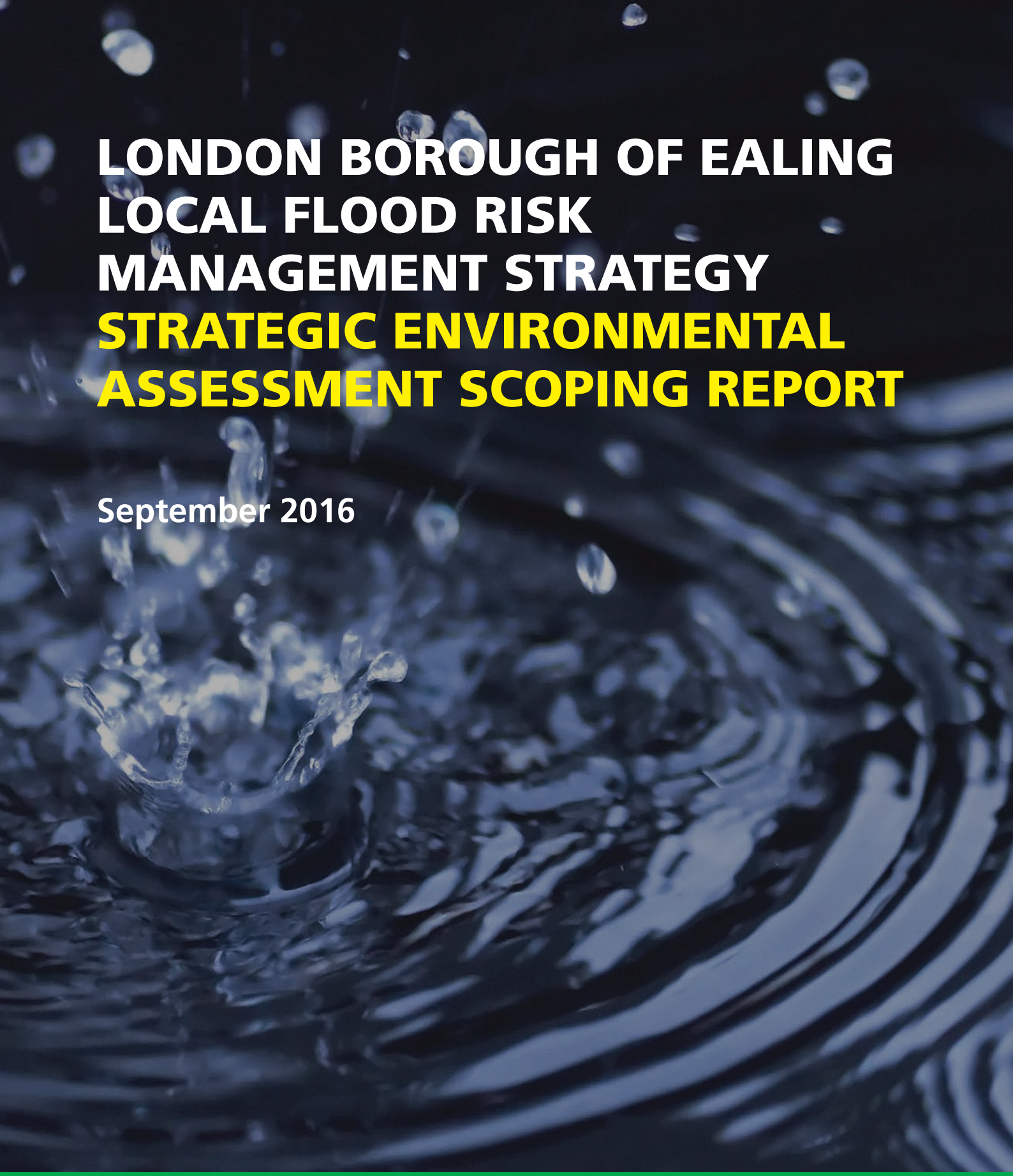

LONDON BOROUGH OF EALING LOCAL FLOOD RISK MANAGEMENT STRATEGY

STRATEGIC ENVIRONMENTAL ASSESSMENT SCOPING REPORT

September 2016

EALING COUNCIL

Ealing

www.ealing.gov.uk

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Title	London Borough of Ealing Local Flood Risk Management Strategy: Strategic Environmental Assessment Scoping Report
Version	1.3 – Final for Adoption
Owner	Shahid Iqbal – Assistant Director Highways Service

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1. Executive Summary

1.1. Strategic Environmental Assessments

A Strategic Environmental Assessment (SEA) reviews the proposals of plans, programmes and strategies so as to identify the potential impacts that they could have upon the environment and local surroundings. The European SEA Directive 2001, transposed into English Law through the Environmental Assessment of Plans and Programmes Regulations (2004), requires a SEA to include the evaluation of existing statistics. This should be through the identification of key environmental issues and other documents which relate to the plan, programme or strategy being assessed. This SEA accompanies the final version of the London Borough of Ealing's Local Flood Risk Management Strategy ('the Strategy') April 2016. Future revisions of the Strategy may require a further SEA depending on the scale of the amendments, particularly if any site-specific work schemes proposed in any revision of the Strategy are implemented.

The SEA process includes several stages, each made up of a number of tasks. The main stages include the screening phase, the Scoping Report, the Environmental Report, a consultation exercise and future monitoring of the Strategy in line with the SEA. This document is the SEA Scoping Report and includes an initial assessment of existing environmental issues within the borough, highlighting any possible future issues that may occur and/or may be exacerbated by implementation of the Strategy. The assessment is performed through a comparison exercise of the Strategy's objectives against SEA objectives proposed within this SEA Scoping Report, from which conclusions have been made.

This SEA Scoping Report has been consulted upon by the three statutory agencies (the Environment Agency, Historic England and Natural England) alongside the public consultation of the Strategy which occurred in between February and April 2015

1.2. Key Environmental Issues and SEA Objectives

Through the analysis of borough baseline data and associated documents most relevant to the Strategy the following key environmental issues have been identified. Some social issues which may have environmental consequences have also been included. The Council will take these into account when planning and undertaking future flood risk management work schemes:

- Local population growth
- Increase in life expectancy
- Higher unemployment levels
- Increase in the amount of development and/or land use changes
- Climate change impacts
- Air quality impacts
- Poor to moderate ecological and chemical status of water bodies
- Existence of groundwater source protection zones
- Water supply under serious stresses
- Continual protection of the natural and built environment

So as to assess the impact of the Strategy the following SEA objectives are proposed for comparison with the Strategy objectives and actions:

- **SEA1:** Maintain, and enhance where possible, leisure and recreational benefits
- **SEA2:** Prevent any decline in the quality or quantity of water resources and enhance the WFD status of rivers where possible
- **SEA3:** Enable local economic growth and development
- **SEA4:** Promote sustainable development to reduce and mitigate the potential impacts of climate change
- **SEA5:** Maintain and enhance biodiversity and habitats

The Council has scoped out having a SEA objective specifically relating to preventing any increase in flood risk at or from any site because this underpins the entire Strategy, therefore there is no need to duplicate this in the SEA.

1.3. SEA Consultation Questions

To aid the consultation of this SEA Scoping Report there are a number of questions which the Council requested the three statutory consultation bodies to answer as part of the consultation process. This assisted with revisions of the draft of the Strategy before the final version was adopted by the London Borough of Ealing. The SEA consultation questions asked, based upon the individual SEA tasks, were:

1 Do you feel we have included all the relevant policies, documents, plans and legislation that relate to or could affect the Local Flood Risk Management Strategy?
2 If not, which policies do you think have we overlooked?
3 Do you agree that the baseline data we have included herein is appropriate to the Local Flood Risk Management Strategy that is being developed?
4 Do you have, or know of, any additional baseline indicators or data that should be added into this SEA?
5 As far as you are aware, is the baseline data correct?
6 Do you agree that these are the main environmental issues relating to the Strategy affecting the London Borough of Ealing?
7 Are there any other environmental issues that you believe should be added into this SEA? If so, please give details.
8 Do you believe that any of these environmental issues do not affect the London Borough of Ealing? If so, please give details.
9 Do you agree that these proposed SEA objectives are suitable in the context of Ealing?
10 Are there any other SEA objectives that you believe should be included? If so, please give details.
11 In your opinion, should any of these SEA objectives be removed from this Scoping Report? If so, please give details.
12 Do you think that the baseline indicators in chapter 4 provide a relevant measure for these proposed SEA objectives?
13 Do you have any comments on the proposed method for the assessment of the SEA objectives with the Local Flood Risk Management Strategy objectives and actions?
14 Do you have any additional comments or suggestions for this SEA Scoping Report?

1.4. Scoping Assessment and Conclusions

So as to initially compare the SEA objectives with those proposed in the Strategy the matrix shown in Figure 1.1 has been used. The Council recognises that the Strategy objectives and actions are currently fairly high level with limited detail. When updated in the future as part of the Strategy's review cycle the actions are expected to promote specific work schemes. A SEA screening exercise may be required prior to the commencement of any specific work scheme depending on the type and scale of the proposed scheme.

		SEA Objective Number				
		SEA1	SEA2	SEA3	SEA4	SEA5
Local Flood Risk Management Strategy Objective Number	SO1	**0**	+	**0**	+	+
	SO2	**0**	**0**	**0**	**0**	**0**
	SO3	+	+	**0**	+	+
	SO4	**0**	+	+	+	+
	SO5	+	+	+	+	+

Where the Strategy objectives are:

- **SO1:** Develop and improve the understanding of flood risk across the borough
- SO2: Maintain and improve communication and cooperative working between strategic parties and Risk Management Authorities
- **SO3:** Prevent the increase of flood risk through inappropriate development
- **SO4:** Develop community awareness of flood risk and ways of reducing the risk in the future
- **SO5:** Identify and implement flood mitigation measures where funding can be secured

Key:

+	Positive effect on SEA objective
-	Negative effect on SEA objective
0	Neutral effect on SEA objective and/or dependent on implementation

Figure 1.1: Matrix used to compare the two set of objectives

Although there are no site specific objectives or actions proposed in the Strategy the Council firmly believes that there will be no negative or detrimental effects on the borough and surrounding areas through the implementation of the Strategy. As shown in the above matrix we have identified only positive or neutral effects that the Strategy is likely to have on the local environment, with the majority of the neutral effects largely being as a result of a lack of detail proposed in the objectives to be implemented. Through increasing our knowledge and understanding of local flood risk, promotion of the risks and partnership working with local communities and businesses, and the inclusion of sustainable development and drainage practices, the Council believes that the Strategy will benefit the local and wider environment.

2. Introduction

2.1. Why produce a Strategic Environmental Assessment

A Strategic Environmental Assessment (SEA) reviews plans, programmes and strategies which are likely to cause significant environmental effects to a specified area. The European SEA Directive 2001, which promotes sustainable development and large scale protection of the environment, requires a SEA to include the evaluation of any potential environmental issues which may occur due to the implementation of proposed policies. The aim is to review the policies to enable alternatives to be considered if initial policies are deemed to significantly impact upon the local and wider environment, including economic, environmental and social factors. Therefore the SEA provides the evidence base and reasoning for he choice of options and the mitigation of environmental concerns as far as is possible.

2.2. Methodology

A SEA is split into several stages and tasks, a summary of these being in Table 2.1.

The main output of Stage A is a *Scoping Report* and this is what is included within this document. Stage B must be completed if the Scoping Report concludes that further assessment of the policies is required due to potentially significant impacts on the environment. The tasks associated with Stage B lead into the output of an *Environmental Report* (Stage C).

Stage D is the public consultation of the SEA documents alongside the plan, programme or strategy being assessed, and Stage E occurs through the process of the monitoring of subsequent reviews of the plan, programme or strategy. This SEA process is therefore a continuous procedure and outputs will be reviewed accordingly.

Table 2.1: Summary of the Stages and Tasks involved in a SEA

SEA Stages	SEA Tasks
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	**A1:** Identifying other relevant policies, plans and programmes, and environmental protection objectives
	A2: Collecting baseline information
	A3: Identifying environmental issues and problems
	A4: Developing the SEA objectives and framework
	A5: Consulting on the scope of the SEA
Stage B: Developing and refining options and assessing affects	**B1:** Testing the plan objectives against the SEA objectives
	B2: Developing strategic alternatives
	B3: Predicting the effects of the plan, including alternatives
	B4: Evaluating the effects of the plan, including alternatives
	B5: Mitigating adverse effects
	B6: Proposing measures to monitor the environmental effects of implementing the plan
Stage C: Preparing the Environmental Report	**C1:** Preparing the Environmental Report
Stage D: Consulting on the draft Strategy and the SEA Report	**D1:** Consulting on the draft Strategy and Environmental Report with the public and consultation bodies
	D2: Assessing significant changes
	D3: Making decisions and providing information
Stage E: Monitoring the significant effects of implementing the Strategy	**E1:** Developing aims and methods for monitoring
	E2: Responding to adverse effects

2.3. London Borough of Ealing's Local Flood Risk Management Strategy

2.3.1. Introduction to the Local Flood Risk Management Strategy

As the Lead Local Flood Authority (LLFA) for the area, the London Borough of Ealing ('the Council') has the responsibility to develop, maintain, apply and monitor a Local Flood Risk Management Strategy ('the Strategy'). This document assesses the risk of flooding in the borough and identifies the various risk management authorities in the area. It outlines the Council's flood risk management functions and the objectives for managing local flood risk, along with the actions proposed to achieve these objectives. It also explains how the Strategy contributes to the achievements of the wider environmental objectives. It is proposed that the Strategy will be reviewed every six years or following significant updates to relevant legislation.

2.3.2. Information about the London Borough of Ealing

The London Borough of Ealing is one of 33 boroughs in London and is located in the west of London. It borders the London Boroughs of Hillingdon, Harrow, Brent, Hammersmith and Fulham and Hounslow. The borough's 'main rivers' (larger watercourses which are the responsibility of the Environment Agency) are the River Brent, Osterley Park Boundary Stream and the Yeading Brook. Smaller watercourses, categorised as 'ordinary watercourses' (managed by the Council), include the Costons Brook, Dormers Wells Stream and Northolt Brook. The Grand Union Canal also runs through the borough. Canals are manmade watercourses which are managed and maintained by the Canal and Rivers Trust.

2.3.3. Strategy Objectives

Partnership working is key to raising awareness and reducing the impacts of flood risk, and the Strategy reflects this through the five objectives:

1. Develop and improve the understanding of flood risk across the borough
2. Maintain and improve communication and cooperative working between strategic parties and flood risk management authorities
3. Prevent the increase of flood risk through inappropriate development
4. Develop community awareness of flood risk and ways of reducing the risk in the future
5. Identify and implement flood mitigation measures where funding can be secured

Each objective has a number of associated actions to help achieve it. There are 14 actions in total and an overview of each can be found in the Strategy's Executive Summary document. For further information please see chapters 6 to 10 of the Strategy where each objective and action is described in greater detail.

2.4. Screening Phase

Article 3 of the SEA Directive 2001 states that SEAs are mandatory for any local plan, programme or strategy relating to, amongst other topics, water management. Therefore the Council's Local Flood Risk Management Strategy, a statutory plan, requires this SEA. Also, by undertaking a SEA it fulfils the requirement of the Act that the Strategy must specify how it contributes to the achievement of wider environmental objectives.

Please note that this SEA Scoping Report refers to the April 2016 final version of the Strategy and any subsequent significant revisions and updates to the objectives and associated actions of the Strategy will require a review of the SEA, particularly where the detail of any proposed work schemes are developed.

2.5. Consultation Process

This SEA Scoping Report was reviewed by the three statutory agencies ('the consultation bodies') with environmental responsibilities in England; the Environment Agency, Heritage England (formerly English Heritage) and Natural England between February and April 2015. Questions that the Council requested the consultation bodies answered are listed in Section 1.1 of this document.

3. A1: Identification of Relevant Policies

3.1. What is included in Task A1

Task A1 includes the list of all policies, documents and legislation that impact upon the Strategy. It is important that these include those at a variety of levels, including international, national, regional and local. Please note that several of those included in Section 3.2. have been included in chapter 3 of the Strategy, including some background information about what these include and/or their influence on flood risk management in Ealing.

3.2. Relevant Policies

Title of Document	Year Published	Author
International		
EU Biodiversity Strategy	2011	EC
EU Birds Directive	2009	EC
EU Floods Directive	2007	EC
EU Habitats Directive	1992	EC
EU Water Framework Directive	2000	EC
National		
Biodiversity – The UK Action Plan	1994	UK Government
Biodiversity 2020: A strategy for England's wildlife and ecosystem services	2011	Defra
Climate Change Act	2008	UK Government
Directing the Flow: Priorities for Future Water Policy	2002	Defra
Flood and Water Management Act	2010	UK Government
Flood Risk Regulations	2009	UK Government
Land Drainage Act	1991	UK Government
Making Space for Water	2005	Defra
National Flood and Coastal Erosion Risk Management Strategy for England	2011	Defra & EA
National Planning Policy Framework	2012	DCLG
National Planning Policy Guidance	2014	DCLG
National Standards for Sustainable Drainage Systems	2011	Defra
The Civil Contingencies Act	2004	UK Government
The Impact of Flooding on Urban and Rural Communities	2005	Defra & EA
The Pitt Review - Lessons learned from the 2007 summer floods	2009	UK Government
The SuDS Manual	2007	CIRIA
Water Act	2003	UK Government
Water for People and the Environment: Water Resources Strategy for England and Wales	2009	EA
Regional		
London Regional Flood Risk Appraisal	2014	GLA
London Strategic Emergency Plan	2010	LRP
London Strategic Flood Framework	2012	LRP
Managing risks and increasing resilience: the Mayor's climate change adaptation strategy	2011	GLA
Thames Catchment Flood Management Plan	2009	EA
Thames District Flood Risk Management Plan	2016	EA
Thames Estuary 2100 Flood Risk Management Plan	2012	EA
Thames River Basin Management Plan	2009	Defra & EA
The London Plan	2011	GLA
Local		
Local Plan	2013	LBE
Biodiversity Action Plan	1999	LBE
Brent River Corridor Improvement Plan	c. 2014	BCP
Development (Core) Strategy DPD	2012	LBE
Preliminary Flood Risk Assessment	2011	LBE
Strategic Flood Risk Assessment	2008	LBE
Surface Water Management Plan	2011	LBE

Where

- BCP: Brent Catchment Partnership
- DCLG: Department for Communities and Local Government
- Defra: Department for Environment, Food and Rural Affairs
- EA: Environment Agency
- EC: European Commission
- EU: European Union
- GLA: Greater London Authority
- LBE: London Borough of Ealing
- LRP: London Resilience Partnership

4. A2: Baseline Information

4.1. What is included in Task A2

Baseline information is used as the evidence base for determining any key environmental issues that may exist in Ealing. Although this SEA is focusing mainly upon environmental issues and potential effects the Council have included some social and economic baseline indicators so as to provide a wider viewpoint of potential effects that the implementation of the Strategy could cause.

So as to keep this SEA proportionate to the length of the Strategy it only focuses on baseline information that directly affects flood risk and/or those likely to influence the environmental issues highlighted within this SEA.

4.2. Ealing Characteristics

The London Borough of Ealing is the eleventh largest London borough in area, covering 55km^2. Ealing is predominantly a residential borough, with industrial areas and green spaces. It is the third largest London borough in terms of population and is the fourth most ethnically diverse Local Authority out of the 354 nationwide. It is made up of seven district town centres; Ealing, Hanwell, Acton, Southall, Greenford, Perivale and Northolt. Green space covers 15% of the borough, with 19 areas designated as green belt or metropolitan land (totalling 8.4km^2 of parks and green spaces). There are ten miles of canal, the River Brent and several other smaller tributaries. To the north east of the borough is Park Royal Industrial estate. Park Royal is the largest industrial estate in Europe, covering 2.63km^2.

The borough benefits from a good transport network, served by the Central, District, and Piccadilly London Underground lines, along with access to major roads giving good connections to Midlands, Wales and the South West. The A406 (London's inner ring road) runs south-north through the borough, providing a link to the M4, M40, A1 and M1. Heathrow Airport is only 8 miles from Ealing and can be reached within 20 minutes by rail.

4.3. Chosen Baseline Information

4.3.1 Population and Human Health

As of the 2011 Census, the borough had a **population** of 338,449. This was a 12.5% increase on the 2001 population as displayed in Table 4.1 along with a comparison to London and England figures. This level of growth is faster than the average for England and helps to explain the need for additional houses and services within the borough.

Table 4.1. The 2011 Census results for population.

	1991 population	2001 population	2011 population	% change 1991-2001	% change 2001-2011
Ealing	278,596	300,948	338,449	8.0%	12.5%
London	6,679,332	7,172,091	8,173,941	7.4%	14.0%
England	47,055,205	49,138,831	53,012,456	4.4%	7.9%

Source: www.ealing.gov.uk

The **life expectancy** of residents in the borough is better than both London and national averages and has improved against these over the last few years. The 2011 State of Ealing: Health and Wellbeing report compares data from 2011 to that from 2007 to show a 2-year increase in overall life expectancy for men (76.9 to 78.9) and a 1.7-year increase for women (81.6-83.3). However, life expectancy is 6.6 years lower for men and 3.2 years lower for women in the most deprived areas of the borough than in the least deprived areas.

In the 2011 Census, people were asked to assess whether their **health** was very good, good, fair, bad or very bad, as seen below in Table 4.2. The borough shows results in line with those for London and marginally better than those for England.

Table 4.2. The 2011 Census results for general state of health.

	Total population	V good health	Good health	Fair health	Bad health	Bad health
Ealing	338,449	49.2%	34.5%	11.4%	3.8%	1.2%
London	8,173,941	50.0%	33.3%	11.2%	3.7%	1.2%
England	53,012,456	47.2%	34.2%	13.1%	4.2%	1.2%

Source: www.ealing.gov.uk

The borough's Health Profile shows that in 2005, 23.0% of people live in the 20% most **deprived** areas of England. Additionally, the 2011 Census identifies the number of households within the borough classed as deprived in one or more dimension. Of the 124,082 households, 36.1% of them are not deprived in any dimension. This does not compare well to the London figure of 39.4% and the England figure of 42.5%. These figures along with the dimension definitions can be seen in Table 4.3.

Table 4.3. The 2011 census results for deprivation.

Area	No. of households	Household is not deprived in any dimension	Household is deprived in 1 dimension	Household is deprived in 2 dimensions	Household is deprived in 3 dimensions	Household is deprived in 4 dimensions
Ealing	124,082	37.4%	34.5%	20.6%	6.6%	1.0%
London	3,266,173	39.4%	34.2%	19.2%	6.3%	0.9%
England	22,063,368	42.5%	32.7%	19.1%	5.1%	0.5%

The dimensions of deprivation used to classify households are indicators based on four selected household characteristics:

1. Employment (any member of a household not a full-time student is either unemployed or long-term sick).
2. Education (no person in the household has at least level 2 education, and no person aged 16-18 is a full-time student).
3. Health and disability (any person in the household has general health 'bad or very bad' or has a long term health problem).
4. Housing (Household's accommodation is ether overcrowded, with an occupancy rating -1 or less, or is in a shared dwelling, or has no central heating).

A household is classified as being deprived in none, or one to four of these dimensions in any combination

Source: www.ealing.gov.uk

Ealing has also been assessed in terms of its **living environment deprivation.** This is split into indoor and outdoor measures where the indoor measures refer to the quality of housing and the outdoor measures to the air quality and road traffic accidents. Areas identified as being deprived are categorised into Lower Super Output Areas (LSOAs). The darker shades in figure 4.1 show the 2010 LSOA areas. The geographical locations of environmentally deprived areas are in common with the boroughs main roads such as the A40, A406 and A4020. One LSOA in Northolt Mandeville is among the 1% most deprived in the county.

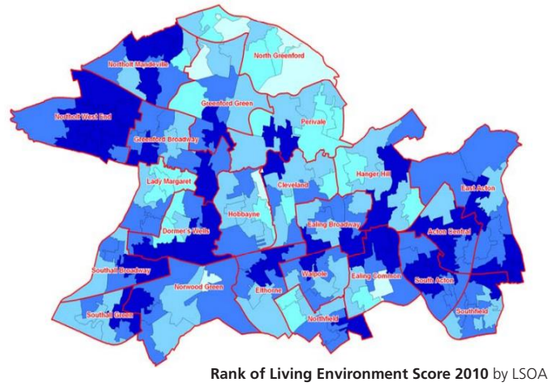


Figure 4.1. Map showing the 2010 Ealing Living Deprivation.
Source: State of Ealing: Environment report, 2011

4.3.2 Employment and Education

The 2011 Census showed that of the borough's residents, 5.2% were **unemployed** (5.8% of males and 4.6% of females). This is a 1.3% increase on the 2001 census, although in line with the unemployment figure for London as a whole. Table 4.4 shows that both the London Borough of Ealing and London have a higher unemployment figure than the average for England.

Table 4.4. The 2011 Census results for unemployment

Area	Residents aged 16-74	Unemployed
Ealing	252,764	5.2%
London	6,117,482	5.2%
England	38,881,374	4.4%

Source: www.ealing.gov.uk

On the whole, the borough has good **education** results from the 2011 Census. Of the 269,572 residents over 16 years old, only 16.5% have no qualifications, compared to the London average of 17.6% and the England average of 22.5%. Table 4.5 shows a breakdown of the various qualification levels for the London Borough of Ealing, London and England.

Table 4.5. The 2011 Census results for education.

Area	Residents aged 16+	Highest qualification				Apprenticeship	Other qualifications	No qualifications
		Level 4/5	Level 3	Level 2	Level 1			
Ealing	269,572	37.0%	9.6%	10.5%	9.9%	1.4%	15.1%	16.5%
London	6,549,173	37.7%	10.5%	11.8%	10.7%	1.6%	10.0%	17.6%
England	42,989,620	27.4%	12.4%	15.2%	13.3%	3.6%	5.7%	22.5%

Source: www.ealing.gov.uk

4.3.3 Households and Development

The **average household size** within the borough is 2.7 persons, which is slightly larger than the London average of 2.5. Therefore, not only is there a need for more housing, but a need for larger, family sized properties.

The 2012 State of Ealing: Population report describes a **population density** of 57 residents per hectare in the borough, which is 8 people more per hectare than the London average and 20 people more per hectare than the Outer London average. The density varies hugely between wards which could reflect the location of high-rise flats.

The 2011 Census outlines the figures for **housing tenure** within the borough. There are a greater number of owned households within the borough compared to the average for London, but less compared to the average for England. Table 4.6 shows the break down in housing tenure for the London Borough of Ealing.

Table 4.6. The 2011 Census results for housing tenure

Area	No. of households	Owned outright	Owned with a mortgage or loan	Shared ownership (part owned and part rented)	Social rented: rented from council (LA)	Social rented: other	Private rented: private landlord /letting agency	Private rented: other	Living rent free
Ealing	124,082	22.9%	28.2%	1.8%	10.5%	7.6%	26.4%	1.2%	1.5%
London	3,226,173	21.1%	27.1%	1.3%	13.5%	10.6%	23.7%	1.3%	1.3%
England	22,063,368	30.6%	32.8%	0.8%	9.4%	8.3%	15.4%	1.4%	1.3%

Source: www.ealing.gov.uk

In terms of **new development,** Table 4.7 illustrates the land use trend in Ealing of building on previously developed land. It shows that since 1996, the number of new dwellings on previously developed land in Ealing has increased, but remains at lower values than that for the England as an average.

Table 4.7. The percentage of new dwellings on previously developed land.

Area	Percentage of new dwellings on previously developed land			
	1996-1999	2000-2003	2004-2007	2008-2011
Ealing	54	63	74	72
England	82	88	93	99

Source: www.gov.uk

4.3.4 Water and the Environment

On average, the London Borough of Ealing experiences annual **rainfall** below that of the UK average. A Met Office station located at Heathrow produces figures which can be compared to that of the national average, as seen in Table 4.8.

Table 4.8. Met Office rainfall data

Year	UK Average	Heathrow Station
1972	1100.6mm (1961-1990)	444.2mm
1982		649.8mm
1992	1154.0mm (1981-2010)	649.4mm
2002		768.7mm
2012	1331.0mm	707.4mm

Source: www.metoffice.gov.uk

The European Union Water Framework Directive is a legislative approach to managing and protecting water. It has a 2015 target date for getting all European waters into good condition. A water-body is assessed in terms of its **water quality** which is assigned an ecological score. There are three river water-bodies either adjacent to or within the boundaries of the borough; River Brent, River Crane and Yeading Brook (although the River Crane does not flow through the borough). The ecological quality potential of these waterbodies are likely to be influenced by their heavily modified stretches. The Grand Union Canal is also designated under the Water Framework Directive. Table 4.9 identifies the 2009 and 2014 ecological statuses of the designated water-bodies in the borough.

Table 4.9. EU Water Framework Directive information

Watercourse ID and Name	2009 Ecological Classification Status	2014 Ecological Classification Status
GB106039023590: Lower Brent	Poor	Moderate
GB106039023051: Yeading Brook	Moderate	Moderate
GB106039023030: Crane	Poor	Poor
GB70610078: Grand Union Canal, Uxbridge to Hanwell Locks, Slough Arm, Paddington Arm	Good	Moderate

Source: www.gov.uk

The average **household water usage** in the borough in 2010-11 was 166.8 litres per person per day. Although this is a slight decrease on the 2009-10 figure, there had been a steady rise for the previous three years. Additionally, the borough's figure is constantly higher than the London and England and Wales figures, as shown in Figure 4.2 taken from the Environment Agency's 2011 London Borough Environmental Fact Sheet.

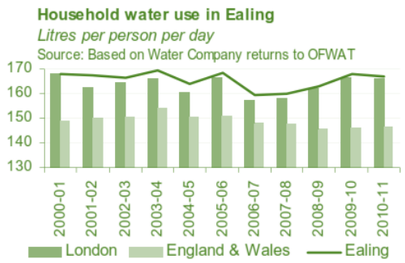


Figure 4.2. Household water use in Ealing
Source: Environment Agency

The strategy has direct links to **climate change** due to the impact that it may have on the intensity and frequency of precipitation events. It has been measured that the surface of the Earth's average temperature has increased by about 0.8°C in the last 100 years. Increases of more than 2°C and up to 4°C of the average summer temperature are predicted for the south east of England (www.gov.uk). It is predicted that such warming will lead to more intense and heavy rainstorms. One of the main causes of climate change is the increase in the amount of carbon dioxide being released into the atmosphere. Trapping of these and other gases causes increased warming of the Earth's oceans. Table 4.10 illustrates recent carbon dioxide emissions estimated per capita. The borough has experienced a reduction over the previous 6 years and is considerably lower than the England figure.

Table 4.10. Estimated per capita Carbon dioxide emissions.

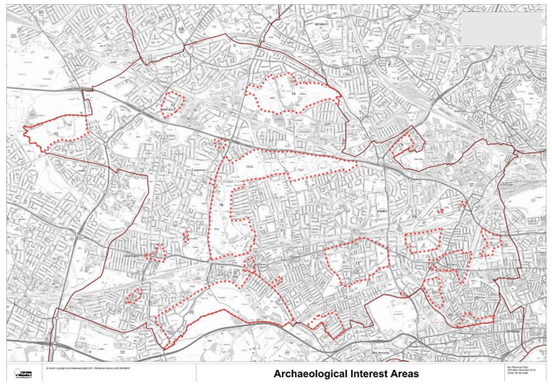
Area	Carbon dioxide emissions (tonnes per head)						
	2005	2006	2007	2008	2009	2010	2011
Ealing	5.3	5.4	5.3	5.2	4.7	4.8	4.4
London	6.2	6.3	6.0	5.9	5.3	5.5	4.9
England	8.5	8.4	8.2	8.0	7.1	7.3	6.7

Source: www.gov.uk

4.3.5 Cultural Heritage

The National Heritage List for England is an official and up to date English Heritage database of all nationally **designated heritage assets** including: listed buildings, scheduled monuments, protected wreck sites, registered parks and gardens, registered battlefields and world heritage sites. This database outlines that the Greater London Authority of Ealing has 314 assets. Additionally, there are 23 areas of **archaeological interest,** as seen in Figure 4.3 below from the Ealing Adopted Policies Map Booklet Schedules and Map Sheets (rough edit version, 2013).

Figure 4.3. Archaeological interest areas
Source: www.ealing.gov.uk



English Heritage produce a document listing the **Heritage at Risk** assets per Local Authority. In the 2011 report, the London Borough of Ealing was identified as having 25 'at risk' heritage assets. The breakdown of these can be seen below in Table 4.11.

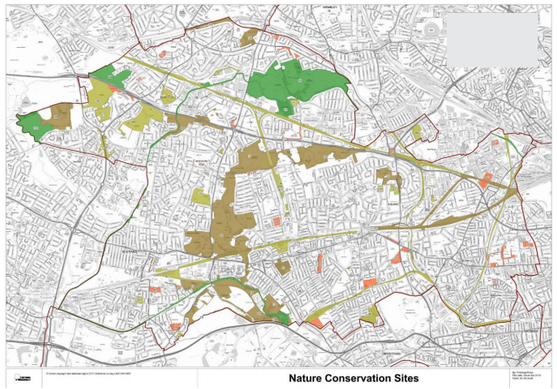
	Buildings at risk	Places of worship at risk	Scheduled monuments at risk	Registered parks and gardens at risk	Registered battlefields at risk	Protected wreck sites at risk	Conservation areas at risk
Ealing	9	2	4	0	0	0	10

Source: www.english-heritage.org.uk

Table 4.11. Heritage at Risk assets within the London Borough of Ealing.

Of the borough's surface, 15% is comprised of green spaces (8.4km2). The Council owns and manages 156 named public open spaces and there are 3.53km2 of Community Open Space (COS); this is made up of 73 allotment sites, 36 golf courses and private sports grounds, 7 cemeteries and 7 sites of other COS. Figure 4.4 below from the Ealing Adopted Policies Map Booklet Schedules and Map Sheets (rough edit version, 2013) shows the locations of the 102 nature conservation sites.

Figure 4.4. Nature Conservation Sites
Source: www.ealing.gov.uk



The historic environment will have important implications in determining the feasibility of potential flood alleviation scheme options, both positive and negative opportunities. As a result it is vital that these will be taken into account during any such projects.

5. A3: Identification of Environmental Issues

5.1. What is included in Task A3

The purpose of Task A3 is to identify any existing or possible future environmental issues across the borough which could affect, or be affected by, the implementation of the Strategy. The issues included in Section 5.2. have been ascertained from the review of documents in Task A1 and the analysis of the baseline information in Task A2. Also included is the Local Flood Risk Management Strategy objective which responds to those issues.

5.2. Local Environmental Issues

Key Issues	Proposed LFRMS Objective
Rising local population - Increased number of residents and/or businesses at risk of flooding - Greater need for more development to accommodate population growth	SO3 SO4 SO5
Increase in life expectancy - Increased number of vulnerable residents at risk of flooding	SO4 SO5
Higher deprivation levels - Greater need to protect residents who are less able to help themselves	SO4 SO5
Higher unemployment levels in the past decade - Increased amount of people less able to spend money on protecting property and possessions	SO4 SO5
Larger average household size - Not only is there a demand for more housing, but for larger, family sized properties.	SO3
Higher population density - Increase in the number of residents affected by a flood event	SO4 SO5
Increased amount of development and/or change of land use - Increased development reducing the amount of permeable ground surface and tree coverage even more, thereby increasing flood risk due to increased runoff volumes	SO1 SO3
Climate change impacts - Increased potential for extreme weather patterns, including more prolonged and/or intense storm events - Greater number of residents and/or businesses at risk of flooding due to frequency/intensity of precipitation events	SO1 SO2 SO3 SO4 SO5
Air quality - Future flood risk management mitigation work could impact upon air quality through air pollution during construction	SO1 SO2
Some Poor ecological status of water bodies in the borough - Risk of not achieving good status by the imposed Water Framework Directive deadlines - Poor/moderate status means water quality may suffer further causing a detrimental effect on riparian biodiversity	SO2
Protection and enhancement of the natural, built and historic environment - Flooding and flood risk management measures can have detrimental impacts on Green Belt land, SSSI sites, heritage assets (listed buildings, conservation areas, scheduled monuments, historic parks and undesignated assets, including archaeological remains) and open spaces within the borough - Future contamination of land through flood risk management mitigation work	SO1 SO2 SO3 SO4 SO5

6. A4: SEA Objectives

6.1. What is included in Task A4

The performance of the Strategy will be judged against SEA objectives. These objectives are based upon the environmental issues identified in Task A3 as well as local knowledge and understanding relating to flood risk management.

6.2. SEA Objectives

The SEA objectives that we propose to use for comparisons against the objectives and associated actions of the Strategy, as well as analysis tools for future reviews of the Strategy, are:

- **SEA1:** Maintain, and enhance where possible, leisure and recreational benefits
- **SEA2:** Prevent any decline in the quality or quantity of water resources and enhance the WFD status of rivers where possible
- **SEA3:** Enable local economic growth and development
- **SEA4:** Promote sustainable development to reduce and mitigate the potential impacts of climate change and the natural and historic environment
- **SEA5:** Maintain and enhance biodiversity and habitats

Please note that these SEA objectives are distinct from the Strategy objectives but they may overlap in some cases. However, a specific SEA objective to prevent any increase in flood risk at or from any site has not been included herein because this underpins the whole Strategy and would therefore cause unnecessary duplication. This also underpins the reason as to why flood risk issues have not specifically been included within the baseline indicators and the list of environmental issues within the borough. Therefore a flood risk SEA objective has been scoped out of this Scoping Report. Despite this it should be noted that any schemes to mitigate the risk of flooding will aim to achieve progress towards the above five SEA objectives, where cost/benefit analysis demonstrates that it is cost effective to do so.

7. Next Steps and Conclusions

7.1. Assessment of SEA and Strategy Objectives

The two sets of objectives have been evaluated (Task B1 of the SEA process) via the matrix scoring system shown in Figure 7.1.

		SEA Objective Number				
		SEA1	SEA2	SEA3	SEA4	SEA5
Local Flood Risk Management Strategy Objective Number	1	**0**	+	**0**	+	+
	2	**0**	**0**	**0**	**0**	**0**
	3	+	+	+	+	+
	4	**0**	+	+	+	+
	5	+	+	+	+	+

Where the Strategy objectives are:

1. Develop and improve the understanding of flood risk across the borough
2. Maintain and improve communication and cooperative working between strategic parties and flood risk management authorities
3. Prevent the increase of flood risk through inappropriate development
4. Develop community awareness of flood risk and ways of reducing the risk in the future
5. Identify and implement flood mitigation measures where funding can be secured

Key:

+	Positive effect on SEA objective
-	Negative effect on SEA objective
0	Neutral effect on SEA objective and/or dependent on implementation

Figure 7.1: Matrix used to compare the two set of objectives

The above matrix has been used to initially assess the two sets of objectives at a broad scale. This evaluation shows that none of the Strategy's objectives are likely to have a negative effect on any of the SEA objectives, therefore the Council believes that there will not be any detrimental effect on the environmental or the issues identified in Task A3. If an Environmental Report is deemed necessary in the future it is proposed that a similar matrix is used to compare the objectives and actions further. This may be required when further detail is included in the Strategy actions, depending upon the scale of the revisions and work schemes proposed.

7.2. Conclusions

The Council recognises that the detail in some of the actions proposed in the Strategy is currently high level, therefore the potential effects could not be scrutinised as thoroughly at this stage of the SEA process. This is largely a result of not proposing any site specific schemes at this stage. However, the Council firmly believes that none of the Strategy objectives or actions will cause any threat or damage to the environment and will not reduce the protection that the Council provides to the environment. Therefore it is concluded that the policies proposed through the Strategy do contribute to the integration of environmental considerations, for example through the promotion of sustainable drainage techniques. Similarly, by not permitting any flood alleviation work which could cause the decline in ecological status of a water body the Strategy does not propose any works that could lead to significant detriment of the local and wider environment.

The Strategy is a living document which will be updated from time to time as policies, events and understanding on how best to manage flooding evolve. When the Strategy is significantly reviewed, and as and when further detailed information is added to possible work schemes and projects, the Council will evaluate the updated information. When necessary it will complete a further SEA review in accordance with the SEA Directive 2001. Once firm details are available regarding proposed work schemes and their precise location(s) further evidence that there will be no significant negative effect on the environment can be provided. However, if there were any potential environmental impacts that could be caused, through a further SEA the Council will introduce alternative actions which aim to mitigate any such environmental issues from occurring.

7.3. Consultation of the SEA

Task A5 is the undertaking of the consultation of this SEA Scoping Report by the three consultation bodies and further information about the process can be found in Section 2.5. The consultation occurred between February and April 2015 and resulted in feedback being submitted by the Environment Agency, Heritage England (formerly English Heritage) and Natural England. The amendments made are incorporated in this final version of the Strategy's SEA. One amendment suggested was the inclusion of specific flood risk data within the baseline information (Chapter 4), however it was decided that as the Strategy which this SEA is associated with is underpinned by the aim of improving flood risk management then this would not necessitate the need for further baseline data of this kind. Likewise it was decided that this SEA should be detailed proportionately to the length of the Strategy, therefore only environmental baseline information linked directly to water or flood risk matters have been included. Please note that this does not rule out the addition of further baseline information in future SEAs where greater detail is deemed to be of more relevance to the detail of the Strategy or projects linked to the completion of one or more of the its actions.

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