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London Borough of Tower Hamlets

Non-Technical Summary of the Strategic Environmental Assessment of the South Quay Masterplan Supplementary Planning Document

Final Report

Prepared by LUC on behalf of London Borough of Tower Hamlets

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1 Introduction

Introduction

- 1.1 London Borough of Tower Hamlets (hereafter referred to as 'LBTH' or 'the Council') commissioned LUC (with support from Cascade Consulting) in May 2014 to carry out the Strategic Environmental Assessment (SEA) of the South Quay Masterplan Supplementary Planning Document (SPD) (hereafter referred to as 'the Masterplan').

South Quay Masterplan Supplementary Planning Document

Context

- 1.2 The Greater London Authority's London Plan is currently being updated to reflect the need to deliver more housing across the capital. The London Plan sets the Council's housing target and is looking to raise the target from 2,885 to 3,930 homes a year for the next ten years. This requires the Council to deliver a minimum of 39,300 new market and affordable homes across the borough by 2025.
- 1.3 The need to deliver more housing is resulting in higher densities being proposed by housing developers in greater numbers across the borough. This is requiring the Council to update its population and infrastructure modelling to ensure existing and future residents and businesses are supported by services and a high quality built environment.
- 1.4 In light of the need for new affordable and market housing within the Borough, the Council considers the potential to optimise the delivery of housing to be a unique opportunity to secure housing for those in need and to help to ensure existing and future residents and businesses are supported by services and a high quality coherent but varied built environment.

Purpose of the SPD

- 1.5 South Quay is located to the south of Canary Wharf on the Isle of Dogs, as shown in **Figure 1.1**.
- 1.6 Since 2010, interest from the development industry and land owners has resulted in a high number of development proposals which seek to maximise densities along Marsh Wall (within the South Quay area), specifically in tall building typologies. Within the South Quay area, the amount, scale and densities of residential development being proposed by developers is greater than envisaged in the Council's Local Plan and Millennium Quarter Masterplan. There are nearly thirty potential development sites within the South Quay area, each in different ownership which presents challenges and opportunities for coordinating development and managing their impacts.
- 1.7 LBTH consider that a Masterplan for South Quay is required to assist with the management of the proposed growth within the area, securing the associated benefits of this growth for the wider community. Specifically, it is needed to ensure that development contributes to an overall high quality and sustainable connected morphology and that social and physical infrastructure requirements are planned for and delivered in line with the proposed levels of growth. It is intended that the Masterplan provides concise and effective guidance to inform the determination of planning applications. After consultation, LBTH intend to adopt it as a SPD and it will therefore become a material consideration in future planning decisions.

Contents of the SPD

- 1.8 The SPD contains a vision, supporting principles, detailed guidance under a range of themes and sets out the mechanism for delivery of the SPD requirements. In summary, the Masterplan seeks to shape South Quay to:

- Complement and provide a transition from the Canary Wharf Major Centre to the adjacent residential areas.
 - Contribute to the delivery of high-density mixed use areas with significant levels of housing.
 - Deliver new physical and social infrastructure.
 - Improve connections to the wider area.
 - Ensure buildings step down from the north to the south and step back from the docksides.
 - Deliver a legible, permeable and well-defined movement network.
 - Activate frontages along streets and docks and
 - Protect and sustain heritage assets.
- 1.9 The Masterplan will sit within a hierarchy of planning policy documents that provide guidance at different spatial scales:
- National Planning Policy Framework (2012) and Planning Practice Guidance.
 - Tower Hamlets Local Plan (2010, 2011 and 2013).
 - Millennium Quarter Masterplan SPD (2000).
- 1.10 The Masterplan Area is set out in **Figure 1.2**. It comprises a series of development sites which are at varying stages in the planning process. The proposed applications seek to redevelop the sites for large-scale residential and/ or mixed use developments. All of these sites are brownfield comprising existing residential or commercial buildings and associated public realm. Some of the sites are vacant and the buildings are unoccupied.
- Figure 1.2** classifies development sites according to the current status of planning permission. The Masterplan will apply to potential development sites (shown in grey), where pre-application discussions are currently underway, and to current planning applications (shown in pink) that have not yet been determined. The Masterplan and the SEA are not concerned with sites which have been granted permission but are not yet implemented (shown in purple).

Strategic Environmental Assessment

- 1.11 The SEA process is concerned with assessing the potential environmental effects that may arise from the implementation of development within the Masterplan Area. The outputs from the SEA have been used to inform the development of guidance within the SPD. The findings of the SEA of the draft version of the Masterplan SPD issued by LBTH for consultation in December 2014 are set out in an 'Environmental Report' published alongside the Masterplan. This report provides a non-technical summary (hereafter referred to as the 'NTS') of the Environmental Report and is also being published for consultation alongside the Masterplan.
- 1.12 SEA is a statutory assessment process required under the SEA Regulations which transpose the European SEA Directive into UK law. The SEA Directive and Regulations require the formal assessment of plans and programmes which are likely to have significant effects on the environment. The SEA Directive sets out the criteria for determining what constitutes a significant effect.
- 1.13 A screening process has determined that the Masterplan requires SEA. LBTH informed the statutory consultees of their decision to undertake SEA of the Masterplan in a Screening Letter published on 10th September 2014; no representations were received in response to the SEA Screening Determination letter.
- 1.14 The Environmental Report and NTS have been prepared so as to meet the requirements of the SEA Regulations.
- 1.15 There are no Special Areas of Conservation, Special Protection Areas or Ramsar Sites within 2 km of the Masterplan Area. Natural England was informally consulted to seek an opinion on whether

Habitats Regulations Assessment (HRA) was required for the South Quay Masterplan SPD. Natural England concluded that they did not consider HRA to be necessary in this instance¹.

¹ Telephone conversation with Natural England Officer responsible for London Region, 10th September 2014.

Figure 1.1– Masterplan SPD boundary and location within wider borough



Figure 1.2– Status of development sites in the South Quay Masterplan Area



2 Methodology

- 2.1 The approach used to carry out the SEA of the South Quay Masterplan SPD was based on current best practice and guidance. It was undertaken in close collaboration with the LBTH officers responsible for drafting the Masterplan SPD so that the emerging findings of the SEA were able to inform the Masterplan. Support was provided to LUC by technical specialists at Cascade and LBTH.

SEA stages and work undertaken

- 2.2 The main elements of work undertaken for the SEA are outlined below.

Stage A: Setting the context and Objectives, establishing the baseline and deciding on the scope

- 2.3 This stage involved the following tasks:

- A1: Identifying other relevant plans, programmes and sustainability Objectives.
- A2: Collecting baseline information.
- A3: Identifying sustainability issues and problems.
- A4: Developing the SEA Framework.
- A5: Consulting on the Scope of the SEA.

- 2.4 The SEA framework referred to in task A4 is a set of 18 sustainability objectives against which the Masterplan was assessed, as shown in the first column of **Table 2.1**. The choice of objectives was informed by the topics required to be covered by the SEA Regulations (see second column of Table 2.1), the policy framework reviewed in task A1, sustainability issues facing the Plan area identified in task A3, and objectives already established in the SA/SEA of the LBTH Local Plan (Core Strategy and Managing Development Document) and the SA/SEA of the London Plan. The SEA objectives were supported by more detailed criteria to facilitate assessment of the options and provisions within the draft Masterplan.

Table 2.1 SEA framework

SEA Objective	Relevant SEA Topic
1. To create and sustain a liveable, well-designed environment that promotes long-term social cohesion, sustainable healthy lifestyles and a sense of place	Material assets; Human Health
2. To protect, conserve and enhance the biodiversity within the Masterplan Area and wider borough and where appropriate create habitats, green and open spaces and watercourses	Biodiversity, fauna, flora and material assets
3. To minimise flood risk to people and property within the Masterplan Area, the wider borough and elsewhere, and promote the use of sustainable urban drainage systems	Water; Population; Material Assets
4. To enhance and protect the significance of heritage assets and archaeological heritage	Cultural heritage, including architectural and archaeological heritage
5. To enhance local townscape/ landscape character and improve the quality of the built environment and public open spaces	Landscape (townscape)
6. To achieve a planned and aesthetically balanced skyline, as seen in protected views	Landscape (townscape and views)
7. To protect views and the visual amenity of people living and working in	Population (visual amenity)

SEA Objective	Relevant SEA Topic
and visiting the area and surroundings	
8. To increase the proportion of journeys made by walking and cycling followed by bus or train (relative to those taken by car)	Material Assets; Population; Human Health
9. To maximise the accessibility to key services and amenities	Population & Human Health
10. To improve the quality of water within the Masterplan Area and to achieve the wise management and sustainable use of water resources	Water
11. To minimise the production of waste across all sectors and increase reuse, recycling, remanufacturing and recovery rates	Material assets.
12. To protect existing, make provision for new, and maximise accessibility to education facilities to meet the needs of all sectors of the population	Population & Human Health
13. To maximise the health and well-being of the population and reduce inequalities in health	Population & Human health
14. To ensure that all residents have access to good quality, well-located, affordable housing that promotes liveability	Population
15. To provide all residents with the opportunity of employment, particularly in deprived areas	Population & Human Health
16. To reduce pollution to land through direct action or mitigation; to seek to improve the quality of land as far as possible	Soil; population; human health
17. To reduce pollution to the air and reduce disruption from noise and vibration through direct action or mitigation measures; To seek to improve the quality of the air as far as possible	Air; population; human health.
18. To ensure the Masterplan adapts to the effects of climate change (both now and in the future) and contributes to climate change mitigation, achieves greater energy efficiency and reduces its reliance on fossil fuels	Climatic factors; Population & Human Health; Material Assets.

2.5 An SEA Scoping Report for this stage of the SEA was published for consultation between September 15th and October 20th 2014. A range of comments was received and these have been responded to as necessary within the SEA Report. A full list of all the comments received from the consultees, along with a description of how each one has been addressed, is provided in Appendix 2 to the Draft SEA Report.

Stage B: Developing and refining alternatives and assessing effects

2.6 This stage involved the following tasks:

- B1: Testing the project vision and key principles against the SEA Framework.
- B2: Developing the Options.
- B3: Predicting the effects of the Masterplan.
- B4: Evaluating the effects of the Masterplan.
- B5: Considering ways of mitigating adverse effects and maximising positive effects.
- B6: Proposing measures to monitor the significant effects of implementing the Masterplan.

2.7 Developing options for a plan is an iterative process, usually involving a number of consultations with the public and stakeholders. Consultation responses and the SEA can help to identify where there may be other 'reasonable alternatives' to the Options being considered for a plan. In order to meet the requirements of the SEA Regulations, all of the reasonable alternatives identified by LBTH were subject to SEA.

2.8 The SEA considered the likely effects of two sorts of reasonable alternatives which were considered in the early stages of development of the Masterplan: **different amounts of development** within the Masterplan Area and **different ways to deliver development** based on development clusters. The results of the options appraisals informed the draft Masterplan. The SEA then went on to assess the draft Masterplan itself. The results of the appraisals are summarised in **Chapter 5** and detailed in the Environmental Report and its Technical Appendices.

Different amounts of development

- 2.9 The options tested through the SEA process included different amounts of development which could reasonably come forward within the Masterplan Area. The smallest amount considered was 1,100 habitable rooms per hectare, which would accommodate an estimated 8,420 additional people in the Masterplan area, and is the maximum density permitted by the London Plan. Higher density options were also considered up to a maximum of 7,000 habitable rooms per hectare (64,048 estimated additional population), these representing development densities which could conceivably come forward on drawing on real schemes which have either been consented or are under construction in the South Quay area.
- 2.10 The SEA work was considered by LBTH to be a critical tool in understanding how the potential density of housing growth across South Quay will impact on the local natural and socio-economic environment. LBTH decided that the subsequent Masterplan would seek to optimise housing growth while maximising the capture of benefits for the wider community; as such the subsequent guidance does not seek to specify a prescriptive limit to development but provides a framework to guide growth within the development management process, informed by the earlier assessment work undertaken as part of the SEA.

Different ways to deliver development

- 2.11 The next stage of the SEA tested different ways to deliver the development coming forward. Six possible options were considered in all, as set out in **Table 2.2**. 'Towers in Space' and 'Podiums/ Plinths/ Towers' are considered to be the two main Options for delivering tall, high density development and no other reasonable alternatives have been identified.

Table 2.2 Different ways to deliver development

Option name	Development density (habitable rooms per hectare)	Option description
1. Towers in Space.	3,000	A development form which delivers all types of uses, e.g. residential, employment, education, within a single tall tower, perhaps with open/ private amenity space alongside this development. Represents a development form which has been coming forward within the Masterplan Area and elsewhere in the Borough and London
2. Towers in Space	1,100	See Option 1.
3. Podium/ Plinth/ Towers	3,000	An architectural form which enables higher density residential development to be delivered in tall towers alongside podiums [1-2 stories] and plinths [3-10 stories] enabling non-residential uses to be provided at lower levels within the podium/ plinth elements and for private/ amenity space to be contained around the built form.
4 Podium/ Plinth/ Towers	1,100	See Option 3.
5: Principal Public Open Space as well as Private Spaces	N/A	Requires developers across different development plots to deliver large, principal public open spaces for use by all new and existing residents within the Masterplan Area. This new public open space would be in addition to any on-site public open space

Option name	Development density (habitable rooms per hectare)	Option description
		<p>delivered by individual developments.</p> <p>There are no obvious alternative locations for new principal public open spaces – for example, to maximise light it was necessary to locate these to the south of the Masterplan Area.</p>
6: Only onsite Open Space Delivery	N/A	Do not proactively seek new principal public open spaces and instead rely on public open space coming forward through individual developments.

2.12 The results of the assessment of each alternative informed the draft Masterplan.

Draft Masterplan SPD

2.13 The final stage in the appraisal process was to appraise the draft Masterplan. An initial draft was prepared in September 2014 which was subject to a high level review by LUC, LBTH technical specialists and the GLA. Following this, the document was restructured and revised. This removed duplicate information currently contained in National policy and the existing Local Plan and London Plan, and took on board the high level comments. The SEA then tested the component parts of the Masterplan, for example, the vision, principles and guidance. The scope for genuine reasonable alternatives to the principles, guidance etc. at this stage was limited, recognising that the Masterplan can only provide guidance to build on existing policy.

Stage C: Preparing the SEA Report

2.14 The SEA report describes the process undertaken to date in carrying out the SEA of the South Quay Masterplan SPD. It sets out the findings of the appraisal, highlighting any likely significant effects (both positive and adverse and taking into account likely secondary, cumulative, synergistic, short, medium and long-term and permanent and temporary effects), making recommendations for improvements and clarifications that may help to mitigate adverse effects and maximise the benefits of the plan, and outlining proposed monitoring measures. The SEA also identifies the residual effects once mitigation and recommendations have been taken into account.

Stage D: Consulting on the Masterplan and the SEA Report

2.15 Consultation on the Draft Masterplan SPD and the accompanying SEA Report (including the NTS) is taking place between January and February 2015, with both documents being made available to the statutory environmental bodies as well as a range of other consultees and the general public.

2.16 Consultation comments received will be taken into account with amendments made to the SPD as necessary. Any comments raised specifically on the SEA Report will also be taken into account and addressed in an updated Environmental Report (including the NTS) which will also reflect updates to the SPD.

Stage E: Monitoring the significant effects of implementing the Masterplan SPD

2.17 The SEA Report sets out initial recommendations for monitoring the potential significant environmental effects of the Masterplan SPD and these are summarised in **Chapter 5** of the NTS. The monitoring proposals have been considered within the context of the broader monitoring framework for the LBTH Local Plan and the data collection for the Council's Annual Monitoring Report.

Next steps

- 2.18 Following the formal consultation, responses will be assessed and the Masterplan amended where appropriate. Depending on the significance of these amendments, the SEA Report (including the NTS) may also be updated.

Difficulties encountered and data limitations

- 2.19 The SEA has been undertaken at a strategic level which is appropriate for an assessment of this nature.
- 2.20 Assumptions were drafted early on in the process to assist with the identification of significant effects. However, the assessment was based primarily on the professional judgement of LUC staff underpinned by local knowledge provided by LBTH planning and technical officers.
- 2.21 Where assessed effects are uncertain, this has been recognised. Justification has been provided to accompany all judgements on effects.
- 2.22 The SEA Scoping phase provided an opportunity for a wide range of statutory consultees and interested stakeholders to comment on the baseline data which would be used to inform the assessment, the proposed method of assessment and the options which were being appraised. This provided an opportunity to ensure the SEA process was fit for purpose.

3 Review of plans, policies and programmes

- 3.1 A review of relevant policy objectives in other plans and programmes was carried out to establish:
- Social, economic and environmental objectives that should be reflected in the framework of SEA Objectives against which the Masterplan would be appraised.
 - Sustainability issues that should be addressed by the Masterplan, including to meet its requirement to be in conformity with the London Plan (notably in respect of revised housing numbers in the Further Alterations to the London Plan) and the adopted Local Plan for Tower Hamlets.
 - Whether policies in other plans and programmes could lead to cumulative effects in combination with the Masterplan Options.

- 3.2 The findings of the review were set out in an Appendix to the Environmental Report and used to inform the SEA framework summarised in **Table 2.1**. Key planning policy documents considered in the review included the following:

National Planning Policy Framework (2012) and Planning Practice Guidance

- 3.3 The NPPF provides guidance for when and why SPDs should be developed. The Masterplan will fulfil these requirements by seeking to help facilitate successful applications and deliver the required infrastructure to support housing growth in the Isle of Dogs.

Local Plan (2011)

- 3.4 South Quay is located within the 'Opportunity Area' for the Isle of Dogs. The 'Opportunity Area' initiative seeks to deliver new homes by converting surplus business capacity south of Canary Wharf to housing and to support a wider mix of services.
- 3.5 Tower Hamlets Council and the Mayor of London will be working in partnership to develop an Opportunity Area Planning Framework (OAPF) for the wider area.

Local Plan (2010 & 2013)

- 3.6 The existing Local Plan provides borough-wide, place and specific guidance for the South Quay area. Key designations include:
- Places of Millwall & Cubitt Town.
 - Canary Wharf Activity Area.
 - Millennium Quarter Site Allocation.
 - Marsh Wall East Site Allocation.
 - Flood Zone 3a.
 - The Docks Site of Importance for Nature Conservation (SINC) and
 - Heritage designations including statutorily and locally Listed Buildings and/ or structures and Coldharbour Conservation Area.
- 3.7 In addition, there are a number of existing development management policies in the London Plan and Local Plan which would be used alongside the Masterplan SPD to manage the impact of development.

Millennium Quarter Masterplan Supplementary Planning Guidance

- 3.8 Upon adoption of the South Quay Masterplan, it is envisaged that the Millennium Quarter Masterplan Supplementary Planning Guidance (SPG) will be deleted.

- 3.9 The Millennium Quarter Public Realm Guidance Manual (2008) will continue to be used to inform development across the whole of the South Quay area.

4 Baseline information and issues

- 4.1 The collection of information on the current state of the environment is a key component of the SEA process and a requirement of the SEA Regulations. The SEA Regulations also require an assessment of the likely evolution of the current baseline in the absence of the plan being assessed. These elements of the SEA process inform the SEA Framework and provide a baseline from which to predict and subsequently monitor the environmental effects of the Masterplan. Issues identified by the baseline review are summarised below along with their likely evolution without the Masterplan.

Climatic factors

Baseline, sustainability issues and relevance to the Masterplan

- 4.2 A significant contributor to climate change is the concentration of carbon dioxide in the atmosphere. These levels are rapidly increasing and, if left unchecked, will continue to contribute to climate change. National and local policies require developments to meet carbon dioxide emission reduction targets. Tower Hamlets are committed to supporting the development and expansion of decentralised energy in order to develop a more sustainable, secure, cost-effective and low to zero carbon energy supply in the Borough. Existing district heating infrastructure lies to the south of the Masterplan Area. The heat network appears to have capacity for expansion and has points of connection in the network to achieve this.
- 4.3 New development will need to be designed to adapt to climate change, including flood resilience measures and make provision for natural cooling, ventilation and shade, taking account of the potential for warmer summers. There will be a need to retrofit existing buildings to respond to the impacts of climate change.

Likely evolution of the issues without the Masterplan

- 4.4 Without the Masterplan, developers would still be required to reduce their carbon emissions, or pay financial contributions but these financial contributions may not be appropriately allocated e.g. they may be delivered offsite.
- 4.5 Without the Masterplan, developments may still connect to the existing district heating scheme but this may not be possible for development sites in the north-east corner of the Masterplan Area due to difficulties with crossing the docks.
- 4.6 Without the Masterplan, new development will continue to be designed to adapt to climate change on a site by site basis, normally meeting the Environment Agency's minimum requirements. It is unlikely that any site wide mitigation would be implemented.

Flood risk

Baseline, sustainability issues and relevance to the Masterplan

- 4.7 The entire Masterplan Area lies within Flood Zone 3. This Zone is classed as high risk and comprises land assessed as having a greater than a 0.5% chance of flooding in any year. If vulnerable land uses are proposed in land classified as Flood Zone 3 they must be meet strict policy tests.
- 4.8 The western edge of the South Quay Masterplan Area, along and around Cuba Street and Manilla Street, is considered to be at risk from extreme tidal surge events involving a breach of the Thames Tidal Flood Defences. The area is considered to be at low risk of actual tidal flooding.
- 4.9 In addition, surface water is predicted to accumulate on site in localised low-lying areas during a once in a hundred years rainfall event, particularly to the west of Mastmaker Road and to the north west of Admirals Way. In these areas of high risk, flood resilience resistance measures, raised floor levels and safe access/ egress and refuge facilities are recommended.

- 4.10 The site is not in a Critical Drainage Zone (surface water).
- 4.11 Despite the high theoretical flood risk associated with the Masterplan Area, development types that are vulnerable to flood risk are acceptable due to the protection provided by flood defences along the River Thames.

Likely evolution of the issues without the Masterplan

- 4.12 Without the Masterplan, the amount of development and associated population is likely to continue to increase, leading to more people and property being at risk of flooding.
- 4.13 It is anticipated that the EA would continue to maintain the existing flood defences. Additional measures may need to be implemented over and above general maintenance to ensure adequate protection from sea level rises as a result of climate change.

Population and Human Health

Baseline, sustainability issues and relevance to the Masterplan

- 4.14 The population of South Quay is predominantly made up of young people and is less ethnically diverse than the remainder of the borough.
- 4.15 Tower Hamlets as a whole experiences an 'average' level of crime. It has substantial areas which are within the 10% and 20% most deprived in England, particularly the areas directly north of the Isle of Dogs. The Masterplan Area includes areas which are amongst the 20% most deprived in the country.
- 4.16 Household size tends to be small and most dwellings are privately rented.
- 4.17 Based on (emerging) LBTH data, whilst there is currently some school capacity on the Isle of Dogs, this is likely to be exceeded in the next 5 years. The Isle of Dogs area has the highest level of projected housing and therefore population growth requiring additional school places, but also has the fewest options for school expansion and potential new schools.
- 4.18 There is currently excess capacity of GPs although patient numbers are rising. Much of this capacity is not well located for residents of the Isle of Dogs.

Likely evolution of the issues without the Masterplan

- 4.19 Without the Masterplan, the trend for smaller households, dominated by the private sector is likely to continue. The dominance of younger people employed in businesses at Canary Wharf is also expected to continue.
- 4.20 Without the Masterplan, the proposed developments will lead to extremely high population growth, which will require high numbers of additional school places but there are no identified locations for new schools. This may therefore lead to children having to travel further to school, greater difficulty in ensuring siblings can attend the same school and larger class sizes.
- 4.21 Without the Masterplan, the proposed developments will lead to extremely high population growth, which will require additional GPs. Whilst there is currently capacity in the South East locality, much of it is not readily accessible to the Masterplan area, which would lead to longer journey times. Existing capacity would not be sufficient to accommodate a large number of hyper-dense developments.
- 4.22 Without the Masterplan, social infrastructure provision may not be planned strategically so that it is in accessible locations and meets the needs of the growing population.

Housing

Baseline, sustainability issues and relevance to the Masterplan

- 4.23 The London Plan makes clear the need for significant amounts of new housing in the capital, including in Tower Hamlets. Local estimates suggest that the London Plan policy target for new market plus affordable housing in the Masterplan Area is approximately 7,532 net additional units. Applying LBTHs minimum requirement for 35% affordable housing would result in development targets of approximately 2,636 affordable homes and 4,896 market homes.

Likely evolution of the issues without the Masterplan

- 4.24 Based on developments that have recently been approved, the number of new residential units in the area will significantly exceed the current housing target. With no overarching approach to the provision of services or facilities such as schools, open space or primary healthcare there may not be sufficient capacity to accommodate the new residents. This would result in pressure on local services and facilities and increased travel times to more distant ones.
- 4.25 Where services or facilities are provided onsite, these are likely to be located based on the current need of the individual development, rather than the future needs of the wider Masterplan area. This may lead to services or facilities being located in less convenient locations, or clusters of all the same uses in certain locations and none in others.
- 4.26 Without a Masterplan, the affordable housing provision may not be appropriately located within the Masterplan area or be delivered outside the Masterplan Area altogether, leading to unbalanced communities.
- 4.27 Without the Masterplan, lack of guidance on housing development form and delivery could result in a failure to create a liveable environment for existing and future residents.

Economy and labour market

Baseline, sustainability issues and relevance to the Masterplan

- 4.28 A higher percentage of South Quay residents are in employment than the Tower Hamlets and London average and there is a dominance of highly educated residents in professional occupations, particularly financial services.
- 4.29 Recently approved planning applications have been mixed use but residential led with the result that the amount of office, retail and community floorspace available in the Masterplan Area has been reducing.

Likely evolution of the issues without the Masterplan

- 4.30 Without the Masterplan, development in the area is likely to continue to be focused on residential properties. This will reduce the amount of office, retail and community floorspace that is brought forward in the area, reducing the number of jobs available to local residents.
- 4.31 The Masterplan can provide guidance on development form and delivery, seeking to maximise opportunities for delivery of a range of non-residential uses, including employment uses.

Historic environment

Baseline, sustainability issues and relevance to the Masterplan

- 4.32 The Tower of London World Heritage Site lies to the north-west of the Masterplan Area.
- 4.33 The Maritime Greenwich World Heritage Site lies approximately 1.7 km to the south of the Masterplan Area, the buffer zone for which extends into LBTH. Any development in the foreground of Canary Wharf, on the southern part of the Isle of Dogs, could have serious implications for the setting of the World Heritage Property buildings. The Management Plan for the World Heritage Site provides guidance on preferred maximum building heights at various distances from the site.
- 4.34 There are no statutory Listed Buildings or structures within the Masterplan Area although there are a number within 500 m of it. There are no locally Listed Buildings or structures within the Masterplan Area, and only one on the Isle of Dogs.
- 4.35 Coldharbour Conservation Area lies to the east, partially within the Masterplan Area.
- 4.36 The Masterplan Area is located within an archaeology priority area and hence there is potential for buried archaeological remains to be uncovered during the construction of future development.
- 4.37 No direct effects on either statutory or locally Listed Buildings or structures are anticipated from development within the Masterplan Area and no development is proposed within the Conservation Area aside from potential public realm improvements. There is however potential for indirect effects on the setting of Listed Buildings and/ or structures as a result of the newer developments.

The impact of existing developments within the Masterplan Area on the setting of Listed Buildings and structures is variable.

Likely evolution of the issues without the Masterplan

- 4.38 The introduction of further modern developments has the potential to adversely affect the surrounding heritage assets, although it is recognised this would be managed in part through existing policies in the Local Plan and London Plan.
- 4.39 New tall buildings have the potential to affect the setting of the Greenwich World Heritage Site, if not carefully designed with respect to height, design and location. Concerns have previously been raised with the height of the buildings and their relationship with One Canada Square.
- 4.40 There is less opportunity to coordinate and manage the design of developments and hence minimise effects without the Masterplan.

Views and Townscape

Baseline, sustainability issues and relevance to the Masterplan

- 4.41 Current issues include:
- The poor integration of new and proposed high density and high-rise development with existing residential areas.
 - Limited provision of high quality publicly accessible green and open spaces.
 - Limited permeability and provision of attractive and green non-motorised links across the areas.
 - Loss of historic dimensions of the area which relates to the Docklands and the shipbuilding industry where these give localised areas a sense of place.
 - Changes to urban form and qualities of the area that result in a lack of cohesion of character, for example an imbalance in scale and massing or public realm.
 - Change to the character of the area as experienced from other areas – i.e. change to the profile of the skyline and
 - Change to the character of adjacent areas, i.e. density of high-rise development which may alter the character of adjacent areas (both within the Isle of Dogs and surrounding areas)
- 4.42 In addition, recently implemented and consented developments have created an unplanned skyline in protected views, such as from the Grand Axis from the Grand Square at the centre of the Old Royal Naval College. There are a number of views which are sensitive to changes within the Masterplan Area, in particular:
- Panorama from The General Wolfe Statue.
 - River prospect from London Bridge looking downstream.
 - View up and down the Grand Axis from the Grand Square at the centre of the Old Royal Naval College.

Likely evolution of the issues without the Masterplan

- 4.43 Without a Masterplan, the developments are likely to be progressed in an unstructured manner leading to an unplanned skyline and resulting in uncertain effects on townscape character, the wider skyline of London, on protected or important views and on the visual amenity of people in and around the area.
- 4.44 Piecemeal developments are less likely to deliver a coherent district, with a distinct sense of place, quality of design of open and green spaces. There is a risk that inappropriate building locations and typologies (grain/ density) could result in a “wall” of development that is poorly integrated with surrounding areas and with poor quality of public space, and this will compromise the ability to achieve the aspirations of the Local Plan.
- 4.45 Whilst the requirements of development EIA and the need to respond to Local Plan and London Plan policies allows for consideration of cumulative effects (including cumulative effects on views) as well as delivery of open space, the Masterplan can also provide guidance which could facilitate

development of larger public open spaces coordinated across development plots and promote development forms which include more human-scale elements and result in a more coherent use of each development plot.

Biodiversity

Baseline, sustainability issues and relevance to the Masterplan

- 4.46 There are no internationally designated wildlife sites within 2 km of the Masterplan Area. Mudchute Park Farm, a Local Nature Reserve, lies 500 m to the south of the Masterplan Area. Millwall and West India Dock is a Site of Borough Grade II Importance for Nature Conservation (SINC) which lies within the Masterplan Area. The land immediately surrounding the dock is hard-landscaped with some planted trees. A small semicircle of grass at the eastern end of Millwall Outer Dock is chalk grassland.
- 4.47 The Masterplan Area is known to contain European protected species, as well as species on the LBTH and London BAP priority species lists. There are four Tree Protection Order designations located adjacent to the Masterplan Area, south-west corner.
- 4.48 Access to the docks is open, apart from parts of West India Dock, where development is underway.
- 4.49 The ecological enhancement measures required to be incorporated into developments generally meet the minimum standards and hence ecological benefits are not maximised to their full potential.
- 4.50 The introduction of tall buildings over the last twenty years has led to substantial overshadowing of the dock, which may have contributed to the degradation of the aquatic ecology, although this is uncertain.
- 4.51 New developments surrounding the Masterplan Area have reclaimed land from the docks to facilitate their development. Whilst this has yet to occur within the Masterplan Area, there is the potential for this to lead to cumulative loss of the Millwall and West India Dock SINC.

Likely evolution of the issues without the Masterplan

- 4.52 Without the Masterplan, development will still progress and provide ecological mitigation/enhancement on an *ad hoc* basis, which, may be poorly integrated with existing and proposed developments. This may lead to detrimental effects on protected species.
- 4.53 The introduction of a large number of extremely tall buildings around the dock and potentially floating structures/vessels within it may lead to adverse overshadowing effects on its ecology.
- 4.54 Use of the SINC for cooling purposes could cumulatively result in an increase in water temperature with adverse effects on the aquatic ecology.
- 4.55 Whilst the Masterplan cannot control the overall amount of development, it can provide guidance on development form, encouraging developers to include taller and lower rise elements helping to minimise the overshadowing effects of tall buildings.

Air pollution

Baseline, sustainability issues and relevance to the Masterplan

- 4.56 All of LBTH is designated as an Air Quality Management Area (AQMA) due to unacceptably high amounts of air pollutants linked to transport emissions as well as central heating systems and construction sites.
- 4.57 As an AQMA, even small increases in emissions can lead to significant adverse effects.

Likely evolution of the issues without the Masterplan

- 4.58 Development will continue to be permitted in the absence of the Masterplan. Additional development is likely to result in increased car based emissions and increased pollution during the construction phase of development.

- 4.59 It will be difficult to coordinate developments in the absence of a Masterplan - for example, seeking to stagger development construction programmes to minimise cumulative impacts and seeking to maximise investment in public transport.
- 4.60 The Masterplan approach enables the impacts of different development densities to be considered strategically, providing scope for a more planned approach to infrastructure delivery, including delivery of public transport.

Noise pollution

Baseline, sustainability issues and relevance to the Masterplan

- 4.61 The LBTH Managing Development DPD requires developments to avoid creating unacceptable levels of noise and vibration and the LBTH Code of Construction Practice (CoCP) set out requirements for noise and vibration and operating hours for construction works.
- 4.62 The existing dominant sources of noise pollution in the Masterplan Area are road traffic, the Docklands Light Railway (DLR), aircraft travelling to and from City Airport and building services from commercial buildings. Limited vibration is also emitted from the DLR and Jubilee underground line. Both residential and commercial receptors in the Masterplan Area may be adversely affected by noise pollution.

Likely evolution of the issues without the Masterplan

- 4.63 Without the Masterplan, the proposed developments will lead to extremely high population growth, which will generate high numbers of additional transport movements, including on the DLR, and increases in noise levels. This would be controlled, in part, through existing policies in the Local Plan and London Plan but without Masterplan guidance on local land uses and building design a higher proportion of residential properties may experience related noise impacts.
- 4.64 It will be difficult to coordinate developments in the absence of a Masterplan - for example, staggering development construction programmes to minimise cumulative noise and vibration impacts and maximising investment in public transport.
- 4.65 Without an understanding of the amount of construction work coming forward, this may lead to incorrect noise limits being applied to sites.

Contaminated land (soils)

Baseline, sustainability issues and relevance to the Masterplan

- 4.66 The site is a former dock and therefore it is likely that the land is contaminated. Many of the sites have previously been developed and therefore contamination will already have been remediated to a certain depth. Remedial work is required as necessary for planning permission under a standard LBTH planning condition.

Likely evolution of the issues without the Masterplan

- 4.67 Without the Masterplan, contamination will continue to be dealt with on a case by case basis.

Water quality

Baseline, sustainability issues and relevance to the Masterplan

- 4.68 The Canal and River Trust is responsible for water quality within the docks. The docks are primarily used for residential and business moorings, maintenance vessels, pleasure crafts, and occasional water sports.
- 4.69 Water quality in the docks is primarily dependent on the quality of the water pumped in from the Thames Tideway and the quality of the discharges into the docks. The reach of the Thames Tideway that is hydrologically connected to the docks has moderate quality but is highly variable as a result of its tidal influence, and as a result of occasional combined sewer overflow events. The outfalls into the docks are from surrounding highways and development sites, including roofs or footpaths. Water quality of these discharges is generally good quality.

Likely evolution of the issues without the Masterplan

- 4.70 Without the Masterplan, the water quality of the docks will continue to be affected by the Thames Tideway and discharges from surrounding roads and buildings. The increase in vehicles using the road will lead to increased pollutants on the roads and therefore into the docks. An increase in construction works may increase the likelihood of pollution events.
- 4.71 Water quality impacts would continue to be managed in part through existing policies in the Local Plan.

Wastewater treatment and water supply

Baseline, sustainability issues and relevance to the Masterplan

- 4.72 Thames Water is responsible for the provision of clean water and waste water capacity in the Masterplan Area.
- 4.73 Foul water is an issue on the Isle of Dogs. At present the manholes at the east end of Marsh Wall are already blocked and therefore sewer back-surfing onto the public highway could be a major issue. As a consequence of this, major back-surfing could also be experienced where the trunk sewer from the Isle of Dogs meets the sewer running to Beckton, at Abbots Road.

Likely evolution of the issues without the Masterplan

- 4.74 The increase in units will lead to an increase in demand for clean water and an increased requirement for wastewater sewer and treatment capacity. For wastewater, without any strategic intervention this could lead to additional pressure on the sewerage system, leading to more frequent and severe back-surfing. For clean water, without upgrade to supply infrastructure, residents may experience low water pressure, and potentially lose their water supply in periods of high demand e.g. summer periods.
- 4.75 Whilst individual developments may undertake, or provide financial contributions to, localised upgrading, it is unlikely that this will be sufficient for the amount of development that is anticipated in the Masterplan Area.
- 4.76 The Sustainable Urban Drainage Systems (SuDS) Approval Body (SAB) should be in place soon and therefore any major development must include SuDS. As the sites are all owned by separate landowners, it is likely that in the absence of a Masterplan, SuDS will be implemented in an *ad hoc* rather than integrated manner.
- 4.77 Whilst the Masterplan cannot control the overall amount of development, a Masterplan-approach can be used to test different densities of development in order to better inform infrastructure requirements, including water supply and wastewater treatment. The Masterplan can also include guidance to maximise opportunities for delivery of SUDs e.g. through provision of larger open spaces across development plots.

Material assets – open space

Baseline, sustainability issues and relevance to the Masterplan

- 4.78 There is a borough-wide undersupply of open space with potential adverse effects on residents' health and wellbeing.
- 4.79 According to the LBTH Open Space Strategy, the Masterplan Area "*has good access to waterside spaces but access to green space is poor in several areas.*" A Major Park needs to be developed at Millwall Park and Mudchute Park and is a key priority. Opportunities exist to enhance linkages between riverside, park, and dock open spaces. The Thames Path provides a key route through the area.

Likely evolution of the issues without the Masterplan

- 4.80 The provision of open space is limited on the smaller development plots. Without coordination between these smaller plots, it will be difficult to generate a usable amount of open space.
- 4.81 The larger developments have more potential for open space provision, but on very high density schemes there will still not be enough space on the site on its own to achieve the minimum requirements.

Material assets – transport

Baseline, sustainability issues and relevance to the Masterplan

- 4.82 Public transport trips account for 37% of total trips in LBTH, with 21% of all trips by car, 15% by bus, 40% walking and 2% cycling.
- 4.83 Over the next 20 years, the numbers of residents and jobs in the Tower Hamlets is anticipated to increase by around 50% and transport improvements are essential to ensure the continuing growth of this area and the whole of east London. It is forecast that delays and congestion on the highway network will increase significantly as a result of a 37% increase in vehicle trips to, from and within the borough combined with a 50% increase in through trips. With these delays, some car users may choose to switch to public transport. Within the Masterplan Area, the critical points in terms of highway congestion are the two road access points from the rest of the borough – Preston’s Road roundabout and Westferry Circus. Marsh Wall is also vulnerable to increased traffic congestion.
- 4.84 Public transport accessibility varies widely across the Masterplan Area. Whilst LBTH’s Transport Strategy identifies a long term priority for more public transport from south and east to the Isle of Dogs, this will not be implemented in the next 15+ years.
- 4.85 Some parts of the rail network are very congested in the peak period.
- 4.86 Transport assessments undertaken for site specific proposals indicate that by 2021 the existing footbridge will be congested, resulting in restricted movement.

Likely evolution of the issues without the Masterplan

- 4.87 Without the Masterplan, the proposed developments will lead to higher levels of uncoordinated population growth, which will generate high numbers of additional transport movements. This could exacerbate existing capacity issues on the road, DLR and London Underground networks and on the existing footbridge.
- 4.88 Whilst some financial contribution will be obtained from s106 agreements and future Community Infrastructure Levy payments, this is unlikely to provide sufficient funding for the scale of improvements required.
- 4.89 Whilst the Masterplan cannot control the amount of development coming forward within the Masterplan Area it allows different development densities to be tested to better inform infrastructure planning, including public transport. It can also provide guidance on the preferred development form, helping to better manage access to different uses and reduce internal congestion.

Waste

Baseline, sustainability issues and relevance to the Masterplan

- 4.90 There are six licensed waste management facilities within the borough which are required to be safeguarded in accordance with the London Plan and the Borough Core Strategy, including Northumberland Wharf which lies immediately to the east of the Masterplan Area. Capacity at Northumberland Wharf has been increased and additional sites in the borough have been considered to help provide the best long term solution for waste management.
- 4.91 There are currently issues with waste storage and collection in respect of new and refurbished developments.

Likely evolution of the issues without the Masterplan

- 4.92 Large amounts of construction over an extended period of time will lead to high volumes of construction waste/ excavated material that will need to be appropriately disposed of. Without the Masterplan, there is potential for waste management services to have an adverse effect on the public realm and local road networks as there would be less opportunity to coordinate collections and to manage waste generation arising from development.
- 4.93 Without the Masterplan it will also be difficult to accurately plan for the waste needs of future residents. If LBTH cannot accommodate the waste, it will need to pay to send the waste elsewhere, which is an unnecessary financial burden on the Council.

- 4.94 Waste storage is already an issue for new and refurbished developments and is likely to be exacerbated without a planned approach to ensure sufficient space is designed into new developments.
- 4.95 Without the Masterplan, an opportunity will be lost for utilising waste for local energy generation to assist in addressing fuel poverty and reducing carbon emissions.

5 Strategic Environmental Assessment findings

- 5.1 The SEA tested options relating both to the different amounts of development that could reasonably be expected to come forward in the Masterplan area and to different ways of delivering that development. It then appraised the Draft SPD which contains a vision, a set of overarching place making principles, and guidance on density, connections and public spaces, massing and urban blocks, the skyline, infrastructure and a section on delivery. Mitigation and recommendations were put forward at all stages (this included consideration of existing policies in the adopted Local Plan as well as policies in the London Plan). The results of the assessment are summarised below.

Findings of SEA of different amounts of development

- 5.2 As might be expected, the higher the development density the greater the likelihood of significant adverse effects arising, particularly in respect of the environmental SEA objectives. The assessment of different densities of development found that the threshold for the greatest number of significant adverse effect was 3,000 habitable rooms per hectare and above. This is not to say that significant effects would not be experienced at lower densities, however, significant adverse effects are considered to be more likely at these densities.
- 5.3 In particular, significant adverse effects (before mitigation) were predicted for SEA Objectives 1 (health), 2 (biodiversity), 3 (flood risk), 4 (heritage assets and archaeological heritage), 5 (local townscape/ landscape character), 6 (achieving a planned and aesthetically balanced skyline), 7 (to protect views and visual amenity), 8 (to increase the proportion of journeys made by walking and cycling followed by bus or train), 9 (to maximise accessibility to key services and amenities), 10 (water quality and wise and sustainable use of water resources), 11 (to minimise the production of waste across all sectors), 17 (noise and air pollution) and 18 (climate change). Significant mixed effects (++/-/?) (before mitigation) were predicted for all development density options in respect of Objective 12 (education), recognising the potential for all Options to deliver new education facilities either onsite or through financial contributions.
- 5.4 All Options were judged to have significant positive effects (++/?) (pre-mitigation) on Objective 14 (housing), recognising the significant contribution that development at all of the densities proposed would make to the LBTH housing targets, including the upward revised targets in the FALP. Options 2-5 (2,000, 3,000, 4,500, and 7,000 habitable rooms per hectare) were also predicted to have minor adverse effects (-) on the same Objective, recognising that at higher densities it may be difficult to achieve a genuinely 'liveable' place due to the number of people residing in the area, the height of the buildings impacting on local townscape and so on.
- 5.5 **In respect of the assessment of the different development amounts, Option 1 (1,100 habitable rooms per hectare) performed best overall, whilst Option 5 (7,000 habitable rooms per hectare) performed worst overall** (predicted to have the greatest number of significant adverse effects before mitigation). Whilst the lower density Options are predicted to have fewer significant adverse effects, it is important to recognise that **ALL Options would result in a significant change compared to what currently exists.**
- 5.6 LBTH reviewed the results of the initial SEA of the different development amounts and took the decision not to work to a preferred average development density across the Masterplan Area. It was, however, recognised that development above 3,000 habitable rooms per hectare could potentially lead to thresholds for significant adverse effects being breached. The SEA work was considered to be a critical tool in understanding how the potential density of housing growth across South Quay will impact on the local natural and socio-economic environment. LBTH decided that the subsequent Masterplan would seek to optimise housing growth whilst maximising benefits for the wider community. As such, the subsequent guidance in the SPD does not

prescribe a limit to development but provides a framework to guide growth within the development management process, informed by the earlier assessment work.

Findings of SEA of different ways to deliver development

- 5.7 The SEA subsequently tested **high level ways of delivering development** (in order to inform the guidance which was developed within the SPD). The six alternative ways to deliver development which were tested by the SEA are listed in **Table 2.2**.
- 5.8 As might be expected and already shown by the appraisal of different development amounts, the lower density Options (i.e. 1,100 habitable rooms per hectare in Options 2 and 4) performed better (i.e. would result in fewer significant adverse effects on SEA Objectives) than the higher density Options (i.e. 3,000 habitable rooms per hectare in Options 1 and 3) due to the lower population predicted overall. **'Towers in Space' Option 1 (3,000 habitable rooms per hectare) performed worst overall, with 'Podiums/ Plinths/ Towers' Option 4 (1,100 habitable rooms per hectare) performing best overall.** The 'Podium/ Plinth/ Towers' form of development delivery is considered to offer greater opportunities to deliver a more 'liveable' place both within individual development plots and across the Masterplan Area as a whole. For example, non-residential uses can be provided in the lower tier plinths and podiums, allowing for some separation between uses, more scope for residents to socially interact at lower levels than within a single tall building, and an opportunity for private and public open space to be better defined and configured.
- 5.9 In respect of Options 5 and 6, **Option 5 (delivery of new principal public open spaces as well as private spaces) performs better than Option 6.** More positive effects (pre-mitigation) are predicted and, in particular, significant positive (++) effects are predicted in respect of Objectives 5 (townscape/ landscape character) and 7 (views and visual amenity) through the opportunity to create a more human scale environment with well-defined gaps and views of the sky.
- 5.10 The results of the SEA of the development delivery Options was used alongside work by LBTH officers to inform the SPD and the decision taken to promote **the 'Podium/ Plinth/ Towers' option in the SPD alongside delivery of new principal public open spaces.**

Findings of SEA of Draft Masterplan SPD

- 5.11 The assessment found that a number of positive effects on the environmental and socio-economic SEA Objectives (pre-mitigation) are likely. However, significant adverse (--/?) and significant mixed (+/--/? or ++/--/?) remain. These effects largely reflect uncertainty around the scale of development which will come forward and be consented and unresolved concerns as to whether aspirations to deliver sustainable development (for example aspirations to minimise waste production and achieve carbon and energy reductions) will actually be realised, so as to mitigate the identified adverse effects. Nevertheless, the Masterplan SPD will provide an important framework for developers to work towards, helping to contribute to a higher quality of living than may be realised otherwise.
- 5.12 The assessment was then revaluated taking account of LBTH's response to mitigation and recommendations (as well as adopted policies which already exist in the Local Plan and London Plan. Whilst this would result in the change to some scores from mixed (+/--/?) to minor positive (+), overall the majority of significant adverse effects remain (recognising the scale of development which could come forward. It is unlikely that all impacts could be mitigated in entirety).

Duration and scale of sustainability effects

- 5.13 The Masterplan SPD provides guidance alongside policies in the adopted Local Plan and London Plan to manage development coming forward in the Masterplan Area in the long term, i.e. up to 2024 and beyond.
- 5.14 Developers in the earlier phases of development, i.e. during pre-application discussions and early development design, would be expected to liaise with development management officers to ensure the principles of the SPD are embedded into to design early on. This expected to happen in the short (2014 – 2018), medium (2019 to 2023) and long term (2024 onwards) and will help to ensure that potential effects from development construction (e.g. noise, air pollution, vehicular movements, and decontamination) are properly managed and coordinated. This would minimise the scale of adverse effects likely to be experienced by new and existing residents, given the scale of development which will be coming forward.
- 5.15 As development is delivered in accordance with the SPD (this is likely to be phased over the next 10 years) positive, long term, permanent effects are expected to be realised – for example, delivery of new housing, employment, improved public transport infrastructure, further land remediation and provision of new and improved public open green-spaces and public realm.
- 5.16 Long-term permanent adverse effects will include increased waste generation from a growing population, climate change implications arising from the energy required to deliver and run new housing and employment, changes to the overall skyline within the Borough (and London), changes at street level and the disturbance and / or removal of archaeological remains. However, these will be mitigated to some extent through adherence to the guidance in the SPD and policies in the adopted Plan.

Cumulative effects

- 5.17 Schedule 2 of the SEA Regulations requires consideration of cumulative effects.
- 5.18 The SEA of the Masterplan has been conducted at three levels:
- 1 Considering the likely effects of different amounts of development across the Masterplan Area.
 - 2 Considering the likely effects of different ways of delivering development across the Masterplan Area and
 - 3 Considering the likely effects of applying the Draft Masterplan SPD Guidance across the Masterplan Area.
- 5.19 As such, the potential cumulative effects of delivering multiple high density developments across the Masterplan Area (**item 1** in the list above); and the potential cumulative effects of delivering multiple developments to a particular architectural form across the Masterplan Area (**item 2** in the list above) on each of the SEA Objectives has been considered.
- 5.20 However, in addition to this there are two types of cumulative effects that also require consideration:
- The cumulative effect of delivering the SPD (i.e. what is the combined effect of delivering the whole SPD on each SEA Objective); and
 - Inter-project cumulative effects (i.e. the cumulative effects arising from this Masterplan in combination with other current and reasonably foreseeable development projects outside the Masterplan Area).

Cumulative effect of delivering the Draft SPD

- 5.21 **Table 5.1** provides a summary of the predicted residual effects of the whole SPD on each SEA Objective (this takes account of LBTH's response to proposed mitigation/recommendations and adopted policies). Recognising the inherent uncertainty in the assessment, many of the positive or negative effects are judged to have an element of uncertainty. Nevertheless, a number of significant positive or significant positive mixed effects (with uncertainty) are predicted, for

example on Objectives 1, 5, 7, 12, 13, and 14. This is because the principles set out in the SPD should help deliver a better designed and more liveable environment, contribute to an improved public realm, improve open/ greenspaces across the Masterplan Area and contribute to an improved, more coherent and legible environment, particularly at street level. Recognising that the overall amount of development to be delivered within the Masterplan Area remains uncertain, there is potential for significant mixed adverse effects (with uncertainty) on a number of the natural environment and natural resource Objectives (e.g. Objectives 10, 11, 17 and 18). The SPD Guidance and adopted policies will help to mitigate these effects to some extent.

Table 5.1 – Draft Masterplan SPD – Summary Table of likely Cumulative Impacts

SEA Objectives	Likely Effects								
	The Vision	Principles	Guidance: Density	Guidance: Connections and Public Spaces	Guidance: Massing & Urban Blocks	Guidance: The Skyline	Guidance: Infrastructure	Delivery	Cumulative effects of the Draft Masterplan SPD
1. To create and sustain a liveable, well-designed environment that promotes long-term social cohesion, sustainable healthy lifestyles and a sense of place	++/--/?	+/?	++/--/?	++/--/?	++/--/?	+/?	+	+	++/--/?
2. To protect, conserve and enhance the biodiversity within the Masterplan Area and wider borough and where appropriate create habitats, green and open spaces and watercourses	+/--/?	+/?	+/--/?	+/?	-/+/?	0	+	+	+/--/?
3. To minimise flood risk to people and property within the Masterplan Area, the wider borough and elsewhere, and promote the use of sustainable urban drainage systems	+/--/?	0	+/--/?	+/?	-/+/?	0	+	+	+/--/?
4. To enhance and protect the significance of heritage assets and archaeological heritage	+/--/?	0	+/--/?	0	+/--/?	+	0	+	+/--/?
5. To enhance local townscape/ landscape character and improve the quality of the built environment and public open spaces	+/?	+/?	+/?	+/?	+/?	0	0	0	++/?
6. To achieve a planned and aesthetically balanced skyline, as seen in protected views	0	+	0	0	+/?	+/?	0	0	+/?
7. To protect views and the visual amenity of people living and working in and visiting the area and surroundings	+	+	+/?	+/?	+/?	+/?	0	0	++/?
8. To increase the proportion of journeys made by walking and cycling followed by bus or train (relative to those taken by the car)	+/--/?	+	+/--/?	++/?	+/--/?	+	++	++	++/--/?
9. To maximise the accessibility to key services and amenities	+/?	+	+/--/?	+	+	0	+/?	+	++/?
10. To improve the quality of water within the Masterplan Area and to achieve the wise management and sustainable use of water resources	--/+/?	0	+/--/?	0	0	0	--/+/?	--/+/?	--/+/?
11. To minimise the production of waste across all sectors and increase reuse, recycling, remanufacturing and recovery rates	--/+/?	0	+/--/?	0	0	0	+/--/?	+/--/?	+/--/?
12. To protect existing, make provision for new, and maximise accessibility to education facilities to meet the needs of all sectors of the population	++/?	+/?	+/--/?	+	++/?	0	++/?	?	++/?
13. To maximise the health and well-being of the population and reduce inequalities in health	+/?	+/?	+/--/?	+/?	++/?	0	++/?	?	++/?
14. To ensure that all residents have access to good quality, well-located, affordable housing that promotes liveability	++/?	+/?	++/--/?	+/?	++/?	+	+/?	?	++/?
15. To provide all residents with the opportunity of employment, particularly in deprived areas	+/--/?	0	+/--/?	+	+/?	0	0	?	+/--/?

SEA Objectives	Likely Effects								
	The Vision	Principles	Guidance: Density	Guidance: Connections and Public Spaces	Guidance: Massing & Urban Blocks	Guidance: The Skyline	Guidance: Infrastructure	Delivery	Cumulative effects of the Draft Masterplan SPD
16. To reduce pollution to land through direct action or mitigation; to seek to improve the quality of the land as far as possible	+	0	+	+	0	0	0	?	+/?
17. To reduce pollution to air and reduce disruption from noise and vibration through direct action or mitigation measures; to seek to improve the quality of the air as far as possible	--+/?	0	+/--/?	+	+/?	0	0	+	+/--/?
18. To ensure the Masterplan adapts to the effects of climate change (both now and in the future) and contributes to climate change mitigation, achieves greater energy efficiency and reduces its reliance on fossil fuels	+/--/?	0	+/--/?	+	+/-/?	0	+	+	+/--/?

Inter-project cumulative effects

- 5.22 Development within South Quay does not exist in isolation and significant growth is provided for in the remainder of the Borough and in London more widely. This has been emphasised in the recent Further Alterations to the London Plan (GLA, January 2014), which proposes a ten year minimum housing target for LBTH of 39,300 (an increase from 28,850 in the adopted Plan). For London as a whole, the new ten year housing target is 423,887 (an increase from 322,100 in the adopted Plan).
- 5.23 Evidently, this scale of development has potential to exacerbate the identified adverse effects of development within South Quay, for example on the natural environment and on natural resources, with effects likely be experienced at a Borough and pan-London level. In relation to the housing delivery SEA Objective, delivering housing in South Quay would make a significant positive contribution to the overall housing target for London, particularly when added to the wider regional housing development underway. There is potential for positive or adverse effects on the wider skyline in London and the Borough, depending on how well development in South Quay accords with other tall development proposed in other parts of the Borough and in London. Overall there is considerable uncertainty and coordination between the South Quay delivery bodies and other key Masterplan delivery bodies (within LBTH, and in London) will be necessary.
- 5.24 It is recognised that the SPD has limited scope to manage pan-London impacts. Nevertheless, it is recommended that other significant housing and mixed use development projects within LBTH and London as a whole are identified. This list could form part of the reasonably foreseeable projects which are considered during applicant cumulative assessments in South Quay, considering for example, wider visual impacts on London's skyline, planned use of key transport routes during construction, and so on.

Monitoring

- 5.25 As described above, the assessment identified a number of potential significant effects of the Masterplan SPD, both positive and adverse, on the SEA Objectives. The full SEA Report suggests indicators for monitoring these effects. It is assumed that monitoring would be undertaken in line with existing monitoring processes e.g. monitoring through the annual monitoring report.
- 5.26 It will be particularly to monitor the overall density of development being delivered on a regular basis to keep track of the total amount of development being delivered. This is needed to ensure infrastructure provision is adequate to meet the needs of the new population.

6 Conclusion and recommendations

- 6.1 There is substantial policy support, both nationally and in London, for delivery of new residential development and development within South Quay will help to respond to this. As described above, the SEA has also identified significant adverse effects but the South Quay Masterplan SPD does not exist in isolation and there are strong policies in the Local Plan and the London Plan which should help to respond to some of these concerns.
- 6.2 A number of detailed recommendations and mitigation proposals have been set out in the SEA Report and key ones are summarised below. **It is expected that the recommendations and mitigation will be used to help inform applicant discussions and future assessment of individual developments within South Quay.** The findings should also be used to inform new and refreshed applicant guidance e.g. EIA Scoping Guidance.
- 6.3 Development management officers in LBTH should look more favourably on development which seeks to go beyond required standards in terms of sustainability and design, in particular development which:
- **Promotes exemplar standards of design and sustainability** focusing on demand reduction (e.g. in terms of energy and water) and demonstrates how overall waste production will be reduced.
 - **Promotes innovative technologies** e.g. inclusion of Combined Heat and Power proposals/ Energy from Waste Plants, delivered onsite.
 - **Designs to take account of protected views, is appropriate in scale** (for example, steps down from Canary Wharf Major Centre and appropriately reflects street scale at ground level) and **ensures there is open sky between buildings.**
 - **Designs to avoid significant adverse effects** as a first principle – for example, through genuinely building in daylight/ sunlight/ microclimate (including wind) considerations into development design at the outset.
 - **Incorporates ecological enhancement measures** into the building design.
 - **Promotes car free development and/or contributes to car clubs, electric vehicle charging points** in order to reduce car based travel and its consequent impacts.
 - **Designs to take account of surrounding new and existing development and vacant plots within the Masterplan Area** (i.e. schemes at scoping stage/ pre-application stage and other early stages in the planning system, in addition to consideration of consented schemes) In essence, developers should be demonstrating how they are responding to a better Masterplan overall. In particular, cumulative visualisations will be key. New development should not blight adjacent development sites.
 - **Designs to take account of features** set out in the Masterplan SPD such as principal open spaces (i.e. if a specific development plot is adjacent to a planned principal, public open space it would need to demonstrate that it would not adversely affect the usability of this space e.g. through microclimate effects/ daylight/ sunlight issues.
 - **Provides public and private open space and social infrastructure** (e.g. primary schools, healthcare facilities) onsite as a first principle rather than relying on financial contributions. Open spaces and social infrastructure should be of a sufficient size and quality to enable use by the wider population of LBTH.
 - **Provides appropriate employment onsite to meet development needs** (e.g. B1 use classes) as a first principle rather than relying on financial contributions.
- 6.4 **In respect of cumulative effects**, the SEA recognised the potential for other major developments proposed in the wider borough and in London to contribute cumulatively (both positively and negatively) to the development proposed in South Quay. It is recommended that a

list of other major developments be prepared and be used to inform developer cumulative assessments, including consideration of schemes within the borough and elsewhere in London which would significantly affect the skyline.

- 6.5 Monitoring of the likely significant effects should be undertaken at a pan-Masterplan level to enable LBTH to keep track of the sustainability issues identified within the SEA and whether these are moving in a positive or negative direction.
- 6.6 Finally, developers should keep abreast of and respond to emerging issues such as safety issues identified by London City Airport. This means that new tall buildings cannot be developed in isolation and each developer will need to work with neighbouring developers to consider the potential cumulative safety issues of numerous tall buildings.

Next steps

- 6.7 The SEA Report, including this NTS, and draft Masterplan SPD will be published for consultation between January and February 2015. Following the formal consultation, responses will be assessed and the Masterplan amended where appropriate. Depending on the significance of these amendments, the SEA Report may also be updated.

LUC, November 2014