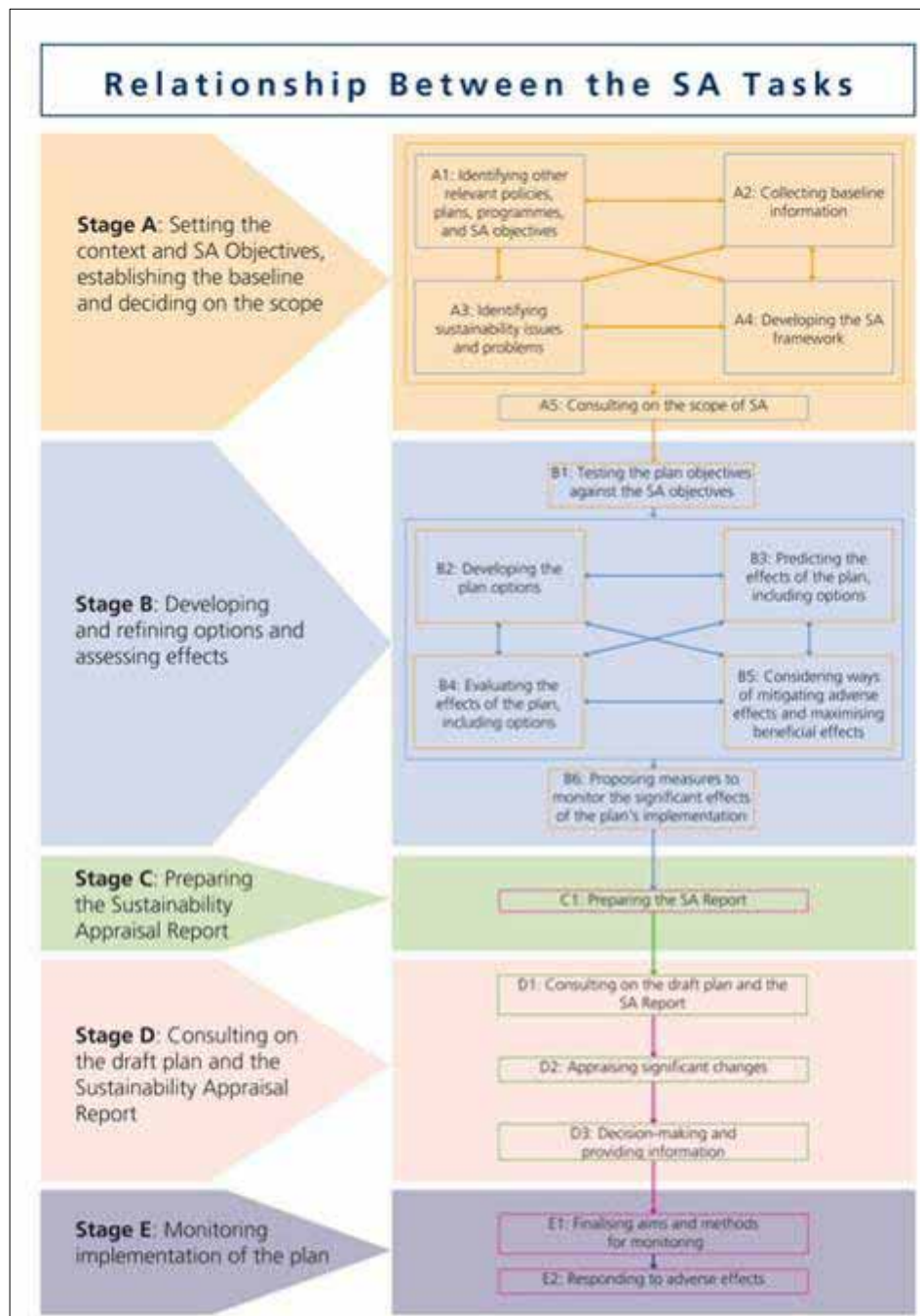
APPRAISAL PROCESS

- 2.3 ODPM guidance emphasises that SA is an iterative process that identifies and reports on the likely significant effects of the plan and the extent to which the implementation of the plan will achieve the social, environmental and economic objectives by which sustainable development can be defined. The intention is that SA is fully integrated into the plan-making process from the earliest stages, both informing and being informed by it.
- 2.4 To date the following outputs have been prepared:
- ◆ A Scoping Report for the SA of the Kidbrooke SPD (December 2005); and
 - ◆ A Sustainability Appraisal Report accompanying the public consultation version of the SPD (September 2007).
- 2.5 The Statutory SEA Consultees were consulted on the Scoping Report for the KDA SPD and their responses considered in full. The Sustainability Appraisal was revised in terms of accuracy, scope and judgement in the light of many of these comments.

APPRAISAL METHODOLOGY

- 2.6 The methodology adopted involved the completion of the SA stages A, B and C and associated tasks as outlined in Figure 2.1 below.

Figure 2.1 - Relationship between SA Stages and Tasks



Source: Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, ODPM, November 2005.

Stage A: Setting the Context and Objectives, Establishing Baseline and Deciding on Scope

A1: Other Relevant Plans and Programmes

- 2.7 A wide range of plans, programmes and policies (PPPs) and other documents that may influence the SPD were reviewed and these are shown in Table 3.1.

A2: Baseline Data

- 2.8 To predict accurately how the SPD proposals will affect the environment, and social and economic factors, it is first important to understand the current state of these factors and then examine their likely evolution without the implementation of the plan.
- 2.9 Baseline data tables (Appendix C) have been prepared where data have been listed under social, environmental and economic groupings. These tables record:
- ◆ General indicator;
 - ◆ Quantified data within the plan area;
 - ◆ Comparators and targets (if applicable);
 - ◆ Problems/constraints; and
 - ◆ Source of the information.
- 2.10 Baseline information provides the basis for predicting and monitoring effects and helps to identify sustainability problems and alternative ways of dealing with them. Sufficient information about the current and likely future state of the development area is required to allow the SPD's effects to be adequately predicted.
- 2.11 The ODPM's guidance emphasises that the collection of baseline data and the development of the SA framework should inform each other. The review and analysis of relevant plans and programmes has also influenced data collection. In deciding what and how much baseline data to collect, the key determining factor has been the level of detail required to appraise the plan against the SA objectives.
- 2.12 A preliminary set of baseline data has been extracted from a wide range of available publications and datasets. Sources have included, among others, national government and government agency websites, census data, and the Office for National Statistics. No primary research has been conducted. To provide the level of detail required for the SA of the SPD, data available specifically for the Eltham West ward has been used, in particular local economic and social indicators.

A3: Sustainability Issues

- 2.13 Analysis of key sustainability issues relevant to the KDA has been carried out. This work has been based on the review of relevant plans and programmes and an analysis of the baseline data. The analysis of sustainability issues has been iterative and is ongoing. As the SA develops with further stakeholder involvement the analysis of key issues is likely to evolve.
- 2.14 The results were set out in a table under the three sustainable development dimensions (economic, social and environmental) and covered the most relevant topics.

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A4: Sustainability Appraisal Framework

- 2.15 A set of objectives, indicators and targets, against which the proposals in the SPD can be assessed, was drawn up under the three sustainable development dimensions: social, economic and environmental.
- 2.16 These were developed using an iterative process, based on the review of relevant plans and programmes, the evolving baseline and developing analysis of key sustainability issues.
- 2.17 A table has been prepared setting out the SA Framework and identifying how relevant SEA Directive topic(s) have been covered. The SA objectives were refined and amended to reflect where appropriate, the comments from the statutory consultees on the Scoping Report.

A5: Consulting on the Scope of the Sustainability Appraisal

- 2.18 At this stage LB Greenwich sought the views from the Consultation bodies and others on the scope and level of detail of the ensuing Sustainability Appraisal Report. A Scoping Report was prepared to that effect. The consultation results have influenced and helped shape the Sustainability Appraisal Report.

Stage B: Developing and Refining Options

B1: Testing the SPD Objectives against the Sustainability Appraisal Framework

- 2.19 The ODPM guidance states that where a saved plan has not undergone SA, the SA of the SPD has firstly assessed the significant effects of the saved policy which the SPD is helping to implement.
- 2.20 A compatibility assessment of the SPD objectives against the SA Objectives was undertaken as part of the iterative process to assess the sustainability of the SPD objectives. This was undertaken to ensure that the overall objectives of the SPD were in accordance with the SA objectives and identify potential areas for further investigation as part of the detailed sustainability appraisal assessments.

B2: Developing the SPD Options

- 2.21 The London Borough of Greenwich, in consultation with stakeholders, considered four options for achieving the vision of KDA and the Ferrier Estate. The four main options considered for the KDA were:
- ◆ No change;
 - ◆ Refurbishment of the Ferrier Estate and limited development of the wider area;
 - ◆ Partial refurbishment/partial development of the wider area; or
 - ◆ Comprehensive redevelopment of the Ferrier Estate and the wider area.
- 2.22 These options have been assessed, in broad terms, against the SA Framework in order to determine their performance in sustainability terms, with reference to the social, environmental and economic factors.
- 2.23 A table showing the assessment of the range of strategic policy options available for achieving the objectives under consideration was prepared.

B3: Predicting the Effects of the SPD

- 2.24 The methodology that has been adopted for this assessment is generally broad-brush and qualitative which is generally accepted as good practice by the SA guidance.
- 2.25 The assessment of the SPD has been broken down into 'prediction' of effects, 'evaluation' of effects and 'mitigation' of effects.
- 2.26 The prediction of effects involved the identification of the potential changes to the sustainability baseline conditions which were considered to arise from the specific proposal being implemented by the SPD. The predicted effects were then described in terms of their nature and magnitude using the following parameters:
- ◆ Geographical scale;
 - ◆ Probability of the effect occurring;
 - ◆ Timing of effect – short, medium, long term;
 - ◆ Duration of effect – temporary or permanent;
 - ◆ Nature of effect – positive, negative or neutral; and
 - ◆ Secondary, cumulative and/or synergistic effects.
- 2.27 The prediction of effects was undertaken for each proposal being implemented through the SPD against the SA Framework.

B4: Evaluating the Effects of the SPD

- 2.28 The next stage of the assessment involved the evaluation of the significant effects. The evaluation involved forming a judgement on whether or not the predicted effects will be environmentally significant. The technique that has primarily been used to assess the significance of effects in this assessment is a qualitative assessment based on expert judgement. Other techniques included consultation with stakeholders involved in the SA process, geographical information systems and reference to key legislation, primarily the Strategic Environmental Assessment of Plans and Programmes Regulations 2004 and Environmental Impact Assessment Regulations 1999.
- 2.29 As with the prediction of the effects, the criteria of assessing the significance of a specific effect used in this assessment, as outlined in Annex II of the SEA Directive, has been based on the following parameters to determine the significance:
- ◆ Scale;
 - ◆ Permanence;
 - ◆ Nature and sensitivity; and
 - ◆ Cumulative effects.
- 2.30 In the current practice of sustainability appraisals, the broad-brush qualitative prediction and evaluation of effects is based on a qualitative seven point scale in easily understood terms. In general, this assessment has adopted the scale set in Table 2.2 to assess the significance of effects of the SPD proposals.

Table 2.2 - Criteria for Assessing Significance of Effects

Assessment Scale	Significance of Effect/Appraisal Category
+++	Strongly positive
++	Moderately positive
+	Slightly positive
0	Neutral or no obvious effect
-	Slightly negative
--	Moderately negative
---	Strongly negative

- 2.31 Moderately and strongly positive and negative effects have been considered of significance whereas neutral and slightly positive and negative effects have been considered non-significant.

Secondary and Cumulative Effects Assessments

- 2.32 Annex I of the SEA Directive requires that the assessment of effects include secondary, cumulative and synergistic effects.
- 2.33 Secondary or indirect effects are effects that are not a direct result of the plan, but occur away from the original effect or as a result of the complex pathway e.g. a development that changes a water table and thus affects the ecology of a nearby wetland. These effects are not cumulative and have been identified and assessed primarily through the examination of the relationship between various objectives during the Assessment of Environmental Effects.
- 2.34 Cumulative effects arise where several proposals individually may or may not have a significant effect, but in-combination have a significant effect due to spatial crowding or temporal overlap between plans, proposals and actions and repeated removal or addition of resources due to proposals and actions. Cumulative effects can be:
- ◆ Additive- the simple sum of all the effects;
 - ◆ Neutralising- where effects counteract each other to reduce the overall effect; or
 - ◆ Synergistic- is the effect of two or more effects acting together which is greater than the simple sum of the effects when acting alone. For instance, a wildlife habitat can become progressively fragmented with limited effects on a particular species until the last fragmentation makes the areas too small to support the species at all.
- 2.35 Many environmental problems result from cumulative effects. These effects are very hard to deal with on a project by project basis through Environmental Impact Assessment. It is at the SA level that they are most effectively identified and addressed.
- 2.36 Cumulative effects assessment is a systematic procedure for identifying and evaluating the significance of effects from multiple activities. The analysis of the causes, pathways and consequences of these effects is an essential part of the process.
- 2.37 Cumulative (including additive, neutralising and synergistic) effects have been considered throughout the entire SA process, as described below:

- ◆ As part of the review of relevant strategies, plans and programmes and the derivation of draft SA objectives, key receptors have been identified which may be subject to cumulative effects;
- ◆ In the process of collecting baseline information cumulative effects have been considered by identifying key receptors (e.g. specific wildlife habitats) and information on how these have changed with time, and how they are likely to change without the implementation of the SPD. Targets have been identified (where possible), that identify how close to capacity the key receptor is, which is a key determining factor in assessing the likelihood of cumulative and synergistic effects occurring, and their degree of significance;
- ◆ Through the analysis of environmental issues and problems, receptors have been identified that are particularly sensitive, in decline or near to their threshold (where such information is available);
- ◆ The development of SA objectives, indicators and targets has been influenced by cumulative effects identified through the process above and SA objectives that consider cumulative effects have been identified;
- ◆ The likely cumulative effects of the strategic alternatives have been identified which highlighted potential cumulative effects that should be considered later in the SA process; and
- ◆ Testing the consistency between the SPD and SA objectives has highlighted the potential for cumulative effects against specific SPD objectives.

B5: Considering Ways of Mitigating Adverse Effects and Maximising Beneficial Effects

- 2.38 Mitigation measures have been identified during the evaluation process to reduce the scale/importance of significant negative effects.

B6: Proposing Measures to Monitor the Significant Effects of Implementing the SPD

- 2.39 SA monitoring involves measuring indicators which will enable the establishment of a causal link between the implementation of the plan and the likely significant effect (positive or negative) being monitored. It thus helps to ensure that any adverse effects which arise during implementation, whether or not they were foreseen, can be identified and that action can be taken by LB Greenwich to deal with them.

Stage C: Preparing the Sustainability Appraisal Report

- 2.40 This document is the Sustainability Appraisal Report.

Stage D: Consulting on the draft SPD and the Sustainability Appraisal Report

- 2.41 The draft SPD and SAR were subject to public consultation. A number of consultation comments were received on the SPD and as a result a number of changes were made to the SPD. The sustainability effects of these changes to the SPD are reported in Section 7 of this SAR.

3. Developing the Sustainability Appraisal Framework

INTRODUCTION

- 3.1 The development of a sustainability appraisal framework is a key component in completing the SA by synthesising objectives relevant to the SA, the baseline information and sustainability issues into a systematic and easily understood tool that allows the prediction and assessment of effects arising from the SPD.

OTHER RELEVANT PLANS AND PROGRAMMES

- 3.2 Relevant international, national, regional and local plans and programmes and other documents that might influence the SPD have been identified and are outlined in Table 3.1. This includes, at the regional level, the existing London Plan and the development plan documents prepared by LB Greenwich. Additionally, other plans and programmes and policies contained therein were identified following the ODPM guidance which lists plans and programmes which are likely to be relevant.

Table 3.1 - Relevant Plans and Programmes

International Plans and Programmes
The European Communities Directive on the Conservation of Wild Birds (79/09/EEC)
The Habitats Directive – The Directive on Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC)
Noise Directive (86/188/EEC)
Water Framework Directive (2000/60/EC)
Air Quality Directives (96/62/EC and 99/30/EC)
Urban Wastewater Treatment Directive (91/271/EEC)
European Council Directive 91/689/EEC (the Hazardous Waste Directive)
EU 6th Environmental Action Plan, September 2002
EU Sustainable Development Strategy, May 2001
EU Biodiversity Action Plan, February 1998
National
UK Sustainable Development Strategy, HM Government, March 2005
UK Biodiversity Action Plan, UK Biodiversity Steering Group, 1994
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, DEFRA, 2007
UK Climate Change Programme, Department of the Environment, Transport and the Regions, 2000
Sustainable Communities Plan, ODPM, February 2003
A New Deal for Transport White Paper, HM Government, 1998
PPS1: Delivering Sustainable Development, ODPM, January 2005
PPS3: Housing, ODPM, 2006
PPS6: Planning for Town Centres, ODPM, 2005
PPS9: Biodiversity and Geological Conservation, ODPM, 2005
PPS10: Planning for Sustainable Waste Management, ODPM, 2005
PPG17: Planning for Open Space, Sport and Recreation, ODPM, 2001
PPG24: Planning and Noise, ODPM, 1994
PPS25: Development and Flood Risk, ODPM, 2001
PPS11 Regional Spatial Strategies, ODPM, 2004
PPS12: Local Development Frameworks, ODPM, 2004
PPS23: Planning and Pollution Control, ODPM, 2003
RPG9 for the South East, ODPM, 1998
Accessible Natural Greenspace Standards, English Nature, 1996
Strategic Environmental Assessment and Climate Change: Guidance for Practitioners, May 2004
Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners, June 2004
Regional/London Wide
London Plan, Mayor of London 2004
The Mayor's Transport Strategy, Mayor of London, 2001
The Mayor's Energy Strategy, Mayor of London, 2001
The Mayor's Biodiversity Strategy, Mayor of London, 2001

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The Mayor's Ambient Noise Strategy, Mayor of London, 2001
The Mayor's Air Quality Strategy, Mayor of London, 2001
South East London Transport Strategy, February 1998
Sustainable Communities Plan, ODPM, 2003
Local
London Borough of Greenwich UDP, Adopted July 2006
UDP First Deposit Draft, Sustainability Appraisal, Greenwich Council, February 2002
South Greenwich 'Building New Links' Single Regeneration Budget (SRB) Round 5, April 1999
London Borough of Greenwich Ferrier Rehousing Strategy
Greenwich Biodiversity: Towards an Action Plan
Draft Green Space Strategy, Greenwich Council, 2005
Air Quality Action Plan, Greenwich Council, March 2002
LB Greenwich Housing Strategy, Greenwich Council, 2002
LB Greenwich Housing Needs Survey, Greenwich Council, 2002
River Quaggy Flood Alleviation Strategy, Environment Agency 1995-1997
Greenwich Strategy, Greenwich Council, 2003
Young Persons' Anti-Poverty Strategy, Greenwich Council, 1996
Creating Safer Greenwich: Crime & Disorder Strategy, Greenwich Crime and Disorder Strategy, Greenwich Council, 2002-2005
Making Culture Matter: Cultural Strategy for Greenwich, Greenwich Council, 2002
Economic Development Strategy for Greenwich, Greenwich Council, 2002
Education Development Plan, Greenwich Council, 2002
Health Improvement Plan 2002-2005
Local Agenda 21
Neighbourhood Renewal Strategy: A New Way of Doing Business, Greenwich Council, 2002
Fit for Sport: Sports Strategy, Greenwich Council, 2004
Greenwich: A Place to Visit, Tourism Strategy, Greenwich Council, 2004
Voluntary Sector Strategy
Waste Management Strategy
Women's Equality Agenda
Local Area Agreement (LAA) Rolling Programme Initiative, Greenwich Council, March 2005

- 3.3 Social, environmental or economic objectives of relevance as well as sustainability issues that might influence the preparation of the SPD contained in these plans and programmes have been used to formulate a general, first set of sustainability themes (split into the three dimensions of sustainable development: economic, social and environmental) for the SA of the SPD. This is presented in Table 3.2. which also shows the link between the sustainability themes and the SEA topic areas which must be considered to fulfil the requirements of the SEA Directive and identifies the implications arising from the broad sustainability themes with regards to the preparation of the SPD itself and the preparation of the SA, in particular the SA objectives.

- 3.4 This analysis was closely informed by the SA for the First Deposit UDP carried out in February 2002 and forms the first step in the development of the SA framework.

Table 3.2 - Derivation of Key Sustainability Themes

Sustainability Theme	Derived from	SEA Topic(s)	Implications for the SPD	Relationship with SA objectives in Table 3.5
SOCIAL				
Healthier life and environment	Greenwich Strategy 2003, Air Quality Directives (96/62/EC and 99/30/EC), UK Air Quality Strategy 2000, EU 6th Environmental Action Plan, Sustainable Communities Plan 2003, London Plan 2004	Population and human health, air, biodiversity, fauna, flora, water and soil, climatic factors	Development should aim to promote public health where possible	Reflected in SA objective 1
To meet the varying needs of households, by providing a suitable range of dwellings by type, size and affordability	Greenwich Strategy 2003, London Plan 2004, Draft Affordable Housing SPG for London 2004, Sustainable Communities Plan, 2003, Greenwich UDP Sustainability Appraisal February 2002, Greenwich Housing Strategy, Greenwich UDP Adopted July 2006	Population and human health, material assets	Development proposals should aim to meet identified housing needs in the area	Reflected in SA objective 2
To create a strong sense of community able to support vulnerable and disadvantaged people	Greenwich Strategy 2003, Greenwich UDP Sustainability Appraisal February 2002, Greenwich Neighbourhood Renewal Strategy	Population	Development should be supportive of the local community as a whole	Reflected in SA objective 5
To provide quality education, social support and learning for all	Greenwich Strategy 2003	Population	Development should contribute to improved educational opportunities where possible	Reflected in SA objective 4
To improve safety, reduce crime and fear of crime	Greenwich UDP Sustainability Appraisal February 2002, Crime & Disorder Strategy 2002-05	Population and human health	Development should promote safe communities	Reflected in SA objective 3
To reduce discrimination and improve opportunity	Greenwich Strategy 2003, Greenwich UDP Adopted July 2006	Population	Development should promote opportunities for all	Reflected in SA objective 5
To provide high quality and accessible services for all groups of people	Greenwich Strategy 2003, RPG9, Greenwich UDP Sustainability Appraisal February 2002, London Plan 2004, Mayor of London Transport Strategy, Greenwich UDP Adopted July 2006	Population and human health	Development should promote accessibility for all groups of people	Reflected in SA objective 5

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Sustainability Theme	Derived from	SEA Topic(s)	Implications for the SPD	Relationship with SA objectives in Table 3.5
To encourage the use of sustainable modes of transport and reduce reliance on the car	A New Deal for Transport, PPS1, PPG3, PPG6, PPG13, Greenwich Strategy 2003, London Plan 2004, Mayor of London Transport Strategy, Greenwich UDP Adopted July 2006	Biodiversity, population, human health, cultural heritage, air, water and soil, material assets and landscape	Development should promote sustainable modes of transport	Reflected in SA objective 9
To ensure access to open space to all groups of people	Greenwich UDP Adopted July 2006, London Plan 2004, Open Space and Green Space Strategy	Population, biodiversity	Development should ensure access to open space	Reflected in SA objective 7
To improve public transport and accessibility	PPG13, London Plan 2004, Mayor of London Transport Strategy, Greenwich UDP Adopted July 2006	Population and human health	Development should promote local access to public transport nodes.	Reflected in SA objectives 5, 9
To improve recreation and leisure opportunities	Greenwich UDP Sustainability Appraisal February 2002, PPS7, Open Space and Green Space Strategy	Population and human health	Development should improve leisure and recreation opportunities locally	Reflected in SA objectives 5, 7
To reduce adverse impacts of noise and vibration	PPG24, Mayor of London Ambient Noise Strategy 2001, Greenwich UDP Adopted July 2006, Greenwich UDP Sustainability Appraisal February 2002	Population and human health	Development should reduce adverse impacts of noise locally	Reflected in SA objective 6
To reduce traffic congestion and improve transport energy efficiency.	Greenwich UDP Sustainability Appraisal February 2002, London Plan 2004, Mayor of London Transport Strategy 2001	Population, human health, air, climatic factors	Development should reduce local traffic congestion	Reflected in SA objective 9
ENVIRONMENTAL				
To conserve or enhance areas of recognised and valued landscape character	Greenwich UDP First Deposit Draft Sustainability Appraisal, February 2002, Greenwich UDP 2nd Deposit Draft, April 2004	Landscape, biodiversity, fauna and flora	Development should conserve or enhance areas of local landscape value	Reflected in SA objective 13
To conserve cultural heritage	PPG15, PPG16, UDP 2nd Deposit Draft April 2004, Greenwich UDP Sustainability Appraisal February 2002	Cultural heritage and landscape	Development should conserve local cultural heritage where appropriate	Reflected in SA objective 14
To conserve sites of importance for nature conservation	EU Biodiversity Action Plan, February 1998, National Biodiversity Action Plan (UK Biodiversity Action Plan Steering Group 1994), PPG9, London Biodiversity Action Plan, Greenwich Biodiversity: Towards an Action Plan,	Biodiversity, fauna, flora, water and soil, air	Development should conserve and enhance local open spaces and natural environment where appropriate	Reflected in SA objective 11

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Sustainability Theme	Derived from	SEA Topic(s)	Implications for the SPD	Relationship with SA objectives in Table 3.5
	RPG9, Thames Gateway Planning Framework (RPG9a), Sustainable Communities Plan 2003, Greenwich UDP Sustainability Appraisal February 2002, Greenwich UDP Adopted July 2006			
To protect flora and fauna which are important on an international, national and local scale	EU 6th Environmental Action Plan, EU Biodiversity Action Plan, February 1998, National Biodiversity Action Plan (UK Biodiversity Action Plan Steering Group 1994), PPG9, London Biodiversity Action Plan, Greenwich Biodiversity: Towards an Action Plan, RPG9, Thames Gateway Planning Framework (RPG9a), The London Plan 2004, Greenwich UDP Adopted July 2006	Biodiversity, fauna & flora	Development should not adversely effect locally important flora and fauna	Reflected in SA objective 11
To improve air quality	EU 6th Environmental Action Plan, Air Quality Directives (96/62/EC and 99/30/EC), UK Air Quality Strategy 2000, The London Plan 2004, Mayor's Air Quality Strategy 2001, Air Quality Action Plan 2002, Greenwich UDP Adopted July 2006	Population and human health, air	Development should improve local air quality where appropriate	Reflected in SA objective 8
To protect the water environment	Directive 2000/60/EC Water, PPG23, PPG25, Greenwich UDP Adopted July 2006, Greenwich UDP Sustainability Appraisal February 2002	Biodiversity, fauna & flora, water and soil	Development should protect the local water environment where appropriate	Reflected in SA objective 18
To protect soils against erosion and pollution	EU 6th Environmental Action Plan, Directive 75/442/EEC Waste, National Soil Strategy, Greenwich UDP Sustainability Appraisal February 2002	Water and soil	Development should protect soil where appropriate	Reflected in SA objective 21
To reduce flood risk	PPG25, Greenwich UDP Adopted July 2006	Water and soil, climatic factors	Development should take into account location of floodplain locally. Development should reduce the surface water run-off to	Reflected in SA objective 19

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Sustainability Theme	Derived from	SEA Topic(s)	Implications for the SPD	Relationship with SA objectives in Table 3.5
			better manage flood risk. SUDS should be used wherever possible	
To reduce the generation of waste and to encourage re-use and recycling of waste	National Waste Strategy, PPG10, Directive 75/442/EEC Waste, Mayor of London Waste Strategy, Greenwich UDP Adopted July 2006, Greenwich UDP Sustainability Appraisal February 2002	Water and soil	Development should promote waste management which respects the waste hierarchy	Reflected in SA objective 17
Prudent use of natural resources	Directive 75/442/EEC Waste, Directive 2000/60/EC Water, PPS1, PPS7, PPG10, EU Sustainable Development Strategy, Greenwich Strategy 2003, Greenwich UDP Sustainability Appraisal February 2002, Greenwich UDP Adopted July 2006, London Plan 2004	Water and soil	Development should ensure that recycled materials are used in construction and that construction material is recycled. Development should look at water harvesting and grey water recycling to promote prudent use of water	Reflected in SA objectives 17,20
To contribute to the reduction in greenhouse gases emissions	EU 6th Environmental Action Plan, PPG13, Greenwich UDP Sustainability Appraisal February 2002	Climatic factors	Development should contribute to the reduction in greenhouse gases emissions	Reflected in SA objective 10
To increase energy efficiency	Greenwich UDP Sustainability Appraisal February 2002, London Plan 2004	Climatic factors	Development should promote low energy building design	Reflected in SA objective 15
To promote the use of previously developed land and to ensure new developments make efficient and appropriate use of land	Greenwich UDP Adopted July 2006	Soil, biodiversity, fauna and flora	Development must make efficient and appropriate use of land	Reflected in SA objective 16
To encourage the remediation of contaminated land	PPS23	Water and Soil	Development should convert contaminated land into new uses where appropriate	Reflected in SA objective 21
To develop buildings that are environmentally efficient to build and run	UDP 2nd Deposit Draft April 2004, Greenwich UDP Sustainability Appraisal February 2002	Climatic factors, Material assets	Development should promote use of sustainable methods of	Reflected in SA objective 15

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Sustainability Theme	Derived from	SEA Topic(s)	Implications for the SPD	Relationship with SA objectives in Table 3.5
			construction	
To harness renewable energy potential	PPG22, EU Sustainable Development Strategy, UK Sustainable Development Strategy, Greenwich UDP Sustainability Appraisal February 2002, Mayor of London Energy Strategy 2001	Climatic factors	Development should provide for the production/use of renewable energy for domestic uses locally	Reflected in SA objective 15
ECONOMIC				
To promote economic growth and employment	EU Sustainable Development Strategy, UK Sustainable Development Strategy, PPS1, PPG4, London Plan 2004, UDP 2nd Deposit Draft April 2004, RPG9, Thames Gateway Planning Framework (RPG9a), Greenwich UDP Sustainability Appraisal February 2002	Population and human health, material assets	Development should promote local economic growth and employment	Reflected in SA objectives 22, 23
To safeguard and enhance the viability and vitality of town centres	EU Sustainable Development Strategy, UK Sustainable Development Strategy, PPS1, PPG4, London Plan 2004, RPG9, Thames Gateway Planning Framework (RPG9a), Greenwich UDP Sustainability Appraisal February 2002, 'Building New Links' SRB5 Programme, Greenwich UDP Adopted July 2006	Cultural heritage and landscape	Development should seek to enhance viability and vitality of Kidbrooke centre	Reflected in SA objective 24

SUSTAINABILITY BASELINE – KEY FEATURES

- 3.5 Baseline information and data have been summarised in this section and are presented in a series of data sets in Appendix C. The aim is to give an overview of the environmental, social and economic characteristics of the development area and how these compare to the region and the rest of the country.
- 3.6 The KDA includes the Ferrier Estate, large surrounding areas of public and private open space, land on either side of the A2 Blackwall Tunnel Approach, and land around the Kidbrooke train station and the A2 junction, occupying a total area of 109 hectares (270 acres). The area has a predominantly residential and open space feel to it, with very little commercial or industrial activity.
- 3.7 Prior to the construction of the Ferrier estate, a Royal Air Force base surrounded by open space occupied the site from 1916 until about 1965. The Ferrier estate was built in the late 1960s by the then Greater London Council with the estate being transferred to the Greenwich Council in 1980.
- 3.8 The following sections describe the key baseline conditions found for both the London Borough of Greenwich and the KDA. Kidbrooke-specific data are referenced wherever available, but in the absence of such detailed local data, borough and ward level data have been referenced instead. The vast majority of the KDA lies within the Eltham West Ward and comprises roughly 1/3 of this area and is appropriate to inform baseline indicators.
- 3.9 The SPD itself has been informed by an appreciation of the local context in terms of the built and natural environment. The wide range of issues considered below have been considered to inform the location and layout of uses within the SPD area and to define the areas within the KDA which could accommodate built development.

Environmental Issues in Eltham West Ward and Greenwich

Water Quality and Flood Risk

- 3.10 Two bodies of water traverse the KDA – the River Quaggy and its tributary, Kid Brooke. At the time of writing, biological and chemical water quality figures were only available for the River Quaggy. In 2002 the River Quaggy received a biological water quality grade of D ('fair'), which was an improvement from its 2000 grade of E ('poor'). In 2002 the river received a chemical water quality grade of B ('good'), which remained unchanged from its 2000 grade of B.
- 3.11 The indicative floodplain published by the Environment Agency covers approximately 30% of the proposed development area; the majority of this floodplain is associated with the Kid Brook and Quaggy River (see Figure 3).
- 3.12 The River Quaggy Flood Alleviation Scheme constructed in Sutcliffe Park by the Environment Agency has a design return period capacity of 1 in 70 years. Current best practice incorporating potential increases in peak floods due to climate change requires the derivation of indicative floodplains for the 100-year and 100-year +20% return periods. A recent study by Mott MacDonald assessing flooding risk in the area, 2004 and updated 2005 shows that the flood alleviation scheme does have an impact on the 1 in 100-year return period event providing for reduced peak flood levels downstream of the scheme. There is no information available for the impact of the

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scheme on peak flood levels for the 1 in 100-year +20% (allowance for climate change) return period event. Because predicted flood outlines for this event are largely uncertain, the floodplain outline for the 100-year +20% event, with no assumption of any reduction in flow due to the alleviation scheme, remains the most conservative outline and is the one adopted in this assessment (see Figure 3).

- 3.13 With regard to Kid Brooke the depths of inundation of the floodplain are expected to be relatively low and as such, major flood defence works are not anticipated to be required for development in this area. Flood storage volumes lost to development will be minor and should be easily compensated for if required (Mott MacDonald, 2004).

Air Quality

- 3.14 Numerous locations where levels of NO₂ and PM₁₀ exceed National Air Quality Objectives have been identified in the Borough; all of these locations include major roads and dual carriageways. In response to the levels of pollutants measured in these zones, Greenwich Council designated the entire Borough as an Air Quality Management Area (AQMA) on 28 February 2001. The Borough now has an Air Quality Action Plan detailing its strategies for reducing vehicular traffic and providing improved and increased public transport to improve local air quality.
- 3.15 There are currently 25 air quality monitoring stations in Greenwich which continuously measure the levels of various air pollutants.
- 3.16 Most monitoring sites in Greenwich are showing levels below the National Air Quality Objectives, with the exception of sites located on the major road network. These sites tend to fluctuate around or just above the NAQS standard, and include the A2, A20, and A210 which border the KDA.

Soils/Contaminated Land

- 3.17 A preliminary contaminated land risk assessment undertaken by Atkins Ltd concluded that significant contamination potentially exists within the soils and perched/shallow groundwater across the site due to the historical usage of the site. The main sources of contamination are likely to be associated with the former RAF station, which covered much of the northern and central part of the KDA, and the former Post Office depot and workshop located north of the railway. There is the potential that the existing buildings on the site may contain contaminants such as asbestos. Further site investigation is recommended prior to any redevelopment works to identify any mitigation measures required.

Biodiversity, Flora and Fauna

- 3.18 Greenwich contains 53 Sites of Nature Conservation Importance (SNCI).
- 3.19 There are three SNCI's in the KDA (see Figure 3.1). Firstly, Kidbrooke Green and the Birdbrook Road Nature Reserves (geographically existing as two sites, but identified in the UDP as one site) are included in the northeast corner of the development site. They have been designated as a Site of Metropolitan Importance and are under consideration by English Nature for designation as a Site of Special Scientific Interest (SSSI). The Blackheath to Falconwood Railsides, the second SNCI, are located along the railway running through the site. The Sutcliffe Park Flood Alleviation Scheme, a recently-completed Environment Agency scheme, has been designated as a Site of Borough Importance Grade II and is located at the southern tip of the

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site. Finally, the Quaggy River at Blackheath Park, the fourth SNCI, lies just outside the site's western border.

- 3.20 Kidbrooke Green and the Birdbrook Road Nature Reserves contain a series of ponds that support a variety of amphibians, including the great crested newt (specially protected UK Biodiversity Action Plan species) and the palmate newt (the rarest amphibian in London). Both sites have restricted access. The Blackheath to Falconwood Railsides form a green corridor with woodland, bramble and grassland and provide a habitat for common birds and other animals. The Sutcliffe Park Flood Alleviation Scheme is a publicly accessible site with river, pond, and wetland habitats. Although the Quaggy River at Blackheath Park has natural banks but little aquatic vegetation, proposed Environment Agency enhancements to the site may increase its biological value in the future.
- 3.21 Priority species found in Greenwich include:
- ◆ Plants – bluebell, marsh dock, white mullein
 - ◆ Birds – bullfinch, linnet, reed bunting, skylark, song thrush, spotted flycatcher
 - ◆ Amphibians – great crested newt
 - ◆ Mammals – common Pipistrelle bat, water vole
- 3.22 There is potential for local biodiversity within the green courtyard areas of the Ferrier Estate and along the tree-lined pedestrian walkways on the Estate's main roads. These tree-lines areas are comprised predominantly of mature (approximately 30 years old) Acer trees. Tree heights range from relatively newly planted stock of 2.5-3.0 metres to many mature specimens of Norway Maple and London Plane over 20 metres in height.
- 3.23 The trees and hedgerows, some of which pre-date the estate, comprise exclusively of native species including beech, oak, hawthorn, ash, holly and regenerating elm. None of the trees within the development area have been afforded the Tree Preservation Order (TPO) status. A tree survey has been carried out to inform the SPD and SAR which identified the location of trees, their species, age and condition and categorised trees to identify those which are classified as desirable for retention. This information can be provided as a Technical Appendix to the SPD if requested.

Landscape and Open Space

- 3.24 The KDA comprises 109 hectares (270 acres) of land on either side of the A2 Blackwall Tunnel Approach.
- 3.25 It includes the Ferrier Estate, a large Council estate with a total of 1,906 dwellings built in the late 1960s. The estate is comprised of 74 separate blocks of maisonettes, flats and terraced houses arranged in a uniform layout of small courtyards with buildings facing inwards to open space or playground areas. The Ferrier Estate dominates the site area giving it an overwhelmingly residential character.
- 3.26 There is a large provision of open space in the area (presently 54.87 ha), most of which is designated as Metropolitan Open Land (MOL). The open space areas are poorly organised, under-utilised and unattractive as recreational and amenity spaces. A number of sites serve as habitats for protected species and local biodiversity. Potential exists to enhance the value of open spaces to the community through their reconfiguration and northern extension of the Green Chain network.

Townscape

- 3.27 The existing townscape of the Ferrier Estate and the KDA can be divided into a number of character types:
- ◆ 2/3 storey continuous street frontage with semi detached 1930s housing;
 - ◆ Post war estates, 6 storeys plus, configured around courtyard spaces;
 - ◆ Tower blocks set within parkland style spaces;
 - ◆ Recently developed areas comprising a mixture of traditional streets, pavilion flat blocks and shared surface areas.
- 3.28 The buildings themselves are monotonous and run down. Many of the estate's courtyard areas are enclosed by fences or concrete walls that have negative impacts on the security and accessibility of the area. Telemann Square, the main neighbourhood centre, is derelict with closed shops and businesses.
- 3.29 The Ferrier estate itself is inward looking creating poor relationship with adjoining areas and Kidbrooke Station in terms of building heights and orientation. In general, the building heights within the existing Ferrier Estate range up to 12 storeys and are significantly higher than those of the surrounding area. The heights of development within the Blackheath Conservation Area to the west of the KDA are predominantly 2 storeys in height other than a series of blocks fronting Casterbridge Way which are 6 storeys in height.

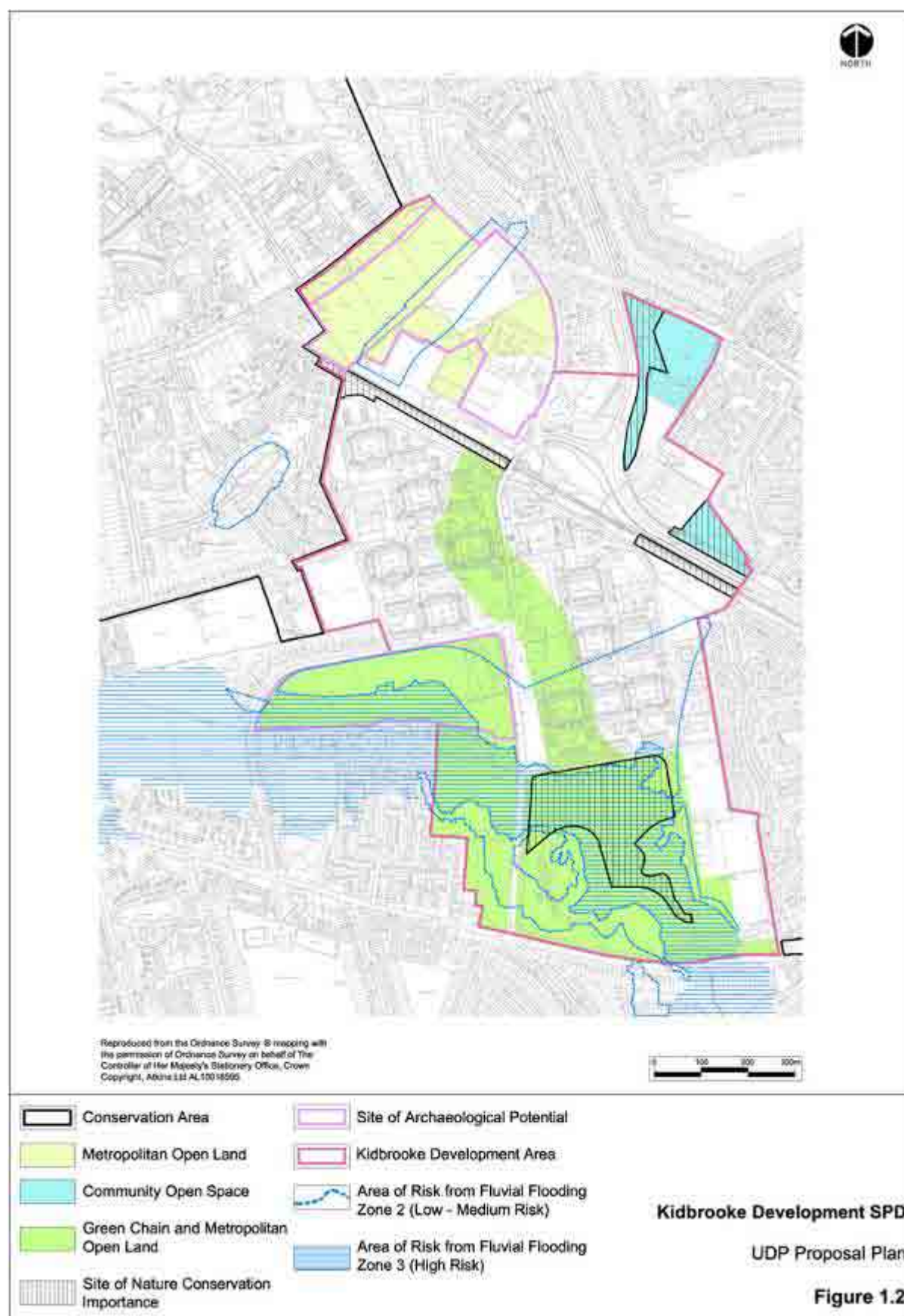
Cultural Heritage

- 3.30 Greenwich has a total of 968 listed building entries, 20 of which are classified as being at risk by English Heritage. No listed buildings are located within the KDA. The Borough contains six Scheduled Ancient Monuments, 1,615 non-designated archaeological sites as identified on the Greater London Archaeological Advisory Service database, and 20 designated Conservation Areas.
- 3.31 A Cultural Heritage Appraisal Study was undertaken to inform the SPD and SA and confirmed that there are no Scheduled Ancient Monuments (SAM) within the study area. The study area itself does not include any Conservation Areas or Listed Buildings. However, as Figure 3 shows, one Conservation Area, Blackheath Park, borders a significant portion of the KDA western border, while another Conservation Area, Eltham Green, borders a small portion of the site's south-eastern corner.
- 3.32 The Greenwich UDP identifies a particular site of archaeological potential located on the northern border of the KDA. With regard to undesignated archaeological sites, the initial desk based assessment has concluded that disturbance to much of the site for development over the course of the 20th century will have damaged any archaeological deposits; however, in areas that remain open such as sports fields, parklands, gardens or where buildings or roads are of shallow foundation, there is potential for archaeology (for example, along the course of the Kid Brook and Quaggy River, Near Delme Crescent, along Kidbrooke Park Road and Near Nelson Mandela Way). Further detailed desk-based and archaeological fieldwork should form part of an EIA.
- 3.33 Maritime Greenwich was inscribed as a World Heritage Site (WHS) by the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) in 1997. This site showcases listed buildings of architectural and historical significance, vistas and

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views across London, the royal history of the area, the naval and sea-faring tradition of the area, and noteworthy scientific accomplishments such as Greenwich Mean Time and Longitude 0°. This World Heritage Site (WHS) of Greenwich lies outside the study area to the north east and whilst regeneration will not affect the site or its immediate setting views, the WHS will need to be considered should proposed development significantly exceed the height of existing development.

Figure 3.1 - Environmental Context in the Kidbrooke Development Area



Social Issues in Eltham West Ward and Greenwich

Population and Human Health

- 3.34 In the twenty-year period from 1982 to 2002, the population of Greenwich grew by 3.3% to 214,403 (2001 Census). During the same time period, the population of Greater London grew by 8.7%. According to the 2001 Census, there are 13,438 people living in the Eltham West ward within Greenwich.
- 3.35 Approximately 19% of those living in Eltham West are from ethnic minority groups (2001); in comparison, 23% of those living in Greenwich as a whole are from ethnic minority groups.
- 3.36 The average age of residents in Eltham West is 34.6, slightly younger than the average age of Greenwich residents, which is 35.8 (2001).
- 3.37 The proportion of Eltham West residents with self-assessed good health is lower than the proportion found in both Greenwich and Greater London. In 2001, 65.4% of Eltham West residents reported that they were in good health, while 68.4% of Greenwich residents and 68.6% of those living in Greater London reported good health.
- 3.38 Life expectancies for both males and females tend to be lower for those living in Eltham West than for those living in Greenwich or Greater London. In 2000, males living in Eltham West had an average life expectancy of 73.2 years, while females had a life expectancy of 78.9. In comparison, males living in Greater London could expect to live 75.4 years, while females could expect to live 80.3 years.

Housing

- 3.39 The average household size in Eltham West in 2001 was 2.5. This is higher than the average household size in Greenwich (2.3). In 2001 there were 5,302 households in Eltham West and 92,788 households in the whole of Greenwich.
- 3.40 Eltham West has a higher incidence of households with dependent children (36%, compared with only 30% in Greenwich) and lone parent households with dependent children (14%, compared with only 11% in Greenwich). Eltham West has a significantly lower percentage of one-person households than does Greenwich, 29% compared with 37%.
- 3.41 The distribution of housing tenures in Eltham West is noticeably different from the distribution found in Greenwich as a whole. According to the 2001 Census, 36% of residents in Eltham West own their homes, while 60% rent from the Council or other social landlord, and 4% rent privately or live rent-free. In comparison, 49% of Greenwich residents own their own homes, while 39% rent from the Council or other social landlord, and 12% rent privately or live rent-free.

Noise

- 3.42 The major roads bordering the KDA account for the majority of noise on and around the site. The road producing the largest amount of noise is the A2 Blackwall Tunnel Approach, which creates a major junction in the north-eastern corner of the development site. Other roads bordering the site which produce large amounts of

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noise are Kidbrooke Park Road (A2213 - running north-south through the development site), Eltham Road (A210 - bordering the southern edge of the site) and including the intersection with Sidcup Road (A20).

Crime

- 3.43 Overall crime rates in Greenwich are significantly lower than rates in Greater London. In 2001 the Borough had a rate of 67 crimes per 1,000 population, while London had a rate of 145 crimes per 1,000 population.
- 3.44 In 2003 there were 106 domestic burglaries in Eltham West; this accounted for 5% of all domestic burglaries in Greenwich that same year.

Traffic and Transport

- 3.45 The KDA is served by Kidbrooke train station, which has a small station building and street-side parking for approximately 30 cars. There is one rail line from Dartford to London via Bexleyheath with 11 peak and 4 off-peak trains per hour.
- 3.46 There are six existing bus service routes (B16, 178, 321, 122, 161 and 286) near the KDA, but only two (B16 and 178) of these actually enter the site.
- 3.47 Public Transport Accessibility (PTAL) scores for the KDA range from 2 for the east-west band across the Ferrier Estate to 3.5 for the area around Kidbrooke Station (of a possible top score of 6), thus indicating low to moderate transport accessibility in the area.
- 3.48 The proportion of bus journeys among Ferrier Estate residents is similar to that found across South Greenwich SRB zones and significantly higher than that found in Greater London. Buses are the most popular mode of transport for daily trips to and from the Ferrier Estate, accounting for 37% of all journeys made (2001).
- 3.49 Car usage in the Ferrier Estate is significantly lower than in both the South Greenwich SRB zones and Greater London. Car journeys account for 31% of all journeys made to and from the estate, compared with 40% of journeys in all zones in South Greenwich SRB and 43% of journeys in Greater London (2001).
- 3.50 There are higher proportions of pedestrian journeys in the KDA than in the surrounding South Greenwich SRB zones. 11% of journeys to and from the Ferrier Estate are pedestrian journeys, compared with 8% of journeys in all zones in South Greenwich SRB (2001)¹.
- 3.51 Car ownership rates in Eltham West are slightly lower than rates in Greenwich and Greater London and considerably lower than rates across the whole of England and Wales. 58.5% of Eltham West households have access to at least one car/van (2001), compared with 59.2% of households in Greenwich, 63% of households in Greater London and 73.2% of households in England and Wales (excluding Greater London).
- 3.52 Greenwich has a higher rate of road casualties than Greater London. In 2002, there were 6.64 road casualties per 1,000 population in Greenwich, while there were only 6.19 casualties per 1,000 population in Greater London.

¹ Note - SRB5 no longer exists

Movement and Permeability

- 3.53 The KDA is isolated from surroundings areas and experiences community severance including physical barriers presented by the railway line and the A2 restricting north-south movement, psychological barriers including fear of crime, natural surveillance. The open space buffer and lack of permeability between the Ferrier Estate and surrounding areas accentuates the problem. The existing environment within the area is not legible and difficult to navigate. The existing road hierarchy does not encourage the use of existing bus routes and there is poor accessibility for pedestrian movement to Kidbrooke Station.

Economic Issues in Eltham West Ward and Greenwich

Employment Sectors

- 3.54 Greenwich's economy has traditionally been largely dependent on industrial and manufacturing activity, and the decline of these sectors resulted in extremely high unemployment rates in the Borough during the 1980's and early 1990's. With the help of regeneration programmes and funding, the Borough has created 10,000 new jobs between 2000 and 2005. Encouraged by the success of such initiatives, the Council has made further job creation and the continued reduction of unemployment key priorities for the Borough.
- 3.55 As of 2005, 25% of Greenwich's working population is employed in the health and education sector. Other economic sectors employing significant proportions of the Borough's population are wholesale and retail (17%), business services (13%), public administration (10%), and manufacturing (9%).
- 3.56 Economic sectors which are expected to grow in Greenwich are tourism and hospitality, sports and leisure, creative industries, arts and filming, ICT and knowledge-based business, and business and financial services.
- 3.57 The manufacturing sector in Greenwich has remained proportionally strong despite the decline in other parts of London, and the availability of development land in the east of the Borough could attract modern manufacturing to the area.
- 3.58 Productivity may be on the rise in Greenwich. Greenwich's productivity score in 2001, measured in terms of Gross Value Added (GVA) per worker, was £16,441 – this was an increase from the Borough's 2000 score of £15,275. Productivity across Greater London as a whole is higher than that in Greenwich; it increased from £17,720 in 2000 to £20,952 in 2001.

Unemployment

- 3.59 Greenwich has a lower employment rate of persons with the lowest/no qualifications than is found in London. In 2003, the Borough employed 33.9% of its least qualified workers, while London employed 41.1%.
- 3.60 In 2001, Eltham West ward (in which the Kidbrooke area is located) had an unemployment rate of 7.0%. This is significantly higher than the 2001 rates of unemployment in Greenwich (5.4%), London (4.4%) and the whole of England and Wales (3.4%).

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Education and Skills

- 3.61 Although the GCSE performance of Greenwich pupils has seen significant improvement since the 2001-2002 academic year, the Borough's performance still lags considerably behind that of Greater London. In the 2003-2004 academic year, 40.2% of Greenwich pupils achieved 5 or more GCSEs graded A* to C, while 52.8% of London pupils achieved this level of performance.
- 3.62 There are three schools on or near to the Ferrier Estate – Thomas Tallis Secondary, Wingfield Primary, and Holy Family Roman Catholic Primary Schools.
- 3.63 In 2001, 39.5% of Eltham West residents had no qualifications. This is significantly lower than the percentages found in Greenwich (29.4%) and the whole of England and Wales (29.1%).

Deprivation

- 3.64 In 2004 Greenwich was ranked the 10th most deprived Local Authority in Greater London. This is an improvement from the Borough's 2000 ranking as the 8th most deprived Local Authority in Greater London.
- 3.65 Income deprivation in Greenwich has decreased in recent years. In 2004 the Borough was ranked as Greater London's 13th most deprived Local Authority in terms of income, while in 2000 it was ranked as the 11th most deprived Local Authority.
- 3.66 Employment deprivation in Greenwich has also decreased in recent years. In 2004 the Borough's ranking improved from the 13th most deprived London Local Authority (2000) to the 14th most deprived.

PREDICTED FUTURE TRENDS

- 3.67 If no proposals in the SPD are implemented in the Kidbrooke area, the Council would not be able to use its role as the major landowner and provider of services to influence the future development of the area. The result would be further deterioration and degradation of the Ferrier Estate and the social, economic and environmental issues identified would worsen.
- 3.68 The SPD provides an opportunity to guide change within sites which are privately owned and to ensure an integrated and sustainable approach to the future development of the area by providing more detailed design guidance.

CUMULATIVE EFFECTS

- 3.69 Cumulative effects can occur from the following situations:
- ◆ Combined effects of a plan with effects of another plan, affecting the same receptor. For example, proposals from land use and transport plans could affect a nature reserve;
 - ◆ Interaction of policies within a plan in the same receptor. For example, a policy to encourage development which promote jobs and a housing policy to provide more housing to meet the borough's target could result in a cumulative loss of open space; and

- ♦ Interaction of effects from proposals within a plan affecting the same receptor. For example, proposals to build roads, commercial premises and housing in a particular area within a short period of time could result in cumulative noise, dust and visual effects on the residents nearby.
- 3.70 As part of the scoping process, likely cumulative effects of the SPD have been identified from the analysis of plans and programmes and the environmental baseline. This analysis has identified a preliminary set of likely cumulative effects, their receptors and likely causes, as shown in Table 3.3. This initial assessment of likely cumulative effects will be further examined in the more detailed environmental assessments as part of the SA process.

Table 3.3 - Potential Cumulative Effects and their Causes

Cumulative Effect	Affected Receptor	Causes
1. Habitat loss and fragmentation	- Areas of local conservation significance - Sites of non-designated significance for nature conservation including wildlife corridors	Use of land for new infrastructure, dwellings and employment uses.
2. Climate change	- Worldwide	Increase in CO2 emissions through increased motorised transport usage and increased emissions from residential and commercial developments
3. Increase in ambient noise levels	- People living adjacent to major roads within and around Kidbrooke - Wildlife and Species	Increase in traffic flows, increased congestion, new transport infrastructure
4. Increase in air pollution	- People living near main roads - Wildlife habitats and species described in 1 above.	Increase in traffic flows, increased congestion, new transport infrastructure
5. Loss of local townscape character	- Blackheath Conservation Area	Unsympathetic design of new development negatively affecting the setting of the Conservation Area. Disturbance to character of areas through increased traffic flows.
6. Improvement in overall levels of health	- Kidbrooke residents	Increase in walking and cycling from infrastructure improvements. Improvements in levels of air quality.
7. Increase in accessibility to essential services	- Kidbrooke residents	Improved provision of public transport, walking and cycling, and car linkages to essential services. Direct provision of new community facilities.
8. Reducing road traffic and congestion	- Kidbrooke residents - Wildlife habitats and species described in 1 above.	Various measures and proposals aimed at reducing road traffic and congestion and encouraging alternatives to the car.
12. Attracting inwards investment and increasing economic diversity	- Kidbrooke residents - Wider LB Greenwich residents	Various proposals aimed at improving the image of the area to residents and businesses, which may attract additional private sector investment in the area (particularly to the Hub as the main focus for commercial activity).

KEY SUSTAINABILITY ISSUES

- 3.71 Analysis of key sustainability issues relevant to the SPD area has been carried out. This work has been based on consultation and discussion with key officers in LB Greenwich, review of previous SA work for LB Greenwich, the review of relevant plans and programmes and an analysis of responses from consultations on the SPD. The analysis of sustainability issues has been iterative and is ongoing. As the SA develops with further stakeholder involvement the analysis of key issues is likely to evolve.
- 3.72 Table 3.4 below presents the results of the preliminary analysis of key sustainability issues.

Table 3.4 - Key Sustainability Issues

Key Issues / Problems	Opportunities/Implications for SPD	Relevance to SEA	Relationship to SEA objectives in Table 3.5
SOCIAL			
The Ferrier Estate experiences high levels of crime and vandalism.	Opportunity to reduce the incidence of crime and vandalism through designing out crime principles.	Population, human health	Objective 3
The Ferrier estate suffers from a high level of unemployment and there is poor access to local employment opportunities.	Opportunity to improve access to training such as schools and local employment opportunities.	Population	Objective 23
The Ferrier estate's general appearance and design layout is problematic and no longer reflects urban design 'best practice'.	Opportunity to incorporate 'best' practice in design to improve the image and perception of the area.	Population	Objectives 2, 5, 7, 15, 17, 20
A range of community facilities are provided, however, they can have poor facilities and be difficult to access.	Opportunity to ensure improved access links to essential facilities. Opportunity to provide community facilities of sufficient size that caters to the needs of the community.	Population	Objective 5
The condition of school buildings in the locality is generally poor being difficult to expand and adapt to changing requirements.	Opportunity to provide enhanced educational facilities to support the future needs of students and adults in further education.	Population	Objective 4
Kidbrooke Park Road acts as a barrier between the eastern and western parts of the development area, particularly within the Ferrier Estate.	Potential to improve linkages between the eastern and western parts of the development area.	Population, material assets	Objective 5
The railway line acts as a severance between the northern and southern parts of the Development Area.	Potential to improve the linkages between the northern and southern parts of the area.	Population, material assets	Objective 5
Poorly designed road network results in unnecessary congestion levels.	Opportunity to improve the layout and design of the road network.	Material assets	Objective 9
A number of private open space sites are inaccessible to the general public.	Potential to increase accessible areas of public open space.	Population, human health, landscape	Objective 7
Open space areas are poorly organised, under-utilised and unattractive as recreational and amenity spaces.	Potential to improve the recreational opportunities and amenity of open space areas.	Population, human health, landscape	Objective 7
Bus services are poorly organised and routed.	Opportunities to enable further route and service enhancements to increase the public transport accessibility for the KDA	Population, Material Assets	Objective 9
Car usage in the Ferrier Estate is significantly lower than in both South Greenwich and Greater London. There are higher proportions of pedestrian journeys in the Kidbrooke area than in the surrounding South Greenwich area.	Opportunity to encourage an increased proportion of journeys by public transport, foot and cycle.	Population	Objective 9

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Key Issues / Problems	Opportunities/Implications for SPD	Relevance to SEA	Relationship to SEA objectives in Table 3.5
ENVIRONMENTAL			
Four Sites of Nature Conservation Importance lie within or near the development area – Kidbrooke Green and Birdbrook Road Nature Reserves, Blackheath to Falconwood Railsides, Sutcliffe Park Flood Alleviation Scheme and Quaggy River at Blackheath Park.	Opportunity to conserve and enhance the SNCI's through the scheme proposals.	Biodiversity, flora and fauna	Objective 11
There is the potential for protected species on the site, including the possible presence of great crested newt within the Kidbrooke Green and Birdbrook Road Nature Reserves.	Opportunity to conserve and enhance the nature reserve through the scheme proposals. In addition, bird nesting and roosting sites could be built into the new structures and green roofs could be incorporated into design.	Biodiversity, flora and fauna	Objective 11
A significant proportion of the development area is adjacent to the Blackheath Park Conservation Area, and a small part of the site borders a second Conservation Area, Eltham Green.	Development proposals need to be sympathetically designed to preserve the setting of the Conservation Areas.	Cultural heritage	Objective 14
Eltham Palace SAM and the World Heritage Site (Maritime Greenwich) lie outside the regeneration area however there is potential for the development to affect the setting of the SAM and WHS.	Development proposals need to be sympathetically designed to preserve the setting of the SAM and WHS.	Cultural heritage	Objective 14
The River Quaggy and Kid Brook are the main watercourses traversing the development area and there is the risk of flooding along these watercourses. The Environment Agency has recently constructed a flood alleviation scheme for Sutcliffe Park and is looking to provide flood alleviation works at Weigall Road Playing Field.	The redevelopment of the Kidbrooke area would need to consider the findings and recommendations from the Flood Risk Assessment undertaken for the masterplan area. Development should reduce surface water run-off to better manage flood risk. SUDS should be used wherever possible. Development should look at water harvesting and grey water recycling. SPD also should consider flood risk from over flowing sewers or overland flows.	Water	Objective 19
There is a poor visual and physical relationship between the Ferrier estate and Kidbrooke station.	Opportunity to improve the relationship of the surrounding area to Kidbrooke station.	Landscape, Material assets, Population	Objectives 5,9
Potential for ground contamination due to the historical usage of the site. The main sources of contamination are likely to be the former RAF station and the former Post Office Depot. Also potential for buildings to contain asbestos.	To ensure that contamination issues are fully addressed as part of the process to achieve planning permission.	Soil	Objective 21
ECONOMIC			
The station building is very small with limited parking for 30 cars on the station approach road, which results in parking	Opportunity to redevelop the Kidbrooke station to better meet the needs of users.	Material assets	Objective 9

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Key Issues / Problems	Opportunities/Implications for SPD	Relevance to SEA	Relationship to SEA objectives in Table 3.5
congestion on adjacent roads and limits access to employment areas in Greenwich and the rest of London.			
Limited retail facilities serving the local area other than Telemann Square within the estate itself and a Homebase store nearby	Opportunity to increase the number of commercial facilities in the area.	Population, Material Assets	Objectives 22, 24
High unemployment in Eltham West ward (7.0%). In addition, there are limited employment opportunities in the immediate area.	Opportunity to increase local training and employment opportunities	Population	Objective 23

SUSTAINABILITY APPRAISAL FRAMEWORK

- 3.73 A SA framework has been developed using an iterative process, based on the review of relevant plans and programmes, the evolving baseline, and developing analysis of key sustainability issues and subsequently incorporating consultee comments from the Scoping Report consultation.
- 3.74 The SA framework of objectives, indicators and targets against which the SPD has been assessed is set out in Table 3.5. It consists of objectives which may be expressed in the form of targets, the achievement of which should be measurable using identified indicators.
- 3.75 The 24 SA objectives have been worded so that they reflect one single desired direction of change for the theme concerned and do not overlap with other objectives. They include both externally imposed social, environmental and economic objectives and others devised specifically in relation to the context of the SPD being prepared and they are distinct from the SPD. In particular, they aim to reflect key provisions of the Greenwich Adopted UDP (July 2006) which have been reflected in some of sustainability themes derived in Table 3.2 and were then reflected in the SA objectives (see Table 3.2 for relationship between key sustainability themes and SA objectives). The SA objectives have also been worded to take account of local circumstances and concerns feeding from the analysis on sustainability issues (see Table 3.4).
- 3.76 A preliminary set of indicators has been derived to capture the change likely to arise from the SPD implementation and has played a role in the assessment itself. As the SA progressed the set of indicators has been refined. Where appropriate existing data sources and indicators which are already monitored in the Borough have been used. In some cases, specific new indicators are proposed which will require monitoring by relevant bodies for significant effects relating to the SA objectives concerned which were identified as part of the assessment of effects during SA Stage B. Opportunities may also exist to utilise some of the indicators to be developed as part of the Local Area Agreement. Developing a good balance of appropriate and reliable indicators across the set of SA objectives will be critical in the development of an effective but also practical monitoring programme (see section 8).

Table 3.5 - SA Framework

Code	SA/SEA Draft Objectives	Indicators (existing indicators are denoted in bold, proposed indicators are denoted in italics)	Target	SA/SEA Topic
SOCIAL				
1	To improve access to health facilities and reduce health inequalities	Mortality rates by cause	To reduce heart disease, stroke and related illnesses amongst people under 75 by at least 40 % by 2010 Source: UK Sustainable Development Quality of Life Indicators To reduce cancer amongst people under 75 by at least 20% by 2010 Source: UK Sustainable Development Quality of Life Indicators To reduce suicide and undetermined injury by at least 20% by 2010 Source: UK Sustainable Development Quality of Life Indicators	Human health
		Life expectancy	To increase life expectancy Source: www.statistics.gov.uk	
2	To meet identified housing needs	% Affordable Housing	A minimum of 43% affordable housing across the KDA	Human health
			A minimum of 50% affordable housing on Greenfield locations	
3	To promote safe communities, reduce crime and fear of crime	Overall crime rate per 1000 population	Reduce youth crime and the number of young people who are victims of crime by 2010 Source: Greenwich Strategy, 2001	Population and human health

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Code	SA/SEA Draft Objectives	Indicators (existing indicators are denoted in bold, proposed indicators are denoted in italics)	Target	SA/SEA Topic
		Residential burglary (count)	By 2005 burglary crimes will have been maintained at the 2001/02 levels Source: Greenwich Council Crime and Disorder Strategy	
		Fear of Crime Survey Results	Create an environment where the fear of crime is greatly reduced by 2010. Source: Greenwich Strategy, 2001	
4	To improve educational facilities and skills of the local population	Achievement of 5 or more GCSEs graded A* to C	Greenwich Target: 44% 2004/05 Source: Greenwich Strategy, 2001	Population
		Percentage of workforce aged 16-74 with no qualifications	Improve the participation rate for students at 16+ staying on in education to 80% by 2010. Source: Greenwich Strategy, 2001	
		Percentage of workforce aged 16-74 with highest level qualification attained level 4 or 5	Increase the proportion of students who go on to enter Higher Education from 10% to 20% by 2010. Source: Greenwich Strategy, 2001	
5	To improve opportunities for access to education, employment, recreation, health, public transport, community services and cultural opportunities for all sectors of the community	Core Output Indicator COI 3b: Amount and percentage of residential development completed in 2004-05 that is within 30 minutes public transport time of: a GP; a hospital; a primary school; a secondary school; areas of employment; and a major retail centres (s). Source: Greenwich LDF Monitoring Report	No target identified	Population and human health

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Code	SA/SEA Draft Objectives	Indicators (existing indicators are denoted in bold, proposed indicators are denoted in italics)	Target	SA/SEA Topic
		Public Transport Accessibility Level	Improve public transport across the Borough, including good bus and rail links between the north and south of the borough. Source: Greenwich Strategy, 2001	
6	To reduce adverse impacts of noise and vibration	Noise Levels	No target identified	Population and human health
		% of residents surveyed who are concerned with different types of noise and/or vibration	No target identified	
		Proportion of tranquil areas/loss of tranquillity	No target identified	
7	To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes	Ha of accessible public open space per 1000 population	2.4 ha per 1000 population Source: National Playing Fields Association	Population, biodiversity, flora and fauna, human health
		Area of open space deficiency	To reduce to zero Source: London Borough of Greenwich	
		UDP Indicator 4.4: The annual number of relevant planning permissions granted where they maintain the Green Chain Walk or riverside walk/ cycleway networks, and those refused that would have caused severance. Source: Greenwich UDP.	No target identified.	
ENVIRONMENTAL				
8	To limit emissions to air to levels that will not damage natural systems or affect human health	Levels of main pollutants	National Air Quality Objectives	Air, population and human health
		Number of days of moderate or poor air quality	Urban 9-19 days; Rural 42 days (1999)	
9	To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car	Modal Split	No target identified	Population and human health, Air
		Road Traffic	To move towards reducing traffic by 20% by 2010. Source: Greenwich Strategy, 2001	
10	To reduce greenhouse gases emissions and promote CO2 emissions fixing	Emissions of greenhouse gases	To reduce CO2 emissions by 20% by 2011 from a 1996 baseline figure	Climatic factors
		Number of trees planted vs. number of trees removed		
11	To conserve sites of nature conservation	Area and condition of designated sites	No target identified	Biodiversity, flora and

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Code	SA/SEA Draft Objectives	Indicators (existing indicators are denoted in bold, proposed indicators are denoted in italics)	Target	SA/SEA Topic
	importance and protect fauna and flora which are important on an international, national and local scale	Core Indicator COI 8: The change in areas and populations of biodiversity importance, including: change in priority habitats and species (by type); and change in areas designated for their intrinsic environmental value including sites of international, national, regional, sub-regional or local significance. Source: Greenwich LDF Monitoring Report	To halt the loss of biodiversity by 2010. Source: EU Sustainable Development Strategy	fauna
12	To avoid damage and fragmentation of habitats	UDP Indicator 4.5: The annual number of applications within Sites of Nature Conservation Importance granted or refused planning permission. Source: Greenwich LDF Monitoring Report	No target identified	Biodiversity, flora and fauna
13	To protect and enhance the quality of landscape of recognised value	Number of historic landscapes and fine views protected	No target identified	Cultural Heritage
14	To safeguard important built, historic and archaeological features	No. of listed buildings, Conservation Areas and archaeologically important sites	No target identified	Cultural Heritage
		No. of listed buildings, Conservation Areas and areas of archaeological priority at risk	No target identified	
		Core Indicator COI 9: Renewable energy capacity in megawatts installed and operable by type e.g. bio fuels, onshore wind, water, solar energy and geothermal energy. Source: Greenwich LDF Monitoring Report	No target identified	
		UDP Indicator 5.3: The percentage and number of major developments that incorporate renewable energy production equipment to provide at least 10% of the predicted energy requirements. Source: Greenwich LDF Monitoring Report	10% renewable energy: Source: Greenwich UDP	
		UDP Indicator 3.5: The number and percentage of planning permissions/completed developments that achieve the Building Research Establishment's 'Ecohomes' excellent rating. Source: Greenwich UDP Source: Greenwich LDF Monitoring Report	No target identified	
		Percentage of non-residential developments that achieve BREEAM 'excellent' rating.	No target identified	
		Core Indicator COI 2b: The percentage of gross new and converted dwellings on previously developed land.	90% of new dwellings to be built on previously developed land Source: Greenwich UDP.	
		Core Indicator COI 1c: Amount of floorspace by employment type, which is on previously developed land Source: Greenwich LDF Monitoring Report	No target identified	

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Code	SA/SEA Draft Objectives	Indicators (existing indicators are denoted in bold, proposed indicators are denoted in italics)	Target	SA/SEA Topic
		Core Indicator COI 2c: The percentage of gross new dwellings completed at: Less than 30 dwellings per hectare; Between 30 and 50 dwellings per hectare; Above 50 dwellings per hectare. Source: Greenwich LDF Monitoring Report	Draft PPS3 encourages housing development of at least 30 dwellings per hectare and seeks higher densities in areas with good public transport accessibility.	
		Kg of household waste collected per year	480 kg/head (2005/06 Target) Source: Greenwich Council	
		% of household waste recycled	19% (2005/06 Target) Source: Greenwich Council	
		% of waste arisings composted	3% (2005/06 Target) Source: Greenwich Council	
		% of population served by a kerbside collection of recyclables	90% (2005/06 Target) Source: Greenwich Council	
		Number of developments incorporating Sustainable Urban Drainage Systems (SUDS)	No target identified	
		% of water course classified as good or fair biological quality	No target identified	
		Area of Floodplain	No target identified	
		Area and number of properties at risk of flooding	No target identified	
		Core Indicator COI 7: The number of planning permissions granted contrary to the advice of the Environment Agency on either flood defence grounds or water quality. Source: Greenwich LDF Monitoring Report	No target identified	
		UDP Indicator 3.5: The number and percentage of planning permissions/completed developments that achieve the Building Research Establishment's 'Ecohomes' excellent rating. Source: Greenwich UDP	No target identified	
		Percentage of non-residential developments that achieve BREEAM 'excellent' rating.	No target identified	
		% of contaminated land remediated	No target identified	
		% of Metropolitan Open Land maintained and enhanced	No target identified	
ECONOMIC				
22	To strengthen the local economy	Growth of local businesses by turnover and employee numbers	No target identified	Population, material assets
23	To improve employment and access to employment opportunities	% Unemployment Rate	Cut the unemployment rate in Greenwich to below the London average and reduce	Population

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Code	SA/SEA Draft Objectives	Indicators (existing indicators are denoted in bold, proposed indicators are denoted in italics)	Target	SA/SEA Topic
			unemployment in the most deprived areas to within 3% of the Borough average. Source: Greenwich Strategy, 2001	
		Number of full-time (equivalent) jobs within the KDA	Create 25,000 new jobs in the borough by 2010. Source: Greenwich Strategy, 2001	
		Core Indicator COI 1a: Amount of gross internal floorspace developed for employment by type (UCO B1~B2~B8) Source: Greenwich LDF Monitoring Report	No target identified	
24	To enhance the viability and vitality of Kidbrooke centre	Area of vacant floorspace	No target identified	Population
		No. of Small to Medium Enterprise within the KDA	No target identified	
		No. of Community Enterprises within the KDA	No target identified	
		Core Indicator COI 1c: Amount of floorspace by employment type under 1 (a) in employment or regeneration areas (DIA MUA CBP). Source: Greenwich LDF Monitoring Report	No target identified	

4. Compatibility Assessment between the SPD Objectives and SA Objectives

ASSESSMENT OF SAVED UDP POLICY

- 4.1 ODPM guidance indicates how the Local Planning Authority should approach the SA of a SPD relating to a saved plan which has not undergone Sustainability Appraisal. It states that:

'Where a saved plan has not undergone SA, the SA of the SPD will first need to assess the significant effects of the saved policy or policies which the SPD is helping to implement. This will establish the baseline against which the effects of the SPD can be compared. However, it is not necessary for a SPD to document the significant effects of the saved plan as a whole or of alternatives to the saved policy or policies'.

- 4.2 Further to the Pre-Inquiry changes to the UDP approved by the Borough Council in October 2004, the saved policy which the SPD will help to implement reads as follows:

'The Kidbrooke Development Area, as defined on the Proposals Map, is designated as a mixed use residential led regeneration area. The redevelopment and regeneration of this area will be required to deliver the following objectives:

- ◆ Creating a mixed neighbourhood and community integrated with the surrounding area providing a sustainable environment;
- ◆ Provision of a total of 4,400 dwellings which will include the replacement of 1,900 affordable homes;
- ◆ Creating quality open spaces;
- ◆ Providing a local shopping centre which acts a commercial hub for the area;
- ◆ An improved transport interchange and public transport to and from the area;
- ◆ On greenfield sites in the development area in recognition of the economics of housing provision 50% affordable housing should be sought; and
- ◆ Development proposals will be expected to take account of the proposed masterplan which is to be the basis of supplementary planning guidance. Any proposals which would be detrimental to the implementation of any aspect of the masterplan will be resisted'.

- 4.3 The appraisal of the UDP policy against the SA objectives is contained in Table E2 of Appendix E. The main conclusions of the appraisal are:

- ◆ The UDP Policy has no direct effect on health and crime;
- ◆ Positive effects are predicted in terms of housing needs, education, improving opportunities for access, promoting the enjoyment of open spaces, enhancing the quality of the landscape, making the best use of previously developed land, reducing soil contamination and improving employment, strengthening the economy and enhancing the viability and vitality of Kidbrooke Centre; and
- ◆ Overall the policy already covers many important aspects of sustainability to a lesser or greater extent. During the development of the SPD the identified

weaknesses have been addressed and opportunities to further enhance positive effects have been explored.

Initial Compatibility Assessment

- 4.4 Stage B1 of the SA process requires the objectives of the SPD to be tested for compatibility with the SA objectives. This will help in refining the SPD objectives as well as in identifying options.
- 4.5 Having produced a SA Framework in the previous section there is now the need to assess how this compares with the objectives of the SPD. The first set of regeneration objectives for the area included:
1. Provision of a mixed neighbourhood, integrated with the surrounding area which provides a quality and sustainable environment for those living and working in, or visiting the area;
 2. Provision of a sustainable, well-managed and mixed tenure residential community providing new affordable housing units;
 3. Provision of a new focus for commercial, civic and community facilities and a new transport interchange based on Kidbrooke Station;
 4. Provision and enhancement of open spaces and ecological features that are accessible and integrated with the neighbourhood;
 5. Creation of an area where there is a sense of belonging and where there is a safe and secure environment for all sections of the community;
 6. Provision of local jobs and training and improved transport links to jobs and training in key centres outside the area; and the
 7. Provision of a good range of community facilities, including shops, pubs and cafes, banks and services, post offices, facilities for young people, schools, health and social care services and indoor and outdoor leisure facilities.
- 4.6 The compatibility assessment of the SPD objectives against each of the SEA objectives was undertaken taking into account the considerations outlined in Table 4.1.

Table 4.1 - Assessment Considerations

SA Objective	Assessment Considerations
1. To improve health and reduce health inequalities	- Enhanced open space provision - Initiatives which encourage some form of physical activity - Improved air quality and the reduction of air pollution - Reduced crime - Accessible community and health facilities and amenities - Improved links to jobs and training
2. To meet identified housing needs	- Quantity of housing provision - Affordable housing provision - Tenure mix - Housing typology - Integration of housing with surrounding area - Quality of housing - Diverse type and mix of units
3. To promote safe communities, reduce crime and fear of crime	- Fear of crime - Neighbourhood accessibility and integration - Mixed residential community - Community facilities - Social inclusion - Vibrant street scene and natural surveillance
4. To improve education and skills of local population	- Provision of local jobs and training - Transport links to job and training centres - Educational facilities
5. To improve opportunities for access to education, employment, recreation, health, public transport, community services and cultural opportunities for all sectors of the community	- Provision of educational, health, leisure, transport, community and cultural services - Mixed community to provide critical mass of users to support a variety of facilities
6. To reduce adverse impacts of noise and vibration	- Transport infrastructure - Open spaces and noise attenuation - Changes in road traffic numbers due to increased public transport - Design and materials - Orientation/single aspect buildings
7. To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes	- Transport links - Provision and integration of open space - Educational and health initiatives which encourage use of open space
8. To limit air emissions to levels that will not damage natural systems or affect human health	- Initiatives to limit air emissions - Improved provision of public transport - Reduction in car use - Changes in road traffic numbers
9. To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car	- Provision of public transport - Accessibility and integration of development area - Reduction in car use
10. To reduce greenhouse gases emissions	Reduced emissions from transport, construction and

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SA Objective	Assessment Considerations
and promote CO2 emissions fixing	- commercial activity - Enhanced open space, ecological and green areas - Energy efficiency in buildings
11. To conserve SNCI's and protect flora and fauna which are important on an international, national and local scale 12. To avoid damage to and fragmentation of habitats	- Impact of development on the conservation, enhancement and creation of habitats - Impact of development on designated SNCI's and protected species - Educational initiatives which encourage ecological awareness and appreciation
13. To protect and enhance the quality of landscapes of recognised value	- Building heights and impact on views and vistas - Impact of transport and commercial development - Impact on Maritime Greenwich World Heritage Site
14. To safeguard important built, historic and archaeological features	- Impact of proposed scheme on local townscape and distinctiveness - Impact of development on the preservation of historic features and designated Conservation Areas, listed buildings and locally listed buildings near site - Sympathetic integration of new development with existing features
15. To increase energy efficiency and the use of renewable energy in the built environment	- Energy efficient appliances and technologies in residential and commercial units - Educational initiatives promoting the use of alternative energy sources and alternative fuel vehicles
16. To make the best use of previously developed land	Re-development of brownfield land
17. To reduce the generation of waste and encourage re-use and recycling of waste	- Re-use of building materials - Residential and commercial waste management and recycling programmes - Educational initiatives which encourage recycling
18. To improve the quality of surface and ground waters	- Impact of development on water quality in Kid Brook and the Quaggy River - Preservation of natural open space areas around Kid Brook and the Quaggy River
19. To reduce risk of flooding	- Flood storage volumes lost due to development - Risk of residential and commercial flooding due to floodplain location - Reduction in flood risk due to implementation of source control and SUDS.
20. To promote the use of materials and products produced by sustainable methods	Source and type of materials used in residential and commercial construction
21. To reduce contamination and safeguard soil quality and quantity	- Remediation of contaminated land prior to development - Potential pollution incidents during construction - Preservation of open space and safeguarding of soil
22. To strengthen the local economy 23. To improve employment and access to employment opportunities	- Access to transport links - Local job creation and training opportunities - Supporting educational and community facilities - Increase of office and retail space
24. To enhance the viability and vitality of Kidbrooke centre	- Mixed neighbourhood with diverse residents - Ability to attract employees and visitors from outside areas

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SA Objective	Assessment Considerations
	▪ Sustainable residential community ▪ Access to public transport ▪ Vibrant street scene and natural surveillance ▪ Mixed-use centre with residential, commercial and community space

- 4.7 Table 4.2 provides an initial compatibility matrix to identify to what extent the central regeneration objectives of the SPD are compatible with the draft SA objectives, and vice versa.
- 4.8 The results of the initial assessment presented in Table 4.2 show that, in general, the SPD objectives are largely compatible with the economic SA objectives. The SPD objectives are also largely compatible with the social SA objectives, although there is more uncertainty associated with some of the objectives. The picture for the SA environmental objectives, however, is more mixed. Although there is some degree of compatibility with some objectives, at this stage of the development of the SPD there was some uncertainty in identifying whether the potential outcomes of the SPD objectives fully meet the environmental SA objectives. This has been clarified and addressed as the SPD developed (see section 6).
- 4.9 In addition, it was recommended that the SPD objectives were clarified with regards to the following commitments:
- ◆ Sustainable modes of transport;
 - ◆ Sustainable design and construction; and
 - ◆ Making best use of previously developed land.
- 4.10 Following the initial compatibility assessment of the SPD objectives and the SA objectives and following discussions between LB Greenwich, the plan team and the SA team, the SPD objectives were revised as follows:
1. The Kidbrooke area will represent an exemplar community incorporating a mix of high quality housing which will include the replacement of existing affordable homes and the provision of market housing.
 2. The Kidbrooke area will have a clearly identifiable character which will establish a positive sense of identity. It will incorporate the establishment of a number of neighbourhoods which will include several different character areas.
 3. The neighbourhood will be a place where public and private spaces are clearly distinguished to provide a sense of continuity and enclosure.
 4. Kidbrooke will be a place that is easy to get to and move through and be well integrated with surrounding areas. Provision will be made for a variety of travel modes including walking and cycling.
 5. The layout and form of development will be adaptable and provide variety for a range of different uses.
 6. Kidbrooke will incorporate a variety of attractive open spaces providing a range of recreational uses.
 7. A new mixed use Local Centre (known as the Hub) will be created which combined with the railway station and transport interchange will establish a focus of activity.
 8. The development will include a transport interchange which enables easy access between train, bus, cycling and pedestrian route networks.

9. The development will be an exemplar of the principles and practice of sustainable development which will consider the economic, social and environmental dimensions and incorporate carbon reduction consistent with the Council's UDP renewable energy targets.

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Table 4.2 - Initial Compatibility Matrix between SPD and SA Objectives

SPD Objectives		SA Objectives																							
		Social							Environmental														Economic		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Provision of a mixed neighbourhood, integrated with the surrounding area, which provides a quality and sustainable environment for those living and working in, or visiting the area.	✓	✓	✓		✓	✓		✓	?		✓	✓												
2	Provision of a sustainable, well managed and mixed tenure residential community providing new affordable housing units.	✓	?	✓			?	✓	?	?	?	?	?	?	?	?	?	?	?	?	?				
3	Provision of a new focus for commercial, civic and community facilities and a new transport interchange based on Kidbrooke Station.			✓		✓	?	✓	?	✓	?	?	?	?	?	?	?	?	?	?	?	✓	✓	✓	
4	Provision and enhancement of open spaces and ecological features that are accessible and integrated with the neighbourhood.	✓		✓		✓		✓		✓	✓	✓	?												
5	Creation of an area where there is a sense of belonging and where there is a safe and secure environment for all sections of the community.		✓	✓																		✓	✓	✓	
6	Provision of local jobs and training and improved transport links to jobs and training in key centres outside the area.				✓	✓																✓	✓	✓	
7	Provision of a good range of community facilities, including shops, pubs, and cafes, banks and services, post offices, facilities for young people, schools, health and social care services and indoor and outdoor leisure facilities.	✓		✓	✓	✓	?	✓	?	?	?	?	?	?	?	?	?	?	?	?	?	✓	✓	✓	

✓ Broadly compatible
 ✗ Potential conflict
 □ Not relevant
 ? Dependent on nature of implementation measures

SA Objectives

- | | |
|---|--|
| <p>1 To improve access to health facilities and reduce health inequalities</p> <p>2 To meet housing need and improve housing quality for all</p> <p>3 To promote safe communities, reduce crime and fear of crime</p> <p>4 To improve educational facilities and skills of the local population</p> <p>5 To improve opportunities for access to education, employment, recreation, health, community services and cultural opportunities for all sectors of the community</p> <p>6 To reduce adverse impacts of noise and vibration</p> <p>7 To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes</p> <p>8 To limit emissions to air to levels that will not damage natural systems or affect human health</p> <p>9 To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car</p> <p>10 To reduce greenhouse gases emissions and promote CO2 emissions fixing</p> <p>11 To conserve sites of nature conservation importance and protect fauna and flora which are important on an international, national and local scale</p> <p>12 To avoid damage and fragmentation of habitats</p> | <p>13 To protect and enhance the quality of landscape of recognised value</p> <p>14 To safeguard important built, historic and archaeological features</p> <p>15 To increase energy efficiency and the use of renewable energy in the built environment</p> <p>16 To make the best use of previously developed land</p> <p>17 To reduce the generation of waste and encourage re-use and recycling of waste</p> <p>18 To improve the quality of surface and ground waters</p> <p>19 To reduce risk of flooding</p> <p>20 To promote the use of materials and products produced by sustainable methods</p> <p>21 To reduce contamination and safeguard soil quality and quantity</p> <p>22 To strengthen the local economy</p> <p>23 To improve employment and access to employment opportunities</p> <p>24 To enhance the viability and vitality of Kidbrooke centre</p> |
|---|--|

5. Strategic Options

INTRODUCTION

- 5.1 The London Borough of Greenwich, in consultation with stakeholders, considered four options for achieving the vision of KDA and the Ferrier Estate. These were:

- ◆ No change;
- ◆ Refurbishment of the Ferrier Estate and limited development of the wider area;
- ◆ Partial refurbishment/partial development of the wider area; or
- ◆ Comprehensive redevelopment of the Ferrier Estate and the wider area.

ASSESSMENT FINDINGS

- 5.2 The detailed assessment table of the four options is contained in Table D1 in Appendix D. The clear preferred option was option 4 – the comprehensive redevelopment of the Ferrier and the wider areas. The least preferred option was option 1 – no change followed by Option 2 – refurbishment of the Ferrier Estate. Both options 1 and 2 would not address the current problems associated with the area resulting in negative effects on the majority of the social objectives and the economic objectives as the existing centre, Telemann Square offers no potential for inward investment and support for local businesses. Despite these options being assessed as having positive effects on some of the environmental objectives, notably SA8 (air quality), SA9 (congestion) and SA10 (greenhouse gas emissions), they would not allow the achievement of sustainable regeneration of the Kidbrooke Area.
- 5.3 Option 4 was assessed as having major positive effects on all the social objectives as well as the economic objectives.
- 5.4 A mix of positive and negative effects were identified for the majority of the environmental objectives including SA08 (Air quality), SA09 (traffic congestion) and SA10 (greenhouse gas emissions) due to the potential for additional residential development and the associated effects of increase in car ownership on local air quality. Minor negative effects were identified for SA objectives 11 and 12 as although the three SNCI's would remain undisturbed, comprehensive redevelopment would have negative effects on non-designated habitats such as green court yards and wildlife corridors. A mix of positive and negative effects were identified for objectives SA 18 (water quality) and SA19 (flooding) as development may cause pollution of local water quality or increased run off however, new development could encourage the use of SUDS.
- 5.5 Overall, Option 4 was assessed as the preferred option to maximise the social, economic and environmental benefits for the KDA.

WORKING TOWARDS THE PREFERRED OPTION

- 5.6 It is not the role of the SA to determine which of the options should be chosen as the basis for the preferred option. This is the role of the local authority, the community and stakeholders who have to decide which option is appropriate. The SA should, however, help identify the most sustainable option overall, or different options that

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promote the different dimensions of sustainability (social, environment, and economic).

- 5.7 The SPD preferred option has taken into consideration the findings from the SA options appraisal with Option 4 (the comprehensive demolition and redevelopment of the Ferrier Estate) being selected as the preferred option.

6. Assessing the Significance of Effects

INTRODUCTION

- 6.1 The SEA Directive states that in the Environmental Report;

'the likely significant effects on the environment of implementing the plan or programme....and reasonable alternatives....are [to be] identified, described and evaluated' (Article 5.1). The Environmental Report should include information that may 'reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme [and] its stage in the decision-making process' (Article 5.2).

- 6.2 In addition, the SEA Directive requires the Environmental Report to outline measures to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme (Annex I (g)).
- 6.3 Existing SA guidance recognises that the most familiar form of SA prediction and evaluation is generally broad-brush and qualitative. It is recognised that quantitative predictions are not always practicable and broad-based and qualitative predictions can be equally valid and appropriate. Examples of the prediction and evaluation techniques for assessing significance of effects are expert judgement, dialogue with stakeholders and public participation, geographical information systems, reference to legislation and regulations and environmental capacity.
- 6.4 This section outlines the key proposals for the KDA outlined in the SPD that have been assessed and the methodology that has been used for the assessment of significant effects as part of Stage B of the SA process and provides a qualitative assessment of each proposal.

APPROACH TO ASSESSMENT

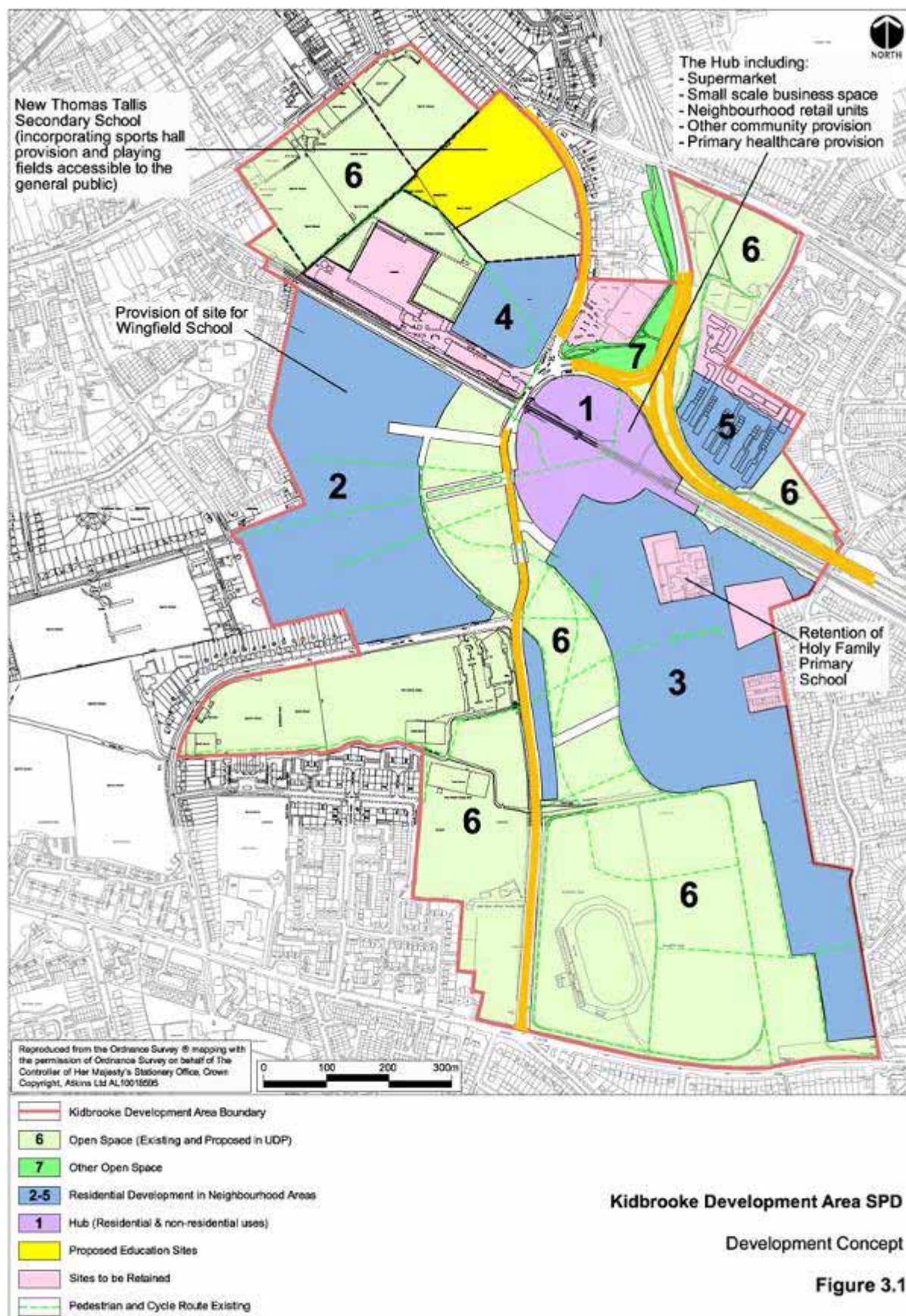
- 6.5 Responding to the Vision and Objectives and taking into account the environmental context of the site, the SPD has divided the KDA into 7 broad neighbourhood areas which are clearly defined in terms of land use, mix, density, massing and form of development. The proposed urban structure for the KDA is defined in Figure 4.
- 6.6 The development concept is for four predominately residential neighbourhoods clustered around a mixed use hub adjoining Kidbrooke railway station. The Hub will accommodate retail, commercial and community uses. A new green link will be established adjoining the Hub, Eastern and Western Neighbourhood areas incorporating Sutcliffe Park.
- 6.7 The appraisal has been undertaken by neighbourhood type. In addition, the movement strategy is subject to a separate assessment. The assessment of the sustainability strategy will be integrated into the assessment of the proposals within each neighbourhood area. The appraisal has been split into the following:
- ◆ The Hub (Neighbourhood Area Type 1)
 - ◆ Neighbourhood Area Type 2: North East Neighbourhood Area
 - ◆ Neighbourhood Area Type 3: North West Neighbourhood Area

- ◆ Neighbourhood Area Type 4. Western Neighbourhood Area
- ◆ Neighbourhood Area Type 5. Eastern Neighbourhood Area
- ◆ Landscape Strategy (incorporating the Green Link and Sutcliffe Park - neighbourhood area types 6+7)
- ◆ Movement Strategy (including movement and permeability, movement framework, public transport, accessibility, road network, cyclist and pedestrian routes, car parking)

ASSUMPTIONS

- 6.8 As already discussed in Section 2 on methodology, the assessment undertaken relies heavily on professional judgement which has necessarily an element of subjectivity. It also relies on certain assumptions about the changes to people's behaviour as a result of the actions being assessed and the way development will be implemented. The following assumptions have been made in the assessment of the Kidbrooke SPD.
- 6.9 For the purposes of this assessment, short term has been defined as 2009, medium term 2012 and long term 2016+.
- 6.10 The timing of the positive effects identified is intrinsically linked to the phasing of development outlined in section 9 of the SPD: The Delivery Framework.

Figure 6.1 - Development Context and Broad Neighbourhood Areas



SUMMARY OF PROPOSALS

The Hub

6.11 The key components for the Hub as a new local centre are as follows:

- ◆ A mixed use development comprising a range of different uses and functions
- ◆ 555 Residential Units (43% affordable)
- ◆ Housing density up to 600hr/ha
- ◆ Residential provision: flats and apartments (non family)
- ◆ Secure gated basement car parking
- ◆ 3100 sq m Retail Units
- ◆ 2295 sq m Small Business Space
- ◆ 2787 sq m Supermarket (Maz size)
- ◆ Indoor Sports Provision (1,500 sq.m)
- ◆ Community meeting space and Health facility (4,700 sq.m)
- ◆ A range of building heights
- ◆ Transport Interchange (including existing railway connection)
- ◆ Pedestrian and Cycle Routes
- ◆ Central Space

Connections

- ◆ Wide crossing from the north west neighbourhood area to the interchange
- ◆ Crossing from the interchange to public space
- ◆ Routes to the eastern neighbourhood area
- ◆ Pedestrian route linking to the north east neighbourhood area

Residential Proposals

6.12 The assessment of the four key residential areas has been combined into one assessment. The main components in each neighbourhood area are outlined below. The proposals are contained on Figure 6.2: Development Concept Masterplan.

Neighbourhood Area Type 2 - North East Neighbourhood Area

- ◆ 260 residential units (43% affordable)
- ◆ Housing density up to 350 hr/ha
- ◆ Housing Mix – houses and flats
- ◆ Pedestrian and cycle routes
- ◆ Typical building heights: 2 – 4 storeys
- ◆ Security and safety features - secure gated rear access to some houses, secure gated access to basement car parks for flats.

Connections

- ◆ Enhanced links crossing the A2 connecting to the Hub

Neighbourhood Area Type 3 - North West Neighbourhood Area

- ◆ 392 residential units (43% affordable housing)
- ◆ Housing density up to 450 hr/ha
- ◆ Housing Mix – flats and houses
- ◆ Pedestrian and cycle routes
- ◆ Publicly accessible open space
- ◆ Education site – new Thomas Tallis Secondary School, incorporating indoor sports facilities and playing field which is accessible to the general public
- ◆ Reconfiguration of playing fields (MOL)
- ◆ Building heights: 2 – 6 storeys.
- ◆ Security and safety features: Secure gated rear access to some houses. Secure gated access to basement car parks for flats.

Connections

- ◆ Connections westward through the extension of the Green Chain Walk
- ◆ Direct link to the hub by a wide crossing
- ◆ Wide pedestrian and cycle link to the Green Link, eastern and western neighbourhood areas

Neighbourhood Area Type 4 - Western Neighbourhood Area

- ◆ 1449 residential units (43% affordable)
- ◆ Housing density 340 – 400hr/ha
- ◆ Highest building density at the edge of the green swathe
- ◆ Housing Mix – houses and flats
- ◆ Pedestrian and cycle routes
- ◆ East-west connections to the Hub
- ◆ Proposed Wingfield School site
- ◆ Landscaped amenity areas
- ◆ Public space
- ◆ Building heights: 2 – 8 storeys (decreasing west away from the green swathe)
- ◆ Natural surveillance created with windows in corner locations
- ◆ Secure gated rear access to some houses.
- ◆ Provision of LEAP on proposed Wingfield school site

Connections

- ◆ East west route to the hub
- ◆ Street of special neighbourhood from north to south in the neighbourhood area

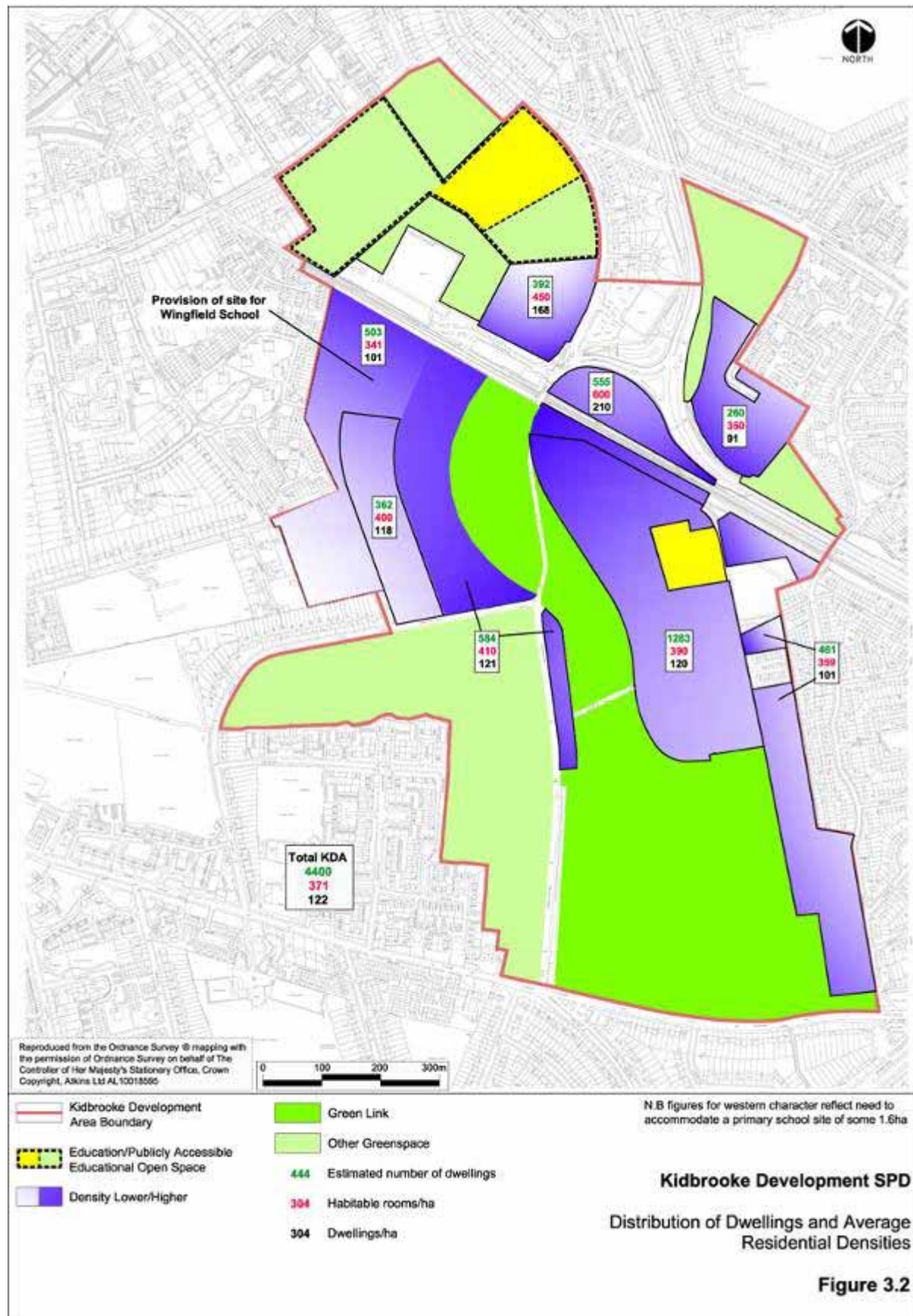
Neighbourhood Area Type 5 - Eastern Neighbourhood Area

- ◆ 1744 residential units (43% affordable housing)
- ◆ Housing density 350 – 390 hr/ha
- ◆ Housing Mix – Flats and houses
- ◆ Pedestrian and cycle routes
- ◆ Retention of Holy Family Primary school
- ◆ Elderly care provision
- ◆ LEAP provision
- ◆ Central public space
- ◆ Some risk of flooding (SUDS to be used)
- ◆ Building heights: 2 – 8 storeys
- ◆ Building heights and densities greatest adjoining the hub and park. Reducing down towards existing housing in the east
- ◆ Secure gated rear access to some houses.
- ◆ Secure gated access to basement car parks for flats.

Connections

- ◆ Sloped street to link to the hub
- ◆ Main road east to west in the area will only be accessible from the west to prevent rat running in the area

Figure 6.2 – Distribution of Dwellings and Average Residential Densities



Proposed Green Infrastructure (incorporating the Green Link, Sutcliffe Park - neighbourhood area types 6 + 7)

Protection of Metropolitan Open Land

- 6.13 Areas of MOL identified in the UDP will be protected and enhanced. They provide visual amenity and recreational opportunities. The redevelopment will extend the green chain from Sutcliffe Park to the hub and into the northern neighbourhood areas. Appropriate crossing points, signage and interpretation facilities should also be provided to fully integrate these spaces to the wider area.

Provision of Access to Public Parks

- 6.14 All residents will be within 400m of a publicly accessible Local Park. Sutcliffe Park will be extended northwards creating a district park of 24 ha and include a wider range of facilities. Within the proposed Green Link there will be:

- ◆ Locally Equipped Areas of Play (LEAP) for children of 4-8 years
- ◆ Neighbourhood Equipped Area of Play (NEAP) for older children
- ◆ Formal and informal recreational spaces
- ◆ Natural habitats
- ◆ Pedestrian and cycle linkages
- ◆ Circular routes for informal recreation such as jogging
- ◆ Sustainable urban drainage
- ◆ Provision of Opportunities for Children's Play
- ◆ This will be integrated and co-located within public parks and other open space, with combined area of 2 ha.
- ◆ Provision of Access to Areas of Natural and Semi Natural Greenspace
- ◆ All residential areas are already located within 1 km of an accessible SNCI (Sutcliffe Park). The four existing sites of nature conservation importance are to be retained with an additional wildlife management plan to extend and enhance two of the SNCI in the north east neighbourhood area.
- ◆ Provision of Access to Outdoor Pitch Sports Provision
- ◆ All residents should be located within 400 m of a playing pitch site in secure community use. Playing pitch provision within the study area will be above the recommended minimum standard however provision of 5-a-side pitches has a shortfall with opportunities to include proposals in the Thomas Tallis school site or the Green Link.
- ◆ Proposals for the Thomas Tallis School will include pitches available for community use outside school hours. The new Wingfield primary school will also include up to 1.6 ha of outdoor space.

Provision of Access to Allotments

- 6.15 The current allotment site in the KDA has 40 plots and with the recommendation that all residents should be within 400m of allotment provision, many residents fall outside this parameter. The current allotment site will be retained and proposals for another site (or provision of community gardens) will be sought.

Provision of Open Space within Residential Areas

- ◆ Smaller open spaces which will perform an important community function, with seating and informal recreation.
- ◆ Such spaces may include community gardens, areas of play for those aged less than 5 years, doorstep greens and allotments.
- ◆ A series of new civic spaces will also be an integral part of the hub.
- ◆ Retention of Existing Trees
- ◆ Retention of existing trees within the KDA will be desirable as they provide amenity and improve the microclimate of the spaces they occupy.

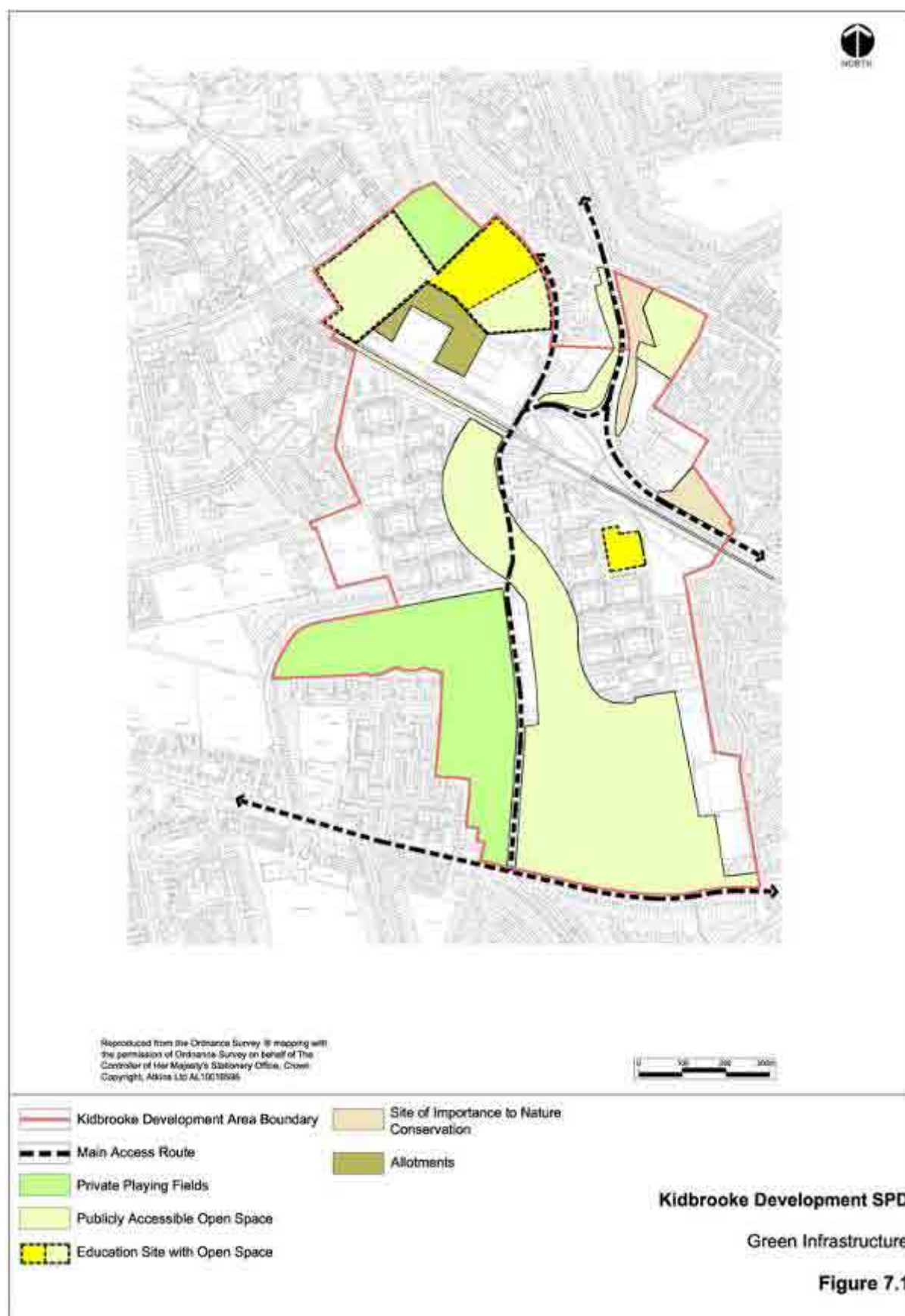
Water Management

- 6.16 Open spaces should incorporate SUDS, which may include creating areas of soft landscape, holding water on site and incorporating flood management within the Sutcliffe park green link.

Management of Open Spaces

- 6.17 A management strategy should accompany the planning application. This will identify responsibilities, appropriate management regimes and funding for individual spaces and facilities within those spaces.

Figure 6.3 - Green Infrastructure



Movement Infrastructure

- 6.18 The components of this strategy are the street hierarchy and public transport provision in the area.

Primary Routes

- ◆ Kidbrooke Park Road retained as primary route with new junctions to the neighbourhood areas.
- ◆ Traffic calming and crossing facilities to be improved.
- ◆ May feature dedicated bus lane.

Distributor routes

- ◆ Access for local traffic with maximum speed to be set at a level to encourage slower vehicle speeds.

Bus route/focal streets

- ◆ Designed to accommodate cycle and pedestrian routes with limited car access.
- ◆ Provide for bus services and emergency vehicles. Streets will open out into squares or shared surface areas.

Local Residential Roads

- ◆ Designed primarily for pedestrians and cyclists with a maximum speed of 20 mph.
- ◆ Design obstacles to restrict traffic movement, trees and planting beds

Cyclists and Pedestrians

- ◆ Layout of the streets is intended to accommodate convenient routes for pedestrians and cyclists. Pedestrians will have priority on minor residential roads in Home Zones

Car Parking and Servicing Provision

- ◆ One space per unit will be provided within the eastern, western and North West character area. One space per teaching member of staff will be provided at Thomas Tallis and Wingfield primary School

Public Transport

- ◆ In line with the quantity and density of the new development the PTAL scores of the area is assumed to rise to 3-5. This will be achieved by providing bus stops at intervals of 200 – 300m close to centres of activity or junctions and using the focal streets described above.
- ◆ Bus services will have priority over private transport with a possibility of the bus transit line along Kidbrooke Park Road having a segregated lane.
- ◆ The transport interchange located around the existing railway station will provide uncongested efficient interchange between bus and rail for passengers, pedestrians and cyclists.

Figure 6.4 – Movement Infrastructure

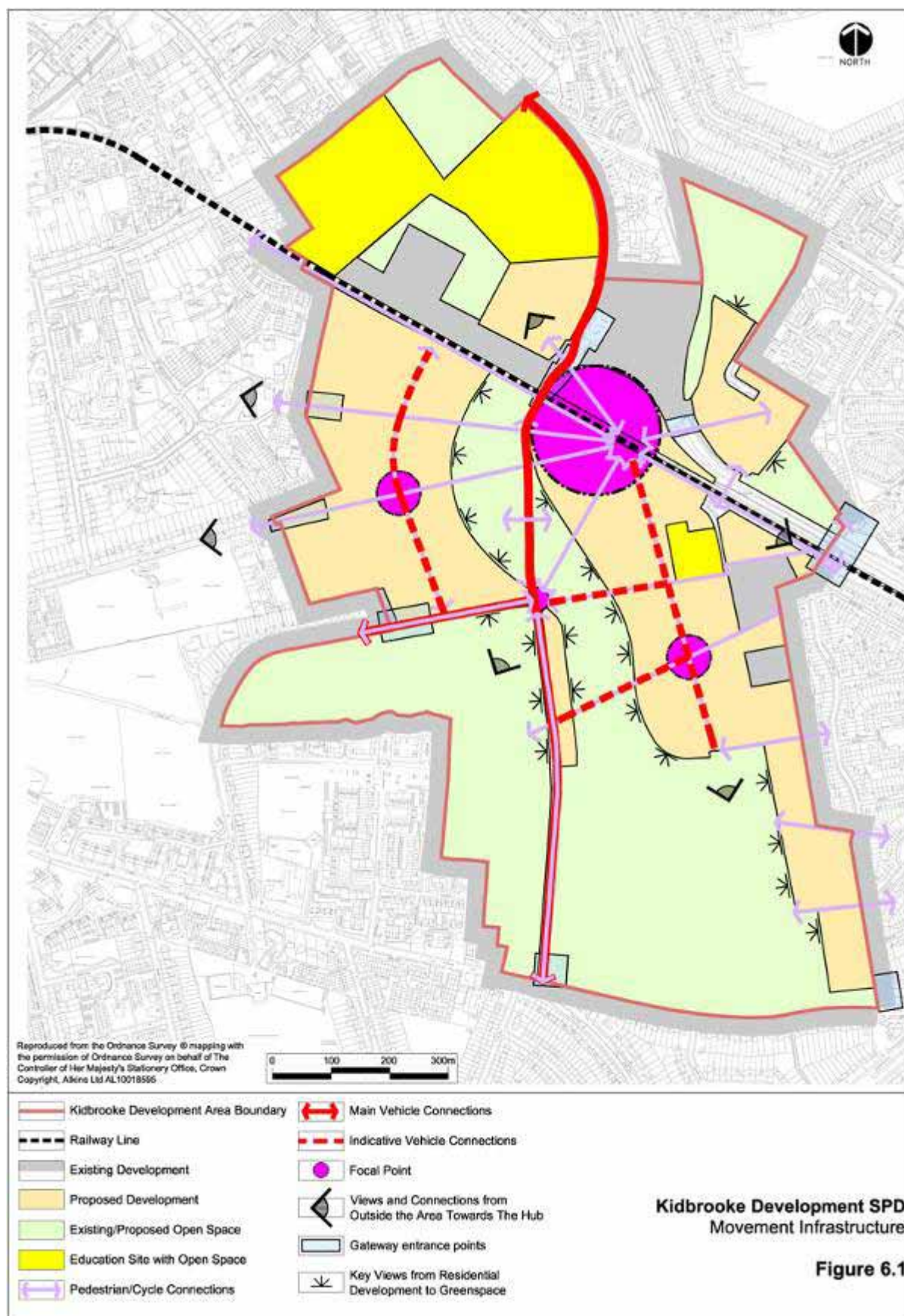
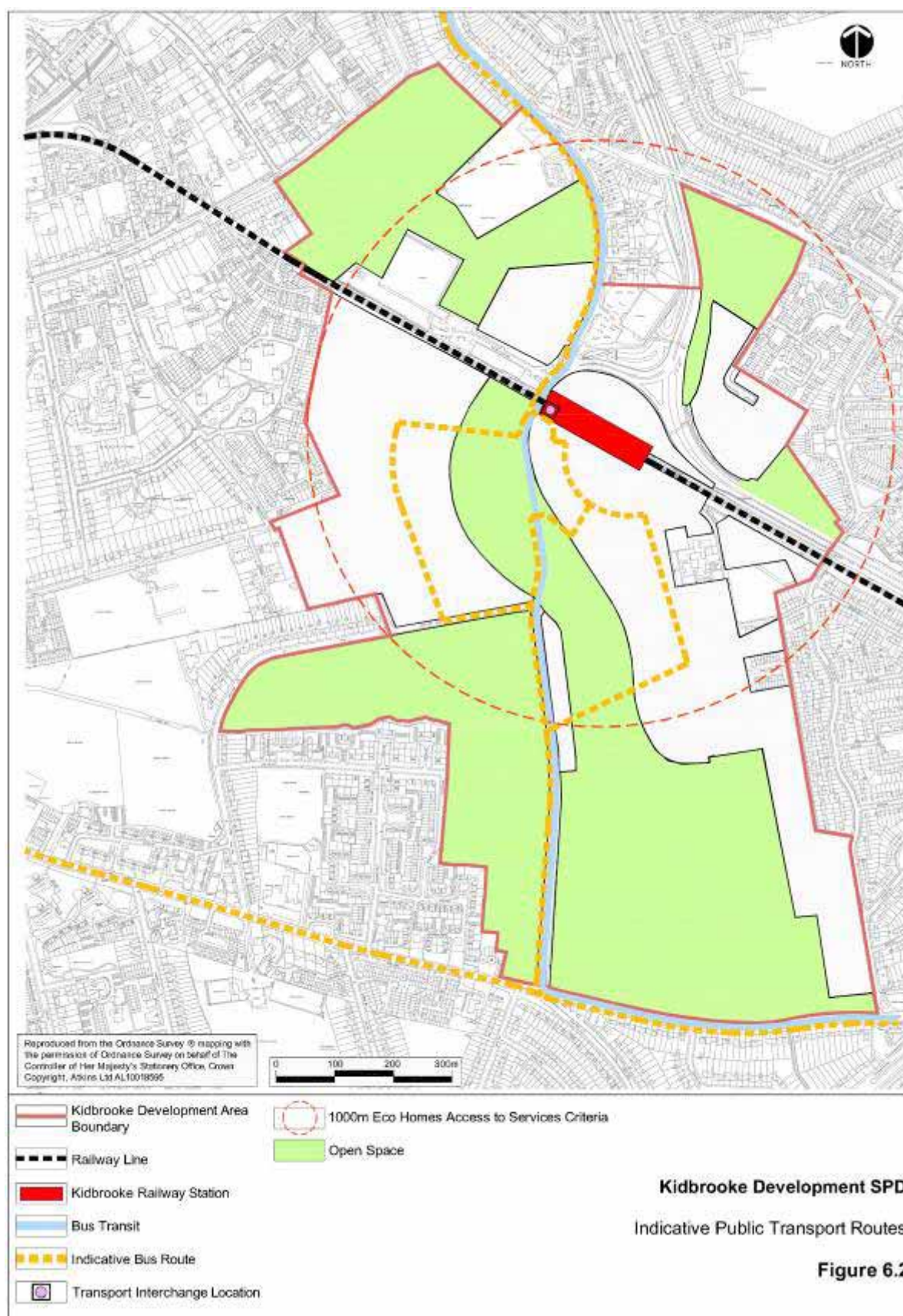


Figure 6.5 – Indicative Public Transport Routes



Sustainability Strategy

6.19 As part of achieving sustainable development proposals must address the following:

- ◆ Renewable energy – provision of at least 10% of energy from renewable sources including micro-generation and Combined Heat and Power (CHP);
- ◆ Eco Homes standard – residential developments must achieve the excellent standard (equivalent of level 3 Code for Sustainable Homes and a NHER rating of 9) and non-residential developments must achieve equivalent BREEAM standards;
- ◆ Sustainable Urban Drainage – to reduce the amount of flow and rate of surface water that runs directly to rivers. This will also aid wildlife improvements and water conservation;
- ◆ Sustainable Construction Methods – including modular construction, safeguarding potential sources of pollution and measures to prevent the use of topsoil. Consideration to the reduction of nuisance and emissions will also have to be considered in construction;
- ◆ Biodiversity – promote biodiversity and ecology in green links and overall KDA incorporating small green spaces and larger greenspace. Focal streets should provide continuous habitats through the planting of trees;
- ◆ Residential Travel Plans – reduce the number and length of car trips generated by a residential development, whilst supporting more sustainable travel modes; and
- ◆ Secured by Design – achieving a high quality built environment and community safety.

ANALYSIS OF ASSESSMENT RESULTS

- 6.20 Appendix E presents the results of the detailed assessment of the potential effects of the SPD predicted to arise from implementation of the action points. Effects have been described in terms of geographical scale, probability, timing, duration and nature. Mitigation measures and recommendations for improvements are also set out in Appendix E.
- 6.21 An analysis of the detailed assessment in terms of the significance of direct effects and potential cumulative effects follows. Suggestions for mitigation of adverse effects, and recommendations for improvements to the SPD are also set out below. The summary of assessment of the Kidbrooke SPD is presented in Table 6.2.
- 6.22 Overall the SPD for the KDA is assessed as having positive significant effects on the economic objectives, notably the Hub, aims to create a high quality mixed use area defining the development as a gateway to development and a landmark thus attracting inward investment. All the development proposals are assessed as having significant positive effects on the vitality and viability of Kidbrooke (SA objective 24).
- 6.23 Overall the SPD is assessed as having positive effects of varying significance against the social objectives. Significant positive effects were identified for SA01 (health), SA03 (crime) and SA07 (enjoyment of open spaces) given the recreational opportunities and the SPD endorsing the 'Secured by Design' principles in achieving a high quality built environment. Minor negative effects were identified on SA06 (noise) primarily due to construction related activities. Minor negative effects were also assessed against SA05 (access) as whilst the overall strategy for accessibility within the KDA would achieve significant positive effects, accessibility to parts of the Eastern Neighbourhood Area in particular is limited.
- 6.24 Positive significant effects were identified against SA objectives 11 and 12 (biodiversity) and SA13 (landscape) due to the incorporating of a green link and the protection and enhancement of MOL, parks and SNCI's as well as proposals to improve biodiversity through the planting of street trees and habitat creation. Positive significant effects were predicted against SA16 (making the best use of previously developed land) as proposed building densities are relatively high and SA19 (flooding) due to the avoidance of development within the floodplain and the maintenance and enhancement of Sutcliffe Park Flood Alleviation Scheme.
- 6.25 Slight positive effects are also likely on improving heritage (SA14), heritage (SA15), increasing energy efficiency, (SA16) making the best use of previously developed land (SA17), waste and SA 21 (contamination). The assessment of contamination is uncertain as the extent and location of contamination within the KDA at this stage is unknown.
- 6.26 Construction activities, in relation to new development, are assessed as having slight negative effects on noise, air quality, and water quality although this is likely to be limited in spatial extent. Whilst the SPD endorses sustainable construction methods to mitigate dust, emissions and noise generation from construction related activities, there is likely to be residual negative effects against SA objectives 6 (noise), 8 (air quality) and 10 (greenhouse gas emissions).
- 6.27 A mix of positive and negative effects were identified against SA objective 9, reducing traffic congestion and promoting more sustainable modes of transport.

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Although the priority of the SPD is to promote sustainable modes of transport, through the provision of a public transport interchange, a bus transit circular route, pedestrian and cyclists through the KDA, there will still be vehicle transport through and within the KDA contributing to congestion and an increase in residents within the area is likely to result in an increase in cars and journeys made resulting in minor negative effects.

- 6.28 Positive effects of varying significance on objectives SA15 (energy efficiency) SA17 (waste), SA18 (water quality) SA20 (promoting use of sustainable products and materials) due to the whole of the KDA aiming to achieve the excellent standard for residential development (equivalent of level 3 Code for Sustainable Homes and a NHER rating of 9) and non-residential developments equivalent BREEAM standards.
- 6.29 It has been concluded that the certainty of the positive effects identified through the assessment will depend on the successful implementation of the proposals in the SPD by the developer. In particular, the positive effects identified against the majority of the environmental objectives will depend on the successful implementation of the sustainability principles set out in the SPD Sustainability Strategy, notably the 'Ecohomes' standards and sustainable construction methods.

RECOMMENDATIONS FOR SUSTAINABILITY IMPROVEMENTS TO THE KIDBROOKE SPD

- 6.30 The following recommendations are made to improve the Kidbrooke SPD:
- ◆ Improving the accessibility of the Eastern Neighbourhood Area needs to be further explored.
 - ◆ The sustainability strategy should be embedded into the SPD rather than being a separate chapter. If it is decided to have a separate chapter, this should be included at the start of the SPD i.e. within Section 2 which sets out the vision and objectives for the Kidbrooke SPD. In particular objective 9 could be expanded to mention the particular aspects of sustainability covered in the Sustainability Chapter.
- 6.31 Further sustainability considerations should also be added covering the following:
- ◆ Percentage of renewable energy to be generated on site should be increased to 20% in order to meet the Mayor of London's draft further alterations to the London Plan for development to achieve a reduction in carbon dioxide emissions of 20% from onsite renewable energy generation;
 - ◆ Minimum targets for use of recycled materials in construction should be referred to in line with the Mayor of London's SPG – Sustainable Design and Construction Standards published in May 2006.
 - ◆ The Green Infrastructure could refer to the creation of meadows (i.e. leaving parts of the open space to become overgrown) and small pockets of woodland in order to enhance biodiversity within the KDA.
 - ◆ The wording of the SPD should be strengthened to protect existing trees where possible. Additional tree planting should ensure that there is no net loss, as a minimum but preferably a net gain, of numbers of trees on the site.
 - ◆ The SPD should state that a % of workforce for the new commercial Hub or construction workforce should be local workforce. This could be sought in any future S106 agreement and could be referred to in the Delivery Framework.

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- ◆ A strategy for waste management should be outlined in greater detail in the SPD such as the provision of recycling banks at the transport interchange and Hub as well as for residential areas.
- 6.32 Following discussions with the London Borough of Greenwich and with the planning team prior to the finalisation of the Draft SPD and SAR for consultation, the wording of the relevant parts of the SPD were revised to take into account, where possible, the recommendations outlined in this SAR.
- 6.33 Apart from the recommendation relating to improving the accessibility of the eastern area, it is considered that the recommendations have been addressed adequately in the Draft SPD in Sections:
- ◆ Vision and Objectives – wording of objective 9 linking to Section 6. Sustainability Strategy;
 - ◆ Proposed Urban Form – proposed Landscape Strategy now includes references to green roofs, creation of meadows and small pockets of woodland and additional tree planting;
 - ◆ Sustainability – now containing reference to recycling banks at adequate locations, remediation of contaminated land, promotion of the use of products and materials from sustainable sources and Mayor's targets for the use of recycled materials in construction, the requirement for at least 10% of the energy to be generated on site from renewable sources and for the development to be a zero carbon development;
 - ◆ Delivery Framework – requirements concerning Sustainable Development now refer specifically to the need for Flood Risk Assessments in certain areas and further consideration has been given to the local workforce in section Employment and Training.

CUMULATIVE EFFECTS

- 6.34 As detailed in Chapter 2, the Sustainability Appraisal Report has considered the cumulative nature of effects throughout the entire SA process. Cumulative effects have been recorded and analysed during the appraisal. Table 6.1 lists the results of this analysis.

Table 6.1 - Cumulative Effects of the Kidbrooke SPD

SPD Proposals	Effect	Causes	Significance
Movement Strategy, Green Link, Landscape Strategy.	Cumulative effect on increasing overall levels of health and improving access to health facilities.	Provision of new health facilities at the Hub and improvements to walking and cycling infrastructure, alongside creation of new open spaces and outdoor recreation facilities within the Green Link and Sutcliffe Park.	Significant positive effect in the long term.
Movement Strategy, Residential Proposals, The Hub	Cumulative effect on increasing accessibility to essential services.	Increasing accessibility to and from and within the KDA through the bus transit circular routes, frequency of bus stops and public transport interchange.	Significant positive effect in the long term.
All	Cumulative effect of proposals attracting inward investment and increasing economic	All proposals are likely to have a beneficial effect on the image of the area. In turn this may attract additional private sector investment in the area.	Significant positive effects in the long term.

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SPD Proposals	Effect	Causes	Significance
	diversity.		
Movement Strategy	Cumulative and synergistic effects on encouraging modal shift in the KDA to non-car modes	Proposals aimed at the locational and accessibility approach of focusing higher densities of development at the Hub and along transport corridors. Promotion of public transport proposals such as bus transit route, and dedicated pedestrian and cycle routes aimed at encouraging use of public transport and encouraging modal shift to non-car modes, particularly for short distance trips within the KDA.	Significant positive effects in the long term
Residential Proposals, The Hub	Individual effects of soil remediation improving soil quality through decontamination and reducing health risk throughout Kidbrooke. These are likely to result in a cumulative effect.	Potentially contaminated sites exist within the KDA which will require soil remediation prior to development.	Slight positive effects in the long term.

Table 6.2 - Summary of Assessment of the SPD

SA Objective	Neighbourhood Area 1: the Hub	Residential Proposals	Movement Strategy	Green Link and Landscape Strategy	Overall Assessment
SOCIAL					
1. To improve health and reduce health inequalities	++	+	+	++	++
2. To meet identified housing needs	++	+++	0	0	++
3. To promote safe communities, reduce crime and fear of crime	+	++	++	+	++
4. To improve education and skills of the local population	0	+	0	0	+
5. To improve opportunities for access for all sectors of the community	++	+++/-	++/-	++	++/-
6. To reduce adverse impacts of noise and vibration	++/-	+/-	+	+	+/-
7. To promote the enjoyment of the open spaces for recreational and amenity purposes	+	+	++	++	++
ENVIRONMENTAL					
8. To limit emissions to air to levels that will not damage natural systems to affect human health	+	+/-	+	+	+/-
9. To reduce traffic congestion, promote more sustainable modes of transport and reduce the reliance on the car	++	+/-	++	0	++/-
10. To reduce greenhouse gas emissions and promote CO2 fixing	+	+/-	+	+	+/-
11. To conserve sites of nature conservation importance and protect fauna and flora which are important on a international, national and local scale	+	0	0	+++	++
12. To avoid damage and fragmentation of habitats	+	+	0	++	++
13. To protect and enhance the quality of landscape of recognised value	0	+	0	++	++
14. To safeguard important built, historic and archaeological features.	0	+	+	0	+
15. To increase energy efficiency and the use of renewable energy in the built environment	++	++	0	0	++
16. To make the best use of previously developed land	+++	++	+	0	++
17. To reduce the generation of waste and encourage re-use and recycling of waste	+	++	0	0	+
18. To improve the quality of surface and ground waters	+	+/-	0	++	+/-
19. To reduce the risk of flooding	++	++	0	++	++
20. To promote the use of materials and products produced by sustainable materials	+	+	0	0	+

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SA Objective	Neighbourhood Area 1: the Hub	Residential Proposals	Movement Strategy	Green Link and Landscape Strategy	Overall Assessment
21. To reduce contamination and safeguard soil quality and quantity.	+	?	0	0	+
ECONOMIC					
22. To strengthen the local economy	+++	+	+	0	++
23. To improve employment and access to employment opportunities	+++	0	++	0	++
24. To enhance the viability and vitality of Kidbrooke Centre.	+++	++	++	++	++

7. Post Consultation Changes to the SPD

7.1 The consultation on the draft SPD showed that generally there was a high level of support for the principles and proposals set out in the formal consultation draft SPD. No issues or concerns were raised which were considered fundamental to the consultation draft. A number of minor changes were made to respond to comments received on the SPD. In summary², these issues relate to:

- ◆ Conservation Areas (amendment to text) – the principle of needing to protect the character of the Eltham Green Conservation Area was strengthened;
- ◆ Buildings Heights (clarification to text) – the UDP and SPD recognises that opportunities for tall buildings exist subject to design and quality consideration, however further details on building heights are not appropriate for this type of SPD (further details should be provided in any masterplan for the area);
- ◆ Densities (clarification to text) – additional text to confirm that density levels proposed by the SPD are consistent with UDP policies. Further detail on densities should be required in any masterplan for the area at planning application stage;
- ◆ Design Code (amendment to text) – change to the SPD to state that a Design Code should be developed as part of any masterplan for the area; and
- ◆ Sustainability (amendment to text) – changes made to the SPD to reflect the hierarchy set out in the London Plan with distinct sections on energy efficient design, decentralised energy and renewable energy. The overall renewable energy targets will be reviewed taking account of what is deliverable. The Code for Sustainable Homes target will remain and it is proposed that an amendment should be made to the SPD which states a target of currently “at least” 3 and rise to level 6 by 2016 in compliance with new legislation.

7.2 These amendments are likely to strengthen the sustainability performance of the SPD particularly with regards additional positive effects on the following objectives:

- ◆ To safeguard important built, historic and archaeological features;
- ◆ To reduce greenhouse gas emissions and promote CO₂ fixing; and
- ◆ To increase energy efficiency and the use of renewable energy in the built environment

² The final version of the SPD should be consulted for the final wording of the SPD.

8. Mitigation

- 8.1 The term mitigation encompasses any approach which is aimed at preventing, reducing or offsetting significant adverse sustainability effects that have been identified. In practice, a range of measures applying one or more of these approaches is likely to be considered in mitigating any significant adverse effects predicted as a result of implementing the Kidbrooke SPD. In addition, it is also important to consider measures aimed at enhancing positive effects. All such measures are generally referred to as mitigation measures.
- 8.2 However, the emphasis should be in the first instance on proactive avoidance of adverse effects. Only once alternative options or approaches to avoiding an effect have been examined should mitigation then examine ways of reducing the scale/importance of the effect.
- 8.3 Mitigation can take a wide range of forms, including:
- ◆ Refining options in order to improve the likelihood of positive effects and to minimise adverse effects;
 - ◆ Technical measures (such as setting guidelines) to be applied during the implementation stage;
 - ◆ Identifying issues to be addressed in project environmental impact assessments for certain projects or types of projects;
 - ◆ Proposals for changing other plans and programmes; and
 - ◆ Contingency arrangements for dealing with possible adverse effects.
- 8.4 However, the emphasis should be in the first instance on proactive avoidance of adverse effects. Only once alternative options or approaches to avoiding an effect have been examined should mitigation then examine ways of reducing the scale/importance of the effect.

GENERAL MITIGATION MEASURES

- 8.5 The following general measures are proposed in order to mitigate the adverse environmental effects identified during the environmental assessment.
- ◆ Project level Environmental Impact Assessments; and
 - ◆ Short term construction noise mitigation measures may include noise attenuation barriers, appropriate choices of plant and equipment and careful phasing of proposed operations in line with the phasing programme.
- 8.6 (See also Recommendations in Section 6).

9. Monitoring

- 9.1.1 The SEA Directive states that ‘member states shall monitor the significant environmental effects of the implementation of plans and programmes.....in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action’ (Article 10.1). In addition, the Environmental Report should provide information on a ‘description of the measures envisaged concerning monitoring’ (Annex I (i)) (Stage E).
- 9.1.2 SA monitoring will cover significant social and economic effects as well as significant environmental effects and it involves measuring indicators which will enable the establishment of a causal link between the implementation of the plan and the likely significant effects (both positive and negative) being monitored. In line with the SEA Directive, these significant positive and negative effects should be monitored with the implementation of the Kidbrooke SPD.
- 9.1.3 The sustainability appraisal of the Kidbrooke SPD has identified significant effects with regards to a number of SA objectives (see Table 6.2) which will require monitoring. The significant positive effects identified are:
- ◆ Effect on improving access to health facilities and reducing health inequalities (SA1);
 - ◆ Effect on meeting identified housing needs (SA2);
 - ◆ Effect on promoting safe communities, reduce crime and fear of crime (SA3);
 - ◆ Effect on improving opportunities for access (SA5);
 - ◆ Effect on promoting the enjoyment of open spaces for recreational and amenity purposes (SA7);
 - ◆ Effect on reducing traffic congestion, promote more sustainable modes of transport and reduce the reliance on the car (SA9);
 - ◆ Effect on conserving sites of nature conservation importance (SA11);
 - ◆ Effect on avoiding damage and fragmentation of habitats (SA12);
 - ◆ Effect on protecting and enhancing the quality of the landscape (SA13);
 - ◆ Effect on increasing energy efficiency and the use of renewable energy in the built environment (SA 15);
 - ◆ Effect on making the best use of previously developed land (SA 16);
 - ◆ Effect on reducing the risk of flooding (SA19);
 - ◆ Effect on strengthening the local economy (SA22);
 - ◆ Effect on improving employment and access to employment opportunities (SA23);
 - ◆ Effect on enhancing the viability and vitality of Kidbrooke Centre (SA24).
- 9.1.4 The SA framework (see Table 3.5) contains indicators which could be used to monitor significant effects post implementation. These indicators should be used as the basis for the monitoring programme bearing in mind that it will not always be necessary to collect data for all the indicators. It is suggested that the monitoring of the significant effects of the Kidbrooke SPD is integrated into the London Borough of

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Greenwich Annual Monitoring process, ensuring that those significant effects identified here are covered by adequate indicators and monitoring processes.

- 9.1.5 The Council will need to consider SA indicators to identify those that can be effectively used to monitor the sustainability effects of the Kidbrooke SPD. Monitoring frequency will also need to be considered carefully to ensure that the effects of the SPD are captured appropriately.
- 9.1.6 The monitoring programme should be disaggregated by time periods linked to the delivery of developments. It is likely that only a few of the objectives will require monitoring from the offset and these are SA objectives 11, 12 and 19. The monitoring of the remaining objectives should begin once most of the development is in place.

10. Conclusion

- 10.1 The Kidbrooke SPD has been the subject of a sustainability appraisal incorporating strategic environmental assessment and significant positive effects have been identified with regards to most social, environmental and sustainability objectives.
- 10.2 The findings of this appraisal concluded that the sustainability performance of the draft SPD could be further improved by taking account of the recommendations contained in Section 6.
- 10.3 Following discussions with the London Borough of Greenwich and with the planning team prior to the finalisation of the Final SPD and SAR, the wording of the relevant parts of the SPD has been revised to take into account, where possible, the recommendations outlined in this SAR.

11. References

Atkins Heritage, <http://www.atkinsglobal.com/skills/environmentalservices/heritage/>.

British Survey, www.britishsurvey.org. Accessed June 2005.

Crime in England and Wales 2001/2002. Home Office, www.homeoffice.gov.uk. Accessed May 2005.

Domestic Burglary Statistics, Greenwich InfoShare.

Draft Air Quality Action Plan. Greenwich Council, March 2002.

Draft Contamination Risk Assessment Desk Study. Atkins, May 2005.

Draft Practical Guide to the Strategic Environmental Assessment Directive. ODPM, the Scottish Executive, the Welsh Assembly Government and the Northern Ireland Department of the Environment, July 2004.

Economic Development Strategy. Greenwich Council, 2002.

English Heritage Register of Buildings at Risk, 2005, www.english-heritage.co.uk. Accessed May 2005.

The English Indices of Deprivation (2004) and the English Indices of Deprivation (2000). Office of the Deputy Prime Minister.

The Environmental Assessment of Plans and Programmes Regulations 2004. ODPM, 2004. European Directive 2001/42/EC. The European Parliament, 27 June 2001.

Greenwich Council, www.greenwich.gov.uk. Accessed May 2005.

Greenwich: Creating a Safer Greenwich. London Fire & Emergency Planning Authority, March 2005.

Greenwich Unitary Development Plan: Adopted. Greenwich Council, July 2006.

Interim Local Implementation Plan: an Integrated Transport Strategy for the Borough. Greenwich Council, July 2001.

Kidbrooke Development Flood Risk Assessment. Greenwich Council Kidbrooke Project Team, September 2004.

Labour Market Statistics May 2005. National Statistics.

Life Expectancy Statistics, London Health Observatory 1998-2000.

London Biodiversity Action Plan, Volume 2. London Biodiversity Partnership, 2001.

London Noise Mapping, www.londonnoisemap.com. Accessed May 2005.

London Travel Report 2003. Transport for London.

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London's Economic Outlook: Spring 2005. GLA Economics, April 2005.

National Playing Fields Association. Accessed May 2005.

Neighbourhood Renewal Unit, Office of the Deputy Prime Minister.
Accessed May 2005.

Office of National Statistics. Accessed May 2005.

Public Transport Accessibility Assessment in Kidbrooke: Final Report. South Greenwich
Regeneration Agency, November 2004.

Sounder City: a Leaflet about the Mayor's Ambient Noise Strategy. The Mayor of London,
March 2004.

Strategic Environmental Assessment Guidance for Transport Plans and Programmes.
Department for Transport, April 2004.

Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks,
Consultation Paper. ODPM, September 2004.

Transport Statistics for London 2001. Transport for London.

UK Biodiversity Action Plan. UK Biodiversity Steering Group, 1994.

Water Quality, Environment Agency. Accessed May 2005.

Census, Office of National Statistics. Accessed May 2005.

APPENDIX A

Consultation Responses on Scoping Report

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Table A1: Summary of Consultation Responses on the SA Scoping Report

Consultee	Summary of Consultation Responses	How the comment was dealt with
Environment Agency	Sustainability themes table. To reduce flood risk - the following should be added to 'implications for SPD': 'Development should reduce the surface water run-off to better manage flood risk. SUDS should be used wherever possible'. Prudent use of natural resources - the following should be added to 'implications for SPD': 'Development should look at water harvesting and grey water recycling to promote prudent use of water'.	Key Sustainability Issues Table modified (see Table 3.4).
	The Environment Agency would also like development to create enhancements for biodiversity wherever possible, and be encouraged to save on water. Bird nesting and roosting sites could be built into the structure through the incorporation of ledges, crevices and holes, where possible. In addition, the incorporation of bat roosts into the design of buildings could be considered. Green roofs - former losses of wasteland habitat can be replaced through the use of green roof systems.	Key Sustainability Issues Table modified (see Table 3.4).
	Section 3 - water quality and flood risk. The report has failed to address flood risk from surface water from over flowing sewers or overland flows. The level of risk from surface water needs to be identified and surface water source control measures introduced to better manage flood risk from surface water. The report has not indicated on flood risk due to culvert failure and identification of culvert condition and failure risk.	Key Sustainability Issues Table modified (see Table 3.4).
	Table 4.1 - a further key issue should consider surface water. The opportunity should be to introduce SUDS and surface water control. The relevance to SEA is water.	Additional issue added to revised Key Sustainability Issues Table (See Table 3.4).
	Table 5.1 - code 19 - to reduce the risk of flooding. A second indicator should be: properties with source control and/ or SUDS.	Additional indicator added to the revised SA Framework (see Table 3.5).
	Table 6.1 - assessment considerations. SA objective - code 19 - to reduce risk of flooding. Further assessment consideration could be - reduction in flood risk due to implementation of source control and SUDS.	Additional assessment consideration added (see Table 4.1).
The Countryside Agency	The Countryside Agency supports the links to PPS1 in delivering sustainable communities, together with links to the London Plan and more specifically the Greenwich Unitary Development Plan. Support is also given to the promotion of sustainable transport opportunities for residents, and the supports towards open green space.	Comment noted.
	The Council may also wish to give some consideration of PPG4 and the possibility to Live/Work units, in appropriate developments for example in Area Action Plans. These units can help to increase housing stock whilst also encouraging new businesses to the Borough and help towards achieving diverse and sustainable communities.	Comment noted.

APPENDIX B

Consultation Responses on Sustainability Appraisal Report

Table B1: Summary of Consultation Responses on the Sustainability Appraisal Report

Consultee	Summary of Consultation Responses	How the comment was dealt with
Natural England	Comments on SA key issues.	No change to SAR required. Comments are focussed on the proposals within the SPD.
	Comments on the compatibility assessment between SA and SPD objectives.	The compatibility assessment demonstrates the influence of the SA, and other factors, in the development of the final objectives for the SPD. No change to SAR required.
CgMS (for Metro. Police Authority)	Query the impact on crime levels and fear of crime - access/ routes and surveillance	Comment states that if sustainable travel modes are not achieved, road safety is likely to become a serious issue. The SAR has been undertaken assuming that, given the proposals to increase public transport accessibility, this would lead to a modal shift.
The Blackheath Society	Query the impact on employment.	Given the proposals and guidance in the SPD, compared to the baseline situation, there is likely to be positive effect on viability and vitality. Although the detailed plans of development for each plot will dictate the scale of these effects, these details will be considered at planning application stage.
	Query the impact on traffic and congestion.	See Appendix D preferred options assessment where effects on SA objective 9 (to reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car) are described in detail. No change to SAR required. Furthermore, a detailed transport assessment will accompany the planning application which will identify appropriate mitigation measures.
	Query the impact on improvement to the built environment and historic environment.	See Appendix D preferred options assessment where effects on SA objective 14 (to safeguard important built, historic and archaeological features) are described in detail. No change to SAR required.
	Use of ward level data is inappropriate.	Given the spatial availability of social and economic data, it was considered appropriate to use data from Eltham West ward as a proxy indicator for KDA.

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Consultee	Summary of Consultation Responses	How the comment was dealt with
		Comparators used include data for Greenwich and London. No change to SAR required.
	Comments on the assessment results.	Amendment to Section 6 to ensure consistency between the SPD and SAR.
	Comments on the preferred options assessment.	Amendment to Section 6 to ensure consistency between the SPD and SAR.
CABE	Query the impact on permeability and access.	Comment relates to restricted access onto the Cator Estate. No change to SAR required. Comments are focussed on the proposals contained within the SPD.
Ferrier Residents Action Group	Lack of consideration of social issues and links to existing Ferrier community.	The precise details of the decant process are beyond the scope of the SA process. However, the effects of redevelopment options were assessed in Section 5 of the SAR were the effects, including social effects, of four strategic options were assessed.
GLA	Comments on how the issue of air quality has been considered.	Relevant Air quality documents and strategies to be referred to within the SAR.

APPENDIX C

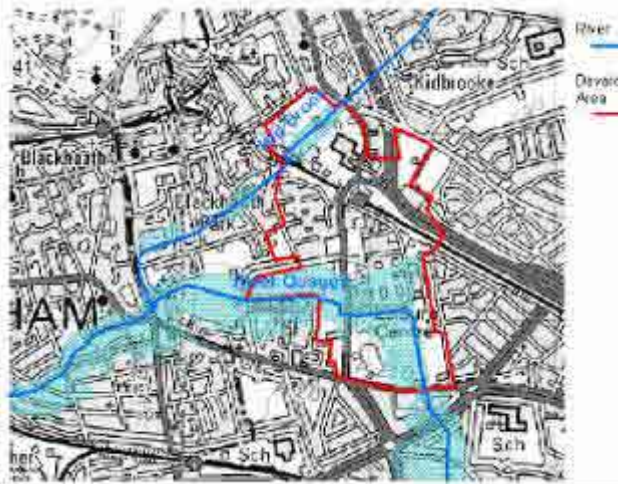
Baseline Data Tables

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Table C1 – Baseline Data, Indicators, Targets and Trends for Environmental Issues

General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
Water Quality (Biological and Chemical)	The River Quaggy and its tributary, Kid Brook, both traverse the KDA. River Quaggy Biological Water Quality (Little Quaggy – Ravensbourne) 2002: grade D 2000: grade E River Quaggy Chemical Water Quality (Little Quaggy – Ravensbourne) 2000-2002: grade B 1999-2001: grade B	General Quality Assessment (GQA) classification of river quality: A – Very good B – Good C – Fairly good D – Fair E – Poor F – Bad	Fair biological quality of River Quaggy	Environment Agency
Flood Risk	The indicative floodplain published by the Environment Agency covers approximately 30% of the proposed development area; the majority of this floodplain is associated with the River Quaggy. Kid Brook's floodplain covers a smaller area. The River Quaggy Flood Alleviation Scheme in Sutcliffe Park has a design return period capacity of 1 in 70 years. Current best practice requires the derivation of indicative flood extents for the 100-year and 100-year +20% return periods: 1 in 100-year return period – scheme provides for reduced peak flood levels downstream of the scheme 1 in 100-year +20% (allowance for climate change) return period – there is no information for the impact of the scheme on peak flood levels The depths of inundation of the Kid Brook floodplain are expected to be relatively low. Major flood defence works are not anticipated to be required for development in this area Flood storage volumes lost to development will be minor and should be easily compensated for if required	No comparators or targets applicable	Cost of constructing flood defence works in development area Constraints on land use due to flooding risk	Kidbrooke Development Flood Risk Assessment, Mott MacDonald, September 2004
	Environment Agency Indicative Floodplain			

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
				
Local Air Quality	There are 25 air quality monitoring sites in Greenwich. Greenwich Council has identified zones in which NO ₂ and PM ₁₀ levels will exceed pollution Objectives. These occur next to major roads in the Borough, including the A2, A20, and A210 which border the KDA. NO ₂ annual average levels on the A2 have fluctuated near and above the National Air Quality Objectives since 1998 (1998: 40 µg/m ³ , 1999: 45 µg/m ³ , 2000: 40 µg/m ³ , 2001: 40 µg/m ³).	No comparators of targets applicable. National Air Quality Objective for NO ₂ : 40 µg/m ³	Presence of major roads/pollution areas in/around KDA	Greenwich Council Air Quality Action Plan, March 2002
No. of Air Quality Management Areas (AQMA)	The whole of the Borough is designated an AQMA (declared 28 February 2001).	No comparators or targets applicable.	Borough policies and regulations on parking, traffic restraint and reduction, and improved and increased public transport must be addressed in development plans.	Greenwich Council Air Quality Action Plan, March 2002
Contaminated Land	Significant contamination is likely to exist within the soils and perched/shallow groundwater across the site due to the historical usage of the site. Main sources of contamination are likely to be the former RAF station (which covered much of the northern and	No comparators or targets applicable.	Costs of cleaning up contaminated land located within development area	Draft Contamination Risk Assessment Desk Study Atkins, May 2005.

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
	central part of the KDA) and the former post office depot and workshop (located to the north of the railway). Existing buildings on site may contain contaminants such as asbestos.			
Designated Sites	The majority of public open spaces in the KDA are designated as Metropolitan Open Land. 4 Sites of Nature Conservation Importance (SNCI) impacting KDA: Kidbrooke Green and Birdbrook Road Nature Reserves – Site of Metropolitan Importance, under consideration for SSSI status, located in north-east corner of site, contain a series of 7 ponds with an array of amphibian species Blackheath to Falconwood Railsides – Green corridor along railway, series of embankments with woodland, bramble and grassland, habitat for common birds and other animals Sutcliffe Park Flood Alleviation Scheme – Site of Borough Importance, Grade II, located in southern portion of development area, publicly accessible river, ponds and wetlands with vegetation and wildlife Quaggy River at Blackheath Park – Site of Borough Importance, Grade II, located just outside site's western border	No comparators or targets applicable 53 Sites of Importance for Nature Conservation (SNCI) in Greenwich	Protecting MOL from development and conserving existing levels of open space provision on site. Impact of development on neighbouring SNCI's. UDP Policy O18: "Where development is proposed on sites adjacent to protected sites of nature conservation importance, applicants must demonstrate that habitats will not be adversely affected."	Greenwich UDP: Second Deposit Draft, April 2004
Population of Species and Areas of Priority Habitat	The bluebell, marsh dock, and white mullein are rare in the Borough and have been designated as priority species Priority bird species on the decline in the Borough include the bullfinch, linnet, reed bunting, skylark, song thrush, and spotted flycatcher The great crested newt has been designated as a priority species in the Borough and a specially protected UK BAP species The common Pipistrelle bat and water vole are key London Biodiversity Action Plan mammal species	To meet 100% of the objectives set out in the London Biodiversity Action Plan	The bullfinch, linnet, reed bunting, skylark, song thrush, and spotted flycatcher are in a state of national decline and have been designated as action species in the UK Biodiversity Action Plan. Although the common Pipistrelle bat is still found in all London boroughs, the city's bat population in general is thought to have been declining since the mid-1980s. The water vole is the most rapidly declining mammal in Britain.	London Biodiversity Action Plan, Volume 2, 2001, London Biodiversity Partnership, English Nature, UK Biodiversity Action Plan

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
			The species faces the continued loss of habitat due to development, low water levels, etc.	
No. of Conservation Areas/SAMs	As of 2004, there were 20 Conservation Areas in the Borough. The Western edge of the KDA borders Blackheath Park, a large Conservation Area, and the south-eastern corner of the development area borders Eltham Green, a small Conservation Area. The Borough has six Scheduled Ancient Monuments. Eltham Palace SAM lies outside the area to the south east.	No comparators or targets applicable	Impact of bordering Conservation Areas on the development of the masterplan area and vice versa	Greenwich UDP: Second Deposit Draft, April 2004
Archaeological Sites	There are 1,615 non-designated archaeological sites in Greenwich, some of which are listed buildings (Source: Greater London Sites and Monuments Record, Greater London Archaeological Advisory Service). The UDP identifies several areas of archaeological potential throughout the Borough; one particular site is situated along the northern border of the KDA. Other archaeological potential sites include Near Delme Crescent, along the course of the Kid Brook and Quaggy River, along Kidbrooke Park Road and Near Nelson Mandela Way (relating to RAF Kidbrooke).	No comparators or targets applicable	Impact of bordering archaeological site on the development of the masterplan area	Atkins Heritage, Greenwich UDP: Second Deposit Draft, April 2004
No. of Listed Buildings and Proportion at Risk	As of 2005, there were 968 listed building entries for Greenwich. Eltham Palace and Morden College are located close to the site and are featured on the Scheduled Monument Record. The Borough has 20 listed buildings classified as being at risk by English Heritage; this is 3.6% of all listed buildings in Greenwich.	Nationally 3.5% of Grade I and Grade II* listed entries are at risk in England and Wales	Potential visual and aesthetic impact affecting (positively or negatively) the setting of listed buildings	English Heritage Register of Buildings at Risk 2005, Atkins Heritage

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Table C2 – Baseline Data, Indicators, Targets and Trends for Social Issues

General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
Resident Population and Age	The resident population of Eltham West is 13,438, of which 47% are male and 53% are female (2001). The average age of residents in Eltham West is 34.6 (2001).	The resident population of Greenwich is 214,403, of which 48% are male and 52% are female (2001). The average age of Greenwich residents is 35.8 (2001).		2001 Census, Office of National Statistics
Resident Ethnicity	Eltham West (2001): 81.4% White 1.8% Asian or Asian British 11.2% Black or Black British 3.3% Chinese or Other Ethnic Group 2.3% Mixed	Greenwich (2001): 77.1% White 6.8% Asian or Asian British 11.1% Black or Black British 2.3% Chinese or Other Ethnic Group 2.7% Mixed	Eltham West is slightly less diverse than the whole of Greenwich.	2001 Census, Office of National Statistics
Proportion of People with Self-Assessed Good Health	65.4% in Eltham West (2001)	68.4% in Greenwich (2001) 68.6% in England and Wales (2001)	Health rate slightly lower than is reported in Greenwich and the whole of England and Wales	Office of National Statistics
Life Expectancy	Eltham West: 73.2 for males 78.9 for females	Greenwich: 74.0 for males 79.7 for females London: 75.4 for males 80.3 for females	Both male and female life expectancies lower for Eltham West than for Greenwich and London	London Health Observatory 1998-2000

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
Housing	2.5 – Average household size in Eltham West (2001) 5,302 households in Eltham West ward (2001): 29% one person households 11% pensioners living alone 6% other pensioner households 36% contain dependent children 14% lone parent households with dependent children Housing tenure in Eltham West (2001): 36% own their homes 56% rent from Council 4% rent from HA or RSL 4% rent privately or live rent-free	2.3 – Average household size in Greenwich (2001) 92,788 households in Greenwich (2001): 37% one person households 14% pensioners living alone 6% other pensioner households 30% contain dependent children 11% lone parent households with dependent children Housing tenure in Greenwich (2001): 49% own their own homes 29% rent from Council 10% rent from HA or RSL 12% rent privately or live rent-free	Lower incidence of home ownership and private renting in Eltham West than in Greenwich. High levels of dependency on Council-owned affordable housing in Eltham West.	www.britishsurvey.org
Areas of Open space/outdoor recreation (ha of open space per 1,000 urban population)	Approximately 25% of Greenwich's land area is open space (1,272 ha). According to mid-2003 population estimates (223,800), this equates to approximately 5.7 ha of open space per 1,000 population.	The National Playing Fields Association recommends a minimum provision of 2.4 ha of open space per 1,000 population.	In terms of average open space provision across the Borough, there is no open space deficiency in Greenwich. However, the geographical distribution of open spaces in the Borough causes poor accessibility/availability in certain areas.	www.greenwich.gov.uk, Office of National Statistics, National Playing Fields Association
Areas of Open Space Deficiency	A small portion of the northwest corner of KDA is designated a Local Park Deficiency Area.	No comparators or targets applicable	The geographical distribution of open space in the Kidbrooke masterplan may positively or negatively impact surrounding areas' access to open space.	Greenwich UDP: Second Deposit Draft, April 2004
Noise Levels	Areas with particularly high levels of noise: A2 Blackwall Tunnel Approach, creating major junction in north-eastern corner of development site: 55-80 dB A2213, running north-south through development site: 55-70 dB A210, bordering southern edge of development site: 55-70 dB A20, bordering southern edge of development site: 55-75 dB	46% of Londoners polled in 2003 considered noise a problem, and 24% included noise as one of their top priorities for improving the quality of the environment in London.	Heavily-travelled roads encircling development site	www.londonnoisemap.com, 'Sunder City : a Leaflet About the Mayor's Ambient Noise Strategy', March 2004, The Mayor of London
Domestic Burglary	106 domestic burglaries in Eltham West (2003-2004)	1,972 domestic burglaries in Greenwich (2003-2004)	Domestic burglary rate slightly lower than that of Greater London	Greenwich InfoShare

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
		Domestic burglaries in Eltham West accounted for 5% of all domestic burglaries in Greenwich (2003-2004)		
Overall Crime Rate per 1000 Population	67 crimes per 1,000 population in Greenwich (2001)	145 crimes per 1,000 population in Greater London (2001)	Crime rate significantly lower than that of Greater London	Crime in England and Wales 2001/2002, Home Office
No. of Traffic Accidents	6.64 road casualties per 1,000 population in Greenwich (2002-2003)	Greater London average of 6.19 road casualties per 1,000 population (2002-2003)	Road casualty numbers in Greenwich slightly higher than the Greater London average	London Travel Report 2003, Transport for London
Traffic Volumes	The A2 Rochester Way Relief Road, passing through the northeast corner of the development site, combined with the Blackwall Tunnel Southern Approach portion has an annual average daily traffic flow (AADT) of 108,000. This makes the A2 the busiest and most polluted road in the Borough. The A20 Sidcup Road, passing along the southern border of the development site, has an AADT of 50,000.	No comparators or targets applicable	Finding means of reducing the effects of vehicle traffic, noise, and pollution on the adjacent development sites	Greenwich Council Draft Air Quality Action Plan, March 2002

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
Public Transport Accessibility (PTAL)	PTAL scores in KDA: Area around Kidbrooke Station = 3.5 East-west band across the Ferrier Estate = 2 Remaining land in Vision area = 3 Existing rail services: Kidbrooke train station – small station building with street-side parking for 30 cars One rail line from Dartford to London via Bexleyheath 11 peak trains per hour (tph); 4 off-peak tph Existing bus service routes near to Masterplan area: B16, 178 122, 286, 321 (do not enter KDA) According to a 2001 South Greenwich Transport Study household survey of Ferrier Estate residents, most users of Kidbrooke Station: Are aged between 45 and 59 Are of white origin Are employed Do not have children Do not own a car Use the station most often on Mondays	PTAL score index: 6 to 4 – sites within 10 minutes walking distance of a town centre 3 to 2 – sites along transport corridors and sites close to a town centre 1 – low levels of accessibility, reliability, and frequency	Kidbrooke-specific transport issues: Poor public transport access to employment growth areas (i.e. Greenwich Waterfront) Poor accessibility from development area to major employment areas, health and social care services, shopping and entertainment No direct link to Greenwich Peninsula and North Greenwich Jubilee Line Extension Station Buses currently take a long route around the edge of Ferrier Estate, instead of passing through the centre and serving a more concentrated area of residents	Interim Local Implementation Plan: an Integrated Transport Strategy for the Borough, July 2001, Greenwich Council, Public Transport Accessibility Assessment in Kidbrooke: Final Report, November 2004, South Greenwich Regeneration Agency

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Problems/Constraints	Source
Modal Split	Daily trips to and from the Ferrier Estate (2001): 37% bus 31% car 12% train 11% walk 2% taxi/minicab 2% motorcycle 1% bicycle	Trips made in all zones in South Greenwich SRB (2001): 35% bus 40% car 11% train 8% walk 2% taxi/minicab 1% motorcycle 1% bicycle Trips made in Greater London (2001): 9% bus 50% car/motorcycle 5% Underground/DLR 3% train 29% walk 1% taxi/minicab 1% bicycle	The proportion of bus journeys among Ferrier Estate residents is similar to that found across South Greenwich SRB zones and significantly higher than that found in Greater London. Bus passenger volumes across Greater London have risen by 36% over the past 10 years. Car usage in the Ferrier Estate area significantly lower than in both the South Greenwich SRB zones and Greater London Higher proportions of pedestrian journeys in the Kidbrooke area than in the surrounding South Greenwich SRB zones	Transport Statistics for London 2001, Public Transport Accessibility Assessment in Kidbrooke: Final Report, November 2004, South Greenwich Regeneration Agency
% of Households with a Car	58.5% of Eltham West households have access to at least one car/van (2001).	Households with access to at least one car/van (2001): Greenwich – 59.2% Greater London – 63% England and Wales (excluding Greater London) – 73.2%	Car access/usage in Eltham West is closely similar to that in Greenwich, but lower than in Greater London and the whole of England and Wales.	Transport for London, Office of National Statistics
Disabled Access	Nearly all London buses have low floor accessible buses. People with walking difficulties make 30% fewer trips than people without disabilities. Disabled persons make a majority of their trips by bus. Wheelchair users make very few trips by public transport.	No comparators or targets applicable	UDP Policy M33: "...New development to which the public will have access...should make provision for reserved parking and setting down/picking up points for vehicles for people with disabilities...and suitable waiting areas should be provided."	Public Transport Accessibility Assessment in Kidbrooke: Final Report, November 2004, South Greenwich Regeneration Agency, Greenwich UDP: Second Deposit Draft, April 2004

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Table C3 – Baseline Data, Indicators, Targets and Trends for Economic Issues

General Indicator	Quantified Data	Comparators and Targets (if applicable)	Trends	Problems/ Constraints	Source
Economic Growth	Economic growth sectors in Greenwich: Tourism and hospitality Sports and leisure Creative industries Arts and filming ICT and knowledge-based business Business and financial services Major employment sectors in Greenwich (2005): 25% health and education 17% wholesale and retail 13% business services 10% public administration 9% manufacturing 5% creative industries / arts and filming Greenwich's manufacturing sector has remained strong despite the decline in other parts of London. Greenwich productivity scores (Gross Value Added per worker): £16,441 (2001) £15,275 (2000)	London productivity scores (GVA per worker): £20,952 (2001) £17,720 (2000)	The number of manufacturing jobs in Greenwich is increasing after a decline in the 1980's and early 1990's. Productivity in the Borough may be on the rise.		Office of National Statistics, Neighbourhood Renewal Unit, Office of the Deputy Prime Minister, Greenwich: Creating a Safer Greenwich, March 2005, London Fire & Emergency Planning Authority, Labour Market Statistics May 2005, National Statistics, London's Economic Outlook: Spring 2005, April 2005, GLA Economics, Economic Development Strategy, 2002, Greenwich Council

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Trends	Problems/ Constraints	Source
Unemployment Rate	In 2001, Eltham West had an unemployment rate of 7.0%.	In 2001, Greenwich had an unemployment rate of 5.4%. In 2001, London had an unemployment rate of 4.4%. In 2001, England and Wales had an unemployment rate of 3.4%.	Since 2001, the national unemployment rate has remained around 5%. Unemployment in Greater London is persistently higher than the national average. Greenwich's unemployment has been consistently higher than Greater London's, but unemployment in the Borough has been decreasing in recent years.	It is estimated that 25,000 new jobs will be created in Greenwich by 2010.	2001 Census, Office of National Statistics
Education and Skills	Percentage of Greenwich pupils achieving 5 or more GCSEs graded A* to C: 2003-2004: 40.2% 2002-2003: 35.7% 2001-2002: 33.5% 2001 percentage of Eltham West residents with no qualifications: 39.5% 2003 employment rate of those with lowest/no qualifications: 33.9%	Percentage of London pupils achieving 5 or more GCSEs graded A* to C: 2003-2004: 52.8% 2002-2003: 50.6% 2001-2002: 48.4% Residents with no qualifications (2001): Greenwich 29.4% England and Wales 29.1% 2003 London-wide employment rate of those with lowest/no qualifications: 41.1%	GCSE performance in Greenwich has dramatically increased over the last few years. Greenwich employment rate of those with lowest/no qualifications has decreased since 2001.	Eltham West has a significantly higher proportion of residents with no qualifications than does Greenwich or the whole of England and Wales. Greenwich has a significantly lower employment rate for those with lowest/no qualifications than is found in London.	Office of National Statistics, Neighbourhood Renewal Unit, Office of the Deputy Prime Minister, Greenwich: Creating a Safer Greenwich, March 2005, London Fire & Emergency Planning Authority, Labour Market Statistics May 2005, National Statistics, London's Economic Outlook: Spring 2005, April 2005, GLA Economics, Economic Development Strategy, 2002, Greenwich Council

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General Indicator	Quantified Data	Comparators and Targets (if applicable)	Trends	Problems/ Constraints	Source
Deprivation	2004 rankings for Greenwich: Average deprivation score – 10th most deprived Local Authority in Greater London Income scale – 13th most deprived Local Authority in Greater London Employment scale – 14th most deprived Local Authority in Greater London	2000 rankings for Greenwich: Average deprivation score – 8th most deprived Local Authority in Greater London Income scale – 11th most deprived Local Authority in Greater London Employment scale – 13th most deprived Local Authority in Greater London	Greenwich's deprivation score rankings suggest that levels of deprivation in the Borough have decreased/improved since 2000.	Trend of decreasing deprivation	Office of National Statistics, The English Indices of Deprivation (2004) and The Indices of Deprivation (2000), Office of the Deputy Prime Minister

APPENDIX D

Options Assessment

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Table D1 – Assessment of the range of options for achieving the Vision of Kidbrooke Development Area and the Ferrier Estate

Scale of effect (SE): ++ major positive, + minor positive, - minor negative, --major negative, +/- range of positive and negative effects

	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
SOCIAL								
1. To improve health and reduce health inequalities	--	The Kidbrooke area is likely to remain isolated from the wider community, with the areas of open space on site continuing to be poorly utilised. Opportunities for recreation continue to be limited. Community and health facilities are likely to remain largely inaccessible.	--	This option would retain existing levels of amenity and open space, but it may remain under-used, inaccessible to the public and may continue to attract anti-social behaviour. Options for recreation continue to be limited. New community and health facilities would be difficult to provide.	+/-	In redeveloped areas of the estate, there would be scope for improved use and integration of open space and potentially greater opportunities for recreation. However, depending on the chosen form of development/ refurbishment, the lack of integration due to poor layout could hinder recreational opportunities. There would be potential to provide a range of community facilities, including a health centre; however this would be dependent on implementation.	++	Complete redevelopment offers the potential to create new usable open spaces that would increase the recreational opportunities available to residents. New community and health facilities would greatly increase the accessibility of health care.
2. To meet identified housing needs	--	The current layout of Kidbrooke does not represent the best use of the available land and housing density is relatively low compared to contemporary urban	--	Refurbishment is unlikely to provide a mixed tenure neighbourhood and the Kidbrooke area would remain isolated and excluded from the surrounding area.	+/-	There would be potential to provide a mixed neighbourhood with greater integration with the surrounding area. However, depending on	++	This option would deliver a mixed use neighbourhood, integrated with the surrounding area. There would be scope to ensure mixed tenure and the

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
		design 'best practice'.				chosen form of development/ refurbishment, the lack of integration due to poor layout and design of the Ferrier Estate could remain on the unfurnished blocks.		provision of at least 1,500 new dwellings. Enables the provision of 1,900 affordable homes.
3. To promote safe communities, reduce crime and fear of crime	--	The Ferrier Estate currently suffers from high levels of crime and vandalism and this is unlikely to change.	-	Limited development of the wider area would retain the existing level of amenity space, but it may remain underused, inaccessible to the public and may continue to attract anti-social behaviour and crime.	+/-	This option would provide certain areas of the estate with a more secure environment. Refurbished areas may remain isolated and prone to anti-social behaviour.	++	In the long term, comprehensive redevelopment would create a safer and more secure community, benefiting the wider South Greenwich area and reducing the fear of crime. Greater social inclusion, neighbourhood accessibility, and a mixed residential community would promote safer communities.
4. To improve education and skills of the local population	--	The condition of school buildings in the locality is generally poor being difficult to expand and adapt to changing requirements.	-	Refurbishment would make it difficult to provide a new school and transport infrastructure improvements.	+/-	Depending on the nature of which blocks are developed, there is potential to provide a range of community facilities. It is not clear whether a new school could be provided. However, depending on the chosen form of development/ refurbishment, the lack of integration due to poor layout and design of the	++	This option provides the opportunity to create a new neighbourhood centre which will facilitate a greater potential for new and improved educational community facilities.

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
						Ferrier Estate could remain on the refurbished blocks.		
5. To improve opportunities for access to education, employment, recreation, health, community services and cultural opportunities for all sectors of the community	--	A range of community facilities are provided on site, however they have poor facilities and be difficult to access. Lack of critical mass of users to support a variety of community facilities.	--	The Kidbrooke area would remain isolated and excluded from the surrounding area, and it would be difficult to provide new transport facilities.	+	There would be some potential for greater integration with the surrounding area and scope to provide an improved and modern transport interchange. Potential for greater integration with the surrounding area, however the lack of integration due to poor layout and design of the Ferrier Estate could remain on the unfurnished blocks.	++	This option would provide a mixed neighbourhood with greater potential for integration with the surrounding area. Comprehensive redevelopment provides the opportunity to create a new town centre focussed around the transport interchange.
6. To reduce adverse impacts of noise and vibration	-	Heavy travelled roads encircle the development site. Current levels of noise exposure would continue.	+/-	Refurbishment would result in noise and vibration disturbance during construction. Potential for long term reductions to noise exposure to residents by improved noise insulation.	+/-	Refurbishment would result in noise and vibration disturbance during construction. Potential for long term reductions to noise exposure to residents by improved noise insulation. Improved public transport provision has the potential to reduce road traffic and associated noise pollution.	+/-	Comprehensive redevelopment would result in noise and vibration disturbance during construction. Potential for long term improvements to noise exposure to residents by improved noise insulation and layout of dwellings. Improved public transport provision has the potential to reduce road traffic and associated noise pollution.
7. To promote the	--	Open space areas are	--	Refurbishment is unlikely	+	There is potential for	++	There could be

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
enjoyment of the Borough's open spaces for recreation and amenity purposes		poorly organised, under-utilised and unattractive as recreational and amenity spaces. Public transport links are likely to be poorly utilised (see assessment of SEA objective 9).		to increase the usage of open spaces around the estate. Public transport links are likely to be poorly utilised (see assessment of SEA objective 9).		improvements to the Ferrier Estate's communal areas, as well as enhanced open spaces around the estate. Partial development of the estate may be insufficient to remove the physical and social barriers to wider open spaces.		improvements to the areas open spaces to make them more attractive and better utilised. Transport improvements would increase accessibility to open spaces.
ENVIRONMENTAL								
8. To limit emissions to air to levels that will not damage natural systems to affect human health	+	Emissions to air are likely to remain relatively low due to low car use and the high percentage of bus and pedestrian trips. See also assessment of SEA objective 9.	+	Emissions to air are likely to remain relatively low due to low car use and the high percentage of bus and pedestrian trips. See also assessment of SEA objective 9.	+/-	Emissions to air may rise as car ownership may increase, however this may be offset by increased bus and train usage through an improved transport interchange. See also assessment of SEA objective 9.	+/-	Emissions to air may rise as car ownership may increase, however this may be offset by increased bus and train usage through an improved transport interchange. See also assessment of SEA objective 9.
9. To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car	+	Currently, car usage in the Ferrier Estate is low and there are higher proportions of pedestrian and bus journeys in the Kidbrooke area than surrounding areas, however this is more related to affordability rather than due to the good accessibility of public transport. Public Transport Accessibility levels are low	+	This option is unlikely to provide a mixed tenure neighbourhood, and car usage would remain low due to economic reasons. There may be some scope to improve transport linkages but it would be difficult to maximise these mainly due to physical restraints.	+/-	The Council would be in a position to provide a mixed neighbourhood, however there would be potential for greater car ownership due to the higher affordability of new residents. However, this could be offset from the potential for an improved and modern transport interchange.	+/-	The Council would be in a position to provide a mixed neighbourhood, however there would be potential for greater car ownership due to the higher affordability of new residents. However, this could be offset by vastly improved transport accessibility, through improved rail and bus provision and the creation of a new town centre focussed around and an improved

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
		to moderate through the Kidbrooke area.						transport interchange. Measures may be required to encourage public transport usage. Footways and cycleways could be integrated within the development with this option.
10. To reduce greenhouse gas emissions and promote CO2 fixing	+	Greenhouse gas emissions are likely to remain relatively low due to low car use and the high percentage of bus and pedestrian trips. See also assessment of SEA objective 9.	+	Greenhouse gas emissions are likely to remain relatively low due to low car use and the high percentage of bus and pedestrian trips. See also assessment of SEA objective 9.	+/-	Greenhouse gas emissions may rise as car ownership may increase with increased population, however this may be offset by increased bus and train usage through an improved transport interchange. See also assessment of SEA objective 9.	+/-	Greenhouse gas emissions may rise as car ownership may increase with increased population, however this may be offset by increased bus and train usage through an improved transport interchange and new town centre focussed around an improved transport interchange. See also assessment of SEA objective 9.
11. To conserve sites of nature conservation importance and protect fauna and flora which are important on an international, national and local scale	+	Sites of Nature Conservation Importance on the site would remain undisturbed.	+	Sites of Nature Conservation Importance on the site would remain undisturbed.	+/-	Sites of Nature Conservation Importance are likely to remain undisturbed. Partial refurbishment and development of the Ferrier Estate may have a negative impact on the local biodiversity of green court yard areas, and may result in the loss of some trees.	+/-	Sites of Nature Conservation Importance are likely to remain undisturbed. However, comprehensive redevelopment would be likely have a negative impact on the local biodiversity of green court yard areas and may be destroyed. However, there would be an

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
						There would be an opportunity to enhance sites of Nature Conservation Importance through scheme proposals.		opportunity to recreate new habitats and enhance sites of Nature Conservation Importance through scheme proposals.
12. To avoid damage and fragmentation of habitats	+	Sites of Nature Conservation Importance and species on the site would remain undisturbed.	+	Sites of Nature Conservation Importance and species on the site would remain undisturbed.	-	It is likely that Sites of Nature Conservation Importance would remain undisturbed as development is unlikely to fragment habitats. However, non-designated habitats (such as green court yards and areas surrounding the station) may be lost through partial development of the wider area.	-	It is likely that Sites of Nature Conservation Importance would remain undisturbed as development is unlikely to fragment habitats. However, non-designated habitats (such as green court yards and areas surrounding the station) may be lost through the comprehensive redevelopment of the wider area.
13. To protect and enhance the quality of landscape of recognised value	-	Currently, there is a poor visual and physical relationship between the Ferrier Estate and Kidbrooke Station.	-	The poor visual and physical relationship would remain between the Ferrier Estate and Kidbrooke Station.	+/-	Partial development would have the potential to improve the visual layout of the site, however the lack of integration and poor layout of the Ferrier Estate could remain on the refurbished blocks.	++	Comprehensive redevelopment would allow the design of a sympathetic development greatly improving the layout and physical presence of the site.
14. To safeguard important built, historic and archaeological features	-	The current site is not sympathetic to the setting of nearby Conservation Areas.	-	Refurbishment of the site and limited development of the wider area would be unlikely to have an effect on the overall setting of the area, and the site would remain as	+/-	Partial redevelopment would have the potential to improve the setting of the site, however the refurbished blocks may continue to have a negative effect on the overall setting	+/-	Comprehensive redevelopment would allow the sympathetic integration of the new development with existing features and Conservation Areas.

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
				being unsympathetic to the setting of nearby Conservation Areas.		of the area. Sites of identified archaeological potential may be disturbed during construction.		Sites of identified archaeological potential may be disturbed during construction.
15. To increase energy efficiency and the use of renewable energy in the built environment	-	The current site provides no renewable energy provision and would be considered of low energy efficiency when compared to contemporary standards.	+	Refurbishment would present the opportunity to introduce renewable energy sources on site and improve energy efficiency levels.	+	Refurbishment would present the opportunity to introduce renewable energy sources on site and improve energy efficiency levels.	++	Comprehensive redevelopment would provide the opportunity to meet modern industry standard energy efficiency levels and integrate renewable energy into the development.
16. To make the best use of previously developed land	-	The current site layout does not present the best use of the available land.	-	The currently site layout would not significantly change from the present situation.	+/-	Partial development of the wider area could make better use of the area, however the refurbished areas would still remain as a relatively inefficient use of land.	++	Comprehensive redevelopment would present the best opportunity to make the best use of the site with improved layout and integration with the surrounding area.
17. To reduce the generation of waste and encourage re-use and recycling of waste	--	The current site layout does not encourage the re-use and recycling of waste through the lack of facilities.	+	Improved re-use and recycling facilities could be built into refurbished areas.	+	Improved re-use and recycling facilities could be built into refurbished areas, however developed areas could benefit from the integration of re-use and recycling facilities into new development.	++	Comprehensive redevelopment allows the total integration of re-use and recycling facilities into the new development.
18. To improve the quality of surface and ground waters	-	The River Quaggy and Kid Brooke would maintain current water quality levels, as far as discharges from the Kidbrooke area	-	The River Quaggy and Kid Brooke would maintain current water quality levels, as far as discharges from the	+/-	Partial development of the wider area may increase surface runoff through additional impermeable surfaces, with the potential	+/-	Comprehensive redevelopment of the site may increase the total amount of impermeable surface and increase surface

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
		are concerned.		Kidbrooke area are concerned.		to carry contaminants which may have a negative effect on water quality. However, water quality could be enhanced through the use of Sustainable Urban Drainage Systems.		runoff which may have a negative effect on water quality. However, redevelopment presents the opportunity to incorporate Sustainable Urban Drainage Systems into the development with the potential for medium to long term improvements in water quality.
19. To reduce the risk of flooding	+	Current low levels of flood risk would be maintained.	+	Current low levels of flood risk would be maintained.	+/-	Partial development of the wider area may increase surface runoff with a potential negative effect on flood risk. Source control and Sustainable Urban Drainage Systems could be introduced to minimise attenuate flows and reduce flood risk.	+/-	Comprehensive redevelopment of the site may increase the total amount of impermeable surface and increase surface runoff with a negative effect on flood risk. Source control and Sustainable Urban Drainage Systems could be introduced to minimise attenuate flows and reduce flood risk.
20. To promote the use of materials and products produced by sustainable materials	-	No change to current situation.	+	Refurbishment would present the opportunity to use materials and products produced by sustainable methods.	++	Refurbishment would present the opportunity to use materials and products produced by sustainable methods.	++	Comprehensive redevelopment would present the opportunity to use materials and products produced by sustainable methods.
21. To reduce contamination and safeguard soil quality	-	Significant contamination is likely to exist within the soils and perched/shallow	-	Refurbishment would not present the opportunity to remediate	+	Partial development of the wider area would provide a limited opportunity to	++	Comprehensive redevelopment would provide the opportunity to

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
and quantity		groundwater across the site due to historical usage of the site.		contaminated land where that is necessary.		remediate contaminated land where that is necessary.		remediate large areas of contaminated land where that is necessary.
ECONOMIC								
22. To strengthen the local economy	-	Local businesses are limited by the poor state of the existing Telemann Square.	-	There is limited opportunity for Telemann Square to support local businesses. Refurbishment would do little to improve these facilities.	+/-	Part redevelopment may present an opportunity to provide a new focus for commercial and community facilities around an improved transport interchange, however partial redevelopment may be insufficient to remove the physical and social barriers to regeneration of the wider area.	++	Comprehensive redevelopment provides the opportunity to create a new town centre focussed around an improved transport interchange. This would present a range of commercial and community facilities and would maximise the growth potential for local businesses.
23. To improve employment and access to employment opportunities	-	Local job creation is currently poor with poor linkages to employment opportunities.	-	The potential for new job creation and inward investment would be negligible.	+	This option presents an opportunity to create a new focus for commercial and community facilities, and has potential for providing a degree of inward investment encouraging new jobs and training.	++	This option offers the greater potential for job creation in the area and provides access to employment centres outside of the area.
24. To enhance the viability and vitality of Kidbrooke centre	-	Telemann Square, the main neighbourhood centre, is derelict with closed shops and businesses.	-	There is limited opportunity for Telemann Square to support local businesses. Refurbishment would do little to improve these facilities.	+	This option presents an opportunity to create a new focus for commercial and community facilities, and has potential for providing a degree of inward investment, although this would be dependent on	++	This option presents the opportunity to create a new commercial town centre focussed around the transport interchange and will support a range of commercial and community facilities.

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	Option 1: No change.		Option 2: Refurbishment of the Ferrier Estate and limited development of the wider area		Option 3: Partial refurbishment/partial development of the wider area.		Option 4: Comprehensive redevelopment of the Ferrier Estate and the wider area.	
SA/SEA Objective	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation	SE	Comments/ explanation
						which parts of the Ferrier Estate are demolished.		

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Table D2: Appraisal of the UDP Policy

UDP Policy H4	‘the Kidbrooke Development Area, as defined on the Proposals Map, is designated as a mixed use residential led regeneration area. The redevelopment and regeneration of this area will be required to deliver the following objectives: Creating a mixed neighbourhood and community integrated with the surrounding area providing a sustainable environment; Provision of a total of 4,400 dwellings which will include the replacement of 1,900 affordable homes; Creating quality open spaces; Providing a local shopping centre which acts a commercial hub for the area; An improved transport interchange and public transport to and from the area; On Greenfield sites in the development area in recognition of the economics of housing provision 50% affordable housing should be sought. Development proposals will be expected to take account of the proposed masterplan which is to be the basis of supplementary planning guidance. Any proposals which would be detrimental to the implementation of any aspect of the masterplan will be resisted’.					
	Scale of Effect (SE): ST – Short Term, MT – Medium Term, LT – Long Term					
	0 – no effect; +++ strongly positive; ++ moderately positive; + slightly positive; --- strongly negative; -- moderately negative; - slightly negative					
SA/SEA Objectives		Description of Effect	Scale of Effect			Comments/Explanation
			ST	MT	LT	
SOCIAL						
01	To improve health and reduce health inequalities	The policy does not directly refer to health provision, and no direct effect on health is likely from the policy wording. However, the creation of quality open spaces has the potential to increase recreation participation with an associated positive secondary effect on improved levels of health. The positive effect is likely to be limited to the Kidbrooke and immediate surrounding areas, and is likely to be long term and permanent.	+	+	+	The UDP Policy has no direct effect on health as the policy does not specifically mention health provision, and the scale of the effect will be dependent on implementation measures contained in Supplementary Planning Guidance. Improved, quality open spaces are likely to be more usable by the public with the potential for increased recreation and participation in sporting activities.
02	To meet identified housing needs	The creation of a mixed use neighbourhood, providing a total of 4,400 dwellings including the replacement of 1,900 affordable homes, will have a significant positive effect on meeting identified housing needs through the provision of an additional 1,500 new dwellings with a mix of tenure types. The effect is likely to be Borough wide, long term and permanent.	++	++	++	
03	To promote safe communities, reduce crime and fear of crime	The policy does not directly refer to safe communities and reducing crime, and no direct effect on crime is likely from the policy wording.	0	0	0	The UDP Policy has no direct effect on crime as the policy does not specifically mention safe communities and reducing crime, and the scale of the effect will be dependent on implementation measures contained in Supplementary Planning Guidance.

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SA/SEA Objectives		Description of Effect	Scale of Effect			Comments/Explanation
			ST	MT	LT	
04	To improve education and skills of the local population	The creation of a mixed neighbourhood and a community integrated with the surrounding area is likely to have a positive effect on improving the education and skills of the local people. Currently, the condition of school buildings in the locality is poor and difficult to expand and adapt to changing requirements. The redevelopment and regeneration of the area is likely to offer opportunities to provide new educational facilities. The effect is likely to be limited to the Kidbrooke and immediate surrounding areas, and is likely to be long term and permanent.	+	+	+	
05	To improve opportunities for access to education, employment, recreation, health, community services and cultural opportunities for all sectors of the community	The development of the area will provide a mixed neighbourhood with greater potential for integration with the surrounding area and consequently significant positive effects on accessibility. The creation of an improved transport interchange and public transport to and from the area will contribute to greatly improved accessibility to what is currently an isolated community. The effect is likely to be limited to the South Greenwich area, and is likely to be long term and permanent.	++	++	++	
06	To reduce adverse impacts of noise and vibration	The policy is likely to have a short term negative effect on noise and vibration, due to the negative effects of demolition and construction activities on the site. In the longer term, once construction activities are completed, there is potential for a positive effect on noise exposure to residents through improved insulation and layout of dwellings. However, this may be offset by an increase in traffic from an increased local population. This effect is dependent on the take up of public transport by residents.	-	+/-	+/-	Mitigation measures will be required to minimise noise and vibration impact during construction and demolition. In the longer term, an increase in local traffic, with an associated increase in noise and vibration, is dependent on the use of public transport and car ownership levels in the new development.
07	To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes	The policy is likely to have a significant positive effect on the enjoyment of local open spaces by the creation of new, usable quality areas of open space. The effect is likely to be limited to the Kidbrooke area, although long term and permanent.	++	++	++	Current areas of open space within the Kidbrooke area are poorly organised, under-utilised and unattractive as recreational and amenity spaces.
ENVIRONMENTAL						
08	To limit emissions to air to levels that will not damage natural systems to affect human health	The provision of 4,400 dwellings (1,500 more than presently on-site) has the potential to have a negative effect on emissions to air as level of car ownership may rise with a subsequent increase in traffic levels. This may be offset	+/-	+/-	+/-	Mitigation measures may be required to ensure car ownership levels remain at a level that do not cause a significant increase in emissions to air. See assessment of SEA objective 09.

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SA/SEA Objectives		Description of Effect	Scale of Effect			Comments/Explanation
			ST	MT	LT	
		however by increased public transport usage through improved services and an improved transport interchange. Overall, there is the potential for both positive and negative effects.				
09	To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car	The creation of a mixed neighbourhood with an increase in population has the potential to have a negative effect on traffic congestion. This is largely through the potential increase in car ownership through increased affordability of the population. However, this could be offset by the improved transport interchange and public transport to and from the area. Overall, there is the potential for both positive and negative effects.	+/-	+/-	+/-	Mitigation measures may be required to ensure car ownership levels remain low and public transport usage and alternative methods of transport to the car are encouraged.
10	To reduce greenhouse gas emissions and promote CO ₂ fixing	The creation of additional dwellings is likely to have a negative effect on reducing greenhouse gas emissions, as emissions from new dwellings, and increased numbers of vehicles are likely to increase overall emissions of greenhouse gases. Opportunities exist to reduce greenhouse gas emissions through energy efficient design and measures to reduce the need to travel by car and promote sustainable modes of transport. However, if these mitigation measures do not lead to a reduction in carbon emissions when compared to the current site baseline, there will still be a net increase in greenhouse gas emissions. The effect is likely to be slightly negative, although long-term, permanent, and with a global scale.	-	-	-	Car-free or a low-car development and zero or low carbon dioxide standards should be considered for the new development.
11	To conserve sites of nature conservation importance and protect fauna and flora which are important on an international, national and local scale	A range of positive and negative effects are likely from this policy. Sites of Nature Conservation Importance are likely to remain undisturbed. However, comprehensive redevelopment would likely have a negative effect on the local biodiversity of green court yard areas and may be destroyed. However, there would be an opportunity to recreate new habitats and enhance sites of Nature Conservation Importance through scheme proposals.	+/-	+/-	+/-	Effect is dependent upon further implementation of measures.
12	To avoid damage and fragmentation of habitats	By implementing the policy it is likely that Sites of Nature Conservation Importance would remain undisturbed as development is unlikely to fragment habitats. However, non-designated habitats (such as green court yards and areas surrounding the station) may be lost through the	-	-	+	In the long term there is an opportunity to recreate habitats that may be lost and enhance remaining sites.

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SA/SEA Objectives		Description of Effect	Scale of Effect			Comments/Explanation
			ST	MT	LT	
		redevelopment of the wider area with a slight negative effect on this objective. The effect is likely to be localised to the Kidbrooke area, and short to medium term.				
13	To protect and enhance the quality of landscape of recognised value	The redevelopment of the site would allow the design of a sympathetic development greatly improving the layout and physical presence of the site with a potential positive effect on the physical relationship between the Ferrier Estate and Kidbrooke Station. However, the scale of the effect is dependent upon the implementation of the policy. The effect is likely to be localised to the South Greenwich area, although long term and permanent.	+	+	+	Dependent upon nature of implementation measures.
14	To safeguard important built, historic and archaeological features	The redevelopment of the site has the potential for both positive and negative effects on this objective. Whilst redevelopment and regeneration of the area allows the sympathetic integration of the new development into surrounding areas with a potential positive effect, this is dependent upon implementation of the policy. There is potential for a negative effect on sites of identified archaeological potential, as these are likely to be disturbed during construction.	+/-	+/-	+/-	Dependent upon nature of implementation measures.
15	To increase energy efficiency and the use of renewable energy in the built environment	The policy has the potential for a positive effect as redevelopment and regeneration of the area has the potential to increase the usage of energy efficient appliances and creates opportunities for low energy building design and the provision of renewable energy. The effect is likely to be long term and permanent.	+	+	+	Scale of effect is dependent upon the nature of implementation measures.
16	To make the best use of previously developed land	The policy promotes the use of previously developed land with a significant positive effect on this objective. Redevelopment and regeneration presents the opportunity to make the best use of the site with improved layout and integration with the surrounding area.	++	++	++	
17	To reduce the generation of waste and encourage re-use and recycling of waste	The redevelopment and regeneration of the area provides the opportunity to integrate recycling facilities into the new development thereby having a positive effect on this objective. However, this has the potential to be offset by the increase in household waste produced as there will be more residents in the area. The scale and significance of effect is likely to be dependent upon the nature of the	+/-	+/-	+/-	Dependent upon nature of implementation measures.

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SA/SEA Objectives		Description of Effect	Scale of Effect			Comments/Explanation
			ST	MT	LT	
		implementation of the policy.				
18	To improve the quality of surface and ground waters	The redevelopment and regeneration of the area has the potential to have both positive and negative effects on the water quality of the Kid Brooke and Quaggy River. Redevelopment of the site may increase the total amount of impermeable surface and increase surface runoff which may have a negative effect on water quality. However, redevelopment presents the opportunity to incorporate Sustainable Urban Drainage Systems into the development with the potential for medium to long term improvements in water quality. The scale and significance of effect is likely to be dependent upon the implementation of the policy.	+/-	+/-	+/-	Opportunity to incorporate Sustainable Urban Drainage Systems into the development.
19	To reduce the risk of flooding	The redevelopment and regeneration of the area has the potential to have both positive and negative effects on flood risk within the Kidbrooke area. Development of the site may increase the total amount of impermeable surface and increase surface runoff with a negative effect on flood risk. However, source control and Sustainable Urban Drainage Systems could be introduced to attenuate flows and reduce flood risk. The scale and significance of effect is likely to be dependent upon the nature of the implementation of the policy.	+/-	+/-	+/-	Opportunity to incorporate Sustainable Urban Drainage Systems into the development.
20	To promote the use of materials and products produced by sustainable materials	The redevelopment and regeneration of the area with the construction of 4,400 new dwellings provides opportunities to use materials and products produced by sustainable methods. The scale and significance of effect is likely to be dependent upon the nature of the implementation of the policy.	+	+	+	
21	To reduce contamination and safeguard soil quality and quantity	The redevelopment and regeneration of the area provides the opportunity to remediate large areas of contaminated land where that is necessary. The scale and significance of effect is likely to be dependent upon the nature of the implementation of the policy.	+	+	+	
ECONOMIC						
22	To strengthen the local economy	The policy is likely to have a significant positive effect on the strengthening the local economy through the provision of a new commercial hub and transport interchange. This would enable a range of commercial and community facilities and	++	++	++	

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SA/SEA Objectives		Description of Effect	Scale of Effect			Comments/Explanation
			ST	MT	LT	
		would maximise the growth potential for local businesses. The effect is likely to be limited to the local Kidbrooke area, be permanent and long term.				
23	To improve employment and access to employment opportunities	The policy is likely to have a significant positive effect on improving employment and access to employment opportunities through the provision of a new commercial hub and transport interchange. Local job and training opportunities will be increased significantly. The effect is likely to be borough wide, long term and permanent.	++	++	++	
24	To enhance the viability and vitality of Kidbrooke centre	The provision of a local shopping area will have a significant effect on enhancing the viability and vitality of Kidbrooke centre. The creation of a mixed neighbourhood will provide a more diverse community, whilst redevelopment of the area has the potential to attract employees and visitors from outside areas. The effect is likely to be long term and permanent.	++	++	++	

APPENDIX E

Preferred Options Assessment

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Neighbourhood Area Type 1: The Hub	Mixed use: 555 Residential Units (43% affordable) Residential units – flats and apartments 3100 sq m Retail Units 2295 sq m Small Business Space 2787 sq m Supermarket Indoor Sports Provision Community Meeting Space And Health Provision Kidbrooke railway station and transport interchange Pedestrian and cycle routes Central Square Building heights: 2 – 12 storeys Security and safety features: car parking with in plots, with residents only access. Entrances to flats should access no more than 6 flats.
Scale of Effect (SE): ST – Short Term, MT – Medium Term, LT – Long Term 0 – no effect; +++ strongly positive; ++ moderately positive; + slightly positive; --- strongly negative; -- moderately negative; - slightly negative	

SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/ Recommendations
		ST	MT	LT	
SOCIAL					
1. To improve health and reduce health inequalities	Provision of a primary healthcare facility should have a moderate positive long term effect on improving health. In addition the provision of new pedestrian routes should have an indirect slight positive long term effect by encouraging higher levels of walking.	+	++	++	Not required as positive. The positive effects in the short term will depend on the phasing in the development of the Hub.
2. To meet identified housing needs	Provision of 555 housing units at 43% affordable housing level, should have a moderate positive long term effect	+	+++	+++	Not required as positive.
3. To promote safe communities, reduce crime and fear of crime	Provision of car parking in secure gated basements limited to residents use only, should have a moderate positive effect on reducing crime and fear of crime.	+	+	+	Not required as positive.
4. To improve education and skills of the local population	No obvious effect.	0	0	0	n/a
5. To improve opportunities for access to education, employment, recreation, health, community services and cultural opportunities for all sectors of the community	Provision of retail units, business space, supermarket, indoor sports facility and health facility should have a moderate positive long term effect.	+	++	++	Not required as positive.
6. To reduce adverse impacts of noise and vibration	The application of EcoHomes standard of excellent to residential buildings and similar standard to non residential buildings, which includes standards for noise insulation. should have a moderate	+/-	++/-	++/-	Not required as positive.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/ Recommendations
		ST	MT	LT	
	long term positive effect. There are likely to be problems with noise as a result of construction in the short and medium term resulting in negative effects.				
7. To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes	Provision of central square should have a slight direct positive long term effect. Provision of new and enhancement of existing pedestrian and cycle routes to larger areas of open land in other neighbourhood areas, will have a slight indirect positive long term effect on promoting enjoyment of open space.	+	+	+	Not required as positive.
ENVIRONMENTAL					
8. To limit emissions to air to levels that will not damage natural systems to affect human health	Development of the transport interchange, pedestrian and cycle routes and overall movement strategy, as well as the provision of 10% of energy from renewable sources should have an overall indirect slight positive long term effect, through reducing reliance on private cars, using more sustainable modes of transport and reducing the use of fossil fuels and associated emissions to the air.	+	+	+	Not required as positive.
9. To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car	Development of the transport interchange and pedestrian and cycle routes will have a slight positive long term effect on promoting more sustainable modes of transport and reducing reliance on the car. Measures in the movement strategy will have overall moderate positive long term effects on congestion, modes of transport and reliance on private cars.	++	++	++	Not required as positive.
10. To reduce greenhouse gas emissions and promote CO2 fixing	Development of transport interchange and pedestrian and cycle routes to increase the use of more sustainable modes of transport, measures in the movement strategy and use of 10% of energy from renewable sources will overall have a slight long term positive effect on reducing greenhouse gas emissions. The planting of trees in the area should also have a slight positive long term effect on fixing CO2 through the introduction of carbon sink effect however a relatively high number existing trees are likely to be lost on the site through redevelopment.	+	+	+	Recommendation: Existing trees on site should be protected where possible. Additional tree planting should ensure that there is no net loss, as a minimum and preferable a net gain, of numbers of trees on the site.
11. To conserve sites of nature conservation importance and protect fauna and flora which are important on an international, national and local scale	Measures in the Biodiversity section of the Sustainability Strategy should help to protect and enhance biodiversity overall in the area, this should have a slight positive long term effect.	+	+	+	Not required as positive.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/ Recommendations
		ST	MT	LT	
12. To avoid damage and fragmentation of habitats	See assessment of objective 11.	+	+	+	Recommendation: Provision of green roofs on some buildings in the Hub will reduce the impact of habitat fragmentation for some bird and invertebrate species.
13. To protect and enhance the quality of landscape of recognised value	No obvious effect.	0	0	0	n/a
14. To safeguard important built, historic and archaeological features	No obvious effect.	0	0	0	n/a
15. To increase energy efficiency and the use of renewable energy in the built environment	Use of the Eco Homes standard of "excellent" and at least 10% of energy to be sourced from renewables should have a moderate positive long term effect.	++	++	++	Recommendation: Renewable energy to be generated on site to further improve energy efficiency, with aspirations to meet the Mayor of London's preferred standard of 20% renewable generation.
16. To make the best use of previously developed land	All development will take place on previously developed land; this should have a strong positive long term effect.	+++	+++	+++	Not required as positive.
17. To reduce the generation of waste and encourage re-use and recycling of waste	Requirement for residential buildings to meet Eco Homes standard of excellent and non residential buildings to meet similar standards will have a slight indirect positive long term effect on encouraging recycling.	+	+	+	Recommendation: Siting of recycling collection points around the transport interchange, plaza, other public space and supermarket to encourage recycling. In addition educational displays could be provided at these sites to provide information on waste reduction, re use and recycling.
18. To improve the quality of surface and ground waters	Requirement for the use of SUDS should have a slight positive long term effect.	+	+	+	Recommendation: Target setting to assess the effect SUDS have had on improving water quality in the KDA.
19. To reduce the risk of flooding	Requirement for the use of SUDS and meeting Eco Homes standard "excellent" should have a moderate positive long term effect.	++	++	++	Recommendation: Target setting to assess the effects of SUDS and design requirements through Eco Homes on flood risk in the KDA.
20. To promote the use of materials and products produced by sustainable materials	Requirements to meet Eco Homes standard of "excellent" and Sustainable Construction Methods highlighted in the sustainability strategy should have a moderate positive long term effect.	++	++	++	Recommendation: Direct reference in the sustainability strategy to use sustainable materials, in addition to sustainable construction methods.
21. To reduce contamination and safeguard soil quality and quantity	Measures in the Sustainable Construction Methods section of the Sustainability Strategy to avoid the use of topsoil should have a slight positive long term effect on soil quality and quantity.	+	+	+	Recommendation: Reference needs to be made in the Sustainability Strategy to remediation of contaminated land, as the whole of KDA is identified as having significant contamination potential.
ECONOMIC					
22. To strengthen the local economy	Development of the transport interchange and provision of retail units and business space should have a strong positive effect.	+++	+++	+++	Not required as positive.
23. To improve employment and access to employment	See assessment of objective 22.	+++	+++	+++	Not required as positive.

SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/ Recommendations
		ST	MT	LT	
opportunities					
24. To enhance the viability and vitality of Kidbrooke centre	All development and actions should have a strong positive long term effect on the viability and vitality of Kidbrooke centre.	+++	+++	+++	Not required as positive.

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Residential Proposals (see SPD and SAR for details of proposals in each neighbourhood area)	Neighbourhood Area Type 2: North East Neighbourhood Area Neighbourhood Area Type 3: North West Neighbourhood Area Neighbourhood Area Type 4: Western Neighbourhood Area Neighbourhood Area Type 5: Eastern Neighbourhood Area
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Scale of Effect (SE): ST – Short Term, MT – Medium Term, LT – Long Term
0 – no effect; +++ strongly positive; ++ moderately positive; + slightly positive; --- strongly negative; -- moderately negative; - slightly negative

SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendations
		ST	MT	LT	
SOCIAL					
1. To improve health and reduce health inequalities	For those existing residents that return to the area there should be an indirect improvement in health as living conditions will improve substantially.	0	+	+	n/a
2. To meet identified housing needs	Within the 4 residential areas, there will be 3,850 new dwellings which should contribute to meeting identified housing needs for the LB Greenwich as a whole. The scale of development for each neighbourhood area in terms of land area and indicative quantum of development for each land use has been calculated in the SPD. The KDA comprises an integrated mix of high quality housing of different type and tenure. At least 30% of the residential floor space is to comprise family dwellings. The KDA will provide a minimum of 1,900 affordable homes (43% across neighbourhood areas 3, 4 and 5). The proportion of different types of affordable housing is also clearly defined to meet the Council's UDP, English Partnerships and Housing Corporation standards. In addition, all affordable homes will be designed to Lifetime homes standards as well as the Parker Morris internal space and amenity standards. Overall the SPD provides a comprehensive strategy for residential development within the residential neighbourhood areas and will contribute to meeting identified housing needs thus achieving significant positive effects.	+++	+++	+++	None required as positive.
3. To promote safe communities, reduce crime and fear of crime	The SPD embodies 'Secured by Design' principles as part of achieving a high quality built environment and these principles assist in reducing the opportunity for	++	++	++	Nature of street lighting should be referred to in the SPD.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendations
		ST	MT	LT	
	crime and fear of crime to create a safer and more secure environment. As such, these principles should be applied to residential areas resulting in positive significant effects. In addition, the plot typology put forward in the SPD and the courtyard concept will reduce opportunities for crime and fear of crime through increased natural surveillance and secure gated access. The design of residential dwellings with windows in corner locations should also increase natural surveillance thus reducing opportunities for crime and reducing fear of crime.				
4. To improve education and skills of the local population	The North West, Western and Eastern neighbourhood's areas include the new Thomas Tallis Secondary School, proposed Wingfield School and the retention of Holy Family Primary School respectively. Integrating educational uses within residential areas may have an indirect positive effect on this objective through providing easy access to education facilities and therefore improving educational skills of the local population.	+	+	+	None required as positive.
5. To improve opportunities for access to education, employment, recreation, health, community services and cultural opportunities for all sectors of the community	The development concept of 4 residential neighbourhoods and the proposed urban grain of development in terms of street plot size have allowed plot permeability and ensuring easy access to key services. The SPD seeks to promote the movement between each of the residential neighbourhood areas and the Hub by foot/cycle to improve overall accessibility within the KDA. The bus transit route with regular bus stops should ensure that there are opportunities for all to access the facilities within the Hub and the KDA as a whole. The accessibility strategy in the SPD is likely to achieve positive significant effects. The community and commercial facilities proposed in the Hub itself will also contribute to this objective. Slight negative effects relating to the eastern neighbourhood where there is an area that does not fall within the 1000m Eco Homes Access to Services Criteria resulting in negative effects in terms of accessibility to the main Hub and interchange.	+++/-	+++/-	+++/-	None required as positive.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendations
		ST	MT	LT	
6. To reduce adverse impacts of noise and vibration	It is unlikely that the development will cause a significant change in overall noise levels. Community noise will be a feature but will only impact locally on the community itself. The construction of the KDA will be in phases with existing residents moved out temporarily then back. As such, there are likely to be problems with noise as a result of construction in the short and medium term resulting in negative effects.	-	-	0	Short term construction noise mitigation measures may include noise attenuation barriers, appropriate choices of plant and equipment and careful phasing of proposed operations in line with the phasing programme. Sustainable construction measures as outlined in the SPD include proposals to mitigate the potential nuisance, dust, emissions and noise generation from construction however, there are still likely to be residual negative effects.
7. To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes	The linkages between the residential areas and Sutcliffe Park and the green link through dedicated pedestrian and cycle routes as well as bus routes is likely to support promoting the enjoyment of the open spaces with the KDA and wider area. Within the residential areas there will be a network of smaller open spaces, or possibly community gardens that could perform a community function and promote the enjoyment of these areas. Overall the provision of access in the SPD to open spaces, public parks and SNCI's should help to promote the enjoyment of open spaces and local biodiversity achieving positive permanent effects.	+	+	+	None required as positive.
ENVIRONMENTAL					
8. To limit emissions to air to levels that will not damage natural systems to affect human health	The residential development planned for the KDA may have a slight negative effect on local air quality through the potential for additional transport emissions by the new residential population and increased use of the car. However, this is likely to be off-set to some extent by the planned improvements to public transport, walking and cycle ways and the close proximity and good links to the Public Transport Interchange at the Hub. In addition, there may be short term negative effects from construction related activities.	+/-	+/-	+/-	The SPD provides a balance in modes of transport with a priority to promote more sustainable uses of transport. The scale, significance and likelihood of positive or negative effects will depend on the successful implementation of the SPD by the developer. Sustainable construction measures as outlined in the SPD include proposals to mitigate the potential nuisance, dust, emissions and noise generation from construction however, there are still likely to be residual negative effects.
9. To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car	The whole KDA has a Public transport accessibility level of 3-5 which has been used to establish the quantum and density of residential development proposed. However, new residential development is likely to increase population and increased use of the car resulting in increased congestion. However, these negative effects should be offset to a certain extent by the promotion of sustainable modes of transport and pedestrian and cyclists as priority users within the	+/-	+/-	+/-	

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendations
		ST	MT	LT	
	neighbourhood areas.				
10. To reduce greenhouse gas emissions and promote CO2 fixing	Slight negative effects arising emissions from housing and domestic heating emissions will be offset by a reduction in emissions resulting from the promotion of sustainable modes of transport and energy efficient buildings as part of the sustainability strategy. Tree planting may also contribute to the creation of carbon sinks resulting in minor positive effects however existing trees are likely to be lost from development.	+/-	+/-	+/-	The scale, significance and likelihood of positive or negative effects will depend on the successful implementation of the SPD by the developer. Recommendation: Existing trees on site should be protected where possible. Additional tree planting should ensure that there is no net loss of numbers of trees on the site.
11. To conserve sites of nature conservation importance and protect fauna and flora which are important on an international, national and local scale	The four residential areas will have no effect on the four SNCI's (including Kidbrooke Green and Birdbrook nature Reserves) therefore there are no obvious effects identified.	0	0	0	n/a
12. To avoid damage and fragmentation of habitats	Through the planting of trees and soft landscaping treatment within the residential areas such as in courtyards or community gardens this could promote biodiversity and ecology within these neighbourhood areas resulting in positive permanent effects.	+	+	+	The biodiversity measures in the sustainability strategy should be more explicit to the measures that could be incorporated into new residential development to encourage biodiversity such as green roofs.
13. To protect and enhance the quality of landscape of recognised value	Within the eastern neighbourhood area, development plots adjoining the eastern edge of Sutcliffe park will be graded downwards thus respecting the transition to green open space. These design principles for providing a transition from residential areas to green open spaces may contribute to enhancing the quality of the local landscape. The planting of trees and soft landscaping treatment within the residential areas such as in courtyards or community gardens will help to enhance the quality of the local area.	+	+	+	None required as positive.
14. To safeguard important built, historic and archaeological features	The western edge of the western neighbourhood area lies adjacent to the Blackheath Park Conservation Area and as such; lower rise properties with private gardens are proposed along this edge to provide a green buffer to enhance the setting of this conservation area. This is likely to achieve positive permanent effects on the setting of the Conservation Area.	+	+	+	None required as positive.
15. To increase energy efficiency and the use of	The sustainability strategy in the SPD provides details of the proposals to increase energy efficiency and the	++	++	++	Outline in the SPD how renewable energy targets will be met rather than cross referencing to the Council's and GLA best practice. For

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendations
		ST	MT	LT	
renewable energy in the built environment	use of renewable energy. It is proposed that the KDA generates at least 10% of the site's electricity or heat from renewables achieving moderate positive permanent effects.				example consideration of energy efficiency measures, micro-generation and CHP. The scale and significance of effects will be dependent on the successful implementation of the Eco-Home standards which will be confirmed through the development EIA.
16. To make the best use of previously developed land	The scale of development for each of the residential neighbourhood areas in terms of land area and indicative quantum of development for land use as well as appropriate heights and densities have been calculated in the SPD in order to make the best use of land available. The lowest densities (up to 300 habitable rooms per hectare) will be located in the eastern and western neighbourhood areas in order to integrate into the surroundings areas. Higher densities (304-450) will be located along transport corridors with the highest densities (451-550) located within the centre of the hub. This scale of development should ensure that the best use of land is achieved close to transport corridors and the Hub resulting in positive effects.	+	+	+	
17. To reduce the generation of waste and encourage re-use and recycling of waste	The SPD states that all dwellings should be provided with appropriate areas for waste disposal and recycling in accordance with Eco-Homes' checklist for sustainable design and construction resulting in positive permanent effects.	+	+	+	The SPD should be more explicit on how to promote recycling and waste reduction and the overall management of waste. The scale and significance of effects will be dependent on the successful implementation of the Eco-Home standards which will be confirmed through the development EIA.
18. To improve the quality of surface and ground waters	The residential development planned has the potential to have a slight negative effect from contaminated runoff during construction. However, this should be off-set through the successful implementation of sustainable construction methods. The negative effects are likely to be short term and localised.	-	-	-	Reference to a Construction Environmental Management Plan (CEMP) in SPD would ensure negative effects are minimised.
19. To reduce the risk of flooding	There is an existing flood Alleviation Scheme in Sutcliffe Park. In addition, there is no development proposed within the floodplain. The SPD requires the KDA to incorporate SUDS in new development to reduce the amount of flow and rate of surface water that runs directly to rivers through	++	++	++	None required as positive. A Flood Risk Assessment will need to be undertaken prior to any planning application and this should be explicitly stated in the SPD. Risks of localised flooding can be reduced by managing run-off through sustainable drainage systems, and reducing water usage within buildings which are included in the sustainability strategy.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendations
		ST	MT	LT	
	drainage systems therefore achieving positive permanent effects.				
20. To promote the use of materials and products produced by sustainable materials	The Ecohome checklist seeks the promotion of the use sustainably produced materials therefore if followed, it is likely that positive significant effects will be realised.	+	+	++	The scale and significance of effects will be dependent on the successful implementation of the Eco-Home standards which will be confirmed through the development EIA.
21. To reduce contamination and safeguard soil quality and quantity	A Contamination Risk Assessment Study has confirmed that the KDA includes areas where significant land contamination potential exists within the soils and ground water due to the historical use of the site. However, the location or extent of contamination within the KDA including the proposed residential neighbourhoods is unknown.	?	?	?	The SPD identifies that further site investigations will be required to identify the extent of contamination. However, the SPD should refer to the need remediation of the contaminated soils and ground prior to preparing any planning application.
ECONOMIC					
22. To strengthen the local economy	Residential areas are likely to complement the local economy through providing a local workforce however, the scale and certainty of this positive effect cannot be determined at this stage.	+	+	+	The SPD should state that a % of workforce for the new commercial Hub should be local workforce from the KDA. This could be included in any S106 agreement as part of any future planning permission.
23. To improve employment and access to employment opportunities	No obvious effects.	0	0	0	n/a
24. To enhance the viability and vitality of Kidbrooke centre	The overall objective for the KDA is to enhance the viability and vitality of Kidbrooke and therefore the residential proposals will also contribute to this objective.	++	++	++	None required as positive.

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Green Infrastructure (incorporating Sutcliffe Park - neighbourhood area types 6+7)	Sutcliffe Park And Other Green Space Pedestrian And Cycle Routes Private Playing Fields Publicly Accessible Open Space Site Of Importance To Nature Conservation Allotments
Scale of Effect (SE): ST – Short Term, MT – Medium Term, LT – Long Term 0 – no effect; +++ strongly positive; ++ moderately positive; + slightly positive; --- strongly negative; -- moderately negative; - slightly negative	

SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/ Recommendation
		ST	MT	LT	
SOCIAL					
1. To improve health and reduce health inequalities	Protection of metropolitan open land and the provision of public parks with facilities for children, youths and adults such as LEAPs, NEAPs and circular routes for informal physical exercise as well as playing pitches will all contribute to improving the health of the community with a moderate positive indirect long term effect.	++	++	++	Not required as positive.
2. To meet identified housing needs	No obvious effects.	0	0	0	
3. To promote safe communities, reduce crime and fear of crime	Provision of a NEAP, playing pitches and other sports facilities could have a moderate positive effect on reducing crime and the fear of crime, by providing children and youths with the facilities to take part in physical activity off the streets.	+	+	+	Not required as positive.
4. To improve education and skills of the local population	No obvious effect.	0	0	0	n/a
5. To improve opportunities for access to education, employment, recreation, health, community services and cultural opportunities for all sectors of the community	All aspects of the green link and landscape framework will have a moderate positive long term effect on improving access to recreation opportunities contained within the MOL, open spaces, public parks and SNCI's.	++	++	++	Not required as positive.
6. To reduce adverse impacts of noise and vibration	Creation of the green link from Sutcliffe park to the hub will have a slight positive long term effect on reducing noise between the eastern and western side of the KDA by providing a buffer area to the main A2 which runs north-south through the KDA.	+	+	+	Recommendation: Consideration of noise issues when siting planting and choosing tree species to maximise noise screening.
7. To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes	All aspects of the green link and landscape framework will have a strong positive long term effects on promoting enjoyment of open spaces through direct provision and improvements in accessibility.	+++	+++	+++	Not required as positive.
ENVIRONMENTAL					
8. To limit emissions to air to levels that will not damage natural	No obvious effect.	0	0	0	

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/ Recommendation
		ST	MT	LT	
systems to affect human health					
9. To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car	No obvious effects.	0	0	0	n/a
10. To reduce greenhouse gas emissions and promote CO2 fixing	Protection of all open spaces including the biodiversity, flora and fauna within it will have a slight positive long term effect on CO2 fixing through the creation of carbon sinks. Additional planting of street trees will also contribute to this objective.	+	+	+	Not required as positive.
11. To conserve sites of nature conservation importance and protect fauna and flora which are important on an international, national and local scale	Protection of metropolitan open land and sites of importance to nature conservation will have strong positive long term effects on this objective.	+++	+++	+++	Recommendation: Open land to be used for informal recreation e.g. not pitches, to be left un-mown where possible to allow meadow type ecosystems to develop.
12. To avoid damage and fragmentation of habitats	See assessment of objective 11.	++	++	++	Recommendation: Open land to be used for informal recreation e.g. not pitches, to be left un-mown where possible to allow meadow type ecosystems to develop.
13. To protect and enhance the quality of landscape of recognised value	The SPD has responded to the environmental constraints within the KDA in protecting MOL, public parks and SNCI's from development resulting in positive permanent significant effects on protecting the quality of the landscape.	++	++	++	Not required as positive.
14. To safeguard important built, historic and archaeological features	No obvious effects.	0	0	0	n/a
15. To increase energy efficiency and the use of renewable energy in the built environment	No obvious effects.	0	0	0	n/a
16. To make the best use of previously developed land	No obvious effects.	0	0	0	n/a
17. To reduce the generation of waste and encourage re-use and recycling of waste	No obvious effects.	0	0	0	n/a
18. To improve the quality of surface and ground waters	The use of SUDS within the open space and inclusion of water side planting should have a moderate positive long term effect on maintaining and enhancing water quality.	++	++	++	Not required as positive.
19. To reduce the risk of flooding	The use of land within the KDA for open space rather than residential or commercial development as well as the inclusion of SUDS in the open space (Sutcliffe Park Alleviation Scheme) should	++	++	++	Not required as positive.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/ Recommendation
		ST	MT	LT	
	have significant positive long term effects on reducing risk of flooding, within the 1 in 100 year floodplain, no development is proposed.				
20. To promote the use of materials and products produced by sustainable materials	No obvious effects.	0	0	0	n/a
21. To reduce contamination and safeguard soil quality and quantity	No obvious effects.	0	0	0	Recommendation: During the development of new open space and enhancement of existing space, surveys for contamination should be carried out and remediation carried out where appropriate.
ECONOMIC					
22. To strengthen the local economy	No obvious effects.	0	0	0	n/a
23. To improve employment and access to employment opportunities	No obvious effects.	0	0	0	n/a
24. To enhance the viability and vitality of Kidbrooke centre	All aspects of the green links and landscape framework will have a moderate positive long term effect on enhancing the vitality of Kidbrooke centre.	++	++	++	None required as positive.

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Movement Infrastructure	Primary Routes – Kidbrooke Park Road retained as primary route with new junctions to the neighbourhood areas. Traffic calming and crossing facilities to be improved. May feature dedicated bus lane. Distributor routes – Access for local traffic with maximum speed to be set at a level to encourage slower vehicle speeds.. Bus route/focal streets – Designed to accommodate cycle and pedestrian routes with limited car access. Provide for bus services and emergency vehicles. Streets will open out into squares or shared surface areas. Local Residential Roads – Designed primarily for pedestrians and cyclists with a maximum speed of 20 mph. Design obstacles to restrict traffic movement, trees and planting beds Cyclists and Pedestrians - Cyclists could benefit from direct and dedicated cycle lanes integrated with bus route corridors. In addition, there should be other cycle routes which provide improved north-south access through the Green Link and enhanced east-west connections. Pedestrian and cycle links from the Hub through to the neighbourhood areas should be provided. The pedestrian network could consist of footways along all existing and new roads plus other footpaths and footways which will give direct access to areas of interest such as green areas and Kidbrooke Station / The Hub. Car Parking and Servicing Provision One space per unit will be provided within the eastern, western and North West neighbourhood area. The parking requirement for residential units in the Hub should be based on 8 spaces being provided per 10 units. Public Transport – PTAL level 3-5 across the KDA. In order to maximise public transport patronage bus stops should be spaced at intervals of 200-300m located close to centres of activity or significant junctions. Layout of bus routes will ensure that public transport has priority over private transport. A bus transit route (maybe will a segregated bus lane) will run along Kidbrooke Park Road providing fast and frequent connections from the Hub to North Greenwich Station, Eltham and Bromley. Bus routes should include dedicated cycle lanes on both sides of the road and provide a high quality pedestrian environment. Public Transport Interchange – The Hub area will include a public transport interchange which will provide for efficient interchange between rail and bus services including the bus transit route.
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Scale of Effect (SE): ST – Short Term, MT – Medium Term, LT – Long Term

0 – no effect; +++ strongly positive; ++ moderately positive; + slightly positive; --- strongly negative; -- moderately negative; - slightly negative

SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendation
		ST	MT	LT	
SOCIAL					
1. To improve health and reduce health inequalities	The movement strategy has sought to discourage the use of private transport by giving priority to more sustainable alternatives including dedicated routes for cyclists and pedestrians which are likely to have indirect positive effects in encouraging these modes of transport within the KDA and contributing to improvements in health. In addition, the SPD seeks to provide and improve access to recreational	+	+	++	None required as positive.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendation
		ST	MT	LT	
	opportunities proposed in Sutcliffe Park and the green link thus achieving positive effects. The SPD is likely to have a positive effect on increasing accessibility providing direct connections to and from the main Hub where the new health centre and leisure facilities are proposed. The effects are likely to be across the KDA however, the scale and significance of the positive effects will be dependent on whether this mode of transport represents a significant proportion in the modal split of the area in the longer term. All residential areas within the KDA are located within 1 km of accessible green space.				
2. To meet identified housing needs	No obvious effects.	0	0	0	n/a
3. To promote safe communities, reduce crime and fear of crime	The SPD embodies 'Secured by Design' principles which endorse community safety and reducing the opportunity for crime and fear of crime. These principles should also be applicable to the movement strategy thus achieving positive effects. In terms of the urban grain concept, some street plots have been designed to allow movement through where the design can promote natural surveillance which will also contribute to promoting safe communities.	+	++	++	The design of public transport interchange and bus stops should ensure appropriate street lighting and CCTV surveillance to reduce opportunities for crime and fear of crime.
4. To improve education and skills of the local population	No obvious effects.	0	0	0	n/a
5. To improve opportunities for access to education, employment, recreation, health, community services and cultural opportunities for all sectors of the community	The key focus for the KDA through the movement strategy and road network concept is to ensure optimum accessibility within the KDA and to nearby towns. The provision of a Public Transport Interchange and the bus transit route will provide fast and frequent connections from the hub to North Greenwich Station, Eltham and Bromley thus having significant positive effects of increasing on accessibility to the residential and community areas. The KDA also maintains the key north/south connection across the railway line and A2 Rochester Way which will be a high quality route but also routes for pedestrians and cyclists, improving accessibility into and out of Kidbrooke KDA. Development of a local cycling and walking network will increase accessibility particularly from proposed residential areas to the Hub, railway station and areas of public open space. Public transport improvements, particularly the proposed new bus transit route and bus stops, will increase accessibility to public transport in the wider area.	++/-	++/-	++/-	Improving the accessibility of the eastern neighbourhood area needs to be considered.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendation
		ST	MT	LT	
	Within the eastern neighbourhood area, there is a small part that is not within the 1000m Eco Homes Access to Services Criteria therefore there may be minor negative effects on accessibility for this area.				
6. To reduce adverse impacts of noise and vibration	A key focus for the movement strategy is to promote more sustainable alternatives to the car to enable an uncongested KDA, particularly around the Hub which is likely to have minor positive effects in reduce noise pollution. Speed restrictions on the primary and distributor routes may also contribute to reducing noise pollution.	+	+	+	None required as positive.
7. To promote the enjoyment of the Borough's open spaces for recreation and amenity purposes	The focus for the movement strategy is to integrate land uses and improve access within the KDA therefore is likely to have permanent positive effects on promoting the enjoyment of open space and recreational opportunities in the KDA at Sutcliffe Park and the green link through providing ease of access. The proposed development will provide access to public park provision consistent with the parks hierarchy set out in the UDP providing access to a variety and quality of park provision resulting in positive effects. In addition, all residential areas are located within 1 km of an accessible SNCI thus promoting the enjoyment of the area's biodiversity. The provision of walking and cycling infrastructure is also likely to have a positive effect on increasing the enjoyment of existing open spaces.	+	++	++	None required as positive.
ENVIRONMENTAL					
8. To limit emissions to air to levels that will not damage natural systems to affect human health	The combination of the objectives of the movement strategy to reduce reliance on private car, increase the choice of sustainable modes of transport and through its layout, encouraging people to travel shorter distances and make fewer trips, is likely to result in positive effects on improving localised air quality. The promotion of residential travel plans, including a car club, is also likely to contribute to reducing car use and improving local air quality.	+	+	+	None required as positive.
9. To reduce traffic congestion, promote more sustainable modes of transport and reduce reliance on the car	This is the key objective of the movement strategy. The provision of a public transport interchange at the Hub, bus transit route, regular bus stops and provision of dedicated walking and cycling routes within the KDA is likely to have significant positive permanent effects on this objective. Home zones will ensure that pedestrians have priority on minor residential roads. The layout of the street network has been designed to be permeable to provide convenient routes for	++	++	++	None required as positive.

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendation
		ST	MT	LT	
	pedestrians and cyclists. Key principles of the street hierarchy are to disperse vehicular traffic to avoid congestion and conflict between the private car and to limit queuing at key junctions and to control vehicle movement and speed of traffic through design. These principles should help to tackle congestion at existing congestion hotspots such the junction with Kidbrooke Park Road and the A2. The whole package and focus for the KDA is to promote more sustainable modes of transport thus achieving significant permanent positive effects.				
10. To reduce greenhouse gas emissions and promote CO2 fixing	The combination of the objectives of the movement strategy to reduce reliance on private car, increase the choice of sustainable modes of transport and through its layout, encouraging people to travel shorter distances and make fewer trips, likely to have a positive effect on reducing greenhouse gas emissions. The promotion of residential travel plans, including a car club, is also likely to contribute to reducing car use and reduce greenhouse gas emissions attributable to transport. The planting of street trees are being proposed as part of the landscape strategy framework and as such, introducing carbon sinks.	+	+	+	None required as positive. See assessment of the Green Link and Landscape Strategy.
11. To conserve sites of nature conservation importance and protect fauna and flora which are important on an international, national and local scale	No obvious effects.	0	0	0	n/a
12. To avoid damage and fragmentation of habitats	The provision of street trees along the road network as part of the movement strategy is likely to contribute to improving biodiversity within the KDA. Reductions in car traffic and associated pollution are likely to have indirect positive effects for biodiversity within the KDA.	+	+	+	None required as positive.
13. To protect and enhance the quality of landscape of recognised value	No obvious effects.	0	0	0	n/a
14. To safeguard important built, historic and archaeological features	One of the key principles of the road network hierarchy is to use the design of routes to reinforce the character of the area which could contribute to improving the local townscape of the KDA. The positive effects are likely to be minor and permanent. Homes sense and focus streets are also proposed	+	+	+	n/a

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SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendation
		ST	MT	LT	
	to define a distinctive sense of place within the neighbourhood areas contributing to improving local distinctiveness in the KDA.				
15. To increase energy efficiency and the use of renewable energy in the built environment	No obvious effects.	0	0	0	
16. To make the best use of previously developed land	The movement strategy will have a secondary positive effect on encouraging the reuse of previously developed land by improving access to development sites and assisting in facilitating regeneration in the KDA. The effect is likely to be long term and permanent.	+	+	+	Not required as effect positive
17. To reduce the generation of waste and encourage re-use and recycling of waste	No obvious effects.	0	0	0	Recommendation: Reference should be made in the SPD to encourage a minimum percentage for usage of recycled materials in transport infrastructure. Also the provision of recycling banks at major transport interchanges. This could achieve positive effects.
18. To improve the quality of surface and ground waters	No obvious effects.	0	0	0	n/a
19. To reduce the risk of flooding	The incorporating of Sustainable Urban Drainage Systems (SUDS) throughout the KDA is likely to assist in reducing the total amount of flow and rate of surface water run off from transport which runs directly to rivers achieving minor positive permanent effects against this objective.	0	0	0	n/a
20. To promote the use of materials and products produced by sustainable materials	No obvious effects.	0	0	0	n/a
21. To reduce contamination and safeguard soil quality and quantity	No obvious effects.	0	0	0	n/a
ECONOMIC					
22. To strengthen the local economy	The movement strategy through creating a place that is easier to get to with good road and public transport connections and through the creation of a Hub and an improved public transport interchange, is likely to have secondary positive effects in strengthening the local economy by facilitating investment and access to job opportunities.	+	+	+	None required as positive.
23. To improve employment and access to employment opportunities	The key focus for the KDA's movement strategy is to ensure optimum accessibility to key services including jobs thus achieving significant positive effects.	++	++	++	None required as positive.

Sustainability Appraisal Report

SA Objectives	Description of Effect	Duration of Effect			Description of Mitigation/Recommendation
		ST	MT	LT	
24. To enhance the viability and vitality of Kidbrooke centre	This is one of the key objectives for the KDA focused around the Hub. The provision of a public transport interchange at the Hub to facilitate access to and from this commercial centre will have direct significant effects on ensuring the viability and vitality of this central hub.	++	++	++	None required as positive.

