

Local Flood Risk Management Strategy

Strategic Environmental Assessment / Sustainability Appraisal



THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA

Non-Technical Summary

This report assesses the potential environmental effects that may arise from the implementation of the Royal Borough of Kensington and Chelsea's Local Flood Risk Management Strategy (LFRMS). It is required under the Environmental Assessment of Plans and Programmes (Amendment) Regulations 2020.

Chapter 2 describes the approach that is being taken to the SEA of the LFRMS and outlines the tasks involved.

Chapter 3 presents the review of plans policies and programmes, baseline information and key sustainability issues for RBKC.

Chapter 4 presents the SEA framework that is being used for the SEA of the LFRMS

Chapter 5 summarises the findings of the SEA of the LFRMS. In general, the LFRMS objectives have been found to have mostly positive effects on the environment, due to the LFRMS being a proactive strategy to reduce and manage flooding within RBKC.

Chapter 6 details the approach that will be taken to monitoring the effects of the LFRMS as it is implemented. The implementation of the strategy is likely to lead to positive effects. No cumulative negative effects are likely to arise as a result of its implementation. Also the strategy will be monitored annually which will help identify and address any unforeseen/unintended cumulative negative impacts.

Chapter 7 presents the conclusions of the SEA and describes the next steps to be undertaken. The conclusion of the Environmental Report is that the objectives and actions within the Local Flood Risk Management Strategy meet the sustainability objectives identified in the SEA Framework. The LFRMS Policies are considered to offer generally positive effects on environmental, social and economic objectives. None of the measures in the final LFRMS are likely to have significant negative effects on any of the SEA objectives. The effects of the strategy are largely positive. This is because of the nature of the LFRMS, which has the overarching aim of effective flood risk management.

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1 Introduction

1.1 Overview

- 1.1.1 The Strategic Environmental Assessment (SEA) is concerned with assessing the potential environmental effects that may arise from the implementation of the RBKC Local Flood Risk Management Strategy (LFRMS). This report presents the SEA of the LFRMS and it should be read in conjunction with that document.
- 1.1.2 The Flood and Water Management Act 2010 ('the Act') gave local authorities the role to manage local flood risk in their area. The Act established RBKC as a Lead Local Flood Authority (LLFA) with the requirement to produce a LFRMS. This LFRMS should be consistent with the National Flood and Coastal Erosion Risk Management Strategy. The strategy sets out a vision for the management of flood risk and, although the Act specifies some of the key elements that must be included in the LFRMS, it is intended that they will be locally specific, reflecting key local issues and enabling communities to be more involved in decision-making regarding flood risk management.
- 1.1.3 The Act defines local flood risk as flood risk from:
 - Surface runoff.
 - o Groundwater.
 - Ordinary watercourses (those that do not form part of a 'main river').
- 1.1.4 The Act requires a LFRMS to specify:
 - The risk management authorities in the area and their flood and coastal erosion risk management functions
 - The assessment of the flood risk;
 - The objectives for managing local flood risk and the measures to achieve those objectives, including their implementation, cost and benefits, how they will be paid for;
 - How and when the strategy is to be reviewed, and how it contributes to the achievement of wider environmental objectives.
- 1.1.5 LLFAs must consult risk management authorities that may be affected by the strategy as well as the general public about its LFRMS.

1.2 Legislative Context

- 1.2.1 The EU Directive 2001/42/EC on the 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 "SEA Regulations").
- 1.2.2 The Environmental Assessment of Plans and Programmes (Amendment) Regulations 2020 ("these Regulations") have modified a number of inspection requirements, set out in the Environmental Assessment of Plans and Programmes Regulations 2004 ("the SEA Regulations") that require responsible authorities (as

defined in regulation 2) to make physical copies of documents available for inspection at their principle office.

- 1.2.3 The SEA Directive and Regulations require formal strategic environmental assessment of plans and programmes which are likely to have significant effects (either positive or negative) on the environment. The Directive requires an SEA to be carried out for all plans and programmes *"which are subject to preparation and/or adoption by an authority at national, regional or local level..."*. The Local Flood Risk Management Strategy for RBKC is one such document.
- 1.2.4 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).
- 1.2.5 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.
- 1.2.6 The aim of the SEA is to identify potentially significant environmental effects created as a result of the implementation of the plan or programme on issues such as *"biodiversity, population, human health, fauna, flora, soil, water, air, climatic, material assets including architectural and archaeological heritage, landscape and the interrelationship between the above factors"* (Annex 1(f)).
- 1.2.7 SEA should be undertaken iteratively, as the Local Flood Risk Management Strategy is progressed, and involves evaluating the likely significant environmental effects of implementing the strategy. The aim is that environmental considerations can be integrated into the production of the strategy in order to improve its overall sustainability performance.

1.3 Compliance with the SEA Regulations

1.3.1 This report has been prepared in accordance with the SEA Regulations. The reporting requirements of Regulation 12(3) / Schedule 2 of the SEA Regulations are set out in Table 1.1 below, which also indicates where in this SEA Report the relevant requirement has been met.

Table 1.1 - Requirements of the SEA Regulations and where these have been addressed in this SEA Report

Requirements	Where covered			
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	Chapter 3			
of the plan or programme, and relationship				
with other relevant plans and programmes;				
b) The relevant aspects of the current state	Chapter 3			

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of the environment and the likely evolution	
thereof without implementation of the plan or	
programme;	
c) The environmental characteristics of areas	Chapter 3
likely to be significantly affected;	
d) Any existing environmental problems	Chapter 3
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 Directives79/409/EEC and	
92/43/EEC;	
e) The environmental protection objectives,	Chapter 3
established at international Community or	
national level, which are relevant to the plan	
or programme and	
the way those objectives and any	
environmental considerations have been	
taken into account during its preparation;	
f) The likely significant effects on the	Chapter 5
environment, including 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. (Footnote: These	
effects should include secondary,	
cumulative, synergistic, short, medium and	
long- term permanent and temporary,	
positive and negative effects);	
g) The measures envisaged to prevent,	Chapter 5
reduce and as fully as possible offset any	
significant adverse effects on the	
environment of implementing the plan or	
programme;	
h) An outline of the reasons for selecting the	Chapter 2
alternatives dealt 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;	
	Chapter 6
i) a description of measures envisaged	Chapter 6
concerning monitoring in accordance with	
Article 10;	
j) a non-technical summary of the information	Non -
provided under the above headings.	Technical
	Summary

1.4 Structure of the SEA Report

- 1.4.1 This Chapter has described the background to the production of the RBKC LFRMS and the requirement to undertake an SEA. The remainder of this report is structured into the following sections:
 - **Chapter 2** describes the approach that is being taken to the SEA of the LFRMS and outlines the tasks involved.
 - **Chapter 3** presents the review of plans policies and programmes, baseline information and key sustainability issues for RBKC
 - **Chapter 4** presents the SEA framework that is being used for the SEA of the LFRMS.
 - Chapter 5 summarises the findings of the scoping.
 - **Chapter 6** details the approach that will be taken to monitoring the effects of the LFRMS as it is implemented.
 - **Chapter 7** presents the conclusions of the SEA and describes the next steps to be undertaken.
- 1.4.2 The information in the main body of the report is supported by **Appendix B**, which sets out the consultation comments received in relation to the SEA scoping Report and describes how each one has been addressed.

2 Methodology

2.1.1 The approach for carrying out the SEA of the RBKC LFRMS is based on current best practice and government guidance.

2.2 SEA Stages and Work Undertaken

- Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope
- 2.2.1 This SEA builds upon the work undertaken for the first LFRMS that was adopted in 2015. The SEA Scoping Report was prepared and consulted upon with the three statutory consultees (Natural England, The Environment Agency and English Heritage) between 6 February and 13 March 2015, as well as further correspondence during the main consultation on the full SEA report. A review of the 2015 SEA Scoping exercise involved the following main tasks:
 - Baseline assessment to understand the economic, social and environmental character of RBKC and to identify any specific environmental problems or sustainability issues of relevance to the LFRMS;
 - Identification and review of other relevant policies, plans, programmes, strategies and initiatives which may influence the LFRMS;
 - Development of a framework of SEA objectives against which the LFRMS policies would be appraised.
- 2.2.2 As there had not been a significant change in any of the baseline information or legislation, it was not considered necessary to repeat SEA scoping consultation.

Stage B: Develop options, taking account of assessed effects

2.2.3 This SEA builds on the recent work carried out for the New Local Plan Review (2022) and is informed by the Integrated Impact Assessment (IIA) that was developed and maintained alongside all stages of the NLPR development. Draft SEA objectives from the IIA were used to appraise the policies in this LFRMS. No reasonable alternatives to the objectives and measures included in the early LFRMS were identified during the SEA process.

Stage C: Preparing the SEA Report

2.2.4 This report

Stage D: Consulting on the LFRMS and the SA report.

- 2.2.5 The consultation on the LFRMS was carried out in Autumn 2023, with this report being made available to the statutory environmental bodies as well as a range of other consultees and the wider public.
- 2.2.6 Comments received during consultation were taken into account when finalising the LFRMS. There were no responses to the public consultation that raised concerns

with the conclusions of the Strategic Environment Assessment. Natural England confirmed that:

"It is our advice, on the basis of the material supplied with the consultation, that, in so far as our strategic environmental interests (including but not limited to statutory designated sites, landscapes and protected species, geology and soils) are concerned, that there are **unlikely to be significant environmental effects from the proposed plan.**.

Stage E

2.2.7 Monitoring the significant effects of implementing the LFRMS

Difficulties encountered and data limitations

2.2.8 During the SEA there were no difficulties or data limitations encountered.

3 Policy Context

- 3.1.1 The SEA Directive states that the Environmental Report should provide information on: "The plan's relationship with other relevant plans and programmes_ and "the environmental protection objectives, established at international, [European] Community or national level, which are relevant to the plan... and the way those objectives and any environmental considerations have been taken into account during its preparation" (Annex 1 (a), (e)).
- 3.1.2 A review of all relevant plans and programmes was undertaken. This review identified the relationships between the SEA and plans and programmes which, in turn, enabled potential synergies to be exploited and, conversely, conflicting initiatives to be identified. The international, national, regional and local policies, plans and programmes considered in the review are listed in Table 3.1 below.

Table 3.1 Plans, Policies and Programmes reviewed

Table 3.1 Plans, Policies and Programmes reviewed				
International Policy				
The EU Water Framework Directive (2000/60/EC)				
The Conservation of Wild Birds (2009/147/EC) and the Conservation of Natural				
Habitats and of Wild Fauna and Flora (92/43/EEC) Directives.				
Strategic Environmental Assessment (SEA) Directive (2001/42/EC)				
National Policy				
National Planning Policy Framework 2023				
Flood Risk Regulations 2009				
Flood and Water Management Act 2010				
National flood and coastal erosion risk management strategy for England 2020				
Climate Change Act 2008				
Conservation of Habitats and Species Regulations 2010				
Land Drainage Act 1991 (amended in Flood and Water Management Act)				
Environment Act 1995 (amended in Flood and Water Management Act)				
Water Resources Act 1991 (amended in Flood and Water Management Act)				
Local Government Act 2000 (amended in Flood and Water Management Act)				
Wildlife and Countryside Act 1981				
Countryside and Rights of Way Act 2000				
Public Health Act 1936				
Reservoirs Act 1975				
Water Industry Act 1991				
Building Act 1984				
Health Act 2009				
Highways Act 1980				
Regional Policy and supporting documents				
The London Plan 2021				
Thames River Basin Management Plan 2009				
Thames Catchment Flood Management Plan 2009				
Thames Estuary 2100 Plan (TE2100 Plan): it sets out our recommendations for flood				
risk management for London and the Thames estuary through to the end of the				
century and beyond.				
EA Flood Risk Management Plan (Thames river basin district 2022) (FRMP)				
London Regional Flood Risk Appraisal First Review 2018 provides an overview of				
all sources of flooding in London and addresses its probability and consequences.				
Local Policy				
Local Plan (RBKC, 2019) which sets out the vision, objectives and detailed spatial				
strategy for future development in the Borough along with specific strategic policies				

and targets, development management policies and site allocations.

Surface Water Management Plan (SWMP) (RBKC, 2014): outlines the predicted risk and preferred surface water management strategy for the Borough.

Multi-agency flood plan (RBKC, 2013): explains the multi-agency response to a severe Surface Water Flooding incident in the Borough.

Thames Breach flood plan (RBKC 2013): outlines the multi-agency response to a severe Thames Breach/Overtopping flooding incident in the Borough.

Alan Baxter Associates Basement Report (RBKC 2013): produced as part of evidence base for the review of the basements policy.

Strategic Flood Risk Assessment (SFRA) (RBKC, 2022): is a planning tool that enables the Council to select and develop sustainable site allocations away from vulnerable flood risk areas.

Sequential Test (RBKC, 2022): is a decision-making tool designed to ensure that sites at little or no risk of flooding are developed in preference to areas which have a higher risk of flooding.

Preliminary Flood Risk Assessment (Royal Borough of Kensington and Chelsea – RBKC-, 2011): is a high level screening exercise with information on local flood risk from past and future flooding events.

Various Conservation Area Proposal Statements and Conservation Area Appraisals. Various Council climate change documents – including Green Plan and Climate Emergency Action Plan.

3.2 Summary of Review of Plans, Policies and Programmes

- 3.2.1 Many of the policies, programmes, plans and strategies and initiatives that have been reviewed are indirectly relevant to the LFRMS, for example those that relate to the protection of natural assets including biodiversity and soils. Those that are most directly relevant are summarised below:
 - Flood and Water Management Act (2010) This Act sets out the statutory requirement for Lead Local Flood Authorities (LLFAs) to produce a strategy for managing local flood risk. It therefore provides the legal basis for the production of the RBKC LFRMS.
 - National Flood and Coastal Erosion Risk Management Strategy (2020) The Flood and Water Management Act requires all LFRMS to be in conformity with this Strategy, which encourages more effective risk management by enabling people, communities, business, infrastructure operators and the public sector to work together to achieve better understanding of the risks of flooding both nationally and locally, so that investment in risk management can be prioritised more effectively. As such, the RBKC LFRMS must have regard to the contents of the Strategy.
 - Flood Risk Regulations (2009) The Flood Risk Regulations transpose the European Flood Directive into domestic law, and have distinct requirements for those areas that are identified as being at 'significant' flood risk.
 - The National Planning Policy Framework (2023) provides a single statement of national planning policy that all planning authorities must take account of in the exercise of their development control and forward planning functions.
 - Flood Risk and Coastal Change Planning Practice Guidance was amended in August 2022 and provides guidance on the assessment of flood risk for new developments.
- 3.2.2 A revised Strategic Flood Risk Assessment (SFRA) for the Royal Borough of Kensington and Chelsea was prepared to accompany the New Local Plan Review.

The SFRA assessed the risk of flooding of different areas of the Borough and identified that there is no direct fluvial flood risk in the Borough. However, the Borough is affected by tidal flood risk, ranging from Flood Zone 1 with low probability of flooding to Flood Zone 3 with high probability of flooding. Very little of the Borough is located in Flood Zone 2 and 3, close to the Thames. The majority of the Borough is located within Flood Zone 1, with a 1 in 1,000 year risk of flooding.

- 3.2.3 Thames Water have identified a 17% increase in the amount of impermeable area in the Borough between 1971 and 2009, which increases the amount of rainfall discharging to the storm water sewer. This, together with rainfall from authorities in the north of the catchment such as Camden and Brent, may contribute to surface water and sewer flooding, as the Counters Creek sewer does not currently have the capacity to discharge storm water during extreme rainfall events. The risk of surface and sewer flooding is increased by the use of impermeable surfaces as they decrease the capacity of the ground to drain water.
- 3.2.4 There is a groundwater source protection zone in the southeast area of the Borough (Brompton area). These zones, designated by the Environment Agency, refer to groundwater sources such as wells, boreholes and springs used for public drinking water supply. The zones show the risk of contamination from any activities that might cause pollution in the area. The southern half of RB Kensington and Chelsea falls within a Groundwater Vulnerability Zone, which is categorised as 'Minor aquifer high vulnerability'.

3.3 Baseline Information

3.3.1 The Integrated Impact Assessment Scoping report for the New Local Plan Review identified the key characteristics of the Royal Borough of Kensington and Chelsea. This provides a comprehensive summary of the key social, economic and environmental issues which are identified as being of the utmost importance to the Royal Borough. The baseline data for this SEA includes information from a range of sources which is both quantitative and qualitative. The information provides the basis for assessing the potential impact of the LFRMS policies and will aid development of appropriate mitigation measures, together with future monitoring data.

4 SEA Framework

- 4.1.1 The SEA Framework is a key component in completing the SEA through synthesising the baseline information and sustainability issues into a systematic and easily understood tool that allows the assessment of effects arising from the implementation of the LFRMS. Although the SEA Directive does not specifically require the use of objectives or indicators in the SEA process, they are a recognised and useful way in which social, environmental and economic effects can be evaluated and compared at key stages of the Strategy's development, and are recommended in the Government's SEA Guidance.
- 4.1.2 The SEA Framework comprises a list of objectives. Progress toward achieving these objectives will be measured using the corresponding indicators. The purpose of the SEA Framework is to provide a set of criteria against which the performance of the LFRMS can be predicted and evaluated. The SEA Framework has been developed using an iterative process, based on the review of relevant plans and programmes, the evolving baseline, analysis of key sustainability issues and consideration of which of these issues can potentially be addressed by the LFRMS.
- 4.1.3 The Council developed seventeen Sustainability Appraisal objectives (SA Objectives) within its initial Integrated Impact Assessment (IIA) report for New Local Plan Review in 2023. These objectives are considered to remain relevant, and therefore form the basis for the SEA/SA appraisal. These are set out in table 4.1 below.

Table 4.1 SA Objectives

SA OBJECTIVE

1. To conserve and enhance the natural environment and biodiversity and create new spaces for nature

2. To reduce crime and anti-social behaviour and the fear of crime, and ensure that everyone feels safe

3. To support a diverse and vibrant local economy to foster sustainable economic growth and support the Borough's town centres

4. To build inclusive communities by reducing social exclusion, promoting equity and equality and respecting diversity

5. To minimise effects on climate change through reduction in emissions, and adoption measures to adapt and build resilience to climate change

6. To reduce the risk of flooding to current and future residents

7. To improve air quality in the Borough.

8. To protect and enhance the Borough's parks and open spaces

9. To protect and enhance water and land resources, including quality

10. To promote traffic reduction and encourage more sustainable alternative forms of transport

11. To reduce the amount of waste produced and minimise the amount sent to landfill

12. To enhance, protect and increase community facilities and services

13. To meet the housing needs of all Borough's residents inclusively

14. To maximise the re-use of buildings and the recycling of building materials

15. To improve health and wellbeing for all Borough residents

16. To conserve and enhance sites, features and areas of historical, archaeological, and cultural heritage value, local distinctiveness and townscape quality

17. To reduce the use of energy, minimise reliance on fossil fuels, and encourage energy efficiency.

4.1.4 Table 4.4 below assesses the compatibility of the different policy options with these SA objectives. Table 4.2 shows the marking scheme used.

Table 4.2: Marking scheme

+	Objectives are compatible			
- Objectives are conflicting				
?	Objective correlation is unknown			
Х	No Objective correlation (i.e. unlikely to have a significant effect)			

- 4.1.5 The aim of the Strategy is to achieve a holistic management of flood risk. This will be carried out through a series of strategic objectives. These are Strategy includes a series of four themes, supported by objectives and actions to tackle flood risk in the Borough. They are:
 - Flood Resilient Communities
 - Adaptive Places
 - Working Together
 - Monitoring and Review
- 4.1.6 These themes and the corresponding objectives have been identified through local knowledge, the use of evidence base documents such as the Surface Water Management Plan (SWMP), the need to implement our LLFA duties and other duties as a Council (Local Planning Authority, Highways Authority, Contingency Planning, etc.). The Action Plan includes different actions; some relate to soft measures: investigation, review, policy implementation, whereas others can be categorised as hard measures, ensuring the physical integrity of critical infrastructure. Some actions are linked and could be used to meet more than one objective.

Table 4.3 Table setting out where the SA objectives have an interrelation with the Strategy's 5 objectives. Y=Interrelation, N=No interrelation.

No.	SA Objective	Flood Resilient Communities	Adaptive Places	Working Together	Monitoring and Review
1	Biodiversity	Y	Y	Y	Y
2	Crime	Ν	Ν	N	N
3	Economic growth	Y	Y	Y	N
4	Social inclusion	Y	Y	Y	N
5	Climate change	Y	Y	Y	Y
6	Flooding	Y	Y	Y	Y
7	Air Quality	N	Y	N	N
8	Parks and open spaces	Y	Y	Y	Y
9	Pollution	Y	Y	Y	Y
10.	Traffic reduction	N	N	N	N
11	Waste	Y	Y	Y	Y
12	Social and community facilities	Y	Y	Y	Y
13	Housing need	Y	Y	Y	Y
14	Circular economy	N	Ν	N	N
15	Heath care	Y	Y	Y	Y
16	Conservation of cultural heritage	Y	Y	Y	Y
17	Fossil Fuels	N	N	N	N

- 4.1.7 The elements of the LFRMS are likely to have a strong relationship with SA objectives. Most aspects of the strategy are related with Biodiversity (1), Climate Change (5), Flooding (6), Pollution (9), and Waste (11).
- 4.1.8 A relationship also exists with Economic Growth (3), Social Inclusion (4), Air Quality (7) ,Parks and open spaces (8), Social and Community facilities (12), Housing Need (13), Healthcare (15) and Conservation of Cultural Heritage (16).
- 4.1.9 The objectives of the LFRMS will not have a relationship with Crime (2), Traffic Reduction (10), Circular Economy (14) or Fossil Fuels (17). These have not been taken forward to the next assessment.

Table 4.4 Table describing the nature of the relationship between the relevant SA objectives and the strategy's objectives-see table 4.2.

No.	SA Objective	Flood Resilient Communities	Adaptive Places	Working Together	Monitoring and Review
1	Biodiversity.	X/+	+/-	+/-	x/+
3	Economic growth	+	+	+	X
4	Social Inclusion	+	+	+	x
5	Climate Change	+	+	+	+
6	Flooding	+	+	+	+
7	Air Quality	-/+	+	-/+	-/+
8	Parks and Open Spaces	-/+	+	+	-/+
9	Pollution	+	+	+	+
11	Waste	+	+	+	+
12	Social and community facilities	+	+	+	+
13	Housing need	+	+	+	+/-
15	Health Care	+	+	+	+/-
16	Conservation of cultural heritage	+	+	+	+

4.2 Assessment Details

1. Biodiversity

4.2.1 The strategy is likely to have a relationship with biodiversity. However, the nature of this relationship will depend on the location, severity and length of time of the flooding event. For example, a flooding event could reduce biodiversity depending on the length and nature of the flood by killing plans, animals etc, or it could increase biodiversity by facilitating the development of a new habitat for water based flora and fauna. Objectives under the Adaptive Places theme may lead to the protection of areas of importance in terms of biodiversity and therefore there may be a slight positive relationship between these objectives and the SA objective.

3. Economic growth

4.2.2 This has a relationship with three out of the four themes in the LFRMS. Responsiveness of the council departments in predicting and preparing for a flood could mean a reduction in the impact of the event on businesses. It also means they may be in a position to repair damage more efficiently and to reopen sooner, or depending on the severity of the weather event, not have to close at all. This would reduce the impact on the local economy. The preparation of new policies could have a positive effect in business by protecting them from flood risk.

4. Social Inclusion

4.2.3 Flooding disproportionately affects the more vulnerable members of society. The strategy has a series of objectives which aim to reduce flood risk in the Borough and address it in a holistic way, benefiting all residents, in particular, those located in areas prone to flooding. Elderly, disabled people or those with mobility issues who live or work in flood prone areas may be more vulnerable to flooding and the strategy may therefore have a beneficial effect on them by reducing flood risk. Promoting awareness of local flood risk and ways that the risk can be managed by people and communities could have a direct significant positive impact upon human health and well-being through reduced stress levels from being better prepared to deal with flooding. Improved awareness of localised problems could increase the likelihood of providing suitable mitigation. Therefore, anything which reduces the likelihood of flooding events and improves the council and resident's abilities to deal with these events, is going to have a positive impact on social inclusion.

5. Climate Change

4.2.4 The wording of this SA objective doesn't specifically mention flooding. However, the consequences of the measures used to minimise climate change would result in less severe weather events and fewer flooding events. On the other hand, preparing for flooding events will help adaptation to Climate Change. Therefore, each objective of the strategy would have a strong positive relationship with this SA objective.

6. Flooding

4.2.5 This is obviously the strongest and most positive relationship as the strategy goes to the heart of the existing policy to reduce flooding across the borough, and improve the Council's communication, management and responsiveness to flooding. All of the LFRMS objectives and associated measures are likely to have either positive or significant positive effects on this SA objective, as the measures have all been designed with the aim of reducing overall flood risk, its probability and consequences.

7. Air Quality

4.2.6 Some of the outputs of the Adaptive Places theme is the delivery of green infrastructure. The focus on delivering green infrastructure will also have positive benefits on air quality in a number of locations, particularly where SuDS are planned in the public highway.

8. Parks and Open Spaces

4.2.7 The relationship is slight and open to interpretation. Like the relationship with SA Objective 1, the relationship of the strategy with this objective is likely to depend on the location, severity and type of flooding. It could be a positive one if flooding damage to parks is reduced, by measures including proper drainage measures being installed. However, a major flood of freshwater could also result in a new habitat being formed within a park which may over time be beneficial. This side to the relationship should also be borne in mind. Actions under the Adaptive Places theme may lead to the protection of parks/open spaces which may be used to contain water during a flooding incident or may be saved from flooding. Therefore, there may be a slight positive (although mainly neutral) relationship between these objectives and the SA objective.

9. Pollution

4.2.8 A positive relationship exists with this objective. With regard to all types of flooding, rubbish, contaminants and other chemicals can enter the water system during a flood. Particularly in the case of sewer flooding as this obviously causes pollution. Any measures to reduce this, including better management of resources during flooding events, to would be welcomed and have a positive relationship.

11. Waste

4.2.9 After a flooding event, damaged/large/bulky items need to be disposed of. These items are often hazardous particularly if the flooding has been sewer related. Pressure is therefore on the council to remove these items quickly. The improved dialogue and responsiveness of council departments will have a positive impact on this objective. Any measure to reduce flood risk and prepare for recovery will have a positive impact in this objective.

12. Social and community facilities

4.2.10 The relationship is likely to be similar to that with economic growth and social inclusion. The reduction in flooding, and the improved responsiveness to a flooding event will ensure that disruption to social and community facilities is minimised. Those who depend on these facilities will benefit. Actions under the Adaptive Places and Working Together themes of the LFRMS will mean that flooding will be considered when planning for new development which includes the location of Social and community facilities. Therefore, the relationship is a positive one.

13. Housing Need

4.2.11 The principal potential negative relationship that is likely to occur is with housing need, where the strategy will support our current policy of resisting the creation of self-contained dwellings in basements within a high flood risk zone. However, this requirement will ensure that the housing that is produced will be of a high quality and safe for occupation, so in fact there is a +/- relationship with element of the strategy.

15. Health Care

4.2.12 The relationship is similar to that with social and community facilities. Disruption to Health Care provision will be reduced if the LFRMS objectives are implemented. Objectives under the Flood Resilient Communities theme of the LFRMS will lead to further information on flooding which will be considered when planning for new health care facilities. This could have a positive or negative impact on the number of new facilities provided, depending on their location.

16. Conservation and Cultural Heritage

4.2.13 Issues for the historic environment relating to flood risk measures, water damage and mitigation are in some ways quite distinct however we have specific separate plan policies relating to the conservation of our assets. A reduction in flooding will reduce the damage that these events can cause to the Borough's heritage. However, there is also potential for direct and indirect impacts of flood prevention measures on cultural heritage. Although the aim of the strategy has an overall positive relationship with this objective, the effects for cultural heritage are uncertain in respect of specific flood prevention and protection measures.

4.3 Summary

4.3.1 This wide range of relationships with the SA objectives is as expected given that the stated purpose of the LFRMS is a broad strategy document and the action points for each objective extend across a number of departments within the council. Its is an overarching positive relationship.

5 SEA Findings

- 5.1.1 In general, the LFRMS objectives have been found to have mostly positive effects on the environment, due to the LFRMS being a proactive strategy to reduce and manage flooding within RBKC. While potentially significant positive effects have been identified in relation to SEA objectives 1, 5, 6, 9 and 11, no significant negative or negative effects from the measures in the LFRMS have been identified in relation to any of the SEA objectives. Some LFRMS objectives are unlikely to have any effects on the SEA framework as they relate more to improving knowledge and understanding of flood risk rather than actual works or actions that could have an effect on the ground.
- 5.1.2 Therefore, when taken as a whole, the synergistic and cumulative effects of all the LFRMS objectives and measures to achieve those objectives are considered to be overall positive for the environment. This is because the likely outcome of implementing the LFRMS is a reduction in flood risk to the natural and built environment within the Royal Borough of Kensington and Chelsea.

6 Monitoring

6.1 Long/short term and Cumulative impacts

- 6.1.1 Annex I of the SEA Directive requires that the assessment of effects include secondary, cumulative and synergistic effects.
- 6.1.2 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. flood defence works changes a water table and thus affects the ecology of a nearby wetland. These effects have been identified and assessed through the examination of the relationship between various objectives during the assessment of environmental effects.
- 6.1.3 Cumulative effects arise where several proposals individually may or may not have a significant effect, but in-combination have a significant effect. Cumulative effects can be Additive, Neutralising or Synergistic.
- 6.1.4 The implementation of the strategy is likely to lead to positive effects. No cumulative negative effects are likely to arise as a result of its implementation. Also the strategy will be monitored annually which will help identify and address any unforeseen/unintended cumulative negative impacts.

6.2 Monitoring

- 6.2.1 The Strategy will be monitored annually as part of the Annual Monitoring Report produced by the Planning Department and which is publicly available. The Strategy will be formally reviewed every six years.
- 6.2.2 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).
- 6.2.3 In addition, the Environmental Report should provide information *on "description of the measures envisaged concerning monitoring"* (Annex I (i)) (Stage E).
- 6.2.4 Monitoring the objectives and actions is paramount as the Strategy is a 'living document'. The Action Plan is contained within the actual Strategy and contains indicators to ascertain if the actions have been successfully undertaken. The results will be reported annually as part of the Annual Monitoring Report which is produced by the Council's Planning Policy team. If some of the actions are obsolete they will be taken out of the Action Plan as the Strategy evolves.

7 Conclusions and Next Steps

- 7.1.1 The Policies within the Local Flood Risk Management Strategy meet the range of environmental objectives identified in the SEA Framework. The LFRMS themes and objectives are considered to offer generally positive effects on environmental, social and economic objectives.
- 7.1.2 None of the measures in the final LFRMS are likely to have significant negative effects on any of the SEA objectives. This is because of the nature of the LFRMS, which has the overarching aim of effective flood risk management, meaning that the effects of the strategy are largely positive.
- 7.1.3 This Strategic Environmental Assessment will be published for comments alongside the consultation LFRMS. Following the consultation process, the LFRMS, SEA and accompanying Habitats Regulation Assessment (HRA) screening report will be updated to incorporate consultation comments.