

Local Flood Risk Management Strategy 2015-21

Strategic Environmental Assessment / Sustainability Appraisal

2015



THE ROYAL BOROUGH OF
KENSINGTON
AND CHELSEA

Non-Technical Summary

- 1.1 This Environmental 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 Regulations 2004.
- 1.2 Chapter 2 describes the approach that is being taken to the SEA of the LFRMS and outlines the tasks involved.
- 1.3 Chapter 3 presents the review of plans policies and programmes, baseline information and key sustainability issues for RBKC.
- 1.4 Chapter 4 presents the SEA framework that is being used for the SEA of the LFRMS
- 1.5 Chapter 5 summarises the findings of the SEA of the LFRMS (June 2015). 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.
- 1.6 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.
- 1.7 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.

Table of Contents

Chapter 1 Introduction.....	1
Chapter 2 Methodology	4
Chapter 3 Reviews of plans policies and programmes and baseline information.....	7
Chapter 4 SEA Framework.....	11
Chapter 5 SEA Findings.....	17
Chapter 6 Monitoring.....	18
Chapter 7 Conclusions and Next Steps.....	19
Appendix A Habitats Screening.....	20
Appendix B SEA Scoping Report Consultation Summary.....	22

1.0 Introduction

- 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 ('the Environmental Report') presents the SEA of the LFRMS (June 2015) and it should be read in conjunction with that document.
- 1.2 The Flood and Water Management Act 2010 ('the Act') gave local authorities a new role to manage local flood risk in their area. The Act established RBKC as a Lead Local Flood Authority (LLFAs) 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.
- 1.3 The Act defines local flood risk as flood risk from:
 - Surface runoff.
 - Groundwater.
 - Ordinary watercourses (those that do not form part of a 'main river').
- 1.4 The Act requires LFRMSs 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.
- 1.5 LLFAs must consult risk management authorities that may be affected by the strategy as well as the general public about its LFRMS.

Strategic Environmental Assessment

- 1.6 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").
- 1.7 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.

- 1.8 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).
- 1.9 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.
- 1.10 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)).
- 1.11 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.

Compliance with the SEA Regulations

- 1.12 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.

Requirements	Where covered
<i>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:</i>	
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes;	Chapter 3
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	Chapter 3
c) The environmental characteristics of areas likely to be significantly affected;	Chapter 3
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and	Chapter 3

92/43/EEC;	
e) The environmental protection objectives, 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;	Chapter 3
f) The likely significant effects on the 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);	Chapter 5
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	Chapter 5
h) An outline of the reasons for selecting the 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 2
i) a description of measures envisaged concerning monitoring in accordance with Article 10;	Chapter 6
j) a non-technical summary of the information provided under the above headings.	Non - Technical Summary

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

Structure of the SEA Report

1.13 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 (February 2015).

- **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.

1.14 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.

2.0 Methodology

- 2.1 The approach for carrying out the SEA of the RBKC LFRMS is based on current best practice and the ODPM guidance document “A Practical Guide to the Strategic Environmental Assessment Directive”

SEA Stages and Work Undertaken

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

- 2.2 An 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. The 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.

- 2.3 A list of the comments received from the consultees along with a description of how each one was addressed is provided in Appendix A.

Stage B: Develop options, taking account of assessed effects

- 2.4 We developed an early draft of the LFRMS for internal review within the Council during February 2015. The draft SEA objectives in the Scoping Report were used to appraise the policies in this LFRMS. An initial SEA matrix was produced (Appendix D) in relation to the draft LFRMS policies and the findings and recommendations were taken into account by RBKC as the draft LFRMS for public consultation was produced. The SEA was then updated to reflect that version of the 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

- 2.5 This report

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

- 2.6 The consultation on the draft LFRMS took place between 2 April and 29 May 2015, with the report being made available to the statutory environmental bodies as well as a range of other consultees and the wider public.
- 2.7 Comments received during consultation were taken into account as the LFRMS was finalised. The comments relating specifically to the SEA were also taken into account and addressed where relevant as part of an updated version of the SEA to reflect the final version of the LFRMS.

Stage E

2.8 Monitoring the significant effects of implementing the LFRMS

Difficulties encountered and data limitations

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

3.0 Reviews of plans policies and programmes and baseline information

- 3.1 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)).
- 3.2 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.

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 (adopted March 2012)
Flood Risk Regulations 2009
Flood and Water Management Act 2010
National flood and coastal erosion risk management strategy for England 2011
Framework to assist the development of the Local Strategy for Flood Risk Management ‘A Living Document’ (Local government Association, 2011) ¹ : which provides guidance to develop the Strategy.
The Environment Agency National Strategy which builds on existing approaches to flood and coastal risk management and promotes the use of a wide range of measures to manage risk.
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 (GLA, 2011, as consolidated 2015) ¹
Thames Waterway Plan 2006-2011
Thames Corridor Catchment Abstraction Management Strategy 2004
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 2014) (FRMP) (draft)
London Regional Flood Risk Appraisal First Review 2014 provides an overview of all sources of flooding in London and addresses its probability and consequences.
Local Policy
Core Strategy 2010 (as amended) / 'Local Plan' (RBKC, 2010) which sets out the vision, objectives and detailed spatial strategy for future development in the Borough up to 2028 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.
Climate Change Strategy 2008-2015 (RBKC 2008): shows how the Council will lead, locally, both in mitigating the causes of climate change and in adapting to the effects that are likely to occur. From 2015 onwards the current strategy will be replaced by a 2015-2020 Climate Change and Air Quality Policy Statement and Action Plan.
Strategic Flood Risk Assessment (SFRA) (RBKC, 2014): is a planning tool that enables the Council to select and develop sustainable site allocations away from vulnerable flood risk areas.
Sequential Test (RBKC, 2009): 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.

Table 3.1 Plans, Policies and Programmes reviewed

Summary of Review of Plans, Policies and Programmes

3.3 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** (2011) – The Flood and Water Management Act requires all LFRMSs 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 and Technical Guidance (2012) -The National Planning Policy Framework and the accompanying Technical Guidance** were published and came into effect on 26 March 2012. They provide 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. Paragraphs 99-108 of the National Planning Policy Framework deal with issues of flood risk management, and in combination with paragraphs 2-19 of the accompanying Technical Guide, replace Planning Policy Statement 25 (Development and Flood Risk).

The National Planning Policy Framework advises that:

- “Local Plans should be supported by Strategic Flood Risk Assessment and develop policies to manage flood risk from all sources, taking account of advice from the Environment Agency and other relevant flood risk management bodies, such as lead local flood authorities and internal drainage boards. Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property and manage residual risk, taking account of the impacts of climate change...” (Paragraph 100, page 23).
 - “When determining planning applications, local planning authorities should ensure flood risk is not increased elsewhere and only consider development appropriate in areas at risk of flooding where, informed by a site-specific flood risk assessment following the Sequential Test, and if required the Exception Test, it can be demonstrated that:
 - Within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and
 - Development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed, including by emergency planning; and it gives priority to the use of sustainable drainage systems.” (Paragraph 103, page 24).
- 3.4 The Core Strategy sets out how a Strategic Flood Risk Assessment (SFRA) for the Royal Borough of Kensington and Chelsea was prepared jointly with the London Borough of Hammersmith and Fulham. The SFRA assessed the risk of flooding of different areas of the Borough and identified that there is no 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.
- 3.5 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. Thames Water are currently looking at improving capacity in the Counters Creek storm water sewer in

about 2020. 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.

- 3.6 Of particular relevance to this strategy is the Corporate or Partnership Actions for Respecting Environmental Limits which states “The Directorate of Planning and Borough Development together with the Directorate of Transport, Environment and Leisure Services will actively support Thames Water in the delivery of short-term mitigation against sewer flooding and will continue to support the planning and development of a long-term solution to reduce the risk of sewer flooding in the west of the Borough;”, Strategic Objective CO 7 for Respecting Environmental Limits, and Core Strategy policy CE2: Flooding. This plan directly supports this in delivering the Local Flood Risk Management Strategy.

3.7 **Baseline Information**

There is a groundwater source protection zone in the south east area of your 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’.

The SA/SEA Scoping report for the Core Strategy identified the key characteristics of the Royal Borough of Kensington and Chelsea. Taken together with section 4.3 of the original LDF Scoping Report, this addendum, the SA and the Core Strategy provide 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 the 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.

4.0 SEA Framework

- 4.1 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.
- 4.2 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.
- 4.3 The Council developed sixteen Sustainability Appraisal objectives (SA Objectives) within its initial SEA/SA Scoping report for the LDF in 2005. These objectives are considered to remain relevant, and therefore form the basis for the SEA/SA appraisal. These are set out in table 4.2 below.

SA OBJECTIVE
1. To conserve and enhance the natural environment and biodiversity.
2. Reduce crime and anti-social behaviour and the fear of crime.
3. To support a diverse and vibrant local economy to foster sustainable economic growth.
4. Encourage social inclusion, equity, the promotion of equality and a respect for diversity.
5. Minimise effects on climate change through reduction in emissions, energy efficiency and use of renewables.
6. Reduce the risk of flooding to current and future residents.
7. Improve air quality in the Royal Borough.
8. Protect and enhance the Royal Borough's parks and open spaces.
9. Reduce pollution of air, water and land. 9a. Prioritize development on previously developed land.
10. To promote traffic reduction and encourage more sustainable alternative forms of transport to reduce energy consumption and emissions from vehicular traffic.
11. Reduce the amount of waste produced and maximise the amount of waste that is recycled.

12. Ensure that social and community uses and facilities which serve a local need are enhanced, protected, and to encourage the provision of new community facilities.
13. To aim that the housing needs of the Royal Borough's residents are met.
14. Encourage energy efficiency through building design to maximise the re-use of buildings and the recycling of building materials.
15. Ensure the provision of accessible health care for all Borough residents.
16. To reinforce local distinctiveness, local environmental quality and amenity through the conservation and enhancement of cultural heritage.

Table 4.1 SA Objectives

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

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

Table 4.2: Marking scheme

4.4 16 SEA objectives have been defined as set out in Table 4.1.

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 objectives, supported by actions (see Action Plan – Appendix 1), to tackle flood risk in the Borough. They are:

- to coordinate the management of flooding from different sources (working in partnership with other flood risk authorities to ensure we are prepared for a flooding event and we can recover promptly);
- to communicate flood risk effectively
- to reduce flood risk and its consequences;
- to gather information and undertake research about flood risk (which could aid a future policy review);
- to undertake a review of planning policies to ensure flood risk is fully addressed.

4.5 These 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.

No.	SA Objective	Objective 1- to coordinate the management of flooding from different sources	Objective 2- to communicate flood risk	Objective 3- to reduce flood risk and its consequences;	Objective 4- to gather information and undertake research about flood risk	Objective 5- to undertake a review of planning policies to ensure flood risk is fully addressed
1	Biodiversity	Y	Y	Y	Y	Y
2	Crime	N	N	N	N	N
3	Economic growth	Y	Y	Y	N	Y
4	Social inclusion	Y	Y	Y	N	Y
5	Climate change	Y	Y	Y	Y	N
6	Flooding	Y	Y	Y	Y	Y
7	Air Quality	N	N	N	N	N
8	Parks and open spaces	Y	Y	Y	Y	Y
9	Pollution	Y	Y	Y	Y	Y
9A	Previously developed land	Y	Y	Y	Y	
10.	Traffic reduction	N	N	N	N	N
11	Waste	Y	Y	Y	Y	Y
12	Social and community facilities	Y	Y	Y	Y	Y
13	Housing need	Y	Y	Y	Y	Y
14	Energy efficiency	N	N	N	N	N
15	Health care	Y	Y	Y	Y	Y
16	Conservation of cultural heritage	Y	Y	Y	Y	Y

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

4.6 The elements of the FRMS are likely to have a strong relationship with SA objectives. In particular most aspects of the strategy are related with Climate Change (5), Flooding (6), Pollution (9), and Waste (11).

A relationship also exists with Biodiversity (1), Economic Growth (3), Social Inclusion (4), Parks and open spaces (8), Social and Community facilities (12), Housing Need (13), Healthcare (15) and Conservation of Cultural Heritage (16).

The objectives of the LFRMS will not have a relationship with Crime (2), Air Quality (7), Traffic Reduction (10) or Energy Efficiency (14). These have not been taken forward to the next assessment.

Nature of the relationships of the LFRMS objectives and the SA objectives.

No.	SA Objective	Objective 1- to coordinate the management of flooding from different sources	Objective 2- to communicate flood risk effectively	Objective 3 - to reduce flood risk and its consequences;	Objective 4 - to gather information and undertake research about flood risk	Objective 5- to undertake a review of planning policies to ensure flood risk is fully addressed
1	Biodiversity.	+/-	X/+	+/-	x/+	x/+
3	Economic growth	+	+	+	x	+
4	Social Inclusion	+	+	+	x	x/+
5	Climate Change	+	+	+	+	+
6	Flooding	+	+	+	+	+
8	Parks and Open Spaces	+	--	+	-/+	x/+
9	Pollution	+	+	+	+	+
9A	Previously developed land	+	+/-	+	x	+/-
11	Waste	+	+	+	+	+
12	Social and community facilities	+	+	+	+	+
13	Housing need	+	+	+	+/-	+/-
15	Health Care	+	+	+	+/-	+/-
16	Conservation of cultural heritage	+	+	+	+	+

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

4.7 Explanation of the relationships between the elements of the LFRMS and the relevant SA objectives.

1. Biodiversity

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 plants, animals etc, or it could increase biodiversity by facilitating the development of a new habitat for water based flora and fauna. Objective 2 and 5 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

This has a relationship with objectives 1,2, 3 and 5 of the strategy

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

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

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

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 councils 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.

8. Parks and Open Spaces

The relationship is slight and open to interpretation. Like the relationship with 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. Objective 2 and 5 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

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.

9A. Previously developed land

This SA objective could be linked to trying to reduce impermeable surfaces and SuDS-we resist the development of PDL unless it incorporates SuDS, a positive or negative relationship could exist with this objective as the strategy will require development on PDL, to incorporate SuDS. Failure to do this may result in development not coming forward which would result in the potential for a slight negative relationship with this objective. Improved Communication may lead to further information regarding that land which may increase or reduce its use and so this objective could have a positive relationship. Also objective 5 will provide a better basis to ensure efficient use of PDL through improved drainage and the use of SUDS.

11. Waste

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

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. Objective 5 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

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

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 4 and 5 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

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.

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.

5.0 SEA Findings

- 5.1 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 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.
- 5.2 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.

6.0 Monitoring

Long/short term and Cumulative impacts?

- 6.1 Annex I of the SEA Directive requires that the assessment of effects include secondary, cumulative and synergistic effects.
- 6.2 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.
- 6.3 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.
- 6.4 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.

Monitoring

- 6.5 The Strategy will be monitored annually as part of the monitoring report produced by the Planning Department and which is publicly available. The Strategy will be formally reviewed every six years.
- 6.6 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).
- 6.7 In addition, the Environmental Report should provide information on *“description of the measures envisaged concerning monitoring”* (Annex I (i)) (Stage E).
- 6.8 Monitoring the objectives and actions is paramount as the Strategy is a ‘living document’. The Action Plan is contained within the actual Strategy (Appendix 1) 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. If some of the actions are obsolete they will be taken out of the Action Plan as the Strategy evolves.

7.0 – Conclusions and Next Steps

- 7.1 The Policies within the Local Flood Risk Management Strategy meet the range of environmental objectives identified in the SEA Framework. The LFRMS Policies are considered to offer generally positive effects on environmental, social and economic objectives.
- 7.2 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.
- 7.3 This Sustainability Appraisal Report was published for comments alongside the Consultation draft LFRMS. Following the consultation process, the LFRMS was adopted by the Council in July 2015. Both, the LFRMS and the SEA are available on the Council's website.

Appendix A

LOCAL FLOOD RISK MANAGEMENT STRATEGY HABITATS REGULATIONS ASSESSMENT SCREENING

Title of Plan: Local Flood Risk Management Strategy

Location of Plan: The Royal Borough of Kensington and Chelsea (Please see attached plan showing relationship to the international designation)

International Nature Conservation Site: Richmond Park and Wimbledon Common.

The following sites of Special Scientific Interest (SSSI) (Natura 2000) in London were considered in the screening and ruled out: Syon Park, Barn Elms Wetland Centre; Brent Reservoir; Hampstead Heath Woods; Walthamstow reservoirs; Walthamstow Marshes; Epping Forest; Gilberts Pit -Charlton ; Oxleas Woodlands; Bromley Common.

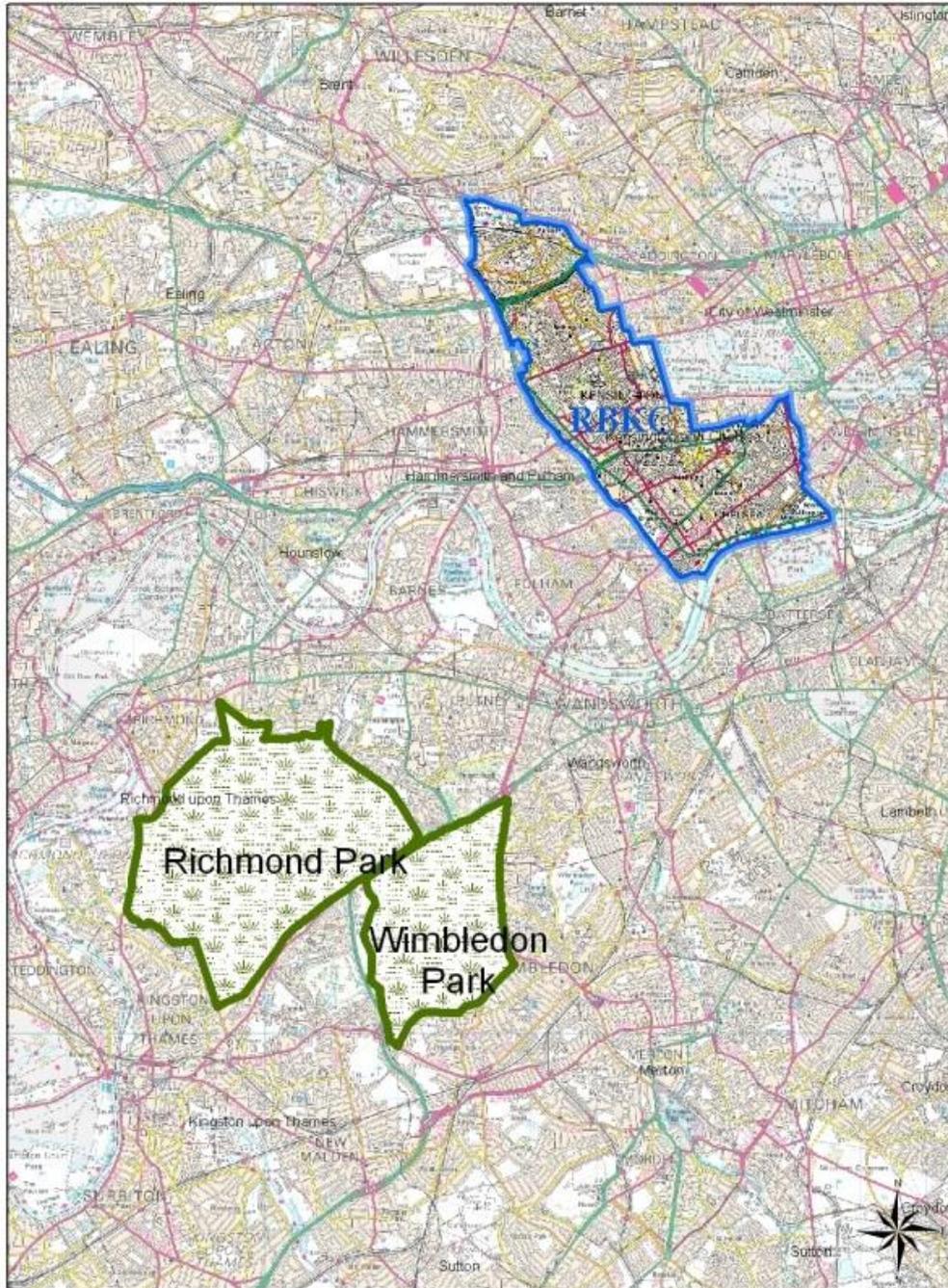
Description of Plan: The Core Strategy is the plan to guide development in the Royal Borough of Kensington and Chelsea up to the year 2028. Various parts of the Core Strategy are being reviewed and supplemented over time. This screening assessment relates to the preparation of a Local Flood Risk Management Strategy, which, although a separate document from the Core Strategy, will be an evidence base document guiding its future review.

The strategy has been assessed to find out if they would affect the European sites. The following table shows the results of the assessment. The characteristics of the sites are shown after the policy assessment table.

Local Flood Risk Management Strategy				
	POLICY	WHY POLICY WILL HAVE NO IMPACT ON NATURA 2000 SITES	LIKELY TO HAVE AN IMPACT	ESSENTIAL RECOMMENDATIONS TO AVOID POTENTIAL NEGATIVE EFFECTS ON EUROPEAN SITES
	LFRMS	The measures contained within the strategy will not be likely to have any effect on a European Site as their aim is to protect the Borough against different types of flooding which will be	No	None

		normally contained within the Borough's boundaries.		
--	--	---	--	--

HABITATS ASSESSMENT SITES



Appendix B

SEA Scoping Report consultation summaries

Natural England

Table 1 in section 6.2 should also include The Conservation of Wild Birds (2009/147/EC) and the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) Directives.

Noted, 6.2 of the scoping report will be amended accordingly. Table 3.1 of this report has also been updated.

Consideration should certainly be given to the potential benefits of any new Green Infrastructure (GI) that can be accommodated within the borough; taking account of the limited space to work with this could include the retrofitting of certain GI elements such as green or brown roofs or walls. Natural England would agree that the LFRMS is a “strategic matter” in that flooding doesn’t respect local authority boundaries and as such would need to be considered on a wider scale with adjoining authorities responsible for flood strategy preparation and management. Liaison with other authorities in the area would be encouraged in order to ensure cross boundary consistency of approach and more efficient use of resources in times of budgetary constraint; thus ensuring the Duty to Co-operate was effectively met.

Noted This is the aim of LFRMS objective 1.

Given the relative proximity of Natura 2000 sites in the greater London area it would be useful to show consideration for, even if they can be screened out, other sites such as the Lee Valley Special Protection Area (SPA), Epping Forest Special Area of Conservation (SAC) and the South West London Waterbodies Special Protection Area (SPA). The two aforementioned SPAs do also form a part of the Ramsar network of internationally important wetlands.

Noted. Updated in Habitats Regulation Appraisal (HRA) screening

Given the type of work being undertaken, planning for flood risk in the borough, it should be possible to take account of the proposals and ensure that they are carried out in such a way as to avoid any impacts upon any of the sites mentioned previously. The work of highlighting the risks and how to protect against them to the general public, for instance, is work which could be screened out as not having any impact as this would only relate to people and their homes / work places in the borough which doesn’t directly contain any Natura 2000 sites. Given the finding in the short HRA screening included at the end of this document the conclusion that no further assessment under the next stage (Appropriate Assessment) would be required is agreeable to Natural England given the distance between the borough and the nearest sites and the fact that Richmond Park SAC isn’t a site susceptible to changes in water level on site whereas Wimbledon Common SAC is known to be more dependant given the Northern Atlantic Wet Heaths. However given that the borough is on the northern side of the River Thames hydrological connectivity would be minimal so works undertaken as a result of the LFRMS wouldn’t be likely to impact upon the SAC.

Noted

English Heritage

Have requested that more information about the impact upon Conservation Areas and listed buildings. They also specifically recommend that the SEA environmental report identifies clear information on the historic environment. Issues for the historic environment relating to flood risk measures, water damage and mitigation are in some ways quite distinct and we would advise that the SEA report should ensure these are addressed appropriately.

Noted. Addressed in section 4 of this report.

Task A1 Plans and Programmes

With respect to relevant plans, policies and programmes, the local policies in para 6.2, Table 1, should include reference to relevant the Borough's SPDs and evidence base for the historic environment, including conservation area appraisals and management plans.

Noted. Added to table 3.1

Task A2 Baseline information

In addition to locally held information relevant to the historic environment we recommend the baseline information for cultural heritage should incorporate:

- The Heritage at Risk Register published by English Heritage annually. The 2014 Register is available on our website at: <http://risk.english-heritage.org.uk/register.aspx?rs=1&rt=0&pn=4&st=a&di=Southwark&ctype=all&crit=>
- Reference to the Historic Environment Record held by the Greater London Archaeological Advisory Service (GLAAS), including the Archaeological Priority Areas in the RBK&C

Noted. Added to table 3.1

Task A3 Sustainability issues

The reference to the Borough's heritage in the Environmental issues is welcome; we would suggest that the environmental report provides appropriate information on the nature of the potential threats to these heritage assets and also that the vulnerability of the archaeological resource is identified.

Noted. Addressed in section 4 of this report.

Task A4 Sustainability Appraisal Framework

The benefits of conserving and enhancing the Borough's cultural heritage are not entirely covered in terms of local distinctiveness, environmental quality and amenity considerations. There are other historic values that may also apply. To address this, we suggest re-ordering of the objective, as follows:

'16. Conserve and enhance the historic environment and reinforce local distinctiveness, local environmental quality and amenity'.

Noted-while the recommendations are appreciated, our mitigation measures will take into consideration these issues and in any case these issues relating to conservation and heritage are covered by other adopted policies within the Local Plan.

Environment Agency

Comments on RBKC SEA Scoping for LFRMS

SA Q1 Are there any particular policies, plans and programmes or similar document sof your organisation that you consider the Council should 'have regard to' which are not already set out in Table 1? If yes, please provide details.

- Thames Estuary 2100 Plan
- The Mayor's London Plan (2014)
- Environmental Permitting Regulations
- Groundwater Protection Policy
- Groundwater Daughter Directive

SA Q2 Do you have any comments on the accuracy, scope and coverage of the baseline data or know of any further data or indicators that might provide useful information? If so, please provide details.

- Figure 2 – Is this still the most up to date accurate information on flood risk to the Borough? This appears to be data from 2009. There is no information about the areas at risk of flooding from a breach or overtopping of the Thames tidal flood defences.
- There is a need to understand the restrictions and limitations imposed due to geological conditions. This should be a material factor as part of any SEA because it can influence the extent and likelihood of an area to groundwater flooding and/or the suitability of some types of SUD options.
- There is a groundwater source protection zone in the south east area of your 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'.

SA Q3 Do you have any comments on the sustainability issues and problems identified for the borough or know of any further issues and problems that should be included?

No

SA Q4 Do you have any comments on the sustainability objectives and indicators or know of any further sustainability objectives and indicators that should be considered?

No