

**Local Flood Risk Management Strategy  
for Hertfordshire**

**Strategic Environmental Assessment  
Environmental Report -  
Annex C: Strategic Environmental Assessment  
Framework**

**Prepared June 2012**



**Produced by Place Services on behalf of Hertfordshire County Council**

The information contained in this document can be made available in alternative formats: large print, braille, audio tape or on disk. We can also translate this document into other languages.

## CONTENTS

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Background .....	1
1.2	Strategic Environmental Assessment Framework .....	1
<b>2</b>	<b>Strategic Environmental Assessment Framework .....</b>	<b>3</b>

Table 1: Relationship of SEA Objectives to Economic, Social and Environmental Factors .....	2
Table 2: Strategic Environmental Assessment Framework .....	4

This page has been left blank intentionally

# 1 INTRODUCTION

## 1.1 Background

In July 2011 Hertfordshire County Council commissioned Essex County Council's Strategic Environmental Assessment Team, now part of Place Services, to undertake a Strategic Environmental Assessment (SEA) on the proposed Local Flood Risk Management Strategy (hereafter referred to as LFRMS) for Hertfordshire. Place Services continues to act as consultants for this work; therefore the content of the Strategic Environmental Assessment should not be interpreted or otherwise represented as the formal view of Essex County Council.

This document is Annex C to the Environmental Report of the draft LFRMS. It details the SEA Framework which was used to assess the LFRMS.

## 1.2 Strategic Environmental Assessment Framework

A SEA Framework is an important tool of the SEA process that is developed during the scoping phase in line with best practice guidance. It provides the context against which the objectives and actions of the emerging LFRMS can be assessed and sets out the SEA Objectives; the key questions; and indicators which can monitor the impact of the LFRMS. The SEA Framework was first included in the Scoping Report which was submitted to the three statutory consultees - the Environment Agency, English Heritage and Natural England and made available to the public for consultation. The comments and recommendations received have been incorporated within the SEA Framework within this annex.

The SEA of the LFRMS will adopt an objectives based approach, with the SEA Objectives combining to form the SEA Framework. It allows individual issues, objectives and actions within the LFRMS to be assessed separately against each SEA Objective. In this way, beneficial or adverse impacts relating to each individual SEA Objective may be readily identified and reported. It also allows for alternatives and/or mitigation measures to be identified and subsequently assessed in similar fashion.

The SEA Objectives have been derived from the review of plans and programmes, a strategic analysis of the baseline information and consultation. SEA Objectives are based on policy advice and guidance and related to the assessment of the current state of the strategy area. The assessment is then able to evaluate, in a clear and consistent manner, the nature and degree of impact and whether significant effects are likely to emerge from the strategy's implementation. It also means that indicators established for use in the assessment process can be carried forward into subsequent monitoring. Recognising which indicators can be used to assess the impact of the LFRMS is important and points towards the specific monitoring which will need to be carried out. Collection of this information over a period of time will result in data trends being established, which will show if the LFRMS has a positive or negative impact on environmental, social or economic factors they influence.

The SEA Objectives identified for the assessment of the LFRMS are tabulated below. Table 1 presents each SEA Objective together with the topics to which it relates. The scope of the SEA Objectives has been derived from Annex 1(f) of the European SEA Directive, 2001/42/EC.

**TABLE 1: RELATIONSHIP OF SEA OBJECTIVES TO ECONOMIC, SOCIAL AND ENVIRONMENTAL FACTORS**

	Economic	Social	Environmental
1) To minimise the risk of flooding on existing development and amenity.		✓	✓
2) To maintain and enhance water resources and quality.		✓	✓
3) To protect and enhance human health and wellbeing.		✓	
4) To ensure the potential impact of flooding on existing and future infrastructure is minimised.	✓	✓	
5) To ensure that new development is directed to reasonably available sites at the lowest probability of flooding.	✓	✓	✓
6) To protect and enhance biodiversity and geodiversity throughout Hertfordshire.		✓	✓
7) To maintain and/or enhance the character of townscapes and historic landscapes, cultural heritage and designated and undesignated heritage assets within Hertfordshire.	✓		✓
8) To protect best quality soil and enhance the quality and character of the Hertfordshire landscape.	✓		✓
9) To adapt development to the impacts of climate change.	✓	✓	✓

## **2 STRATEGIC ENVIRONMENTAL ASSESSMENT FRAMEWORK**

The SEA Framework was produced from analysis of all the information obtained during the scoping phase and shows the relationship between:

- each of the SEA objectives;
- where each of the SEA objectives has been sourced from;
- which topics refer to each SEA objective;
- what key questions have to be asked during the assessment to assess the LFRMS's relationship with each of the SEA objectives; and,
- what data sources can be used to monitor the success of the LFRMS?

**TABLE 2: STRATEGIC ENVIRONMENTAL ASSESSMENT FRAMEWORK**

SEA Objective	Relevant Plans and Programmes	Key Topics	Key Questions	Potential Indicators
1) To minimise the risk of flooding on existing development and amenity.	Hertfordshire County Council Preliminary Flood Risk Assessment, 2011  Strategic Flood Risk Assessments for Hertfordshire County Council and Local Districts, 2007 - 2010	Flooding  Economy  Population and Social	<ul style="list-style-type: none"> <li>- Will the LFRMS reduce the risk of flooding?</li> <li>- Will the LFRMS have a reducing effect on the impact of flooding?</li> <li>- Does the LFRMS encourage the implementation of Sustainable Drainage Systems?</li> </ul>	<ul style="list-style-type: none"> <li>- Number of properties / businesses at risk of flooding.</li> <li>- Number of flood defences developed.</li> <li>- Number of Sustainable Drainage Systems implemented since the publication of the LFRMS.</li> </ul>
2) To maintain and enhance water resources and quality	Water Framework Directive (England and Wales) Regulations 2000/60/EC.  The Environment in Hertfordshire, 2010.	Water  Population and Social  Health	<ul style="list-style-type: none"> <li>- Will the LFRMS have an adverse impact upon water resources?</li> <li>- Will the LFRMS enhance water resources?</li> <li>- Will the LFRMS have an adverse impact upon water quality?</li> </ul>	<ul style="list-style-type: none"> <li>- Ecological status of rivers.</li> <li>- Chemical status of rivers.</li> <li>- Resource availability status for units of groundwater in Catchment Abstraction Management Strategy Areas.</li> <li>- Maintenance or enhancement of existing groundwater and surface water regimes (using existing flow gauges and monitoring against historic trends).</li> <li>- Resource availability status at low flows for units of surface water and / or surface water combined with groundwater, in Catchment Abstraction Management</li> </ul>



SEA Objective	Relevant Plans and Programmes	Key Topics	Key Questions	Potential Indicators
				<p>Strategy Areas.</p> <ul style="list-style-type: none"> <li>- Condition of water bodies (Water Framework Directive).</li> <li>- Incidences of environmentally unacceptable flows in rivers (Environment Agency vision indicators).</li> </ul>
<p>3) To protect and enhance human health and well being.</p>	<p>The Environment in Hertfordshire, 2010. A Better Quality of Life – The Hertfordshire Environmental Strategy, 2001</p>	<p>Population and Social Health</p>	<ul style="list-style-type: none"> <li>- Will the LFRMS have an adverse impact upon human health?</li> <li>- Will the LFRMS seek to preserve areas with an amenity use?</li> </ul>	<ul style="list-style-type: none"> <li>- Number of properties / businesses at risk of flooding.</li> <li>- Number of developments permitted contrary to EA advice.</li> <li>- Area / number of recreational and amenity facilities effected by flooding incidents.</li> <li>- Change in area / number / quality of public open spaces, recreational and amenity facilities.</li> <li>- Number of flood related injuries.</li> </ul>
<p>4) To ensure the potential impact of flooding on existing and future infrastructure is minimised.</p>	<p>Hertfordshire Local Transport Plan, 2011 – 2031 (LTP3)</p>	<p>Transport Flooding Economy</p>	<ul style="list-style-type: none"> <li>- Will the LFRMS ensure the protection of important transport infrastructure?</li> <li>- Will the LFRMS ensure the protection of services including water, power and telecommunications.</li> <li>- Does the LMRFS ensure adequate drainage of surface</li> </ul>	<ul style="list-style-type: none"> <li>- Number and severity of incidents leading to disruption or damage to transport infrastructure.</li> <li>- Number and severity of incidents leading to disruption or damage to service provision.</li> <li>- Number of days lost by</li> </ul>

SEA Objective	Relevant Plans and Programmes	Key Topics	Key Questions	Potential Indicators
			waters? - Does the LFRMS encourage the implementation of Sustainable Drainage Systems?	industry due to access problems.
5) To ensure that new development is directed to reasonably available sites at the lowest probability of flooding.	Hertfordshire County Council Preliminary Flood Risk Assessment, 2011  Strategic Flood Risk Assessments for Hertfordshire County Council and Local Districts, 2007 - 2010	Flooding  Economy  Population and Social	- Will the LFRMS contribute to ensuring that new development is sited in accordance with the Sequential Test? - Does the LMRFS ensure adequate drainage of surface waters? - Does the LFRMS encourage the implementation of Sustainable Drainage Systems?	- Number and type of new developments permitted in areas of flood risk. - Number of developments permitted contrary to EA advice. - Number of new mineral and waste facilities located in areas of flood risk. - Number of Sustainable Drainage Systems implemented since the publication of the LFRMS.
6) To protect and enhance biodiversity and geodiversity throughout Hertfordshire.	A 50 year vision for the wildlife and natural habitats of Hertfordshire – A Local Biodiversity Action Plan, 1998 (revised 2006)	Biodiversity  Geodiversity	- Will the LFRMS protect and/or enhance biodiversity and geodiversity across Hertfordshire? - Does the LFRMS seek to protect and/or enhance national / international designated sites? - Does the LFRMS seek to conserve and/or enhance natural / semi-natural habitats? - Does the LFRMS conserve and/or enhance species diversity, and in particular avoid harm to protected species?	- Changes in condition to designated sites - Achievement of Biodiversity Action Plan targets - Ecological potential assessments. - Chemical and ecological condition of rivers. - Requirements for habitat compensation arising out of the LFRMS.

SEA Objective	Relevant Plans and Programmes	Key Topics	Key Questions	Potential Indicators
<p>7) To maintain and/or enhance the character of townscapes and historic landscapes, cultural heritage and designated and undesignated heritage assets within Hertfordshire.</p>	<p>National Planning Policy Framework, March 2012</p>	<p>Cultural Heritage</p>	<ul style="list-style-type: none"> <li>- Will the LFRMS have an adverse impact upon local historic assets, including archaeological deposits, historic buildings and battlegrounds?</li> </ul>	<ul style="list-style-type: none"> <li>- Number of listed buildings at risk of flooding events.</li> <li>- Number of listed buildings deemed at risk due to a flood event.</li> <li>- Number of flood defences / strategies implemented to protect listed buildings since the LFRMS was published.</li> <li>- Number and condition of conservation areas.</li> <li>- Number and condition of registered historic parks and gardens.</li> </ul>
<p>8) To protect best quality soil and enhance the quality and character of the Hertfordshire landscape.</p>	<p>Safeguarding our Soils, A Strategy for England, 2009  Hertfordshire Landscape Character Assessments, 2000 - 2005</p>	<p>Soil, Minerals and Waste  Landscape</p>	<ul style="list-style-type: none"> <li>- Does the LFRMS seek to protect and/or enhance national / international designated sites?</li> <li>- Does the LMRFS ensure adequate drainage of surface waters?</li> <li>- Does the LFRMS encourage the implementation of Sustainable Drainage Systems?</li> <li>- Does the LFRMS protect and/or enhance sites, features and areas of value in both urban and rural areas?</li> <li>- Does the LFRMS seek to enhance the range and quality of the public realm and open</li> </ul>	<ul style="list-style-type: none"> <li>- Area / number of incidences where Grade 1, 2 or 3 soil is lost due to need for flood defence.</li> <li>- Number of proposed and actual flood mitigation developments to be located within the Greenbelt.</li> <li>- Number of proposed and actual flood mitigation developments to be located within landscapes with a high sensitivity.</li> </ul>

SEA Objective	Relevant Plans and Programmes	Key Topics	Key Questions	Potential Indicators
			spaces? - Will the LFRMS have an adverse impact upon the best and most versatile agricultural land?	
9) To adapt development to the impacts of climate change	A Better Quality of Life – The Hertfordshire Environmental Strategy, 2001	Climate Change	- What impact will the LFRMS have upon the county’s vulnerability to the impacts of climate change?	- Indicative floodplains under current conditions and under climate change scenarios, and the developments occurring within.