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Kirklees Local Flood Risk Management Strategy

Strategic Environmental Assessment Report

Prepared by LUC
February 2013

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Contents

1	Introduction	1
	The Study Area	1
	The Kirklees Local Flood Risk Management Strategy	1
	Strategic Environmental Assessment	2
	Compliance with the SEA Regulations	3
	Structure of the SEA Report	5
2	Methodology	7
	SEA Stages and Work Undertaken	7
	Difficulties encountered and data limitations	9
3	Review of Plans, Policies and Programmes and Baseline Information	11
	Review of Plans, Policies and Programmes	11
	Summary of Review of Plans, Policies and Programmes	16
	Baseline Information	16
	Key Environmental and Sustainability Issues	17
4	SEA Framework	21
	Use of the SEA Framework	22
5	SEA Findings	25
	Recommendations and Mitigation	30
6	Monitoring	32
7	Conclusion and Next Steps	35
	Next Steps	35
Appendix 1		37
	Consultation Comments Received in Relation to the SEA Scoping Report	37
Appendix 2		59
	Updated Review of Relevant Plans, Policies and Programmes	59
Appendix 3		105
	Updated Baseline Information	105
Appendix 4		116
	SEA Matrices for the Local Flood Risk Management Strategy (Public Consultation Version)	116
Appendix 5		154
	Consultation Comments Received in Relation to the Draft SEA Report	154

Tables

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

Table 2.1 Stages in the SEA Process

Table 3.1 Plans, Policies and Programmes of relevance to the LFRMS

Table 3.2 Key Environmental and Sustainability Issues and Likely Evolution without the LFRMS

Table 4.1 SEA Framework for the Kirklees LFRMS

Table 4.2 SEA environmental topics and coverage by SEA objective

Table 4.3 Key to SEA scores

Table 5.1: Summary of SEA scores for the emerging Draft LFRMS

Table 6.1: Proposed indicators for monitoring the potential significant and uncertain environmental effects of the Kirklees LFRMS

Figures

Figure 1.1 Location of Kirklees

Figure 3.1: Relationships between the LFRMS and other Plans, Policies and Programmes

1 Introduction

- 1.1 Kirklees Council commissioned LUC in February 2012 to undertake Strategic Environmental Assessment (SEA) of the emerging Kirklees Local Flood Risk Management Strategy (LFRMS). The SEA process is concerned with assessing the potential environmental effects that may arise from the implementation of the LFRMS. This report ('the Environmental Report') presents the SEA of the final LFRMS (February 2013) and it should be read in conjunction with that document.
- 1.2 A Habitats Regulations Assessment (HRA) of the LFRMS has also been undertaken by LUC on behalf of Kirklees Council and reported on in a separate report. The findings of that assessment have been taken into account throughout the SEA process and are referred to where relevant in this report.

The Study Area

- 1.3 Kirklees District covers an area of 40,860 hectares and is set on the western edge of the Yorkshire and Humber Region. The authority is diverse, comprising urban conurbations (which contain the majority of the population) in the north and west, most notably Huddersfield, and large areas of green belt in the south. Parts of the authority are within the Peak District National Park.
- 1.4 The road and rail network provides good links to the surrounding cities of Manchester, Leeds, Bradford and Sheffield, with wider reaching connections provided via the M62 and the M1.

Figure 1.1 below shows the location of Kirklees within the UK.

Figure 1.1 Location of Kirklees



The Kirklees Local Flood Risk Management Strategy

- 1.5 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 requires Lead Local Flood Authorities (LLFAs), which

include Kirklees Council, to produce a Local Flood Risk Management Strategy (LFRMS). These strategies must be consistent with the National Flood and Coastal Erosion Risk Management Strategy. They will set 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.

1.6 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).

1.7 The Act requires LFRMSs to specify:

- The risk management authorities within the authority's area (in Kirklees these are the Environment Agency, the LLFA (Kirklees Council), the Water Company (Yorkshire Water Services) and the Highway Authority (Kirklees Council).
- The flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area.
- The assessment of local flood risk for the purpose of the strategy.
- The objectives for managing local flood risk (including any objectives included in the authority's flood risk management plan prepared in accordance with the Flood Risk Regulations 2009).
- The measures proposed to achieve those objectives.
- How and when the measures are expected to be implemented.
- The costs and benefits of those measures, and how they are to be paid for.
- How and when the strategy is to be reviewed.
- How the strategy contributes to the achievement of wider environmental objectives.

1.8 LLFAs must consult risk management authorities that may be affected by the strategy as well as the general public about its LFRMS.

1.9 A glossary of technical terms can be found in Section 2 of the final LFRMS (February 2013).

Strategic Environmental Assessment

1.10 SEA is a statutory assessment process, required under the Environmental Assessment of Plans and Programmes Regulations (the SEA Regulations, Statutory Instrument 2004, No 1633) which provide the legislative mechanism for transposing into UK law the European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment' (the SEA Directive). 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.

1.11 SEA should be undertaken iteratively, as the plan is progressed, and involves evaluating the likely significant environmental effects of implementing the plan. The aim is that environmental considerations can be integrated into the production of the plan in order to improve its overall sustainability performance.

1.12 Guidance on the production of LFRMSs² refers to the need for LFRMSs to be subject to SEA, stating that "the Local FRM Strategy is likely to require statutory SEA, but this requirement is something the LLFA must consider". Kirklees Council considers that its emerging LFRMS does

¹ Main rivers are defined as watercourses marked as such on a main river map. Generally main rivers are larger streams or rivers, but can be smaller watercourses.

² Local Government Association (2011) Framework to Assist the Development of the Local Strategy for Flood Risk Management.

require SEA. It is also noted that the guidance recognises that “LLFAs should take a proportionate approach to applying SEA to local strategies particularly when environmental effects are not evident in the early stages of plan development. As the detail of plans develops, SEA should be reviewed”. This reflects the approach that has been taken to the SEA of the Kirklees LFRMS – an earlier version of the SEA Report, making a number of recommendations for the LFRMS, was produced in relation to the Draft LFRMS for public consultation (June 2012) and that report has now been updated to reflect the changes that have been made to the final version of the LFRMS.

Compliance with the SEA Regulations

- 1.13 This report has been prepared in accordance with the SEA Regulations. The reporting requirements of the SEA Directive are set out in **Table 1.1** below, which also indicates where in this SEA Report the relevant requirement has been met.

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

SEA Directive Requirements	Where Covered
Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated. The information to be given is (Art. 5 and Annex I):	
An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes;	Chapter 3 and Appendix 2.
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	Chapter 3 and Appendix 3.
The environmental characteristics of areas likely to be significantly affected;	Chapter 3 and Appendix 3.
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 92/43/EEC.;	Chapter 3 and Appendix 3.
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 and Appendix 2.
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.	Chapter 5 and Appendix 4.

SEA Directive Requirements	Where Covered
(Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects);	
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 and Appendix 4.
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.
a description of measures envisaged concerning monitoring in accordance with Art. 10;	Chapter 6.
a non-technical summary of the information provided under the above headings	A non-technical summary has been produced to accompany this report.
Consultation: authorities with environmental responsibility, when deciding on the scope and level of detail of the information which must be included in the environmental report (Art. 5.4)	The SEA Scoping Report was subject to consultation with the statutory consultees between March and April 2012. Appendix 1 details the responses received and how they have been addressed.
authorities with environmental responsibility and the public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2)	The SEA Report for the Draft LFRMS was published for consultation alongside that document between July and August 2012.
other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country (Art. 7).	Not applicable.
Taking the environmental report and the results of the consultations into account in decision-making (Art. 8)	
Provision of information on the decision: When the plan or programme is adopted, the public and any countries consulted under Art.7 must be informed and the following made available to those so informed: <ul style="list-style-type: none"> • the plan or programme as adopted • a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report of Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Art. 7 have been taken into 	To be addressed at a later stage.

SEA Directive Requirements	Where Covered
account in accordance with Art. 8, and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and the measures decided concerning monitoring (Art. 9)	
Monitoring of the significant environmental effects of the plan's or programme's implementation (Art. 10)	Chapter 6.
Quality assurance: environmental reports should be of a sufficient standard to meet the requirements of the SEA Directive (Art. 12).	Details of how this SEA report meets the requirements of the SEA Directive are set out above.

Structure of the SEA Report

- 1.14 This chapter (**Chapter 1**) has described the background to the production of the Kirklees LFRMS and the requirement to undertake 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 Kirklees.
 - **Chapter 4** presents the SEA framework that is being used for the SEA of the LFRMS.
 - **Chapter 5** summarises the findings of the SEA of the final LFRMS (February 2013).
 - **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.
- 1.15 The information in the main body of the report is supported by a number of appendices:
- **Appendix 1** sets out the consultation comments received in relation to the SEA Scoping Report and describes how each one has been addressed.
 - **Appendix 2** presents the review of plans, policies and programmes of relevance to the SEA. This was updated since it was originally presented in the SEA Scoping Report, in light of the consultation comments received.
 - **Appendix 3** presents the updated baseline information for Kirklees, which has again been updated since the Scoping stage.
 - **Appendix 4** presents the detailed SEA matrices for the final LFRMS.
 - **Appendix 5** sets out the consultation comments that were received in relation to the SEA Report for the Draft LFRMS (June 2012) and describes how each one has been addressed.

2 Methodology

- 2.1 The approach for carrying out the SEA of the Kirklees LFRMS is based on current best practice and the following guidance:
- A Practical Guide to the SEA Directive, (September 2005) Office of the Deputy Prime Minister, Scottish Executive, Welsh Assembly Government, Department of the Environment for Northern Ireland.

SEA Stages and Work Undertaken

- 2.2 **Table 2.1** below sets out the main stages of SEA. Each stage is then discussed in more detail in the subsequent sections.

Table 2.1 Stages in the SEA Process

SEA Stages
SEA Stage A: setting the context and objectives, establishing the baseline and deciding on the Scope
A1: Identifying other relevant plans, programmes and sustainability objectives
A2: Collecting baseline information
A3: Identifying sustainability issues and problems
A4: Developing the SEA Framework
A5: Consulting on the Scope of the SEA
SEA Stage B: Develop options, taking account of assessed effects
B1: Testing the project objectives against the SEA Framework
B2: Developing the options
B3: Predicting the effects of the LFRMS
B4: Evaluating the effects of the LFRMS
B5: Considering ways of mitigating adverse effects and maximising beneficial effects
B6: Proposing measures to monitor the significant effects of implementing the LFRMS
SEA Stage C: Preparing the SEA Report
C1: Preparing the SEA Report
SEA Stage D: Consulting on the Project and the SEA Report
D1: Public participation on the draft project and SEA report

SEA Stages

D2: Assessing significant changes

SEA Stage E: Monitoring the significant effects of implementing the LFRMS

E1: Finalising aims and methods for monitoring

E2: Responding to adverse effects

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

- 2.3 An SEA Scoping report³ was prepared and consulted upon with the three statutory consultees (Natural England, the Environment Agency and English Heritage) between March and April 2012. The SEA Scoping exercise involved the following main tasks:
- Identification and review of other relevant policies, plans and programmes, strategies and initiatives which may influence the LFRMS.
 - Characterisation of the plan area i.e. describing its economic, social and environmental character).
 - Development of a framework of SEA objectives against which the LFRMS measures and any reasonable alternatives would be appraised.
 - Identification of the key environmental and sustainability issues of relevance to the LFRMS.
- 2.4 A list of the comments received from the consultees, along with a description of how each one was addressed, is provided in **Appendix 1** (this information was originally provided in the SEA Report for the Draft LFRMS (June 2012)). Each of the comments received was reviewed and certain elements of the Scoping Report were updated as necessary. The revised and updated baseline information and review of plans, policies and programmes are presented in **Chapter 3** and in **Appendices 2 and 3** respectively (again, these updated versions were originally provided in the SEA Report for the Draft LFRMS (June 2012)). The updated key environmental and sustainability issues are presented at the end of **Chapter 3**.

Stage B: Developing and refining alternatives and assessing effects

- 2.5 Kirklees Council conducted an 'information gathering' exercise in May 2012, whereby a questionnaire was produced and made available to the general public on the Council's website. It sought to collect information regarding local peoples' experiences of flooding and what they considered to be priorities for action by the Council. The findings of the questionnaire helped to inform the development of measures to be included in the LFRMS.
- 2.6 Kirklees Council provided an early internal draft of the LFRMS to LUC for appraisal in June 2012, which included a full set of draft objectives for the LFRMS and a comprehensive set of measures through which they could be achieved. An initial SEA note (which comprised an early draft of **Chapter 4** and **Appendix 4** of this report) was produced by LUC in relation to the draft objectives and measures, and the findings and recommendations of that note were taken into account by Kirklees Council as the Draft LFRMS for public consultation (June 2012) was produced. The SEA was then updated to reflect that version of the LFRMS. No 'reasonable alternatives' to the measures included in the early draft LFRMS were identified during the SEA.
- 2.7 Only a very small number of changes were made to the LFRMS measures between the early internal draft and the Draft LFRMS for Public Consultation (June 2012) and these changes related to recommendations coming out of the initial Habitats Regulations Assessment (HRA) note that was produced at the same time as the SEA note, in order to provide for additional protection for the European sites in and around the District.

³ Kirklees Local Flood Risk Management Strategy: SEA Scoping Report. Prepared by LUC (March 2012).

- 2.8 An earlier version of the full SEA report was produced in relation to the Draft LFRMS for public consultation (June 2012). That report was published alongside the Draft LFRMS during the consultation period and included a number of recommendations for minor changes that could be made to the LFRMS in order to improve its sustainability effects. The SEA report has now been updated to reflect the comments received and the changes that have since been made to the final version of the LFRMS. Again, no alternatives were identified during the consultation on the Draft LFRMS.

Stage C: Preparing the SEA Report

- 2.9 This report is the output of Stage C.

Stage D: Consulting on the LFRMS and the SEA Report

- 2.10 A consultation on the Draft LFRMS took place between July and August 2012, with the report being made available to the statutory environmental bodies as well as a range of other consultees and the wider public. The SEA Report was published alongside the Draft LFRMS during the consultation.
- 2.11 Comments received were taken into account as the LFRMS was finalised. The comments relating specifically to the SEA have also been taken into account and addressed where relevant as the SEA Report has been updated to reflect the final version of the LFRMS. **Appendix 5** sets out the comments received and how each has been responded to.

Stage E: Monitoring the significant effects of implementing the LFRMS

- 2.12 Proposals for monitoring the significant effects of implementing the LFRMS are set out in **Chapter 6** of this report.

Difficulties encountered and data limitations

- 2.13 During the SEA it was at times difficult to reach a judgement regarding the likely effect of a particular measure in the LFRMS on one or more of the SEA objectives, because of a lack of information regarding exactly how and where particular actions would be carried out. As such, there is uncertainty attached to a number of the potential effects (as described in **Chapter 5**).

3 Review of Plans, Policies and Programmes and Baseline Information

Review of Plans, Policies and Programmes

- 3.1 Annex 1(a) of the SEA Directive requires “an outline of the...relationship with other relevant plans or programmes”. The LFRMS is not prepared in isolation, and is influenced by other plans, policies and programmes and by broader sustainability objectives. **Figure 3.1** further ahead in this section illustrates how the LFRMS fits in with other plans and policies relating to flood and water management.
- 3.2 As part of the scoping stage of the SEA in March 2012, a review was undertaken of other relevant plans, policies and programmes in relation to their objectives, targets, and indicators and their implications for the LFRMS and the SEA. In carrying out this task it was possible to draw on the significant amount of work recently undertaken by Kirklees Council in relation to the SA/SEA of its Local Development Framework (LDF). The review that was undertaken in relation to the Core Strategy was revised and updated, to include only those plans and strategies of relevance to the LFRMS, with additional plans and strategies being added where relevant.
- 3.3 In light of consultation comments received in relation to the Scoping Report, the review was amended and added to in places, and the full updated review is presented in **Appendix 2** (this was originally presented in the SEA Report for the Draft LFRMS (June 2012)). The international, national, regional and local policies, plans and programmes considered in the review are listed in **Figure 3.1** below.

Table 3.1 Plans, Polices and Programmes of relevance to the LFRMS

Document
International Level
European Sustainable Development Strategy (Renewed 2006)
European Spatial Development Perspective (May 1999)
European Biodiversity Strategy (Feb 1998)
European Birds Directive (1979)
European Water Framework Directive (2000)
European Nitrates Directive (1991)
European Habitats Directive (as amended 2010)
European Sixth Environmental Action Programme (Jan 2001)
Floods Directive (2007)
Water Framework Directive (2000)
Groundwater Directive (1980)

Document

National Level

National Flood and Coastal Erosion Risk Management Strategy (2011)

Securing the Future - The UK Government Sustainable Development Strategy (2005)

Making Space for Water (March 2005)

Working with the Grain of Nature: Biodiversity Strategy for England (Oct 2002)

Urban White Paper: Our towns and cities – the future (2000)

Heritage Protection for the 21st Century (March 2007)

Climate Change Act (Nov 2008)

Wildlife and Countryside Act 1981 (as amended)

England Biodiversity Framework (2008)

UK Biodiversity Action Plan (1994)

Building a Low Carbon Economy – The UK’s Contribution to Tackling Climate Change (2008)

Natural Environment White Paper (2011)

The Carbon Plan (2011)

Water Resources Strategy (2009)

National Planning Policy Framework (2012)

Flood and Water Management Act 2010

The Flood Risk Regulations 2009

Future Water, The Government’s Water Strategy for England (2008)

Water Act 2003

Guidance for risk management authorities on sustainable development in relation to their flood and coastal erosion risk management functions (2011)

Directing the Flow: Priorities for Future Water Policy (2002)

The Impact of Flooding on Urban and Rural Communities (2005)

Biodiversity 2020: A Strategy for England’s Wildlife and Ecosystems (2011)

Underground, Under Threat; The state of groundwater in England and Wales (2006)

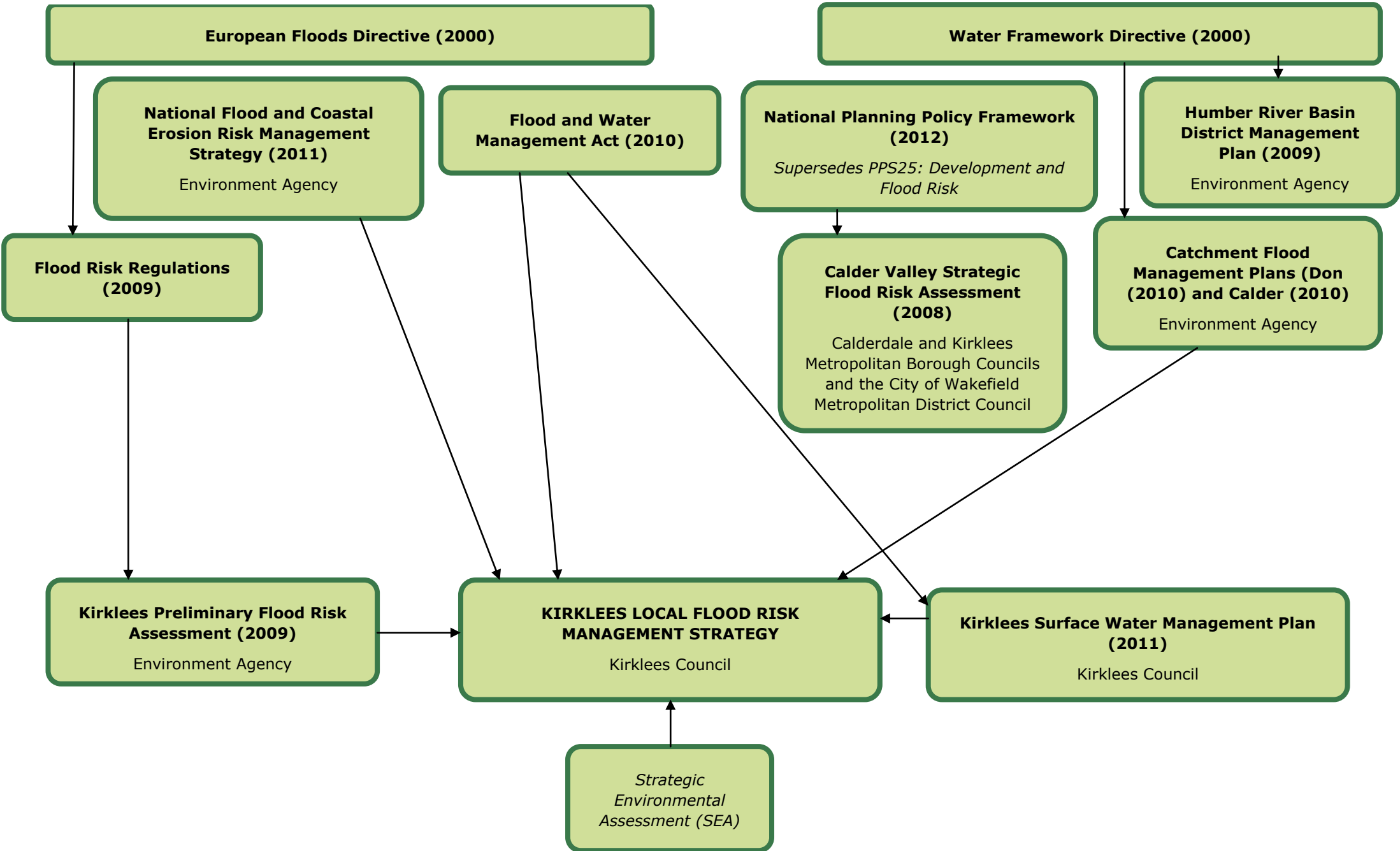
Conservation of Habitats and Species Regulations (2010)

Safeguarding our Soils, A Strategy for England (2009)

Document
Salmon and Freshwater Fisheries Act (1975)
National Wetland Vision (2008)
Defra Water for Life White Paper (2012)
Sub-National Documents
Humber River Basin District Management Plan (2009)
The Yorkshire and Humber Plan Regional Spatial Strategy to 2026
Regional Sustainable Development Framework-update 2003-2005
Regional Housing Strategy 2005 – 2021 (May 2005)
Regional Economic Strategy (2006-2015)
Sustainable Communities: Building for the Future (2005)
Creating Sustainable Communities in Yorkshire and The Humber (2005)
Advancing Together – Towards a Sustainable Region (2003)
Regional Environmental Enhancement Strategy (2003)
Climate Change: Action Plan for Yorkshire and the Humber (2005)
Regional Biodiversity Strategy (2009)
West Yorkshire Local Transport Plan 3 (2011)
West Yorkshire Housing Strategy (2008-2015)
The Calder Catchment Flood Management Plan (2010)
The Don Catchment Flood Management Plan (2010)
Leeds City Region Development Plan (2006)
Leeds City Region Green Infrastructure Strategy (2010)
West Yorkshire Adaptation Action Plan (2010)
Local-Level Documents
Kirklees Unitary Development Plan (1999)
Kirklees Local Development Framework Core Strategy Proposed Submission Document (2011)
Kirklees Local Development Framework Annual Monitoring Report 2009/10
Sustainable Community Strategy 2009 – 2012
Kirklees Vision 2012: A Blueprint for Our Future – Community Strategy for Kirklees (2002)

Document
Kirklees Biodiversity Action Plan (2009)
Kirklees Environment Vision 2025 (2007)
Kirklees Council Strategic Housing Market Assessment (SHMA) (2009)
Calder Valley Strategic Flood Risk Assessment (2008)
Kirklees Surface Water Management Plan (2011)
Kirklees Integrated Investment Strategy (2012)
Kirklees Preliminary Flood Risk Assessment (2009)
Commissioning Strategy for Housing (2009-2012)
Kirklees Employment Land Supply Review 2009/10
Kirklees Housing Land Supply Review 2009/10

Figure 3.1: Relationships between the LFRMS and other Plans, Policies and Programmes



Summary of Review of Plans, Policies and Programmes

- 3.4 Many of the policies, programmes, plans, 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 (the full review can be found in **Appendix 2**):
- **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 Kirklees 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 Kirklees LFRMS must have regard to the contents of the Strategy.
 - **The Kirklees LDF Core Strategy Proposed Submission Document (2011)** – The Core Strategy will provide the overarching approach to future development within the District, and any proposals within the LFRMS must have regard to the policies within it. In particular, policy SCS7: Water Management aims to reduce flood risk by preventing development in inappropriate locations and requiring new developments to incorporate sustainable drainage systems.
 - **The National Planning Policy Framework (2012)** – The NPPF has replaced the suite of planning policy statements and planning policy guidance, including PPS25 which previously presented national policy in relation to Development and Flood Risk. The NPPF sets out the considerations that local planning authorities need to take account of in order to avoid new development increasing flood risk.
 - **Calder Valley Strategic Flood Risk Assessment (2008)** – This document establishes the extent of flood risk in Kirklees from rivers and other water courses, and defines the geographical extent of the various flood risk zones. It is therefore an important part of the evidence base for the production of the LFRMS.
 - **Kirklees Surface Water Management Plan (2011)** – This document provides important evidence relating to flood risk in Kirklees, identifying the areas at highest risk. Along with the LFRMS, it will comprise a key part of the management of flood risk in the District.
 - **EU Water Framework Directive (2000)** – The Directive came into UK law in 2003 and aims to protect and enhance water quality. It requires River Basin Management Plans to be drawn up in order to improve the water environment.
 - **Humber River Basin District Management Plan (2009)** – This document sets out the challenges facing the Humber River Basin District and sets out actions to address them. It has been prepared under the Water Framework Directive and provides important evidence for the LFRMS.

Baseline Information

- 3.5 Baseline information provides the context for assessing the potential environmental effects and sustainability of measures in the LFRMS and it provides the basis for identifying trends, predicting the likely effects of the LFRMS and monitoring its outcomes.
- 3.6 Annex 1(f) of the SEA Directive requires data to be gathered on biodiversity, population, human health, flora, fauna, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the inter-relationship between the above factors.

- 3.7 The baseline information collated in relation to Kirklees was originally presented in the SEA Scoping Report (March 2012). In light of consultation comments received in relation to the Scoping Report, the baseline information was amended and added to in places, and the updated version is presented in **Appendix 3** (this was originally presented in the SEA Report for the Draft LFRMS (June 2012)).

Key Environmental and Sustainability Issues

- 3.8 Reviewing the relevant plans, policies and programmes and considering the baseline character of the area highlights a number of environmental and sustainability issues facing Kirklees, as set out in **Table 3.1**. These are relevant to producing the LFRMS and have been considered throughout the SEA process, in particular helping to inform the SEA objectives developed at the Scoping stage.
- 3.9 Annex 1 of the SEA Directive requires that information is provided on:
"the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan."
- 3.10 In order to meet this requirement, the table also sets out how the key issues are likely to develop over time in the absence of the LFRMS.

Table 3.2 Key Environmental and Sustainability Issues and Likely Evolution without the LFRMS

Key Environmental and Sustainability Issues	Likely Evolution without the LFRMS
Population growth and the resulting pressure for new housing and associated development.	This issue is likely to continue as at present, as the LFRMS does not intend to address population growth and demand for development. Rather the LFRMS should help to ensure that the District is well-equipped to accommodate the new development without increasing local flood risk. Therefore without implementation of the LFRMS, the implications of development pressure in terms of increased flood risk may be more negative.
High value of the District's natural environment, with various conservation designations which must be protected and enhanced where possible.	In the absence of the flood risk management achieved through implementation of the LFRMS, other flood management plans and policies such as the Catchment Flood Management Plans and policies to manage flood risk in the emerging Kirklees Core Strategy would still apply and should have some benefit in terms of protecting the natural environment from the potential adverse impacts of flooding. However, these are likely to have less direct and significant effects on the protection of the natural environment through the management of local flood risk than implementation of the LFRMS would.
High level of local flood risk, particularly in the north of the District (including in Dewsbury and Huddersfield) and around the River Calder.	Without implementation of the LFRMS, other flood management plans and policies would still apply, such as the Catchment Flood Management Plans and policies to manage flood risk in the emerging Kirklees Core Strategy.

Key Environmental and Sustainability Issues	Likely Evolution without the LFRMS
	However, these are likely to have less direct and significant effects on the management of local flood risk than implementation of the LFRMS would.
The need to adhere to the Water Framework Directive (WFD).	Although not a key environmental issue in terms of the baseline evidence for Kirklees District, this is a key relevant plan or programme for the district, which a number of other plans must adhere to (e.g. River Basin Management Plans). The overall purpose of the WFD is to protect quality and quantity of all water bodies. This requirement would apply even without implementation of the LFRMS, and would be met through other plans and strategies, but the LFRMS has an important role to play in terms of ensuring that measures proposed to manage flood risk in Kirklees do not adversely affect water quantity and quality. Therefore, impacts on water quantity and quality due to flood events may be increased without implementation of the LFRMS.
Likely future increase in flood risk as a result of ongoing climate change.	This issue is likely to continue as at present, as the LFRMS does not intend to address the causes of climate change. Rather the LFRMS should help to ensure that the District is well-equipped to adapt to the increasing flood risk. Therefore without implementation of the LFRMS, the implications of climate change in terms of increased flood risk may be more negative.
Potential impacts of flooding, and the perceived risk of flooding, on the health and wellbeing of the local population.	In the absence of the flood risk management achieved through implementation of the LFRMS, other flood management plans and policies such as the Catchment Flood Management Plans and policies to manage flood risk in the emerging Kirklees Core Strategy would still apply and should have some benefit in terms of protecting local people's health and wellbeing from the potential adverse impacts of flooding. However, these are likely to have less direct and significant effects on the protection of human health through the management of local flood risk than implementation of the LFRMS would.
Large number of residential properties and other development (including infrastructure) located in areas of high flood risk.	In the absence of the LFRMS, policies in the emerging Core Strategy would still apply, which aim to ensure that new development is steered away from areas of higher flood risk. Other flood management plans and policies such as the Catchment Flood Management Plans as well as policies to manage flood risk in the emerging Kirklees Core Strategy would still apply and

Key Environmental and Sustainability Issues	Likely Evolution without the LFRMS
	<p>should have some benefit in terms of reducing the flood risk facing existing residential properties and other development from the potential adverse impacts of flooding. However, these are likely to have less direct and significant effects on the management of local flood risk than implementation of the LFRMS would.</p>
<p>Large number of heritage assets such as listed buildings which require management (including in terms of their setting).</p>	<p>In the absence of the flood risk management achieved through implementation of the LFRMS, other flood management plans and policies such as the Catchment Flood Management Plans and policies to manage flood risk in the emerging Kirklees Core Strategy would still apply and should have some benefit in terms of protecting heritage assets from the potential adverse impacts of flooding. However, these are likely to have less direct and significant effects on the protection of heritage assets through the management of local flood risk than implementation of the LFRMS would.</p>
<p>High quality local landscape, including part of the Peak District National Park, which should be conserved and enhanced.</p>	<p>In the absence of the LFRMS, any measures which may affect the local landscape, for example by leading to the construction of flood defences or changing land use, would not apply.</p>

4 SEA Framework

- 4.1 The SEA framework was prepared and consulted upon as part of the Scoping process, drawing on the review of relevant plans and programmes, baseline information and key environmental and sustainability issues described in **Section 3** of this SEA Report.
- 4.2 There are nine SEA objectives in total, as set out in **Table 4.1** below.

Table 4.1 SEA Framework for the Kirklees LFRMS

SEA Objectives
1. Minimise the risk of flooding to the District's community and economic assets
2. Minimise the number of residential properties at risk from flooding
3. Minimise the risk of disruption from flooding to the transport network of the District
4. Secure the efficient and prudent use of land and protect soil quality
5. Protect and enhance the character of Kirklees
6. Preserve and enhance the historic environment
7. Maximise opportunities to protect and enhance biodiversity
8. Reduce the risk of soil and water pollution
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere

- 4.3 Schedule 2 of the SEA Regulations provides a list of specific environmental topics to be addressed. In drawing up the SEA objectives, care was taken to ensure that the SEA Directive's environmental objectives were also covered.
- 4.4 **Table 4.2** sets out these SEA environmental topics and the relevant SEA objectives from the Kirklees LFRMS SEA Framework that address them. This helps to demonstrate that each SEA environmental issue has been addressed in the assessment of the LFRMS. Note that one of the SEA topics, 'air', was scoped out of the assessment due to the fact that the type of measures to be included in the LFRMS are not considered likely to have an impact on air quality, as they relate to flood risk management and will not result in emissions to air that could affect air quality.

Table 4.2 SEA environmental topics and coverage by SEA objective

SEA environmental topic	Relevant SEA objective(s)
Biodiversity, flora and fauna	7
Population and human health	2, 9
Soil	4, 8
Water	8, 9

SEA environmental topic	Relevant SEA objective(s)
Air	<i>Scoped out of the assessment</i>
Climatic factors	9
Material assets	1, 2, 3, 9
Cultural heritage (including architectural and archaeological heritage)	6
Landscape	5

Use of the SEA Framework

- 4.5 Within the assessment of the potential environmental effects of the LFRMS, symbols have been used against each SEA objective to show whether an effect is likely to be significant, positive or negative, or uncertain, as follows:

Table 4.3 Key to SEA scores

Symbol	Effect
++	Significant positive effect
+	Minor positive effect
0	Negligible effect
-	Minor negative effect
--	Significant negative effect
?	Uncertain effect

- 4.6 The likely effects of the LFRMS need to be determined and their significance assessed, and this inevitably requires a series of judgments to be made. This assessment has attempted to differentiate between the most significant effects and other more minor effects through the use of the symbols shown above. The dividing line in making a decision about the significance of an effect is often quite small. Where either ++ or -- has been used to distinguish significant effects from more minor effects (+ or -) this is because the effect of the measure on the SEA objective in question is considered to be of such magnitude that it will have a noticeable and measurable effect taking into account other factors that may influence the achievement of that objective. In the context of the LFRMS, where LFRMS measures relate directly to the achievement of an SEA objective, the likely effect on that objective is considered to be significant.
- 4.7 The SEA Regulations require that consideration should also be given as to whether the potential effects predicted are likely to be secondary, cumulative, synergistic, short, medium or long-term, permanent or temporary. Where relevant, reference has been made to effects being either direct or indirect, the latter is taken to cover 'secondary' effects. The cumulative effects of the combined measures for each of the LFRMS objectives have been considered within the SEA matrices in **Appendix 4**, and an attempt has been made to look at the cumulative effects of the whole LFRMS on the SEA objectives in **Chapter 5**. Synergistic effects relate to the interaction of components that when combined produce a total effect that is greater than the sum of the

individual components, and again, the combined effects of the LFRMS objectives are discussed in **Chapter 5**.

- 4.8 In terms of timescales for when effects are likely to occur, the LFRMS states that it has been developed to deliver a short to medium term (3-5 years) improvement plan to establish a sound evidence and knowledge base, which will help to develop a longer-term investment programme for flood risk management measures across the district. It is anticipated that the LFRMS will become more focussed on the delivery of an affordable and funded capital programme of flood risk management works in the longer term (considered to be 5-10 years). Therefore, in most instances, it is assumed that the environmental effects identified will occur in the longer term, and are likely to be permanent (as far as can reasonably be predicted). However, there are some effects that while not taking place until the longer term, may only be temporary, as they would only occur during the initial works to achieve the flood risk management measure (e.g. noise, dust, sediment release associated with machinery during de-culverting activities).

5 SEA Findings

- 5.1 SEA matrices have been prepared, which present the detailed assessment of each of the objectives (and associated measures) in the final LFRMS (February 2013) against each of the nine SEA objectives. The SEA matrices can be found in **Appendix 4. Table 5.1** below presents a summary of the scores for each SEA objective, and the potential environmental effects of the LFRMS objectives are then summarised by SEA objective.
- 5.2 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 Kirklees. While potentially significant positive effects have been identified in relation to SEA objectives 1, 2, 3 and 9, no significant 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 environment 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.
- 5.3 Therefore, when taken as a whole, the synergistic and cumulative effects of all the LFRMS objectives and measures combined are considered to be overall positive for the environment, due to the likely outcomes of implementing the LFRMS being a reduction in flooding and associated risk to the natural and built environment within Kirklees.

Table 5.1: Summary of SEA scores for the final LFRMS (February 2013)

LFRRS Objectives	SEA Objective 1: Community and economic assets	SEA Objective 2: Residential properties	SEA Objective 3: Transport network	SEA Objective 4: Efficient use of land	SEA Objective 5: Local character	SEA Objective 6: Historic environment	SEA Objective 7: Biodiversity	SEA Objective 8: Soil and water pollution	SEA Objective 9: Appropriate development
1: Improve the level of understanding of local flood risk within the LLFA	+	+	+	+	0	+	+	+	+?
2: Improve the level of understanding of local flood risk amongst partners and stakeholders	+	+	+	+	0	+	+	+	+?
3: Ensure that local communities understand their responsibilities in relation to local flood risk management	+	+	+	+?	?	+?	+?	+?	0
4: Maximise the benefits from partnership working with flood risk partners and our stakeholders	+	+	+	+	0	0	+	+	+?
5: Actively manage flood risk associated with new development proposals	++	++	++	+	0	+	+	+	++
6: Take a sustainable approach to FRM, maximising environmental and social benefits from policies and programmes	+	+	+	+	+	+	+	+	+
7: Improve and/or maintain the capacity of existing drainage systems by targeted maintenance	+	+	+	+	0	+	+?	+	0
8: Encourage proactive, responsible maintenance of privately-owned flood defence and drainage assets	+?	+?	+?	+?	0	+?	+?	+?	0
9: Establish a robust policy on water management and use available information on flood risk to assess the suitability of the allocation of sites for different uses through the Local Development Framework process	++	++	++	+	+	+	+/-?	+	++
10: Maximise opportunities to reduce surface water run-off from the upper catchments	++	++	++	+?	+?	+	+?	+	0
11: Identify projects and programmes which are affordable, maximising capital funding from external sources	+	+	+	+	+?	+	+?	+	+
12: Ensure local FRM knowledge is aligned with the Council's emergency planning procedures	+	+	+	+	0	+	+	+	+

SEA Objective 1: Minimise the risk of flooding to the District's community and economic assets

SEA Objective 2: Minimise the number of residential properties at risk from flooding

SEA Objective 3: Minimise the risk of disruption from flooding to the transport network of the District

- 5.4 The potential effects of the LFRMS objectives on SEA objectives 1, 2 and 3 have been summarised together because due to the three SEA objectives relating to minimising the risk of flooding to different types of built development, the effects of the LFRMS objectives are broadly very similar.
- 5.5 All of the LFRMS objectives and associated measures are likely to have either positive or significant positive effects on these three objectives, as the measures have all been designed with the aim of reducing overall flood risk, including the risk to community and economic assets, residential properties and the transport network. However, for all three SEA objectives, there are uncertainties attached to LFRMS objective 8 (encourage proactive, responsible maintenance of privately-owned flood defence and drainage assets) as it cannot yet be known whether private landowners will be receptive to the advice and guidance to be provided by the Council under measure 8.2, and therefore whether the potential benefits in relation to minimising the risk of flooding to community and economic assets, residential properties and the transport network will be achieved.
- 5.6 Significant positive effects are predicted for three of the LFRMS objectives, 5 (actively manage flood risk associated with new development proposals), 9 (influence land allocations in local plans to reflect flood risk) and 10 (maximise opportunities to reduce surface water run-off from the upper catchments). This is because the measures associated with those LFRMS objectives are considered likely to have a particularly strong and direct impact on reducing the extent of overall flood risk to the built environment, including community and economic assets, residential properties and the transport network. The measures set out in LFRMS objectives 5 and 9 ensure that new development will be built to high standards, incorporating flood risk management measures, and is located appropriately, while LFRMS objective 10 involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the overall risk of flooding across the District.
- 5.7 No negative effects from the LFRMS objectives, minor or significant, have been identified in relation to these three SEA objectives.

SEA Objective 4: Secure the efficient and prudent use of land and protect soil quality

- 5.8 All of the LFRMS objectives are considered likely to have minor positive effects on prudent use of land and protecting soil quality due to the fact that the measures associated with each LFRMS objective will combine to reduce overall flood risk. This will reduce the likelihood of flood events damaging soils, for example as a result of rapid surface run-off causing soil erosion.
- 5.9 However, there are a small number of uncertainties attached to some of the minor positive effects, where specific works will result from the measures and where it is not possible to tell whether those works may have an effect on land use or soil quality. This is the case for LFRMS objectives 3 (ensure that local communities understand their responsibilities in relation to local flood risk management), 8 (encourage proactive, responsible maintenance of privately-owned flood defence and drainage assets) and 10 (maximise opportunities to reduce surface water run-off from the upper catchments).

SEA Objective 5: Protect and enhance the character of Kirklees

- 5.10 A large number of the LFRMS objectives are not considered likely to have a direct effect on the character of Kirklees, because they will not result in physical works or actions that could affect the appearance of the area. However, minor positive effects have been identified in relation to LFRMS objectives 6 (take a sustainable approach to FRM, balancing economic, environmental and social benefits from policies and programmes), 9 (influence land allocations in local plans to reflect flood risk), 10 (maximise opportunities to reduce surface water run-off from the upper catchments) and 11 (identify projects and programmes which are affordable, maximising capital funding from

external sources). This is because measure 6.1 (associated with LFRMS objective 6) relates to the SEA which is being carried out for the LFRMS; through the SEA, all LFRMS measures are being assessed for their potential impacts on local character which means that any potential negative effects that arise as the LFRMS is developed can be identified and addressed through appropriate mitigation. The minor positive effect associated with LFRMS objective 9 relates to measure 9.1 which could have an indirect positive effect by potentially leading to less development taking place on greenfield sites; therefore helping to conserve landscape character. Uncertain minor positive effects are also associated with LFRMS objective 10 because the measure that aims to achieve that objective may lead to planting or other land management activities which could enhance the appearance of the landscape, and with LFRMS objective 11 because the removal of culverts under measure 11.2 may result in watercourses being reintroduced into the landscape.

- 5.11 The effect of LFRMS objective 3 (ensure that communities understand their responsibilities in relation to local flood risk management) is uncertain, as measure 3.1 involves encouraging landowners to employ appropriate measures on their land to reduce local flood risk, and depending on the nature of the actions that they are advised to take, there may be effects on local character. However, it is recognised that measures 6.1 and 6.2 will provide mitigation by ensuring that due regard is given to environmental considerations (taken to include the landscape and local character).

SEA Objective 6: Preserve and enhance the historic environment

- 5.12 Almost all of the LFRMS objectives are considered likely to have a positive effect on the historic environment (including both designated and undesignated heritage assets), although LFRMS objective 3 (ensure that communities understand their responsibilities in relation to local flood risk management) is not expected to have any effect. The other LFRMS objectives are likely to have positive effects because the measures associated with each objective will combine to reduce the overall extent of flood risk, thereby reducing the likelihood of heritage assets such as listed buildings, scheduled ancient monuments or historic parks and gardens being adversely affected by flood events.
- 5.13 However, the potential positive effect from LFRMS objective 8 (encourage proactive, responsible maintenance of privately-owned flood defence and drainage assets) is uncertain. This is because it cannot be known at this stage whether private landowners will be receptive to the advice and guidance to be provided by the Council under measure 8.2, and therefore whether the potential positive effects on preserving and enhancing the historic environment will be achieved.

SEA Objective 7: Maximise opportunities to protect and enhance biodiversity

- 5.14 While all of the LFRMS objectives are likely to have minor positive effects on protecting and enhancing biodiversity within the district (whether designated or not for nature conservation importance), the potential positive effects associated with LFRMS objectives 3 (ensure that communities understand their responsibilities in relation to local flood risk management), 7 (improve and/or maintain the capacity of existing drainage systems by targeted maintenance), 8 (encourage proactive, responsible maintenance of privately-owned flood defence and drainage assets), 10 (maximise opportunities to reduce surface water run-off from the upper catchments) and 11 (identify projects and programmes which are affordable, maximising capital funding from external sources) are uncertain. This is because the measures attached to those LFRMS objectives will result in changes in land management, clearance of watercourses and the removal of culverts. While the broad effects of those actions on biodiversity are likely to be positive (mainly as a result of reduced overall flood risk which could otherwise have adverse effects on some habitats and species), it is not possible to rule out the potential for localised negative effects on habitats and species as a result of the flood management activities, particularly when the activities are considered in combination,. The Habitats Regulations Assessment which is also being carried out in relation to the LFRMS has identified some uncertainty regarding the potential for physical disturbance impacts as well as changes in hydrology which could affect biodiversity within European sites (specifically the South Pennine Moors SAC and SPA (Phases 1 and 2)). However, without more detailed information about the actions that may be taken, as well as the specific locations, it is not possible to be more certain about the potential impacts on biodiversity (including opportunities to enhance biodiversity) whether designated or undesignated within the district. Therefore, while no likely negative effects have been identified in relation to SEA

objective 7, the potential positive effects of LFRMS objectives 3, 7, 8, 10 and 11 are currently uncertain.

SEA Objective 8: Reduce the risk of soil and water pollution

- 5.15 All of the LFRMS objectives are considered likely to have minor positive effects on reducing soil and water pollution due to the fact that the measures associated with each LFRMS objective will combine to reduce overall flood risk. This will reduce the likelihood of flood events leading to soil and water pollution, for example as a result of rapid surface run-off causing soil erosion and washing sediments and/or chemical fertilisers into watercourses.
- 5.16 However, there are a small number of uncertainties attached to some of the minor positive effects, where specific works will result from the measures but where it is not possible to tell whether those works may have an effect on soil and water pollution due to a lack of specific information about the nature and location of the works. This is the case for LFRMS objectives 3 (ensure that local communities understand their responsibilities in relation to local flood risk management) and 8 (encourage proactive, responsible maintenance of privately-owned flood defence and drainage assets).

SEA Objective 9: Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere

- 5.17 Most of the LFRMS objectives will have either minor positive or significant positive effects on this SEA objective, although LFRMS objectives 3 (ensure that local communities understand their responsibilities in relation to local flood risk management), 7 (improve and/or maintain the capacity of existing drainage systems by targeted maintenance), 8 (encourage proactive, responsible maintenance of privately-owned flood defence and drainage assets) and 10 (maximise opportunities to reduce surface water run-off from the upper catchments) are all expected to have no effect on this SEA objective because the measures associated with those LFRMS objectives will not have any effect on the nature and location of new development.
- 5.18 LFRMS objective 5 (actively manage flood risk associated with new development proposals) and 9 (influence land allocations in Local Plans to reflect flood risk) are both considered likely to have significant positive effects on this SEA objective, as the measures associated with those LFRMS objectives specifically aim to ensure that new development does not increase the overall flood risk, and that flood risk is a key factor taken into consideration by the Council when land allocations for new development are being determined.
- 5.19 A number of minor positive effects are also identified for SEA objective 9, associated with measures under LFRMS objectives 1, 2, 4, 6, 11 and 12, which should indirectly contribute to a reduction in overall flood risk within Kirklees, including flood risk potentially caused by new development, for example by improving the evidence base that will inform the Council's decisions about the siting of new development. However, the minor positive effects relating to LFRMS objectives 1, 2 and 4 are uncertain because some aspects of the measures and how they will be implemented are not clear – for example, in relation to LFRMS objective 1, there is some uncertainty attached to the status of designated flood/drainage assets and the implications of the designation in planning terms; therefore the effect of the designations on steering new development away from areas of high flood risk are uncertain. Similarly, LFRMS objective 2 may have an indirect positive effect on this SEA objective as improving stakeholder understanding of flood risk could reduce the chances of inappropriately sited development proposals coming forward, and may increase the likelihood of such proposals being considered appropriately in light of the potential impacts on flood risk; however this is an assumption and is not certain. The effects of LFRMS objective 4 on preventing inappropriate development are also uncertain as they will depend on the future actions of the Kirklees Flood Partnership, the Yorkshire LLFA Liaison Group and the Yorkshire Action and Learning Alliance, the details of which are not known at this stage.

Recommendations and Mitigation

- 5.20 No negative effects, either minor or significant, have been identified in relation to any of the LFRMS measures that will require mitigation. This is because the LFRMS is a document which is intended to have positive effects on the environment, and itself aims to mitigate potential adverse environmental impacts from flooding.
- 5.21 While a number of the potential positive effects identified are uncertain, this is inevitable without more information regarding the detail of the measures in the LFRMS i.e. exactly what land management activities private land owners will be encouraged to implement and where. It is considered that measures 6.1 and 6.2 provide overall mitigation of the potential for any physical works or actions resulting from the LFRMS to have negative environmental effects, as they require environmental considerations to be embedded in the LFRMS (in part through the SEA process). In addition, measure 6.2 requires Environmental Impact Assessments to be carried out where there are environmental risks from schemes and initiatives promoted by the strategy and states that an Environmental Management Plan will be developed to encourage a consistent approach in all FRM activities carried out across the district.

Recommendations made previously

- 5.22 The earlier version of this SEA report, which related to the Draft LFRMS for public consultation (June 2012) made a number of recommendations as follows:
- The uncertainties attached to the potential effects of LFRMS objectives 4 (maximise the benefits from partnership working with flood risk partners and our stakeholders) on SEA objectives 1 and 3 could be removed if the wording of measure 4.1 was more specific with regards to the types of partners that will be involved in the Kirklees Flood Risk Partnership, i.e. clearly stating if this will involve local businesses and organisations such as the Highways Agency, and this is a recommendation arising from the SEA. *Following discussions with the Council it has been established that the parties already named in the measure (the Council, the Environment Agency and Yorkshire Water) are the only three partners involved in the Kirklees Flood Risk Partnership. This recommendation has therefore been removed from the SEA and the uncertainty that was attached to the effects of measure 4.1 on SA objectives 1 and 3 has been removed.*
 - In addition to flood risk management, the main potential benefit of the LFRMS that has been identified through the SEA is the opportunity for biodiversity enhancements to be achieved, for example if habitat enhancement (such as moorland restoration) were to take place. The potential for such benefits to be achieved could be enhanced by amending the wording to measure 6.1. Therefore the SEA recommends that measure 6.1 explicitly refers to the need to consider the potential for biodiversity benefits to be achieved through the implementation of the LFRMS. *This recommendation has been implemented in the final version of the LFRMS.*
- 5.23 No other recommendations for strengthening the protection or improving the environmental effects of the LFRMS were suggested.

6 Monitoring

- 6.1 The SEA Directive requires that "*member states shall monitor the significant environmental effects of the implementation of plans or programmes... in order, inter alia, to identify at an early stage, unforeseen adverse effects, and be able to undertake appropriate remedial action*" (Article 10.1) and that the environmental report should provide information on "*a description of the measures envisaged concerning monitoring*" (Annex 1 (i)). Monitoring proposals should be designed to provide information that can be used to highlight specific issues and significant effects, and which could help decision-making.
- 6.2 As discussed in **Chapter 5**, a number of the measures in the Draft LFRMS could have potential significant positive effects on the SEA objectives, although no likely significant negative effects on the environment were identified. There are also a number of SEA objectives for which no significant effects have been identified. Therefore, it is recommended that monitoring of environmental effects due to implementation of the LFRMS is undertaken in relation only to those objectives where significant or uncertain effects were identified.
- 6.3 To achieve efficiencies, and ensure environmental effects of implementing any of the LFRMS measures are monitored, SEA monitoring of the LFRMS should be conducted as part of the overall approach to monitoring achievement of the LFRMS measures. The LFRMS explains in Section 9 that it is a "living document" which will develop as new information, expertise and resources influence the delivery of the measures outlined in the strategy. The LFRMS will be monitored by officers at the regular Kirklees Flood Partnership Meetings and progress against the measures will be assessed by local members through an annual report to the Council's Development and Environment Overview and Scrutiny Panel.
- 6.4 In addition, it is also recommended that monitoring of the environmental effects of the LFRMS is also tied into the overall approach to monitoring the sustainability effects of other plans and strategies developed by Kirklees Council (in particular the Core Strategy), as some of the indicators proposed will be relevant to the LFRMS. Annual Monitoring Reports are already produced for the Local Development Framework (including the Core Strategy), and monitoring proposals for the Core Strategy are presented in the Proposed Submission version. Therefore, it is recommended that monitoring of the potential environmental effects of the LFRMS be combined with the annual monitoring process carried out for the LDF.
- 6.5 **Table 6.1** sets out a number of suggested indicators for monitoring the potential significant environmental effects of implementing the LFRMS, drawing on indicators that will also be used for the Core Strategy sustainability monitoring where relevant. Note that the indicators proposed are included as suggestions at this stage, as it is recognised that many datasets may not be available for monitoring some of the environmental effects of the LFRMS, and that the indicators included may change as Kirklees Council finalises the monitoring framework for the Core Strategy.
- 6.6 In addition, the data used for monitoring in many cases will be provided by outside bodies. Information collected by other organisations (e.g. the Environment Agency) can also be used as a source of indicators.

Table 6.1: Proposed indicators for monitoring the potential significant and uncertain environmental effects of the Kirklees LFRMS

SEA objectives for which potential significant positive or uncertain effects have been identified	Suggested indicators for monitoring effects of LFRMS
1: Minimise the risk of flooding to the District's community and economic assets (significant positive effects identified in relation to LFRMS objectives 5, 9 and 10, as the	Number of planning permissions granted for community or economic assets within flood zones 2, 3a or 3b.

SEA objectives for which potential significant positive or uncertain effects have been identified	Suggested indicators for monitoring effects of LFRMS
<p>measures set out in LFRMS objectives 5 and 9 ensure that new development will be built to high standards, incorporating flood risk management measures, and is located appropriately, and LFRMS objective 10 involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the overall risk of flooding across the District).</p>	<p>Number of flood events affecting community and economic assets in the District.</p> <p>Number of land management initiatives implemented in the Colne and Dearne catchments achieving reductions in surface water run-off rates.</p>
<p>2: Minimise the number of residential properties at risk from flooding (significant positive effects identified in relation to LFRMS objectives 5, 9 and 10 for the same reasons as above).</p>	<p>Number of residential properties granted planning permission within flood zones 2, 3a or 3b.</p> <p>Number of residential properties affected by flooding in the District.</p> <p>Number of land management initiatives implemented in the Colne and Dearne catchments achieving reductions in surface water run-off rates.</p>
<p>3: Minimise the risk of disruption from flooding to the transport network of the District (significant positive effects identified in relation to LFRMS objectives 5, 9 and 10 for the same reasons as above).</p>	<p>Number of planning permissions granted for transport infrastructure within flood zones 2, 3a or 3b.</p> <p>Number of road closures due to flood events in the District.</p> <p>Number of land management initiatives implemented in the Colne and Dearne catchments achieving reductions in surface water run-off rates.</p>
<p>5. Protect and enhance the character of Kirklees (uncertain effects identified in relation to LFRMS objective 3, as measure 3.1 involves encouraging landowners to employ appropriate measures on their land to reduce local flood risk, and depending on the nature of the actions that they are advised to take, there may be effects on local character.)</p>	<p>Number of land management initiatives implemented in the Colne and Dearne catchments where local character was taken into account during development and approval of proposals.</p> <p>Number of land management initiatives occurring within designated sites within Kirklees.</p>
<p>9: Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere (significant positive effects identified in relation to LFRMS objectives 5 and 9, as the measures set out in LFRMS objectives 5 and 9 ensure that new development will be built to high standards, incorporating flood risk management measures, and is located appropriately to avoid high flood risk areas and ensure it does not increase flooding elsewhere).</p>	<p>Number of planning permissions granted for development within flood zones 2, 3 or 3a.</p> <p>Number of planning applications approved subject to sustained Environment Agency objections on flood risk grounds.</p>

7 Conclusion and Next Steps

- 7.1 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 an underlying aim of environmental protection through flood risk management, meaning that the effects of the strategy are largely positive. Where uncertain effects have been identified with some potential for negative effects, mitigation should be provided by LFRMS measures which specifically aim to protect the environment (e.g. those associated with LFRMS objective 6 – take a sustainable approach to flood risk management, maximising environmental and social benefits from policies and programmes).
- 7.2 Likely significant positive effects have been identified in relation to the following SEA objectives:
- 1: Minimise the risk of flooding to the District’s community and economic assets.
 - 2: Minimise the number of residential properties at risk from flooding.
 - 3: Minimise the risk of disruption from flooding to the transport network of the District.
 - 9: Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere.
- 7.3 All of these significant positive effects are associated with the measures designed to achieve LFRMS objectives 5 (actively manage flood risk associated with new development proposals), 9 (influence land allocations in Local Plans to reflect flood risk) and 10 (maximise opportunities to reduce surface water run-off from the upper catchment). The measures associated with these objectives are more likely to have significant positive effects because they involve direct actions to manage flood risk, such as ensuring that new development will be built to high standards incorporating flood risk management measures, and is located appropriately, and working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the overall risk of flooding across the District.

Next Steps

- 7.4 This SEA Report will be published alongside the LFRMS once it has been formally approved by the Council’s cabinet and adopted as a Council strategy.

LUC
February 2013

Appendix 1

Consultation Comments Received in Relation to the SEA
Scoping Report

Table 1: Comments from Statutory Consultees on the SEA Scoping Report (March 2012) for the Kirklees Local Flood Risk Management Strategy

Note that the Baseline Information, Plans, Policies and Programmes (PPP) review and Key Environmental and Sustainability Issues (originally presented in the SEA Scoping Report) have been revised and updated in light of the comments received from the statutory consultees, as set out in the table below. The revised versions of the PPP review and the Baseline Information are presented in **Appendices 2 and 3** of this SEA Report respectively. The updated Key Environmental and Sustainability Issues are set out at the end of **Chapter 3**.

Statutory Consultee	Comment <i>(note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))</i>	Response <i>(note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)</i>
Natural England	Following the recent publication of the National Planning Policy Framework references to Planning Policy Guidelines and Planning Policy Statements are no longer valid, and neither is the reference to the Draft National Planning Policy Framework. Consequently, Figure 3.1 should be updated to reflect these changes, and the Summary of the Review of Plans, Policies and Programmes should be updated to reflect the appropriate section (Section 10) of the National Planning Policy Framework rather than PPS25.	Noted. The PPSs and PPGs were still valid at the time of writing the Scoping Report, but in the Environmental Report all references to national policy have been updated to recognise the fact that they have been superseded by the NPPF. The updated PPP review also reflects these changes.
Natural England	The information in this section appears to be sufficient, and we welcome the recognition that the District's high value natural environment should be protected and enhanced wherever possible. However, we would also suggest that the biodiversity section should also take account of the undesignated natural environment of the district, including the green infrastructure and urban greenspace assets, as well as the designated European and UK sites. It should also be noted that the correct name of the Special Protection Area and Special Area of Conservation is the South Pennine Moors rather than South Pennines.	Noted. SEA objective 7 is intended to address impacts of the LFRMS on undesignated as well as designated biodiversity assets, and this has been made clear within the Environmental Report. The error regarding the name of the South Pennine Moors has been recognised and the sites are referred to correctly in this Environmental Report.
Natural England	The scope of the SEA Framework appears appropriate, and we welcome the inclusion of SEA Objective 7 'Maximise opportunities to protect and enhance biodiversity', but, as indicated above, suggest that this takes account of the undesignated biodiversity assets of the district as well as the designated assets.	Noted. SEA objective 7 is intended to address the potential impacts of the LFRMS on undesignated as well as designated biodiversity assets, and this has been made clear within the Environmental Report.
English Heritage	Figure 3.1 Plans, Policies and Programmes of relevance to the LFRMS: Planning Policy Statement 5 has now been replaced by the National Planning Policy Framework	Noted. The PPSs and PPGs were still valid at the time of writing the Scoping Report, but in the Environmental Report all references to national policy have been

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	(http://www.communities.gov.uk/publications/planningandbuilding/nppf).	updated to recognise the fact that they have been superseded by the NPPF. The updated PPP review reflects these changes.
English Heritage	Cultural Heritage (including architectural and archaeological heritage): It should be remembered that in addition to designated historic environment assets the area will also contain known and unknown un-designated archaeological assets (some of which could potentially be of national significance). Early consultation with LGAOs will help to identify these assets / assess the likelihood of their presence so that any appropriate investigation, assessment of significance and mitigation can be factored into the FRMS process. LGAO contact details can be obtained from the Association of Local Government Archaeological Officers website (http://www.algao.org.uk/membership).	Noted. SEA objective 12 is intended to address the potential impacts of the LFRMS on undesignated as well as designated historic assets, and this has been made clear within the Environmental Report.
English Heritage	Paragraph 4.43 The Key Environmental Issues are considered to be: 'Large numbers of heritage assets such as listed buildings which require conservation (including in terms of their setting).' The term 'conservation' could be misleading in this context. Substituting it for 'management', which could include conservation and other forms of mitigation, would be more appropriate.	Noted. This amendment has been made to the Key Environmental and Sustainability Issues, as presented in Chapter 3 of this SEA Report along with the updated Baseline Information.
Environment Agency	The scoping report builds on the SA process applied to the local development framework. We support this efficient way of working and good consideration has been given to how the objectives should change to be adapted to a local flood risk management strategy (LFRMS). However, in other respects it would have been useful for more to have been done to adapt the information for the particular nature of this plan. For example, the baseline information could be adapted / filtered to relate to a flooding / water environment context.	Noted. The Baseline Information for the SEA has been updated in order to more fully address the issues of most relevance to the LFRMS. See also responses to specific comments below.
Environment Agency	The scoping report appears to give little attention to the River Basin Management Plan (RBMP) and meeting Water Framework Directive objectives. We consider this to be a significant omission in two respects: <ul style="list-style-type: none"> • The strategy itself and any actions that result from the strategy 	Noted. The Baseline Information for the SEA and the PPP review have now been updated, with references to the RBMP and WFD expanded as appropriate. While it is not specifically within the remit of the SEA to ensure

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
	<p>will have to be compliant with the requirements of WFD. As the SEA objectives are currently structured I am not confident that sufficient attention will be given to assuring compliance, and there is no mention of a separate annex that will consider WFD compliance.</p> <ul style="list-style-type: none"> The RBMP can be a critical resource in identifying improvements to the water environment, some of which could be delivered together with, or part of a flood risk management action. The scoping report reads as being focused on the effects of the strategy and very little consideration appears to be intended to identify opportunities to provide multiple benefit solutions, as promoted by the national strategy. 	<p>that the LFRMS is compliant with the WFD, the SEA considers the WFD as appropriate within the Baseline Information and PPP review (see Appendices 2 and 3), and has addressed whether the LFRMS would contribute to improving water quality through assessment of the LFRMS objectives and measures against SEA objective 8 (Reduce the risk of soil and water pollution). Throughout the SEA process, consideration has been given to both the potential positive and negative effects of the LFRMS, thus the multiple benefit solutions are taken into consideration.</p>
Environment Agency	<p>The scoping report appears to indicate that the SEA is focused on the production of the environmental report. Paragraph 6.3 appears to indicate that there will be little activity on the SEA until the strategy has been produced. This approach will not get the best benefit or value out of the SEA. We would strongly encourage an approach where the SEA is integrated into the development of the strategy to influence it in a direction that delivers on multiple benefits in addition to addressing flood risk.</p>	<p>Noted. The SEA process is being undertaken iteratively and will contribute to the development of the strategy throughout. This process has been described within Chapter 2 of this SEA Report, and forthcoming versions of the report will build on the existing description of how the SEA has influenced the production of the LFRMS in order to minimise the potential negative effects and maximise opportunities for positive effects.</p>
Environment Agency	<p>The objectives set for the assessment appear to be appropriate, notwithstanding the comment above, that WFD issues do not seem to be adequately covered by them. However, they are, on the whole, expressed in relatively vague terms which make it difficult to understand how the effects will be assessed. In addition, it isn't clear how the different levels of significance are to be applied or what will be the factors that trigger an effect to move from the 'minor' to 'significant' category.</p>	<p>Noted. Text has been included in Chapters 4 and 5 of this SEA Report to explain where the difference between a minor and a significant effect lies.</p>
Environment Agency	<p>The disadvantage of the objectives led approach is that it doesn't tend to encourage consideration of the spatial aspect of the effects of the strategy. We do not propose that the objectives led approach is abandoned, but would encourage some consideration to be given to the spatial distribution of</p>	<p>Noted. Where possible, the potential effects of the LFRMS are being considered spatially through the SEA; however due to the nature of the measures in the LFRMS this is not always possible as the location of</p>

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
	the effects of the strategy.	flood management works is not specified.
Environment Agency	Paragraph 3.2 - It should also be worth considering whether there are any plans or programmes that the LFRMS should influence going forward, e.g. LDF.	Noted. The potential influence on other plans and programmes has been explored where appropriate within the updated PPP review.
Environment Agency	Figure 3.1 - Includes reference to a number of planning policy statements which would have been relevant at the time of writing, but have now been replaced.	Noted. The PPSs and PPGs were still valid at the time of writing the Scoping Report, but in the Environmental Report all references to national policy have been updated to recognise the fact that they have been superseded by the NPPF. The updated PPP review reflects these changes.
Environment Agency	<p>Paragraph 3.5 - It is a pity that more note does not appear to have been taken of the PPPs that are 'indirectly relevant' to the strategy. This would have helped to set the framework for the other environmental priorities that the plan should take account of and attempt to contribute to. In particular, it would provide a steer for the strategy to identify multiple outcome solutions as promoted by the national strategy.</p> <p>The omission of the RBMP is significant and needs to be addressed. The strategy needs to ensure that it does not conflict with WFD objectives and should be seeking opportunities to deliver WFD outcomes where there are synergies with FRM solutions. It is clear that the RBMP has been considered (Appendix A) and the summary here is good, but it is difficult to understand why it isn't a key component of the summary in the main document.</p>	Noted. Paragraph 3.5 in the Scoping Report was intended to summarise only the most directly relevant plans and programmes, and it is made clear that the full review can be found in the appendix. Due to the large number of plans, programmes, strategies and initiatives that were reviewed, it was not possible to summarise all those that are indirectly relevant to the LFRMS within the main body of the Scoping Report. However, it is recognised that the River Basin Management Plan is one of the most significant plans of relevance to the LFRMS, and the summary of the key plans and programmes in Chapter 4 of this Environmental Report has been updated to include the RBMP.
Environment Agency	Paragraph 4.2 - Agree with the decision to scope 'air' out of the assessment, but the justification for this could have been stronger.	Noted. The updated Baseline Information (presented in Appendix 3 of this environmental report) includes a stronger justification for this decision.
Environment Agency	Paragraph 4.6 - Concluding box – it would have been good to have seen more consideration given to the opportunities that might exist in managing flood risk to increase the ecosystem services derived from the water and	Noted. The updated Baseline Information (presented in Appendix 3 of this environmental report) recognises this potential.

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	associated environment, e.g. increasing access to outdoor recreation and environment, providing more green infrastructure, etc.	
Environment Agency	<p>Paragraphs 4.7-4.9 - This section should have made reference to the ecological status of water bodies within the strategy area.</p> <p>The summary is entirely based on designations. It would have been good to see something on the wider health of biodiversity in the area, perhaps using the BAP for the area and referring to any plans to address green infrastructure (4.19 refers to a green network).</p>	<p>Noted. The ecological status of water bodies in Kirklees has been addressed under the 'Water Quality' section of the Baseline (paragraph 4.17 in the March 2012 Scoping Report). That section has been expanded in the updated Baseline Information (see Appendix 3 in this environmental report) in order to more clearly refer to the ecological quality of local water bodies.</p>
Environment Agency	<p>Paragraphs 4.12-4.18 - The emphasis on water quality in the concluding box is surprising. Given that flooding is an infrequent event, it is perhaps questionable whether flooding is a significant influence on water quality. It might be more appropriate to focus on WFD objectives (which includes a water quality component). This section seems not to have considered the potential impact of FRM measures on the water environment.</p>	<p>Noted. The concluding box seeks to summarise the above sections on flood risk and water quality – the emphasis on flood risk over water quality is reflected in the relative lengths of these two sections. The potential impacts of any flood risk management measures included in the LFRMS on the water environment have been considered during the later stages of the SEA (i.e. after the Scoping stage and as reported in this environmental report).</p>
Environment Agency	<p>Paragraphs 4.19-4.22 - Only a small section of the text deals with climate change as it relates to FRM. The remaining text tends to deal with renewable energy, but doesn't refer to hydro which is the main one that relates to the water environment. What is the status / interest in hydro power in the area and are there any implications for flood risk?</p> <p>There is little on adaptation, but it is mentioned in the summary box – perhaps there should have been more information from the document on adaptation referred to in the scoping report.</p> <p>Could have used the climate change guidance (supplementary document to appraisal guidance) to provide an indication of the quantum by which flood risk is likely to change over time.</p>	<p>Noted. The Baseline Information relating to climate change seeks to present the context for the LFRMS, recognising that climate change is a key cause of increased flood risk. The updated Baseline Information (presented in Appendix 3 of this environmental report) has sought to recognise this more clearly and it now includes consideration of hydro power in the District.</p> <p>Information from the West Yorkshire Adaptation Action Plan has been used to expand the information in the updated Baseline with regards to adaptation.</p>
Environment	Paragraphs 4.24-4.25 - Provides the big picture in housing provision within	Noted. The updated Baseline Information (presented in

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Agency	Kirklees, perhaps of more interest from an FRM point of view is the availability of land to support this and the proportion of this that is currently at flood risk.	Appendix 3 of this environmental report) considers the location of the housing development proposed in the Kirklees Core Strategy in relation to the areas of highest flood risk.
Environment Agency	Paragraph 4.27 -4.34 - Whilst the scoping report makes good use of the baseline data from the core strategy, insufficient work has been done to place a flood risk management lens on the information. So, for example, in addition to the bigger picture of the existence of community facilities and how this paints a picture of the current status of the local community, information could have been provided on the extent to which any of these facilities is at flood risk.	Noted. The updated Baseline Information (presented in Appendix 3 of this environmental report) has addressed this issue, providing more context in terms of flood risk for each issue.
Environment Agency	Paragraph 4.36 -4.37 - As above, information on heritage is useful, but would have been better to know how this relates to flood risk.	Noted. The updated Baseline Information (presented in Appendix 3 of this environmental report) has addressed this issue, providing more context in terms of flood risk for each issue.
Environment Agency	Paragraph 4.43 - Identifies some of the key issues relating to comments above, but there is a lack of an evidence base for the size of the problem. WFD doesn't appear in the key issues – surely it must.	Noted. The need to adhere to the WFD has been included as a Key Issue, as updated in Chapter 3 of this environmental report.
Environment Agency	Figure 5.1 - You might want to modify objective 7. Currently it is only focused on how flooding affects existing facilities. More attention could be given to creating / enhancing opportunities for recreation associated with the natural environment.	This comment appears to relate to Objective 7 from the SA framework for the LDF, as shown in the first column in Figure 5.1 of the SEA Scoping Report. Note that the objectives to be used for the SEA of the LFRMS were shown in bold in the third column of Figure 5.1 in the SEA Scoping Report, and are re-presented in Table 4.1 in this environmental report.
Environment Agency	Ensure that there is no double counting between objectives 1 & 3.	Noted. Transport infrastructure is considered only under Objective 3 and is not being considered as an 'economic asset' under Objective 1.
Environment	Could consider an objective relating to WFD, although I accept that this	Noted. It is not considered necessary to include an SEA

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Agency	would provide overlaps with biodiversity and water quality. An alternative would be an objective relating to hydromorphology /geomorphology.	objective specifically addressing the WFD as water quality and biodiversity are addressed under existing objectives 7 and 8, and it is agreed that the relevant issues are addressed under SEA Objectives 7 and 8.
Environment Agency	It is difficult to understand how the effects are going to be assessed. Some of the objectives are wide ranging and vague and therefore it isn't clear how the effects will be assessed. Perhaps there is a role for indicators that will be used to determine the direction of change for the different parameters. Alternatively, the objectives could be broken down into sub-objectives that provide a clearer indication of how the effects will be assessed.	Noted. Chapter 4 of this Environment Report includes more information about how the SEA Framework has been used in the SEA, including differentiating between the types of effects required by the SEA Directive. Indicators are presented in the monitoring framework that is included in this Environmental Report (Chapter 6) – these will be used for monitoring the effects of the LFRMS as it is implemented.
Environment Agency	Paragraph 5.4 - The significance framework is reasonable, but we need to understand better what the terms mean and how the decisions are made. How will the assessor determine whether an effect is significant or minor? What sort of factors will trip it over the threshold?	Noted. Text has been included within Chapter 4 of this Environmental Report to explain the assumptions regarding determination of 'significant' effects.
Environment Agency	Paragraph 5.5-5.6 - The scoping report is focused on the production of the Environmental Report, it would be good to know a little more about how the SEA is to be conducted and therefore influence the production of the strategy and improve its environmental performance. Paragraph 6.3 also appears to indicate that the SEA is not active during the preparation of the strategy and is only re-activated once it has been produced.	Noted. The SEA process is being undertaken iteratively and will contribute to the development of the LFRMS throughout, for example an initial assessment was undertaken for an early draft of the LFRMS and the findings and recommendations issued to Kirklees Council. This process has been described within Chapter 2 of this Environmental Report, and forthcoming versions of the report will build on the description of how the SEA has influenced the production of the LFRMS in order to minimise the potential negative effects and maximise opportunities for positive effects.
Environment Agency	Introduction – Mentions 'local' sources of flooding but is Kirklees going to incorporate all sources of flooding within the LFRMS. Worth noting this within the introduction so it is clear.	Noted. Chapter 1 of this Environmental Report includes a clear explanation of the types of flooding that are covered by the LFRMS, as required by the Flood and

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		Water Management Act.
Environment Agency	Introduction - Does this follow the standard structure advised in the LGA guidance & SEA guidance documents provided at the West Yorkshire Drainage Group meeting?	The LFRMS is being produced in line with the LGA guidance and the SEA is being produced in compliance with the SEA Directive and Regulations.
Environment Agency	Section 2 - Good to align to the LDF.	Noted.
Environment Agency	Section 2 - "its relevance/implications for the LDF" should this say LFRMS?	Noted. This was a typographical error in the March 2012 Scoping Report and care has been taken to ensure that all references to the LFRMS and the LDF in this Environmental Report are correct.
Environment Agency	Section 2 - References to 'the picture of Kirklees' developed for the LDF. I assume this is being used as the baseline data - is this therefore available for comment given the different context?	The 'Picture of Kirklees' for the LDF was updated and amended to provide the Baseline Information for the SEA of the LFRMS, as described in Paragraphs 2.11 and 2.12 of the March 2012 Scoping Report and Chapter 3 of this Environmental Report. That Baseline Information was presented in full in Section 4 of the Scoping Report and the updated version is presented in Appendix 3 of this Environmental Report. It is not considered necessary for consultees to also comment on the original baseline for the LDF.
Environment Agency	Section 2 - States 3 statutory consultees will be invited to comment. How are communities consulted on this element of the report?	Noted. In line with the SEA Regulations, the Scoping Report has been made available only to the three statutory consultees in the first instance. The updated Baseline Information and PPP review are included as Appendices 2 and 3 to this Environmental Report which is being made available to the public as part of the consultation on the Draft LFRMS.
Environment Agency	Figure 3.1 - National Planning Policy Framework (2012) - no longer draft.	Noted. The Draft NPPF was the most up-to-date version at the time of writing the Scoping Report, but in

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		the Environmental Report all references to national policy have been updated to recognise the final NPPF. The updated PPP review reflects these changes.
Environment Agency	Section 3 - May need to do Habitats Regulation assessment? Mentioned in 4.9.	Noted. HRA screening is being undertaken in relation to the emerging LFRMS, as reported on in the Habitats Regulations Assessment Report which is being published for consultation alongside the Draft LFRMS and this Environmental Report.
Environment Agency	Section 3 - The study mentions legislation such as the Wildlife & Countryside Act and the Habits Directive. Given the focus of the study on flooding some of which is from watercourses, it would also be appropriate to refer to fisheries legislation and plans including Salmon and Freshwater Fisheries Act 1975 - The Eels (England and Wales) Regulation 2009.	Noted. The Salmon and Freshwater Fisheries Act has been included in the updated PPP review.
Environment Agency	Section 3 - Other relevant plans and strategies include: National Wetland Vision: A 50 year vision for wetlands (www.wetlandvision.org.uk), Yorkshire and Humber Wetland Vision, and the Forestry Commissions Forestry and Flooding Initiative.	Noted. The National Wetland Vision has been included in the updated PPP review.
Environment Agency	Section 3 - Possible West Yorkshires Resilience Forum Multi-Agency Flood Plan (as it will lay out how agencies involved in flood risk will respond during an emergency) and the Environment Agency Catchment Flood Management Plans.	Noted. The Calder CFMP was already included in the PPP review in the Scoping Report and continues to be present in Appendix 2 of this Environmental Report.
Environment Agency	Section 3 - Would be relevant to include the PFRA in the list	Noted. The Preliminary Flood Risk Assessment has been included in the updated PPP review and is listed in Table 3.1 in Chapter 3 of this Environmental Report.
Environment Agency	Section 3 - Ordinary Watercourse - Redwater Clough is to be enmained at some point so we should be kept in the loop about the plan for that area. We don't want to be taking on responsibilities for a plan that we have had no input into or that reverse decisions recently made and risk upsetting the local residents.	Noted. Redwater Clough is in Calderdale and not in Kirklees District.

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Environment Agency	Section 3 - WFD - Any works proposed would undoubtedly have an impact and WFD should be much higher on the priorities list.	Noted. The WFD is listed within the plans, policies and programmes in Table 3.1 (as presented again in Chapter 3 of this Environmental Report) and is discussed as one of the key policy issues within that chapter.
Environment Agency	Figure 3.1 - The Don Catchment Flood Management Plan. Also, it is noted that the date attributed to the Calder CFMP is incorrect. The final CFMP were approved in 2010. Please ensure that reference is made to the correct versions of the plans. These can be made available on request.	Noted. The updated PPP review has been amended to refer to the correct version of the Calder CFMP, and the Don CFMP has also been included.
Environment Agency	Figure 3.1 - Please review the CFMPs as these contain a list of all the documents that were relevant to flood risk when they were written. This will obviously need reviewing however provides a good starting point. Please see chapter 1 of the report as well as chapter 5 which identified opportunities and constraints within the catchment.	Noted. The relevant CFMPs have been reviewed during the update of the PPP review.
Environment Agency	Figure 3.1 - There are a number of sites at the top of the catchment within Kirklees boundary where Moors for the Future have undertaken/are planning to undertake moorland restoration, this programme of works should be included and considered when looking at opportunities for multiple benefits.	Noted. This is considered to be a role of the LFRMS itself, rather than the SEA.
Environment Agency	Figure 3.1 - It is noted that the PPS's including PPS 25 are included in the list, but it does not include the National Planning Framework. Given that the NPF now supersedes the PPS's we would recommend updating this list. Planning Documents and Surface Water documents (i.e. SFRAS and SWMPs) from both Kirklees and neighbouring authorities should be included within this list, as a general understanding of issues outside of the district that may have a hydraulic link are crucial to demonstrating consistency with the NFCERM Strategy Reference should be made to UKCIP 09 where relevant.	Noted. The PPSs and PPGs were still valid at the time of writing the Scoping Report, but in the Environmental Report all references to national policy have been updated to recognise the fact that they have been superseded by the NPPF. The updated PPP review reflects these changes. The SFRA and have been added to the updated Table 3.1 as presented in Chapter 3 of this Environmental Report.
Environment Agency	Figure 3.1 - The Councils (and neighbouring councils) PFRA's are not included. These should be considered as an important and current evidence base for the Strategy. It is assumed that areas considered as a 'Significant' risk within the PFRA will be taken forward as priorities with the Strategy.	Noted. The Kirklees PFRA has been included in the updated PPP review.

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	Therefore PFRAs could be considered as directly relevant to the SEA and so should also be included in 3.5	
Environment Agency	Section 4 - Boxes of headline information is a useful tool within document.	Noted.
Environment Agency	Paragraph 4.7 - In the Biodiversity section, given the nature of the study, it would be appropriate to include those Priority Biodiversity Action Plan species present in Kirklees that dependent on the aquatic environment and watercourse in particular. For example native white clawed crayfish, trout. Also Kirklees have a specific BAP for rivers which would be highly relevant to the study.	Noted. The updated Baseline Information (as presented in Appendix 3 of this Environmental Report) specifically refers to the aquatic BAP species in Kirklees. The BAP for rivers has been added to the updated PPP review.
Environment Agency	Paragraph 4.11 - The contaminated sites are generally located preferentially within flood zones because these are mostly former industrial sites and because historical urban and industrial development was in the flood zones because the industrial sites originally needed water power or water supply from the river network. This means that future flood management engineering works, definition close to rivers, may be located on former contaminated sites. Other significant potentially contaminated sites include Syngenta Chemicals, Huddersfield - located at the Rive Colne and Fenay Beck confluence.	Noted. This information has been incorporated into the updated Baseline Information (as presented in Appendix 3 of this Environmental Report).
Environment Agency	Paragraph 4.12 - In the Water Flood Risk section the information regarding Flood Map for Surface Water could be used as well as the Areas Susceptible to Surface Water Flooding to help identify risk and provide context. The map used in Figure 4.1 isn't of good enough quality to provide much detail other than a general overview. The quality either needs to be improved so more detail can be obtained from the map or different mapping used instead. It could also be useful to make reference/use to the Environment Agency's Flood map products including historic outlines and NAFRA data when discussing fluvial risk.	Noted. The updated Baseline Information (as presented in Appendix 3 of this Environmental Report) has sought to address these issues and a higher quality version of the map in Figure 4.1 of the Scoping Report has been included.
Environment Agency	Figure 4.1 - Unable to read the legend even zoomed in on the PDF. Would it be possible to make this larger please to understand what the map is	Noted. The updated Baseline Information (as presented in Appendix 3 of this Environmental Report)

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	showing?	includes a higher quality version of the map in Figure 4.1 of the Scoping Report has been included.
Environment Agency	Paragraph 4.14 and Figure 2 - What sources of information have been used to provide the number of properties at risk? Has the Flood map for surface water, Areas Susceptible to Surface water Maps and/or Local Data etc. been used. Does this match the preferred local flood risk information in the PFRA? Worth including a methodology of property count used in the annexes?	Noted. The updated Baseline Information (as presented in Appendix 3 of this Environmental Report) includes references to the sources of information used in each section. The PFRA has been reviewed as part of the updated PPP review, including consideration of the linkages between it and the LFRMS. It is considered to be outside of the scope of the SEA to include a methodology of how the properties were counted as this information can be obtained by tracing back to the source.
Environment Agency	As a flood risk document I think the base line information should include clear understanding of the source-pathway-receptor model. What is the hydrology of the area? Flood risk has been taken from the 2008 SFRA, if this up to date? What is the date stamp? More detailed studies taken place?	Noted. The general hydrology of the area is explained in the LFRMS itself. The updated Baseline Information presented in Appendix 3 of this Environmental Report has been amended to clearly refer to other sources of information regarding local flood risk.
Environment Agency	No mention of PFRA or CFMP here. Make distinction between surface and fluvial flood risk as events listed cover both.	Noted. The PFRA's have been included in the updated PPP review (as presented in Appendix 2 of this Environmental Report). The CFMP's have also been included in the PPP review. The relevant section of the Baseline Information has been amended to distinguish between surface and fluvial flooding events, and the updated Baseline Information is presented in Appendix 3 of this Environmental Report.
Environment Agency	Figure 4.2 - is this surface water flooding? Or combined? What about PFRA data?	Noted. The title of this figure has been amended in the updated Baseline Information (as presented in Appendix 3 of this Environmental Report) to make clear that it refers to surface water flooding. The PFRA's have been included in the updated PPP review and data from that document has been added to the updated Baseline

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		Information where appropriate.
Environment Agency	Figure 4.2 - Data taken from the SWMP - should the PFRA info be included here?	Noted. The PFRA has been included in the updated PPP review.
Environment Agency	Figure 4.3 - There are a number of operational and historical landfill sites in Kirklees located in flood zones e.g. Lower Spen Valley, Thornhill Quarry and Deighton Landfill.	Noted. This information has been incorporated into the updated Baseline Information, which is presented in Appendix 3 of this Environmental Report.
Environment Agency	<p>Paragraph 4.16 - Very limited information on climate change. What does the CFMP say in regards to climate change - you have policy 4 areas (do something in light of climate change) so I would suggest this is an issue for the borough.</p> <p>Reference to UKCIP - is this 09 or 06? 09 gives specific information and this should be used for the LFRMS."</p>	Noted. References to UKCIP have been updated. While information on climate change provided important contextual information for the SEA, given that climate change is a key cause of increasing flood risk, it is not considered a role of the LFRMS to address the causes of climate change.
Environment Agency	Paragraph 4.17 - The Water Quality section, The Water Framework Directive is referred to. In addition to impacts on water quality, flood risk management can impact on WFD Waterbody Status through physical modification of the channel. This needs to be captured in the study, both to emphasise potential impacts that could cause deterioration in Waterbody Status, and also potential for Strategy to achieve improvements in Water body Status through improving physical habitats in channels. For example improvements can be achieved through removing culverts, improving river and bank side habitats, controlling invasive species, and creating fish passes on weirs.	Noted. This section has been amended in the updated Baseline Information, which is presented in Appendix 3 of this Environmental Report in order to recognise that measures included in the LFRMS could potentially affect water quality.
Environment Agency	Paragraph 4.17 - Water Quality - It should be recognised that although flood events can have a negative impact on water quality, there is also a significant impact on water quality as measured under the Water Framework Directive (ecological Status) from flood protection schemes. Flood protection schemes can have significant impact due to reduction in suitable and diverse habitats and the modification of the flow regime. Due consideration to the impact of the ecology of waterbodies should be given	Noted. This section in the updated Baseline Information (Appendix 3 of this Environmental Report) recognises that measures included in the LFRMS could themselves potentially affect water quality. This has also been taken into account during the assessment of the LFRMS measures against SEA objectives 7 and 8.

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
	during the assessment and design of any future schemes.	
Environment Agency	Paragraph 4.18 - SUDs is not only route by which water quality can be maintained or improved.	Noted.
Environment Agency	Paragraph 4.27 - Use of green spaces for flood storage or SUDs encouraged	Noted. This has been recognised in the updated Baseline Information, as presented in Appendix 3 of this Environmental Report.
Environment Agency	Paragraphs 4.28 & 4.29 - Relevance? Looks like this has been lifted straight out of LDF but may not be relevant to include here. Could sum 4.27 to 4.29 into one point highlighting the need to be aware of distribution of facilities and possible flood risk	Noted. Education facilities are considered to be relevant to some of the SEA topics such as 'Material Assets' and 'Population'. The distribution of educational facilities in relation to areas of higher flood risk is relevant to the SEA of the LFRMS; however it is recognised that some of the information regarding levels of attainment is not directly relevant to the LFRMS. This section has been revised in the updated Baseline Information, as presented in Appendix 3 of this Environmental Report.
Environment Agency	Paragraphs 4.33 & 4.34 - Relevance? Looks like this has been lifted straight out of LDF but may not be relevant to include here	Noted. Transport infrastructure is considered to be relevant to the 'Material Assets' SEA topic, and the information presented in these sections provides context to the issue of transport infrastructure that may be at risk from flooding. This section has been revised in the updated Baseline Information, as presented in Appendix 3 of this Environmental Report, to ensure that it is presented in this context.
Environment Agency	Paragraph 4.35 - Use CFMP for info, seems brief.	Noted. This section of the updated Baseline Information has been revised and expanded, as presented in Appendix 3 of this Environmental Report.
Environment Agency	Paragraph 4.35 - Suggest that we work together to give a clear picture for Kirklees, not the whole area. Need to think about flood warning and other	Noted. The wording of this paragraph has been amended in the updated Baseline Information, as

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
	approaches to managing flood risk - land management potential etc.	presented in Appendix 3 of this Environmental Report.
Environment Agency	Paragraph 4.35 - Flood Defences - Only a high overview taken with a lot of defences mentioned that aren't within Kirklees boundaries. These will only have a very small influence on the area - Too broad a look.	Noted. The wording of this paragraph has been amended in the updated Baseline Information, as presented in Appendix 3 of this Environmental Report.
Environment Agency	Paragraph 4.41 - Coal mining has affected all eastern parts of Kirklees except area to the west of Huddersfield.	Noted. This information has been incorporated into the updated Baseline Information, as presented in Appendix 3 of this Environmental Report.
Environment Agency	Paragraph 4.43 - point 2 and 8 could be combined as very similar	Noted. Point 2 aims to address biodiversity in particular, while point 8 refers to the landscape. The key issues (as presented in Chapter 3 of this Environmental Report) have been revised in order to make this distinction clearer.
Environment Agency	Paragraph 4.43 - Mention of the word 'high' when explaining flood risk. Be very clear what this means and provide a definition. This is vital when communicating issues and ensuring conformity between plans/ organisations.	Noted. The key issues have been revised and the key issue relating to flood risk now defines more clearly the particular flood risk that Kirklees faces. However the Key Issues are intended to be brief snapshot points and the detail of the extent of local flood risk is provided in the Baseline Information section in Appendix 3 of this Environmental Report.
Environment Agency	4.7 - Due consideration should be given to the requirements for no deterioration of waterbodies under article 4.7 of the Water Framework Directive.	Noted. The need to avoid deterioration in water quality has been recognised throughout the SEA and the provisions of the WFD in particular have been considered within the updated PPP review (as presented in Appendix 2 of this report).
Environment Agency	4.7 - The Biodiversity section mentions numerous SSSI's and other areas of interest. Would be better to also mention those that are likely to be affected.	Noted. The updated Baseline Information (Appendix 3 of this Environmental Report) has specified which designated sites are within the areas of highest flood risk.

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
Environment Agency	Our rivers and waterways are important recreational resource and it may be appropriate to include more on this.	Noted. This has been recognised in the updated Baseline Information, as presented in Appendix 3 of this Environmental Report.
Environment Agency	Risk from non 'main' river or drainage isn't really covered which is probably more important to cover in this document than 'main' river risk. Generally the information provided doesn't seem robust and comprehensive enough provides a suitable baseline for the SEA. The information needs to be a little more localised and impacts identified further.	Noted. This section of the Baseline Information has been revised and expanded where appropriate in Appendix 3 of this Environmental Report. However, it should be recognised that while the Baseline Information for the SEA should be of an appropriate level of detail to support the SEA judgements, it does not comprise the evidence base for the production of the LFRMS.
Environment Agency	Key flood risk impacts identified are well thought out.	Noted.
Environment Agency	Humber River Basin Management Plan - coal mining and rising minewater. Coal mining and associated minewater pumping ceased in Kirklees many years ago (pre 1990) and minewater levels should now be fully recovered to pre mining elevations so that no further rise expected.	Noted.
Environment Agency	A very small coal mine - Hay Royds Colliery, Clayton West is still operational in the Dearne catchment. The more significant ochreous polluting minewater discharges from former coal mines are locate at: Jackson Bridge into New Mill Dike and River Holme, Shepley Dike Denby Dale into Fenay Beck, Alexandra Drift, Flockton into Flocton Beck and the River Dearne, Benny Land Adit Clayton West into Dearne tributary. These minewater discharges are all monitored by the Coal Authority (CA) in consultation with us. Currently, there are no minewater treatment schemes in Kirklees, but the CA are planning to build one for the most significant minewater discharge at Jackson Bridge in 2012 - 2014.	Noted.
Environment Agency	Figure 5.1 - Is this figure required? Could it be an appendix? Detracts from the actual chosen objectives set out in 5.3	Noted. However, it is considered that Figure 5.1 is useful in clearly illustrating how the SEA objectives for the LFRMS have been developed (i.e. by taking into

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
		account existing SEA objectives in use within the district) and it is considered to be appropriate to present it within the main body of the Scoping Report. The actual SEA framework for the LFRMS is included on its own in Table 4.1 of this Environmental Report.
Environment Agency	Objectives need to be thought about in a lot more detail. The Environment Agency has produced catchment objectives in the CFMPs - please review these. These should provide joint strategic objectives for all RMAs. We are proposing to work together to review this element of the CFMP to ensure our objectives meet the requirements of the F&WM Act. We would request further work on this between ourselves and the Council. If the invitation is taken many of the issues highlighted can be addressed. Detailed comments regarding individual objectives can be provided upon request.	Noted. These issues will be addressed in the LFRMS itself.
Environment Agency	The objective relating to Biodiversity is appropriate and welcome. We would suggest this objective is extended or another objective is included to reflect the Water Framework Directive. Such as maximise opportunities to deliver measures in the Humber River Basin Plan and to improve the Ecological Status of WFD Waterbodies.	Noted. It is not considered necessary to include an SEA objective specifically addressing the WFD as water quality and biodiversity are addressed under existing objectives 7 and 8. However, the revised Baseline Information for the SEA, as presented in Appendix 3 of this Environmental Report, has included more information about the WFD.
Environment Agency	Objectives could be added relating to improving community/public resilience. Awareness and ability to take appropriate action to minimise the impact of local flood risk.	Noted. It is considered that this issue has been covered within the SEA framework for the LFRMS. SEA objectives 1-3, which relate to minimising the flood risk facing properties, community assets and transport infrastructure in Kirklees, are considered to address the resilience of local communities and their built assets to flood risk. A number of the measures in the LFRMS directly address community understanding and knowledge of flood risk management, and those have been scored positively against the relevant SEA objectives.

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
Environment Agency	The objective should be written so that they can be easily understood and can be attributed to the outcomes of the SEA and the Strategy in a way understood by the public. The Authority should be aware that under the requirements of the FWMA they may be asked to report progress against their objectives, therefore they need to be easily measurable and achievable. For example objective 9 could be split to allow it to be used and reported easily. The objectives could also be used to demonstrate the compliance of the Strategy and therefore the SEA to the NFCERM Strategy, for example they should consider the wider benefits of the outcomes, i.e. what are the foreseeable impact to the environment and communities outside the district, upstream and down.	Noted. It is not the role of the SEA to demonstrate the compliance of the LFRMS to the National Flood and Coastal Erosion Risk Management Strategy, although the relationship between the two strategies is set out in Chapter 3 of this Environmental Report. Proposals for how monitoring the predicted significant and uncertain effects of the LFRMS should be undertaken are set out in Chapter 6 of this Environmental Report, in line with the requirements of the SEA Directive.
Environment Agency	Section 6 - Have you any plans for community engagement?	A two stage community engagement exercise is being undertaken. The first stage is information gathering via a Flood Survey questionnaire, which took place in May 2012. The second is public/partner consultation on the strategy to determine preferred priorities for action, which is taking place between July and August 2012. This Environmental Report will be available for comment alongside the Draft LFRMS.
Environment Agency	General Comments - Need to be clear what sources of flooding are being considered and what documents/plans relate to these. It's a bit confused in places.	Noted. The Environmental Report has sought to more clearly explain the context of the LFRMS (see Chapter 1) and to clearly describe the sources of flooding that are addressed by the LFRMS.
Environment Agency	Little mention of PFRA, this should be a key supporting document to set out surface water (other) flood risk.	Noted. The updated PPP review, as presented in Appendix 2 of this Environmental Report, now includes the Preliminary Flood Risk Assessment.
Environment Agency	Need to align LFRS with CFMP and therefore this is a key document that needs to be considered	Noted. The Calder CFMP is included in the PPP review, and the updated version of the review (as presented in Appendix 2 of this Environmental Report) has been expanded to also include the Don CFMP.

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
Environment Agency	Difficult to appraise SEA fully without Draft LFRMS to compare it with. Need to know scope and objectives etc. of strategy, to know what is relevant for SEA.	Noted. The LFRMS is being published for public consultation alongside this Environmental Report.
Environment Agency	The consultants are advised to ensure they are using the most up to date information for the catchment, in discussion with Mapping Staff within the Environment Agency.	Noted. Communication processes are in place between Kirklees Council and the EA's mapping team to ensure the Council has the most up to date information.
Environment Agency	Paragraphs 1.5 to 1.8 set out the requirements under the FWMA for the Local Flood Risk Management Strategies (LFRMS). The Environment Agency would strongly recommend that this is expanded to set out what Kirklees will do within the framework to deliver their strategy for flood risk management for the authority. It should be made clear how Main river and sewer flooding will be dealt with the Strategy.	Noted. These issues will be addressed in the LFRMS itself.
Environment Agency	The Strategy, and its SEA, should identify the potential for moorland restoration as a potential flood risk management mitigation measure.	Noted. It is considered that this issue (as a potential flood management measure) is more able to be addressed within the LFRMS itself.
Environment Agency	Fisheries and Recreation are pleased that WFD is mentioned. Fisheries are concerned that no development should cause a deterioration in WFD status and that opportunities to improve status should be sought at every opportunity.	Noted. The SEA has taken the WFD objectives into account as described in Chapter 3, Appendix 2 and 3 of the Environmental Report, and through assessing the LFRMS measures against SEA objectives 7 and 8 (relating to biodiversity and water quality).
Environment Agency	Appendix 1 - Appendix 1 - PPS23 and all other PPS/PPG/MPS/MPG docs have been revoked and replaced by NPPF (National Planning Policy Framework) 2012.	Noted. The PPSs and PPGs were still valid at the time of writing the Scoping Report, but in the Environmental Report all references to national policy have been updated to recognise the fact that they have been superseded by the NPPF. The updated PPP review reflects these changes.
Environment Agency	Appendix 1 - The template used for this initial assessment of plans covers the key elements for the SEA however the level of detail provided requires	<i>See responses below to specific comments.</i>

Statutory Consultee	Comment (note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))	Response (note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)
	more work. Further thought needs to be given regarding the following:	
Environment Agency	<p>1) Relationship between plans</p> <ul style="list-style-type: none"> - the main body of the document may benefit from illustrations from the National Strategy and relevant CFMP which shows how key plans interact - within the Appendices each plan should include a more detailed summary of the interactions - how do the plans join up? what are the key elements of the plans which can benefit the LFRMS?" 	Noted. A figure showing the interrelationship between the LFRMS and other relevant plans, policies and programmes has been produced and presented in Chapter 3 of this Environmental Report.
Environment Agency	3) Target, requirements, indicators: much of the information is included if work has already been done on the Core Strategy. This needs to be revised in light of the context. Also, many refreshed plans have limited information regarding requirements. Discussions with plan owners may provide further information. This would benefit with timescales for review, what are the indicators and how are they monitored. This will help identify key deliverables and potential lining up of programmes.	Noted. The updated PPP review, as presented in Appendix 2 of this Environmental Report, has been revised and the 'targets, requirements and indicators' sections for the documents have been expanded where appropriate.
Environment Agency	4) Conflicts: many of these are not filled in. Further discussion needed with plan owners as there are a number I can think of for Environment agency Plans.	Noted. The updated PPP review, as presented in Appendix 2 of this Environmental Report, has been revised and the 'conflicts' sections for the documents have been expanded where appropriate.
Environment Agency	5) What about opportunities. These plans will identify shared visions and actions that will provide vital opportunities for the council. This should be explored in more detail. I.e. large scale development/ regeneration, schemes, land management priorities, WFD	Noted. The purpose of the PPP review is to identify the potential linkages between existing plans and strategies and the LFRMS, and these linkages (including opportunities) are being explored throughout the SEA and the plan-making process.
Environment Agency	6) Brief overview of plans is not great. For example the summary of the National Strategy does not include the 6 principles which are vital for the development of the LRFMS.	Noted. The brief summary of the PPP review is intended to supplement the full review that was presented in Appendix 1 of the Scoping Report, which includes this more detailed information. An updated version of the PPP review is now presented in Appendix 2 of this Environmental Report.

Statutory Consultee	Comment <i>(note that paragraph references in this column refer to those of the SEA Scoping Report (March 2012))</i>	Response <i>(note that these responses have been prepared by the SEA team in conjunction with the LFRMS authors at Kirklees Council)</i>
Environment Agency	Reference to the Calder CFMP. Information provided is from the summary document. The main technical report must be used for the purpose of the LFRMS. Policies are mentioned - what do these mean for the council? Where are the policy areas? Reference is for the Calder CFMP however throughout the document you also mention the River don catchment. Have you reviewed the Don?	Noted. The Don CFMP has been added to the updated PPP review, which is presented in Appendix 2 of this Environmental Report. The information presented regarding the Calder CFMP in the updated PPP review has been expanded to address these issues.
Environment Agency	It is vital that a catchment approach is taken. As the SEA currently stands it is not evident that this approach has been scoped out.	Noted. The LFRMS is tasked to manage local risk but due regard will be given to associated flood risk in the wider catchments.

Appendix 2

Updated Review of Relevant Plans, Policies and Programmes

International PPPSIs

Document Name :	European Sustainable Development Strategy (Reviewed Strategy 2006)
Date Of Publication	June 2006
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview:	
<p>In June 2001, the European Council at Gothenburg adopted the European Sustainable Development Strategy (ESDS) - <i>A Sustainable Europe for a Better World: A European Strategy for Sustainable Development</i>. The ESDS was based on an earlier Communication from the European Commission issued in May 2001.</p> <p>The strategy argues that achieving sustainable development in practice requires that economic growth supports social progress and respects the environment, that social policy underpins economic performance and that environmental policy is cost effective. It also emphasises that 'decoupling' environmental degradation and resource consumption from economic and social development requires a major reorientation of public and private investment towards new, environmentally friendly technologies.</p> <p>The review completed in June 2006 reaffirms the urgency of the issues associated with sustainable development and identifies that the European Council has adopted an ambitious and comprehensive renewed SDS for an enlarged EU, building on the one adopted in 2001.</p>	
Relevance to / Implications for LFRMS:	
<p>The Strategy aims to limit climate change and manage natural resources more responsibly, issues which are directly relevant to flood risk.</p>	
Specific Targets / Requirements / Indicators:	
<p>The strategy focuses on the need to:</p> <ul style="list-style-type: none"> • Limit climate change and increase the use of clean energy. • Address threats to public health (e.g. hazardous chemicals, food safety). • Combat poverty and social exclusion. • Deal with the economic and social implications of an ageing society. • Manage natural resources more responsibly (including biodiversity and waste generation). • Improve the transport system and land use management. 	
Environmental Protection Objectives: (If international/EU/national):	
<ul style="list-style-type: none"> • Limit climate change and increase the use of clean energy. • Manage natural resources more responsibly (including biodiversity and waste generation). 	
Conflicts between objectives/requirements:	
N/A	

Document Name :	European Spatial Development Perspective
Date Of Publication	May 1999
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview:	
<p>EU Ministers for Spatial Planning adopted the European Spatial Development Perspective (ESDP) at the Potsdam Council on 10 and 11 May 1999. The ESDP represents agreement on common objectives and concepts for the future development of the EU and emphasises that the aim of spatial development policies is to work towards a balanced and sustainable development of EU territory.</p>	

Relevance to / Implications for LFRMS:
The ESDP aims to manage natural resources, which is relevant to flood risk.
Specific Targets / Requirements / Indicators:
The ESDP emphasises the importance of achieving, equally in all regions of the EU, the three fundamental goals of European policy:
<ul style="list-style-type: none"> • economic and social cohesion; • conservation and management of natural resources and the cultural heritage; and • more balanced competitiveness of the European territory.
The ESDP states that to achieve more spatially balanced development, these goals must be pursued simultaneously in all regions of the EU and their interactions taken into account.
Environmental Protection Objectives: (If international/EU/national):
Conservation and management of natural resources.
Conflicts between objectives/requirements:
N/A

Document Name :	European Biodiversity Strategy
Date Of Publication	February 1998
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview:	
On 4th February 1998, the European Commission adopted a Communication on a European Biodiversity Strategy (EBS). The strategy aims to anticipate, prevent and address the causes of significant reduction or loss of biodiversity at source.	
The EBS states that the scale of human impact on biodiversity has accelerated dramatically in recent decades and that, in spite of efforts by the Community and Member States to address the problem of biodiversity reduction or loss, existing measures are insufficient to reverse present trends.	
Relevance to / Implications for LFRMS:	
The contents of the LFRMS could potentially affect biodiversity, particularly if it results in land use change or changes in water levels. Any construction activities resulting from the LFRMS could also affect biodiversity.	
Specific Targets / Requirements / Indicators:	
This strategy aims to anticipate, prevent and attack the causes of significant reduction or loss of biodiversity at the source.	
Environmental Protection Objectives: (If international/EU/national):	
The conservation and sustainable use of biological diversity.	
Conflicts between objectives/requirements:	
N/A	

Document Name :	European Birds Directive
Date Of Publication	April 1979 amended July 1997
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview:	
(Council Directive 79/409/EEC on the conservation of wild birds) Addresses the conservation of all wild birds, their eggs, nests and habitats throughout the EU, and covers their protection, management, control and exploitation.	

<p>Relevance to / Implications for LFRMS:</p> <p>Member States are required to take necessary measure to maintain populations of all wild birds at levels determined by ecological, scientific and cultural needs, whilst taking account of economic and recreational needs. The LFRMS could potentially have an impact on birds (e.g. as a result of construction or changes to land use and habitats).</p>
<p>Specific Targets / Requirements / Indicators:</p> <p>For particularly rare and threatened species Special Protection Areas (SPAs) are to be set up, and appropriate management of habitats should be implemented both inside and outside protected areas. For these species, there is also a requirement to re-establish habitat destroyed and create new habitat. SPAs are to form part of the European Natura 2000 network (see 'Habitats Directive').</p>
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>See above.</p>
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>

Document Name :	European Water Framework Directive
Date Of Publication	2000
Level:	INTERNATIONAL
Status :	STATUTORY
<p>Brief Overview: The Water Framework Directive (WFD) provides a framework committing European Union member states to the protection of inland surface waters, transitional waters, coastal waters and groundwater.</p> <p>The Framework Directive is built on four main pillars:</p> <ol style="list-style-type: none"> 1. Coordinated action to achieve 'good status' for all EU waters, including surface and groundwater, by 2015. 2. Setting up a water-management system based on natural river basin districts, crossing regional and national boundaries. 3. Integrated water management, bringing different water management issues into one framework. 4. Active involvement of interested parties and consultation of the public. <p>It covers groundwater and all surface waters including rivers, lakes, coastal waters and 'transitional waters', such as estuaries that connect fresh and saltwater. It sets a less ambitious objective – 'good potential' – for artificial and 'heavily modified' bodies of water such as canals and reservoirs, or industrial ports.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>The WFD uses the same unit of management (river basin districts) as the Floods Directive (see below) and is based on the same 6 year cycle of planning. There is a requirement to coordinate delivery of the two directives, and the Environment Agency is responsible for this in England and Wales. There are 11 river basin districts that are partly or fully in England and Wales (Kirklees lies within the Humber River Basin District).</p> <p>To meet the requirements of the WFD and improve water quality and quantity within rivers, estuaries, coasts and aquifers, River Basin Management Plans have been prepared for all river basin districts by the Environment Agency, in consultation with organisations and individuals. They contain the main issues for the water environment and the actions we needed to deal with them.</p> <p>Water quality and quantity is linked to the LFRMS as flooding events can lead to water pollution and changes in water levels.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>In order to achieve 'good surface water status' both the ecological status and the chemical status of a surface water body need to be at least 'good'.</p>	

Environmental Protection Objectives: (If international/EU/national):

The specific objective contained in the WFD is to achieve good qualitative and quantitative status of all water bodies (including marine waters up to one nautical mile from shore) by 2015.

The objectives for water quality cover general protection of the aquatic ecology, specific protection of unique and valuable habitats, protection of drinking water resources, and protection of bathing water. All these objectives must be integrated for each river basin. The last three - special habitats, drinking water areas and bathing water - apply only to specific bodies of water (those supporting special wetlands; those identified for drinking water abstraction; those generally used as bathing areas). In contrast, ecological protection should apply to all waters.

Conflicts between objectives/requirements:

N/A

Document Name :	European Nitrates Directive
Date Of Publication	December 1991
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview:	
<p>Whilst the initial directives concerned themselves mainly with water for human consumption, more recent directives, such as those on nitrates from agricultural sources and urban waste water treatment have placed increased emphasis on the environmental effects of excess nitrogen, in particular eutrophication. These recent directives are currently in the process of implementation.</p>	
Relevance to / Implications for LFRMS:	
<p>Water quality is closely linked to flooding issues, which are addressed through the LFRMS.</p>	
Specific Targets / Requirements / Indicators:	
<p>Reduce and prevent water pollution caused or induced by nitrates from agricultural sources.</p> <p>Indicators:</p> <p>National monitoring every four years on:</p> <ul style="list-style-type: none"> • NO3 concentrations • Eutrophication (algae) 	
Environmental Protection Objectives: (If international/EU/national):	
<p>See above</p>	
Conflicts between objectives/requirements:	
<p>N/A</p>	

Document Name :	EU Habitats Directive
Date Of Publication	May 1992 amended October 1997
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview:	
<p>The Habitats Directive is the means by which the EC meets its obligations as a signatory of the Bern Convention. It requires Member States to take measures to maintain or restore natural habitats and populations of wild species, introducing robust protection for those habitats and species of particular European importance. In applying these measures Member States are required to take account of economic, social and cultural requirements and regional and local characteristics.</p>	
Relevance to / Implications for LFRMS:	
<p>Requires the Designation of Special Areas of Conservation (SACs), selected for their importance as natural habitat types and as habitats for species listed in Annexes to the Directive. Any impacts that the LFRMS could potentially have on European sites (including SACs) may need to be considered through a Habitats Regulations Assessment.</p>	
Specific Targets / Requirements / Indicators:	
<p>The Directive requires that measures are taken to avoid significant deterioration of natural habitats</p>	

as well as disturbance of the species for which the area has been designated.
Environmental Protection Objectives: (If international/EU/national): Maintain or restore natural habitats and populations of wild species.
Conflicts between objectives/requirements: N/A

Document Name :	EU Sixth Environmental Action Programme
Date Of Publication	January 2001
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview: The Sixth Environmental Action Programme (6EAP) – <i>Environment 2010:Our Future, Our Choice</i> – was published in 2002. The 6EAP effectively sets the environmental objectives and priorities that will be an integral part of the EU Sustainable development Strategy. The programme sets out the major priorities and objectives for environmental policy over the next five to ten years and details the measures to be taken.	
Relevance to / Implications for LFRMS: The LFRMS could potentially have a range of environmental impacts, as considered through the SEA.	
Specific Targets / Requirements / Indicators: The 6EAP proposes five priority avenues of strategic action to help achieve environmental objectives: <ul style="list-style-type: none"> • Improve the implementation of existing legislation. • Integrating environmental concerns into other policies. • Encouraging the market to work for the environment. • Empowering citizens and changing behaviour. • Greening land use planning and management decisions. 	
Environmental Protection Objectives: (If international/EU/national): The 6EAP focuses attention on four priority areas for action: <ul style="list-style-type: none"> • Tackling climate change. • Nature and biodiversity – protecting a unique resource. • Environment and health. • Sustainable use of natural resources and management of wastes. 	
Conflicts between objectives/requirements: N/A	

Document Name :	European Floods Directive
Date Of Publication	2007
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview: Requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.	
Relevance to / Implications for LFRMS: Directly relevant to the LFRMS as it provides the European policy framework for dealing with flood risk, which has been transposed into UK law through the Flood and Water Management Act 2010 and National Flood and Coastal Erosion Risk Management Strategy 2011 (see below), and requires LFRMSs to be prepared.	

Specific Targets / Requirements / Indicators:

The Directive requires Member States to first carry out a preliminary assessment by 2011 to identify the river basins and associated coastal areas at risk of flooding. For such zones they would then need to draw up flood risk maps by 2013 and establish flood risk management plans focused on prevention, protection and preparedness by 2015.

Environmental Protection Objectives: (If international/EU/national):

The objective of the Directive is to namely the establishment of a framework for measures to reduce the risks of flood damage.

Conflicts between objectives/requirements:

N/A

Document Name :	Groundwater Directive
Date Of Publication	2006
Level:	INTERNATIONAL
Status :	STATUTORY
Brief Overview:	
The Directive establishes a regime which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater. In the UK, the directive is implemented through the Environmental Permitting Regulations (EPR) 2010.	
Relevance to / Implications for LFRMS:	
Water quality is of relevance to the LFRMS as flooding can be linked with water pollution.	
Specific Targets / Requirements / Indicators:	
The groundwater directive complements the Water Framework Directive. It requires:	
<ul style="list-style-type: none"> • groundwater quality standards to be established by the end of 2008; • pollution trend studies to be carried out by using existing data and data which is mandatory by the Water Framework Directive (referred to as "baseline level" data obtained in 2007-2008); • pollution trends to be reversed so that environmental objectives are achieved by 2015 by using the measures set out in the WFD; • measures to prevent or limit inputs of pollutants into groundwater to be operational so that WFD environmental objectives can be achieved by 2015; • reviews of technical provisions of the directive to be carried out in 2013 and every six years thereafter; • compliance with good chemical status criteria (based on EU standards of nitrates and pesticides and on threshold values established by Member States). 	
Environmental Protection Objectives: (If international/EU/national):	
Conflicts between objectives/requirements:	
N/A	

National PPPSIs

Document Name :	National Flood and Coastal Erosion Risk Management Strategy
Date Of Publication	2011
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview:	
The strategy builds on existing approaches to flood and coastal risk management and promotes the use of a wide range of measures to manage risk.	
Relevance to / Implications for LFRMS:	
The LFRMS is required to be in conformity with this Strategy.	
Specific Targets / Requirements / Indicators:	
Environmental Protection Objectives: (If international/EU/national):	
The strategy encourages more effective risk management by enabling people, communities, business, infrastructure operators and the public sector to work together to:	
<ul style="list-style-type: none"> • ensure a clear understanding of the risks of flooding and coastal erosion, nationally and locally, so that investment in risk management can be prioritised more effectively; • set out clear and consistent plans for risk management so that communities and businesses can make informed decisions about the management of the remaining risk; • manage flood and coastal erosion risks in an appropriate way, taking account of the needs of communities and the environment; • ensure that emergency plans and responses to flood incidents are effective and that communities are able to respond effectively to flood forecasts, warnings and advice; • help communities to recover more quickly and effectively after incidents. 	
Conflicts between objectives/requirements:	
N/A	

Document Name :	Securing the Future – Delivering the UK Sustainability Strategy
Date Of Publication	March 2005
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview:	
Establishes a broad set of actions and priorities that the Government would wish to come to fruition to support the achievement of Sustainable Development	
Establishes 5 statements of principle	
<ul style="list-style-type: none"> • Developing within environmental limits • Promoting a strong healthy and just society • Achieve sustainable economic growth • Promote good governance • Use sound science responsibly 	
From these emerges four agreed priorities to which there should be significant positive effort and policy development	
<ul style="list-style-type: none"> • Sustainable consumption and production • Climate change • Natural resources and protection • Sustainable communities 	
This framework is developed a number of intentions within the chapter headings of	
<ul style="list-style-type: none"> • Help people make choices • Sustainable consumption and production 	

<ul style="list-style-type: none"> • Climate Change and energy • Protection of resources • Sustainable communities
<p>Relevance to / Implications for LFRMS:</p> <p>Much of the content is aspirational than specific sets of proposals; however the LFRMS will play a role in contributing to sustainable development within Kirklees so should take account of the broader principles of sustainable development.</p>
<p>Specific Targets / Requirements / Indicators:</p> <p>There are a total of 68 indicators many of which can only be supported by national and/or international effort. But clearly these will have to have a more local relationship in trying to meet these various national aspirations and targets.</p>
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>There are a significant number of these that are a reflection of the principles that direct the Strategy.</p>
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>

Document Name :	Making Space for Water
Date Of Publication	March 2005
Level:	NATIONAL
Status :	NON-STATUTORY
<p>Brief Overview: The guidance aims at providing sufficient space for water so that the adverse effects that can result from coastal erosion and flooding both for people and the economy can be managed. It aims to do this by tackling these issues in a way that not only mitigates their impact but also achieves environmental and social benefits.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>National guidance regarding flood risk management is directly relevant to the Local Flood Risk Management Strategy.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>No specific targets.</p>	
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>The objective of the guidance is manage the risks from flooding and coastal erosion by employing an integrated portfolio of approaches which reflect both national and local priorities, so as:</p> <ul style="list-style-type: none"> • to reduce the threat to people and their property; and • to deliver the greatest environmental, social and economic benefit, consistent with the Government's sustainable development principles. 	
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>	

Document Name :	Working with the Grain of Nature: A Biodiversity Strategy for England.
Date Of Publication	October 2002
Level:	NATIONAL
Status :	NON-STATUTORY
<p>Brief Overview:</p> <p>Strategy sets out a series of actions that will be undertaken by Government and partners to make fundamental consideration in public policy.</p> <p>For agriculture it will encourage management of farming to enhance biodiversity as part of Sustainable Food and Farming Strategy.</p> <p>Proposal for water aim to adopt a whole catchment approach to the wise and sustainable use of water and wetlands.</p> <p>In urban areas there is a need to recognise the need for biodiversity to become part of the development process.</p> <p>Woodlands should be managed and extended to enhance biodiversity.</p>	

Local and regional actions should aim to develop and support biodiversity partnerships in the regions and locally. Funding of biodiversity should aim to improve techniques for the valuation of biodiversity in the development process and identify gaps in funding regimes. Encourage business to be concerned with issues related to biodiversity.
Relevance to / Implications for LFRMS: Merely raising the profile of biodiversity across the spectrum of activities. The potential impacts of the LFRMS and any specific measures included within it will need to be taken into account, both through the SEA and possibly through a separate HRA.
Specific Targets / Requirements / Indicators: N/A
Environmental Protection Objectives: (If international/EU/national): N/A
Conflicts between objectives/requirements: N/A

Document Name :	Our Towns and Cities: The Future
Date Of Publication	November 2000
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview: This document identifies that four out of five people within Britain reside within towns or cities. The agenda is to facilitate an 'urban renaissance' creating attractive – well kept towns, with good access to quality services. Schemes put in place should encourage environmentally sustainable towns and cities through good design and planning. Increased opportunities for walking and public transport use, along with reducing car journeys are emphasised expectations. Creating and shaping prosperity is also a focus, increasing access to education and employment opportunities within urban areas. Use of the tax and planning system to bring brownfield sites back into use is one method outlined.	
Relevance to / Implications for LFRMS: Any measures included in the LFRMS specifically relating to the urban areas of Kirklees District will need to be compliant with national policy for urban areas.	
Specific Targets / Requirements / Indicators: No specific targets. Financial resources provided £33bn (2003-2004) To be sub-divided for initiatives relating to: Education Health Transport Housing Criminal Justice Leisure, Culture and Sport	
Environmental Protection Objectives: (If international/EU/national): N/A	
Conflicts between objectives/requirements: N/A	

Document Name :	Heritage Protection for the 21st Century
Date Of Publication	March 2007
Level:	NATIONAL
Status :	NON-STATUTORY

Brief Overview:

The report presents an overhaul of existing heritage policy with the intention to provide a more simplified system of protecting historic or other important assets and allows developers and owners greater certainty over designations and development affecting such assets.

Relevance to / Implications for LFRMS:

Any potential impacts of the LFRMS on heritage assets in Kirklees will be considered through the SEA. The District contains a high number of heritage assets.

Specific Targets / Requirements / Indicators:

The vision of this report is for a unified heritage protection system that is easy to understand and to use. To achieve this the following adjustments need to be made:

- Provide a unified legislative framework for heritage protection that removes current distinctions to deliver a system that works for the whole historic environment.
- Build on this new legislative framework by creating a single system for national designation and consents and encouraging greater unification at local level.

Environmental Protection Objectives: (If international/EU/national):

As above.

Conflicts between objectives/requirements:

N/A

Document Name :	Climate Change Act 2008
Date Of Publication	November 2008
Level:	NATIONAL
Status :	STATUTORY
<p>Brief Overview: The UK Climate Change Act became law on 26 November 2008. It establishes a definite target to reduce UK national carbon emissions by 80% by 2050, relative to a 1990 baseline. The act requires the government to publish five yearly carbon budgets starting with the period 2008-2012. Emissions monitored in a report annually against budgets. Targeted greenhouse gasses are identified as Carbon Dioxide and Methane. Other greenhouse gasses are outlined as; nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, and any other greenhouse gas designated as a targeted greenhouse gas by order made by the Secretary of State.</p> <p>Legislates to include international aviation and shipping emissions in the future, with the Government to determine how and when they are to be included by 31 December 2012.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>Emphasises the commitment to sustainable development. Flood risk, as managed locally through the LFRMS, is likely to increase as a result of climate change.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>Confers powers to create waste reduction pilot schemes.</p> <p>Powers to make schemes for providing financial incentives to produce less domestic waste and to recycle more of what is produced;</p> <p>To make provision about the collection of household waste; to confer powers to make provision about charging for single use carrier bags;</p> <p>Obliges the Government to report annually on progress towards improving the efficiency and sustainability of the UK civil estate.</p> <p>Enables Government to make regulations about charges for single-use carrier bags.</p>	
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>Sets definite targets to reduce greenhouse gases, and puts in place funding and mechanisms to</p>	

reduce and alter activities which contribute to the emission of these gasses.
Conflicts between objectives/requirements: N/A

Document Name :	The Wildlife and Countryside Act 1981 (As amended)
Date Of Publication	1981
Level:	NATIONAL
Status :	STATUTORY
Brief Overview: The act is the principle mechanism for legislative protect of wildlife in Great Britain. The act deals with the protection of birds, other animals and plants.	
Relevance to / Implications for LFRMS: The Act provides for the notification of Sites of Special Scientific Interest and their protection and management. Any potential impacts of the LFRMS, including on SSSIs, will need to be considered through the SEA.	
Specific Targets / Requirements / Indicators: N/A	
Environmental Protection Objectives: (If international/EU/national): N/A	
Conflicts between objectives/requirements: N/A	

Document Name :	England Biodiversity Framework: Securing Biodiversity (Natural England)
Date Of Publication	2008
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview: The purpose of the new framework is to: <ul style="list-style-type: none"> • encourage the adoption of an ecosystem approach and embed climate change adaptation principles in conservation action, • achieve biodiversity enhancements across whole landscapes and seascapes, • achieve our priority habitat targets, placing an emphasis on habitat restoration and expansion, • enhance the recovery of priority species and better integrate their needs into habitat-based work, • support the restoration of designated sites, • support the conservation of marine biodiversity, • improve the integration of national, regional and local levels of delivery, • improve the links between policy-makers and biodiversity practitioners, and • strengthen biodiversity partnerships (national, regional and local). 	
Relevance to / Implications for LFRMS: The LFRMS may include measures that would result in biodiversity enhancements across landscapes and restoring / improving habitats.	
Specific Targets / Requirements / Indicators: N/A	
Environmental Protection Objectives: (If international/EU/national): N/A	
Conflicts between objectives/requirements: N/A	

Document Name :	UK Biodiversity Action Plan
Date Of Publication	1994
Level:	NATIONAL
Status :	NON-STATUTORY
<p>Brief Overview:</p> <p>The UK Biodiversity Action Plan, published in 1994, was the UK Government's response to signing the Convention on Biological Diversity (CBD) at the 1992 Rio Earth Summit.</p> <p>The plan set out a programme for conserving the UK's biodiversity. It also led to the production of 436 action plans between 1995 and 1999 to help many of the UK's most threatened species and habitats to recover.</p> <p>A review of the UK BAP priority list in 2007 led to the identification of 1,150 species and 65 habitats that meet the BAP criteria at UK level.</p> <p>The UK BAP aims to maintain and enhance biological diversity within the UK and thus contribute to the conservation and enhancement of global diversity. Biological diversity in the UK will be maintained and enhanced by addressing:</p> <ul style="list-style-type: none"> • overall population and ranges of native species, the quality and ranges of habitats and ecosystems • internationally important and threatened species, habitats and ecosystems • biodiversity of natural and semi natural habits where they have been diminished over recent past decades 	
<p>Relevance to / Implications for LFRMS:</p> <p>The SEA of the LFRMS will need to consider the potential impacts of measures within it on important species and habitats that are within the District, including the South Pennine Moors Special Area of Conservation.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>N/A</p>	
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>N/A</p>	
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>	

Document Name :	Building a Low Carbon Economy – The UK's Contribution to Tackling Climate Change
Date Of Publication	January 2009
Level:	NATIONAL
Status :	NON-STATUTORY
<p>Brief Overview: This document outlines and assesses the Climate Change Committee's response to the Climate Change Act 2008. An assessment is made of the potential areas of CO2 and greenhouse gas emissions reduction, particularly the decarbonisation of electricity generation and transport. There is an emphasis and recognition that the general targets and potential improvements come from technological advancements over behavioural changes to reduce emissions.</p> <p>The report is based around the overarching target of a reduction of emissions by 80% by 2020. Summarised progress so far, along with future targets are addressed within different sections;</p> <p>Decarbonising Electricity Energy Use in Buildings and Industry Reducing Domestic Transport Emissions Other Emissions – including; Agriculture, Land Use Change and Forestry, Waste.</p> <p>The potential impact upon business and industry is identified, suggesting a 1% reduction in GDP and 0.5% reduction in employment in relation to meeting emissions targets. However potential job creation from a low carbon economy is alluded to.</p> <p>Fuel poverty issues are raised relating to an increase in fuel prices. The inclusion of emissions from aviation and shipping in the future is also an issue raised for tackling in the future.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>Climate change is highly relevant to flood risk in Kirklees as it is likely to mean more frequent</p>	

extreme weather events and higher levels of precipitation.
Specific Targets / Requirements / Indicators: Targets will relate to the different areas causing emissions and the potential for reduction within each local authority area.
Environmental Protection Objectives: (If international/EU/national): N/A
Conflicts between objectives/requirements: N/A

Document Name :	Natural Environment White Paper
Date Of Publication	June 2011
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview: The government aims for this generation to be the first generation to leave the natural environment of England in a better state than it inherited. To achieve this requires taking action across sectors, rather than treating environmental concerns in isolation. The strategy sets out how government intends to mainstream the value of nature across society by: <ul style="list-style-type: none"> • Facilitating greater local action to protect and improve nature • Creating a green economy, where economic growth and health of natural resources sustain each other • Strengthening connections between people and nature • Showing leadership in the EU / Internationally to protect / enhance natural assets globally. <p>The government seek to establish an institutional framework with the establishment of Local Nature Partnerships, to work alongside Local Enterprise Partnerships, Nature Improvement Areas to reconnect and enhance nature on a significant scale and a strategic approach to planning for nature within and across large areas.</p>	
Relevance to / Implications for LFRMS: The White Paper sets out actions for the natural environment that may link with measures included in the LFRMS, such as establishing Green Infrastructure partnerships with civil society and the creation a new 'local green areas' designation – allowing people to protect local green areas that are important to them.	
Specific Targets / Requirements / Indicators: N/A	
Environmental Protection Objectives: (If international/EU/national): N/A	
Conflicts between objectives/requirements: N/A	

Document Name :	Salmon and Freshwater Fisheries Act
Date Of Publication	1975
Level:	NATIONAL
Status :	STATUTORY

Brief Overview:

This Act aims to regulate practice relating to freshwater fisheries and salmon fishing. The main issues addressed are:

- prohibition of certain modes of taking or destroying fish;
- obstruction to passage of fish;
- times of fishing and selling and exporting fish; and
- fishing licences.

Relevance to/Implications for LFRMS:

The Act's main purpose is to protect fish species; however it does indirectly affect flood risk. Restricting the obstruction to passage of fish will have implications for flood risk as this will prohibit the use of fish weirs and mill dams and will require dam owners to make and maintain fish passes.

Specific Targets/Requirements/Indicators:

N/A

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	National Wetland Vision (A 50-Year Vision For Wetlands)
Date Of Publication	2008
Level:	NATIONAL
Status :	NON-STATUTORY

Brief Overview:

The Wetland Vision is of a future where wetlands are a significant feature of the landscape in which wildlife can flourish. It will be a future in which wetland heritage is recognised and safeguarded; where everyone can enjoy wetlands for quiet recreation and tranquillity. Vivally, it will be a future where wetlands are valued both for the roles they play in helping us deal with some of the challenges of the 21st century and in improving and sustaining our quality of life.

Relevance to/Implications for LFRMS:

Preserving and restoring wetlands such as peatlands, rivers and lakes will help regulate surface water run-off, store flood water and recharge groundwaters. These actions that are part of the wetland vision could potentially link with measures within the LFRMS.

Specific Targets/Requirements/Indicators:

N/A

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	Defra Water for Life White Paper
Date Of Publication	2011
Level:	NATIONAL
Status :	NON-STATUTORY

Brief Overview:

This White Paper is the government's response to pressures on water resources. Key commitments within the Paper include:

- Reform of the abstraction regime;
- Improving water quality;
- Consider national infrastructure projects;
- Strategic approach to wastewater and drainage;
- Affordable water supply;
- Using water wisely; and
- Produce a new strategic policy paper to help deliver the White Paper's priorities.

Relevance to/Implications for LFRMS:

The White Paper sets out actions for the water environment that may link with measures included in the LFRMS, such as supporting catchment pilots throughout the country alongside the Environment Agency.

Specific Targets/Requirements/Indicators:

N/A

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	The Carbon Plan
Date Of Publication	March 2011
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview:	
<p>The carbon plan sets out a vision for Britain powered by cleaner energy used more efficiently, with more secure energy supplies and stable energy prices and benefits from jobs and growth that a low carbon economy will bring. Three key areas are set out:</p> <ul style="list-style-type: none"> • Electricity Generation • Heating homes and businesses • Travel <p>The aim of the plan is for it to be implemented across a range of different topics:</p> <ul style="list-style-type: none"> • Secure, sustainable low carbon energy • Saving energy in homes and communities • Reducing emissions from business and industry • Towards low carbon transport • Cutting emissions from waste • Managing land sustainably • Reducing emissions in the public sector • Developing leadership within the European Union • Building the case for global ambition with key countries and international institutions 	
Relevance to / Implications for LFRMS:	
<p>Carbon emissions, and the resulting climate change impacts, are highly relevant to the issue of flood risk management due to the likely increased flood risk resulting from climate change.</p>	
Specific Targets / Requirements / Indicators:	
N/A	
Environmental Protection Objectives: (If international/EU/national):	

N/A
Conflicts between objectives/requirements: N/A

Document Name :	Water Resources Strategy (Environment Agency)
Date Of Publication	March 2009
Level:	NATIONAL
Status :	NON-STATUTORY

Brief Overview:

The strategy is a response to issues facing water in England and Wales from a forecasted increase in population and the impacts of climate change.

The strategy sets out actions for climate change, including:

- enabling habitats and species to adapt better to climate change
- allowing the way we protect the water environment to adjust flexibly to a changing climate
- considering pressure on the environment taken by water taken for human use and considering the whole life-cycle of use.

The strategy sets out actions for the water environment including

- protecting conservation sites that depend on water
- improving environmental resilience
- safeguarding water resources through effective catchment management
- improving understanding of how the water environment and ecology interact

The strategy sets out actions for managing water resources including:

- supporting housing and associated development where the environment can cope with the additional demands placed on it
- allowing a targeted approach where stress on water resources is greatest
- ensuring water is used efficiently in homes and buildings, and by industry and agriculture
- providing greater incentives to manage demand

The strategy sets out actions for valuing water including:

- allowing water companies to address affordability issues with customers
- allowing more efficient use of water
- provide better information on a product's water efficiency

Relevance to / Implications for LFRMS:

Water resource issues are the primary focus of the LFRMS.

Specific Targets / Requirements / Indicators:

N/A

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	National Planning Policy Framework
Date Of Publication	2012
Level:	NATIONAL
Status :	NON-STATUTORY

Brief Overview:

The National Planning Policy Framework (NPPF) has replaced the set of national planning policy statements and national planning policy guidance notes, bringing them into one document.

The NPPF is based around the presumption in favour of sustainable development. Sustainable development, for the planning system, is defined as:

- Planning for prosperity – using the planning system to build a strong, responsive and competitive economy
- Planning for people – using the planning system to promote strong, vibrant and healthy communities
- Planning for places – using the planning system to protect and enhance the natural, built and historic environment.

The presumption in favour of sustainable development requires a positive planning system to help facilitate economic growth. The NPPF requires that significant weight is placed on securing economic growth.

The NPPF contains several changes from the suite of policy guidance notes and statements that it is replacing:

- Replacing the local development framework with the local plan, that contain both policies and site allocations
- Discouraging the long term protection of employment land or floorspace
- Removing the sequential test for offices
- Permission should be granted for housing where a 5 year supply (plus 20% contingency) is not in place – though this would be still subject to other policies and parts of the NPPF
- Local communities will be able to designate local green space

The NPPF introduces neighbourhood planning, neighbourhood development orders and community right to build schemes.

Relevance to / Implications for LFRMS:

The NPPF has replaced PPS25 along with the other PPSs and PPGs, and so comprises the national policy framework in relation to planning in areas of higher flood risk.

Specific Targets / Requirements / Indicators:

Several requirements for local planning authorities that are continued from existing national policy.

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	Flood and Water Management Act
Date Of Publication	2010
Level:	NATIONAL
Status :	STATUTORY
Brief Overview:	
Addresses water management, including the management of flood risk.	
Relevance to / Implications for LFRMS:	
The Act sets out the legislative requirement for the production of LFRMSs.	
Specific Targets / Requirements / Indicators:	
Requires Lead Local Flood Authorities to produce a LFRMS.	
Environmental Protection Objectives: (If international/EU/national):	
N/A	
Conflicts between objectives/requirements:	
N/A	

Document Name :	The Flood Risk Regulations
Date Of Publication	2009

Level:	NATIONAL
Status :	STATUTORY
Brief Overview:	
The Regulations implement the EU Floods Directive. They require the Environment Agency to assess, map and manage flood risk from main rivers, the sea and reservoirs and 'Lead Local Flood Authorities' such as Kirklees Council, to do the same for all other flood risks.	
Relevance to / Implications for LFRMS:	
Directly relevant to the production of the LFRMS.	
Specific Targets / Requirements / Indicators:	
The Regulations require the publication of: Preliminary Flood Risk Assessments (PFRAs) by 22 December 2011 Hazard and risk maps by 22 December 2013 Flood risk management plans by 22 December 2015	
Environmental Protection Objectives: (If international/EU/national):	
N/A	
Conflicts between objectives/requirements:	
N/A	

Document Name :	Future Water – the Government’s Water Strategy for England
Date Of Publication	2008
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview:	
Future Water sets out how we want the water sector to look by 2030, and some of the steps we will need to take to get there.	
Relevance to / Implications for LFRMS:	
Flood risk management is one of the themes addressed by the Strategy.	
Specific Targets / Requirements / Indicators:	
N/A	
Environmental Protection Objectives: (If international/EU/national):	
Our vision for water policy and management is one where, by 2030 at the latest, we have: <ul style="list-style-type: none"> • improved the quality of our water environment and the ecology which it supports, and continued to provide high levels of drinking water quality from our taps; • sustainably managed risks from flooding and coastal erosion, with greater understanding and more effective management of surface water; • ensured a sustainable use of water resources, and implemented fair, affordable and cost-reflective water charges; • cut greenhouse gas emissions; and • embedded continuous adaptation to climate change and other pressures across the water industry and water users. 	
Conflicts between objectives/requirements:	
N/A	

Document Name :	Guidance for Risk Management Authorities on Sustainable Development in Relation to their Flood and Coastal Erosion Management Functions
Date Of Publication	2011
Level:	NATIONAL
Status :	NON-STATUTORY

<p>Brief Overview:</p> <p>Section 27 of the Flood and Water Management Act 2010 requires certain flood and coastal erosion risk management authorities to aim to make a contribution towards the achievement of sustainable development when exercising their flood and coastal erosion risk management functions. It also requires the Secretary of State to issue guidance on how those authorities are to discharge this duty and explain the meaning of sustainable development in this context – this document does that.</p>
<p>Relevance to / Implications for LFRMS:</p> <p>The guidance applies to Lead Local Flood Authorities. It provides background context about the application of sustainable development principles when discharging their duties to manage flood risk (as Kirklees Council is doing through the production of the LFRMS).</p>
<p>Specific Targets / Requirements / Indicators:</p> <p>N/A.</p>
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>N/A.</p>
<p>Conflicts between objectives/requirements:</p> <p>N/A.</p>

Document Name :	Water for People and the Environment – Water Resources Strategy for England and Wales
Date Of Publication	2009
Level:	NATIONAL
Status :	NON-STATUTORY
<p>Brief Overview:</p> <p>Sets out the approach to water resources management throughout England and Wales to 2050 and beyond to ensure that there will be enough water for people and the environment.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>Flood risk management measures are closely linked to wider water resources management issues.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>N/A</p>	
<p>Environmental Protection Objectives: (If international/EU/national):</p> <ul style="list-style-type: none"> • Adapting to and mitigating climate change. • A better water environment. • Sustainable planning and management of water resources. • Water and the water environment are valued. 	
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>	
Document Name :	The Impact of Flooding on Urban and Rural Communities
Date Of Publication	2005
Level:	NATIONAL
Status :	NON-STATUTORY
<p>Brief Overview:</p> <p>The aim of the research was to explore the impacts of flooding on urban and rural communities. Two areas were investigated:</p> <ul style="list-style-type: none"> • understanding the relationships between urban/rural policies and flood risk management (FRM) policy such that opportunities for 'win-win' solutions could be explored; and • understanding the social impacts (e.g. economic, health, community) on urban and rural communities from an empirical perspective (i.e. what evidence is there for differential impacts on urban and rural communities in terms of flooding). 	

Relevance to / Implications for LFRMS:
In order to plan for the management of flood risk, it is important to understand the range and severity of the different types of impacts that flooding can potentially have on local communities. The LFRMS will need to address flood risk across the District, which includes both urban and rural areas.
Specific Targets / Requirements / Indicators:
N/A
Environmental Protection Objectives: (If international/EU/national):
N/A
Conflicts between objectives/requirements:
N/A

Document Name :	Biodiversity 2020 – A Strategy for England’s Wildlife and Ecosystems
Date Of Publication	2011
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview:	
Sets out the Government’s strategy for improving biodiversity in England up to 2020.	
Relevance to / Implications for LFRMS:	
Flooding can have adverse impacts on biodiversity; however there may be opportunities for the LFRMS to provide for biodiversity enhancements, as well as reducing risks to habitats and species from flood events.	
Specific Targets / Requirements / Indicators:	
N/A.	
Environmental Protection Objectives: (If international/EU/national):	
To halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people. This will be achieved through four areas of action:	
<ul style="list-style-type: none"> • a more integrated large-scale approach to conservation on land and at sea • putting people at the heart of biodiversity policy • reducing environmental pressures • improving our knowledge 	
Conflicts between objectives/requirements:	
N/A	

Document Name :	Underground, Under Threat – the State of Groundwater in England and Wales
Date Of Publication	2006
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview:	
Sets out the importance of groundwater quality and describes the current state of groundwater in England and Wales.	
Relevance to / Implications for LFRMS:	
Flooding can have an impact on groundwater quality; therefore the management of flood risk can be seen as beneficial in terms of achieving higher groundwater quality.	
Specific Targets / Requirements / Indicators:	
N/A	

Environmental Protection Objectives: (If international/EU/national):
N/A
Conflicts between objectives/requirements:
N/A

Document Name :	Conservation of Habitats and Species Regulations
Date Of Publication	2010
Level:	NATIONAL
Status :	STATUTORY
Brief Overview:	
The Conservation of Habitats and Species Regulations 2010 consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.	
Relevance to / Implications for LFRMS:	
The Regulations require HRA to be carried out in relation to certain plans, which may include the LFRMS depending on the measures to be included within it.	
Specific Targets / Requirements / Indicators:	
N/A	
Environmental Protection Objectives: (If international/EU/national):	
N/A	
Conflicts between objectives/requirements:	
N/A	

Document Name :	Safeguarding our Soils – A Strategy for England
Date Of Publication	2009
Level:	NATIONAL
Status :	NON-STATUTORY
Brief Overview:	
Sets out the Government’s strategy for improving soil quality in England and safeguard the ability of soils to provide essential services.	
Relevance to / Implications for LFRMS:	
Flooding can have implications for soil quality, for example by causing soil erosion, and soil pollution.	
Specific Targets / Requirements / Indicators:	
N/A	
Environmental Protection Objectives: (If international/EU/national):	
Improving our evidence base: filling the gaps in our knowledge, particularly in the light of the new challenges soils may face from climate change, and ensuring that policy development is based on the latest scientific information.	
<ul style="list-style-type: none"> • Providing information and guidance: giving those people actively involved in the management of our soils the necessary information or guidance to encourage them to employ best practice in managing soils sustainably. • Using regulation and incentives as drivers for action: where the need to safeguard public goods is essential or where market failure mean soils are being adversely affected, we will look to regulate potentially damaging activities or incentivise different behaviours. 	
Conflicts between objectives/requirements:	
N/A	

Sub-National PPPSIs

Document Name :	River Basin Management Plan: Humber River Basin District
Date Of Publication	December 2009
Level:	REGIONAL
Status :	NON-STATUTORY
<p>Brief Overview:</p> <p>The plan is about the pressures facing the water environment of the Humber river basin district. The major challenges are:</p> <ul style="list-style-type: none"> • The way urban land is used should also protect and restore habitats, species and natural processes • Controlling diffuse pollution and making wise use of water are priorities • There is concern about future trends of water availability • The impacts of modifications and invasive non-native species on wildlife • The legacy left behind from mining has led to contamination and rising mine waters. <p>The plan sets out actions for different sectors and organisations, including those for local government and urban and transport.</p> <p>For local government, the plan seeks to produce guidance for local planning authorities, to ensure that spatial planning documents take account of the objectives of the Humber River Basin Management Plan and to reduce the physical impacts of urban development.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>The River Basin Management Plan provides important context for the LFRMS.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>N/A</p>	
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>N/A</p>	
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>	

Document Name :	The Yorkshire and Humber Plan Regional Spatial Strategy to 2026
Date Of Publication	May 2008
Level:	REGIONAL
Status :	STATUTORY
<p>Brief Overview:</p> <p>The Regional Spatial Strategy (RSS) is the regional plan for the Yorkshire and Humber Region. It looks at a wide range of issues and how they impact on spaces and places in Yorkshire and the Humber. The RSS sets a regional framework that addresses the 'spatial' implications of broad issues like healthcare, education, crime, housing, investment, transport, the economy and environment.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>For now, the RSS remains a material planning consideration and so forms part of the local development plan in Kirklees.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>Kirklees is located within the context of the Leeds City Region in the RSS. The outcomes for the Leeds City Region are:</p> <ul style="list-style-type: none"> – Leeds City Region is the most significant economic driver of the Region's economy with long term stability and the benefits of a strong economy are equitably spread through the City Region and wider Region. In particular, this has helped to address labour market disparities. 	

- The roles of Sub Regional Cities and Towns and Principal Towns have been strengthened by developing complementary functions and maximising their links and connectivity with each other and to Leeds.
- There has been significant shift towards more sustainable modes of transport and connectivity has been radically improved.
- The role and function of Leeds City Region sub area complements and supports the role and function of places in the overlapping South Yorkshire and York sub areas.
- The environmental quality of the sub region has been protected and enhanced.

There are a number of policies with expected outcomes and indicators under the following headings:

Environment

ENV1 Development & Flood Risk

ENV2 Water Resources

ENV3 Water Quality

ENV4 Minerals

ENV5 Energy

ENV6 Forestry, Trees & Woodlands

ENV7 Agricultural Land

ENV8 Biodiversity

ENV9 Historic Environment

ENV10 Landscape

ENV11 Health and Recreation

ENV12 Regional Waste Management Objectives

ENV13 Provision of Waste Management & Treatment Facilities

ENV14 Strategic Locational Criteria for Waste Management Facilities

Economy

E1 Creating a Successful and Competitive Regional Economy

E2 Town Centres and Major Facilities

E3 Land and Premises for Economic Development

E4 Regional Priority Sectors and Clusters

E5 Safeguarding Employment Land

E6 Sustainable Tourism

E7 Rural Economy

Housing

H1 Provision & Distribution of Housing

H2 Managing and Stepping Up the Supply and Delivery of Housing

H3 Managing the Release of Land in Support of Interventions to Address Failing Housing Markets

H4 The Provision of Affordable Housing

H5 Housing Mix

H6 Provision of Sites for Gypsies & Travellers

The Regional Transport Strategy

T1 Personal Travel Reduction and Modal Shift

T2 Parking Policy

T3 Public Transport

T4 Freight

T5 Transport and Tourism

T6 Airports

T7 Ports and Waterways

T8 Rural Transport

T9 Transport Investment and Management Priorities

Environmental Protection Objectives: (If international/EU/national):

See above

Conflicts between objectives/requirements:

N/A

Document Name :	Regional Sustainable Development Framework-update 2003-2005
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Date Of Publication	July 2003
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Level:	REGIONAL
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Status :	NON-STATUTORY
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Brief Overview:

The RSDF is the mechanism to realise the Yorkshire and Humber vision for a sustainable region expressed in Advancing Together. The RSDF seeks to ensure that sustainable development is an integral part of policy and decision-making at regional, sub-regional and local levels throughout Yorkshire and Humber. It includes 15 sustainability aims that provide the basis of the region's sustainability appraisal.

Relevance to / Implications for LFRMS:

The Kirklees LFRMS comprises an important tool for delivering sustainable development within the region.

Specific Targets / Requirements / Indicators:

Aims of the RSDF with the identified indicators:

1. Good quality employment opportunities available to all
2. Conditions enabling business success, economic growth and investment
(Employment, Enterprise, Economic growth, Productivity, Rural Economy, Innovation, Investment)
3. Education and training opportunities building the skills and capacities of the population
(Young people's education and skills, Basic Skills, Workforce skills and training, Higher level skills)
4. Conditions and services engendering good health
(Health)
5. Safety and security for people and property
(Crime, Community well-being)
6. Vibrant communities participating in decision making
(Deprivation, Civic participation)
7. Culture, leisure and recreation activities available to all
(Culture)
8. Local needs met locally
(Access to services)
9. A transport network maximising access whilst minimising detrimental impacts
(Traffic volume, Transport)
10. A quality built environment and efficient land use patterns making good use of derelict sites, minimising travel and promoting balanced development
(Land reuse, Listed buildings)
11. Quality housing available to everyone
(Housing quality, Housing completions, Housing affordability)
12. A bio-diverse and attractive natural environment
(Biodiversity, Area of woodland cover)
13. Minimal pollution levels
(Air quality, Water quality)
14. Minimal greenhouse gas emissions and a managed response to the effects of climate change
(Emissions of greenhouse gases, Energy consumption)
15. Prudent and efficient use of energy and natural resources with minimal production of waste
(Waste, Energy efficiency of housing)

The 15 aims have specific objectives set out in the document.
Environmental Protection Objectives: (If international/EU/national): See above
Conflicts between objectives/requirements: N/A

Document Name :	Regional Housing Strategy for Yorkshire and the Humber 2005-2021
Date Of Publication	May 2005
Level:	REGIONAL
Status :	STATUTORY

Brief Overview:

Produced by the Regional Housing Board, this strategy aims to provide sufficient quantity and quality of homes for all households in the region. In particular it aims to bring about key changes in the way housing is provided, namely; a more strategic approach to regeneration, more resources for clearance and redevelopment of the worst housing, increasing the resources for renovation of existing housing, a concerted regional and sub-region approach to the needs of minority and rural communities, and vulnerable and excluded groups.

The Regional Housing Strategy has three key themes that are identified as:

Creating better places. This is about responding to the diversity of markets and improving neighbourhood infrastructure and facilities.

Delivering better homes, choice and opportunity. This is about delivering choice and opportunity for all our people to meet their housing aspirations, and to improve housing condition and services for all.

Ensuring Fair Access to Quality Housing. This is about being sure the requirements and preferences of all parts of communities are met by sensitive and appropriate housing solutions, and that obstacles faced by specific groups to accessing their housing choices are removed.

Relevance to / Implications for LFRMS:

Housing development/growth is a key pressure in Kirklees in terms of land use planning, and something that the LFRMS will need to take into account.

Specific Targets / Requirements / Indicators:

Regional Housing Strategy objectives:

- Promote regeneration and neighbourhood renewal
- Provision of sufficient new homes within mixed income communities
- Improve homes to meet decent standards and aspirations
- Provide fair access to housing for all groups

Strategic Targets and indicators for the housing strategy;

- % of Vacant dwellings
- Turnover rates of social housing
- Achievement of HMR pathfinder targets
- Number of house sales at very low prices
- Number of homelessness applications accepted
- Completions of affordable homes
- Number of households in temporary accommodation
- Number of households with children in B&B temporary accommodation

- Number of homes failing to meet decent homes standard (in social sector now and projected in 2010)
- Tenant satisfaction with home
- Promoting community integration
- Housing conditions for minority groups
- Quality of housing for older people
- Provision of new or converted housing for people with special needs
- Effective delivery of floating support services
- Eradication of rough sleeping

A series of targets and indicators are also provided for each individual objective.

Environmental Protection Objectives: (If international/EU/national):

Ensure environmental sustainability is pursued in all investment.

Conflicts between objectives/requirements:

N/A

Document Name :	Regional Economic Strategy
Date Of Publication	Reviewed 2002
Level:	REGIONAL
Status :	STATUTORY

Brief Overview:

This ten-year strategy provides a framework of common priorities around which businesses, public agencies, voluntary groups and communities can focus their investment and effort. This is an evidence-based strategy, drawing on wide ranging research and analysis, notably the annual Progress in the Region report, the most comprehensive assessment ever of Yorkshire and Humber's performance.

Relevance to / Implications for LFRMS:

Economic development pressures can affect local flood risk and will therefore need to be taken into account as part of the context for the LFRMS.

Specific Targets / Requirements / Indicators:

An overall objective of a year on year increase in GDP growth above EU average.

The strategies six key objectives are to:

- Grow the region's businesses
- Achieve higher business birth and survival rates
- Attract and retain more private and public investment
- Improve education, learning and skills
- Connect all of the region's communities to economic opportunity
- Enhance and utilise the region's infrastructure of physical and environmental assets

Targets for 2016:

- Increase GDP faster than main competitors
- Raise ILO Rate from 74.4% in 2004 to 78-80%
- Raise GVA per worker by 25-30%
- Double R&D expenditure from 0.5 of GVA in 2002 to >1% of regional GVA
- Increase total business stock by 25% from 32 businesses per 1000 adults in 2004 to 40 businesses per 1,000 adults – based on VAT registered firms
- Raise % of people with level 2 or equivalent or higher from 70% in 2004 to 80% and the proportion within this total with level for from 37% in 2004 to 45%.
- Achieve real term increase in transport investment in the region as a % of regional GVA from 0.9% in 2004/5 to over 1% of GVA
- Raise total private sector manufacturing and services investment by 50% from £5.3bn in

<p>2002 to £8bn</p> <ul style="list-style-type: none"> - Significantly above trend improvement in regional quality of place index for renaissance cities and towns. Based on equal weighting of 12 factors in renaissance cities and towns - Reduce greenhouse gas emissions (CO2 equivalent) by 20-25% over 1990 baseline, based on modelling of energy / resources consumption attributable to Y&H - Cut the percentage of local 'super output areas' in the region in the 10% most deprived nationally from 17.4% (in 2004) to 13.7% - halving the gap to the national average <p>-</p>
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>See above</p>
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>

Document Name :	Creating Sustainable Communities in Yorkshire and The Humber
Date Of Publication	January 2005
Level:	REGIONAL
Status :	NON-STATUTORY
<p>Brief Overview:</p> <p>This document outlines much of the work being done to create sustainable communities in Yorkshire and Humber by: Delivering a better balance between housing supply and demand, Ensuring people have decent places to live, Tackling disadvantage, Delivering better services through strong effective local government and Promoting the development of the region.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>The Kirklees LFRMS will play a role in delivering more sustainable communities.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>The document has the following general aims:</p> <ul style="list-style-type: none"> - Homes for all. - Building more homes in the right places, at the right cost, to the right standards of quality and design. - Investing to improve the existing social housing stock; commitment to bring all social housing into a decent condition by 2010. - Reviving communities where the demand for housing has collapsed or has been seriously undermined. - New jobs and economic growth; a more entrepreneurial North, build stronger leadership skills and deliver economic growth, job quality and innovation, create over 93,000 more VAT registered firms. - Tackling deprivation and disadvantage; people are not condemned to lives of poverty, poor services, lower life expectancy, lower skills, lower educational achievement, lower aspirations and disempowerment by accidents of birth or geography. - Improving the quality of life – cleaner, safer, greener neighbourhoods. - Ensure local government delivers excellent services and enables community empowerment. 	
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>Improve the environment through creating sustainable communities.</p>	
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>	

Document Name :	Advancing Together
Date Of Publication	August 2003
Level:	REGIONAL

Status :	NON-STATUTORY
<p>Brief Overview:</p> <p>Advancing Together-launched in July 1998-an overarching regional framework, supports the delivery of an agreed vision for Yorkshire and Humber through informing integrating and directing decision making for the region.</p> <p>The vision a “world class region of new economic opportunities, a restored and enhanced environment, and improved quality of life, all developed in a sustainable way”.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>The LFRMS will be implemented in the context of the planned growth and development within the region.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>There are six relevant objectives:</p> <ul style="list-style-type: none"> • Yorkshire and the Humber will have a world class, prosperous, and sustainable economy. • Yorkshire and Humber will have physical infrastructure and communications that meet the needs of people, businesses, places, and the environment. • Yorkshire and Humber will have high quality natural and built environments. • Yorkshire and Humber will have exceptional education and training, widespread learning and skills, and a healthy labour market without skills gaps or shortages. • Yorkshire and Humber will be a socially cohesive and inclusive region. Our people will have the capacity, resources, and equitable access to quality services needed to live well. • Yorkshire and Humber will possess and portray the highest standards of governance in all sectors and at all levels, and the highest levels of civic participation in decision-making and community life. <p>Advancing together provides 32 indicators that cover these objectives:</p> <p>Economic growth, Productivity, Enterprise, Innovation, Investment, Employment, Rural Economy, Traffic volume, Transport use, Housing completions, Housing affordability, Land re-use, Air quality, Biodiversity, Waste, Emissions, Energy consumption, Young people’s education & skills, Basic skills, IT skills, Workforce skills and training, Higher level skills, Deprivation, Health, Culture, Crime, Urban and rural renaissance, Access to services, Community well-being, Civic participation and Good governance.</p>	
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>N/A</p>	
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>	

Document Name :	Regional Environmental Enhancement Strategy
Date Of Publication	September 2003
Level:	REGIONAL
Status :	NON-STATUTORY
<p>Brief Overview:</p> <p>The REES emerged from the production of the RSDF, aim 12 ‘a biodiverse and attractive natural environment’ identified the production of the strategy as a key action. The strategy has been expanded to promote environmental enhancement as both a policy objective and a delivery mechanism across all aspects of the RSDF, and to integrate fully with the region’s economic and social agendas.</p>	

<p>Relevance to / Implications for LFRMS:</p> <p>The LFRMS may offer opportunities for incorporating environmental enhancements such as improvements to particular habitats.</p>
<p>Specific Targets / Requirements / Indicators:</p> <p>The strategy has four themes each with objectives:</p> <ul style="list-style-type: none"> • Building knowledge and understanding <p>Improve access to environmental information, Increase knowledge of best practice, Develop fuller understanding of the inter-relationships between environment, climate change transport and human health, and Demonstrate the true social and economic value of the environment.</p> <ul style="list-style-type: none"> • Conserving environmental resources <p>Achieve net reductions in the region's consumption rates for all resources, Reduce the global ecological footprint of the region, Establish Yorkshire and Humber as a region of excellence in resource use, and Seek and implement imaginative ways to reshape consumer choices.</p> <ul style="list-style-type: none"> • Managing environmental change <p>Foster an integrated approach to reducing all forms of pollution,</p> <p>Create space and opportunity for natural habitats to recover, adapt and grow in urban rural and marine environments, Integrate environmental enhancement into the regeneration of the built environment, and Develop integrated character-based approaches to managing landscape-scale changes.</p> <ul style="list-style-type: none"> • Making community connections <p>Enhance people's contact with the environment by establishing strategic green networks in all the region's areas, Maximise the potential health gains of environmental enhancement, Engender an approach to tourism and leisure development based on the carrying capacity of the region's environment, and Engage communities in shaping and enhancing local environments across the region, and especially in deprived areas</p>
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>See above</p>
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>

Document Name :	Climate Change: Action Plan for Yorkshire and the Humber (Draft)
Date Of Publication	Jan 2005
Level:	REGIONAL
Status :	NON-STATUTORY
<p>Brief Overview: Plan is a response to climate change with its finding and policies to be incorporated into a number of delivery mechanisms including Regional Spatial Strategy.</p> <p>There is a twin track approach – Minimising emissions.</p> <p>Adaptation to the consequence of climate change.</p> <p>Possible impacts identified include;</p> <ul style="list-style-type: none"> • Between 1.6 and 3.9c increase in temperature by 2080. • Decrease in rainfall between 10 and 20%. • North Sea rise by 1m. • Growing season increasing by up to 6 weeks. <p>The evidence rests upon the common acknowledgement that the major cause is the result of rise in carbon dioxide emissions.</p> <p>The proposed Action Plan has the long term aim of reducing the greenhouse emissions generated by 60% by 2050.</p> <p>The anticipated effects of change within the Region are thought to be;</p> <p>An increase in flood risk.</p> <p>Increases in disruption to people's lives and destruction of property as a result of extreme weather.</p>	

<p>Increases to length of growing season hence improvement to agricultural production. Reductions to soil moisture content changes to the disease vector. The Action Plan involves the precautionary process with suggested activities, raising awareness, research programmes relating to private and public organisations and business.</p>
<p>Relevance to / Implications for LFRMS: Climate change is of particular significance to the LFRMS as the likely increase in precipitation and more frequent extreme weather events will make flood risk management even more important. The actions set out in this document will link closely with the measures included in the LFRMS.</p>
<p>Specific Targets / Requirements / Indicators: Changes to air quality to indicate downward trend.</p>
<p>Environmental Protection Objectives: (If international/EU/national): Reduce greenhouse gas emissions. Reduce energy usage.</p>
<p>Conflicts between objectives/requirements: N/A</p>

Document Name :	Regional Biodiversity Strategy
Date Of Publication	January 2009
Level:	SUB REGIONAL
Status :	NON-STATUTORY
<p>Brief Overview: Sets a framework for the integration of biodiversity into regional and local policies and programmes, and promotes a more joined up approach to biodiversity. Describes the local biodiversity assets, including the number of protected sites, species etc. and identifies important regional habitats.</p>	
<p>Relevance to / Implications for LFRMS: The LFRMS could potentially have an impact on biodiversity, depending on the measures proposed within it.</p>	
<p>Specific Targets / Requirements / Indicators:</p>	
<p>Environmental Protection Objectives: (If international/EU/national): Strategic objectives set out in the Strategy include: Protecting the best sites for wildlife in the region. Focussing conservation action on the region's priority habitats and species. Improving functional habitat networks and enhancing the wider environment. Developing a robust evidence base for the region. Engaging people with the region's biodiversity. Helping the region's biodiversity adapt to climate change.</p>	
<p>Conflicts between objectives/requirements: N/A</p>	

Document Name :	West Yorkshire: Local Transport Plan 2011-2026
Date Of Publication	2011
Level:	SUB REGIONAL
Status :	STATUTORY
<p>Brief Overview: The LTP sets out the needs, objectives, ambitions and strategy over the next 15 years for West Yorkshire, as well as detailed spending proposals for the first three years. The three key objectives of the LTP are:</p> <ul style="list-style-type: none"> • Economy: To improve connectivity to support economic activity and growth in West Yorkshire / Leeds city Region 	

- Low Carbon: To make substantial progress towards a low carbon, sustainable transport system for West Yorkshire, while recognising transport's contribution to national carbon reduction plans
- Quality of Life: To enhance the quality of life of people living in, working in and visiting West Yorkshire.

The four key themes of the 15 year strategy are:

- Transport assets: ensuring maximum value for money in investment in infrastructure, embracing new technological and management practices
- Travel Choices: Supporting customers in making their choice of journey more sustainable, with the outcome of reducing trips
- Connectivity: Focus on delivering an integrated, financially-sustainable, reliable transport system
- Enhancements: Getting the most of out of existing transport network and infrastructure, targeting investment close to main centres to maximise return.

Six 'big ideas' have been identified in the production of the LTP

1. Enhanced travel information
2. Integrated ticketing
3. Invest in low carbon modes of travel
4. New approach to buses – developing a core network of high quality bus services
5. Stronger demand management
6. A new approach to network management – minimising disruption

Relevance to / Implications for LFRMS:

Transport infrastructure comprises one of the material assets to be considered in the SEA of the LFRMS.

Specific Targets / Requirements / Indicators:

- There are 26 proposals within the LTP that seek to meet the objectives of the plan
- There are numerous key indicators with 3, 6, 9 and 12 year milestones leading to a 15 year target. These cover: satisfaction with all transport, journey times, access to labour market, road condition, low carbon trips, public transport patronage, road casualties, access to local services and emissions.

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	West Yorkshire Housing Strategy 2008-2015
Date Of Publication	2008
Level:	REGIONAL
Status :	NON-STATUTORY

Brief Overview:

West Yorkshire contains a diverse and complex housing market, including towns with equivalent average house prices to London and areas of frail and failing housing markets. There are large areas of similar types of poor quality and obsolete housing often correlated in the urban areas with concentrations of low incomes, poor skills levels and ill health, with the 47,000 back-to-back terraced properties that do not meet modern standards representing an exclusive challenge for the sub-region.

Working together to contribute to sustainable economic growth and an enhanced quality of life in West Yorkshire by improving the sub-region's housing offer and people's access to it

West Yorkshire faces considerable challenges over the next few years. The greatest of these will be to tackle housing growth and improving access to the housing market through regeneration.

Relevance to / Implications for LFRMS:

Pressure for housing development is an important issue, setting the context for the Kirklees LFRMS

to be implemented.

Specific Targets / Requirements / Indicators:

There are aims set out under 5 'Driver' headings as follows:

- 1) Housing growth, affordability, supply and links with the planning system
- 2) Creating Sustainable Housing Markets and supporting Economic Growth
- 3) Demography, Diversity, Migration and Cohesion
- 4) Vulnerable People
- 5) Environmental Sustainability, Energy Efficiency and Health

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	Calder Catchment Flood Management Plan
Date Of Publication	2010
Level:	SUB REGIONAL
Status :	NOT-STATUTORY
Brief Overview: The catchment flood management plan seeks to understand the scale and extent of flooding and how policies can be set for managing flood risk. The Calder catchment area covers the South of West Yorkshire, incorporating the whole of Kirklees and Calderdale and part of Wakefield district. Six policy options are set out, two of which apply in Kirklees: <ul style="list-style-type: none">• Areas of low, moderate or high flood risk where we are already managing the flood risk effectively but where we may need to take further actions to keep pace with climate change• Areas of moderate to high flood risk where we can generally take further action to reduce flood risk The catchment area is split into several sub-areas, three are within Kirklees. Spenningsdale: <ul style="list-style-type: none">• A new flood defence scheme should be completed by 2013• Climate change is expected to increase flood risk. Mid-Calder: <ul style="list-style-type: none">• Flooding comes from the Calder, Batley Beck and Chickenley Beck with 2,452 properties at risk. This will increase with the impacts of climate change, if no improvement to flood defence is made• Currently rivers are often culverted, and modifications cause flooding, but the Environment Agency wants rivers to become part of the urban environment• Redevelopment and regeneration offer a crucial opportunity to reduce flood risk Colne, Holme and Fenay Beck: <ul style="list-style-type: none">• Flooding comes from Colne, Holme, Fenay Beck, sewers, surface water and the Huddersfield Broad Canal.• There are 5,278 properties at risk of flooding which will rise to 5,355 in the future• Environment Agency seek to develop a partnership approach to reduce the risk of flooding	
Relevance to / Implications for LFRMS: This document outlines the wider context for managing flood risk in Kirklees.	
Specific Targets / Requirements / Indicators: N/A	
Environmental Protection Objectives: (If international/EU/national): N/A	
Conflicts between objectives/requirements:	

N/A

Document Name :	Don Catchment Flood Management Plan
Date Of Publication	2010
Level:	SUB REGIONAL
Status :	NON-STATUTORY
Brief Overview: The catchment flood management plan seeks to understand the scale and extent of flooding and how policies can be set for managing flood risk. The Don catchment area covers the south of West Yorkshire, incorporating a small part of east Kirklees. The catchment area is split into several sub-areas, one of which (the Upper Don) is within Kirklees. The vision for the sub area is that the condition and function of the upland environment will be improved to reduce runoff rates and the high frequency of local flood events. Actions to implement the policy for that area include: <ul style="list-style-type: none">• Work in partnership to develop a 'Sheffield Strategic Flood Risk Management Strategy' to identify the long term approach to reducing the risk of flooding throughout the policy unit.• Produce and implement a System Asset Management Plan for the sub-area to determine the requirements for maintaining existing defences and optimising flood storage.• Determine in greater detail the risk of flooding to utilities, i.e. gas, electricity, water and telecommunications installations and the consequences of the loss of these installations during flooding.• Work with landowners and other organisations to change the way land is managed to slow the rate at which floods are generated.• Where it is not possible to redirect development to lower flood risk areas (sequential test) carryout the exceptions test through evidence based planning.	
Relevance to/Implications for LFRMS: This document outlines the wider context for managing flood risk in Kirklees	
Specific Targets/Requirements/Indicators: N/A	
Environmental Protection Objectives: (If international/EU/national): N/A	
Conflicts between objectives/requirements: N/A	

Document Name :	Leeds City Region Development Plan
Date Of Publication	November 2006
Level:	REGIONAL
Status :	NON-STATUTORY
Brief Overview: The CRDP sets out the key interventions that will be required to enable the Leeds City Region to contribute towards closing the national productivity gap between the North and the rest of the UK. This Development Programme is an economic plan for the city region, focusing on the areas, with the possibility of adding value. The Council believe that there is strong potential to enhance the functionality of the city region so that it operates as a more unified economic entity.	
Relevance to / Implications for LFRMS: The pressure for economic growth and development in the Leeds city region, including Kirklees, is an important part of the context in which the LFRMS will be implemented.	

Specific Targets / Requirements / Indicators:

The LDF shares similar goals to the CRDP and will help to deliver its vision, which is: Work together differently: to develop an internationally recognised city region; to raise their economic performance; to spread prosperity across the whole of the city region, and to promote a better quality of life for all of those who live and work there.

The Leeds CRDP has put forward an enhanced growth scenario to deliver growth of 3.5% per annum in GDP per capita.

Key Objectives:

- Enhance connectivity;
- Encourage innovation, enterprise, science and greater
- knowledge transfer;
- Ensure the skills base is significantly and appropriately developed;
- Develop world class business infrastructure;
- Promote and enhance the quality of life and quality of place offer of the city region; and
- Support key growth sectors and niche clusters

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	Leeds City Region Green Infrastructure Strategy
Date Of Publication	2010
Level:	SUB REGIONAL
Status :	NOT-STATUTORY
Brief Overview:	
<p>The strategy identifies where value can be added to existing and future green infrastructure investment and interventions on a city region scale, the strategy:</p> <ul style="list-style-type: none"> – identifies the value of green infrastructure assets and reinforces and promotes the compelling case for investing in them; – establishes the current priorities for green infrastructure investment at the city region level; – underpins, and is supported by, other city region strategies; – complements national and pan regional efforts to make the most positive use of our current and potential green infrastructure; – identifies the existing green infrastructure assets and partnership strengths on which the strategy will build; – sets out existing and potential mechanisms to finance ambitious green infrastructure investment priorities; and – impels planning and housing policy work, and other practical local work, to support widespread improvements in green infrastructure across the partner authorities' areas. <p>The strategy is guided by four strategic objectives:</p> <ol style="list-style-type: none"> 1) To promote sustainable growth and economic development 2) To adapt to and mitigate climate change 3) To encourage healthy and wellbeing living 4) To improve biodiversity 	
Relevance to / Implications for LFRMS:	
Green infrastructure is likely to be closely related to issues proposed in the LFRMS.	
Specific Targets / Requirements / Indicators:	

N/A
Environmental Protection Objectives: (If international/EU/national):
N/A
Conflicts between objectives/requirements:
N/A

Document Name :	West Yorkshire Adaptation Action Plan
Date Of Publication	September 2010
Level:	REGIONAL
Status :	NON-STATUTORY
Brief Overview:	
This document sets out a collaborative approach that will be taken in West Yorkshire to climate change adaptation action planning between the five West Yorkshire authorities (Bradford, Calderdale, Kirklees, Leeds and Wakefield).	
Relevance to / Implications for LFRMS:	
Managing local flood risk (through the LFRMS) is a key part of adapting to climate change, with increased precipitation and more frequent extreme weather events (such as flooding) being identified in the Action Plan as likely consequences of climate change.	
Specific Targets / Requirements / Indicators:	
The Action Plan refers to National Indicator 188: Planning to Adapt to Climate Change, and shows the progress that has been made by each of the five local authorities against that indicator over the last four years. The Action Plan is then set out in relation to six 'priority sectors' – Natural Environment, Built Environment, Transport, Utilities, Waste Management and Health and Social Care. For each sector, the receptors considered to be at risk are identified and the likely climatic changes and their consequences for that receptor set out. The likelihood is then assessed, and actions identified.	
Environmental Protection Objectives: (if international/EU/national):	
None.	
Conflicts between objectives/requirements:	
N/A	

Local PPSIs

Document Name :	Kirklees Council Unitary Development Policy
Date Of Publication	March 1999
Level:	LOCAL
Status :	STATUTORY
Brief Overview:	
<p>The Unitary Development Plan (UDP) sets out the council's policies and proposals for the use and development of land and buildings. The plan was adopted on 1 March 1999 and constitutes the statutory development plan for Kirklees, except for that part of the District which is within the Peak District National Park (where the national park plans are in force). All previous development plans for areas within Kirklees, excluding the national park, are superseded.</p>	
Relevance to / Implications for LFRMS:	
<p>Some policies from the Kirklees UDP have been saved for inclusion within DPD's and SPD's of the new Local Development Framework. As such, they currently comprise part of the planning policy framework for Kirklees, within which the LFRMS will be implemented.</p>	
Specific Targets / Requirements / Indicators:	
N/A	
Environmental Protection Objectives: (If international/EU/national):	
N/A	
Conflicts between objectives/requirements:	
N/A	

Document Name :	LDF Core Strategy: Proposed Submission Document
Date Of Publication	November 2011
Level:	LOCAL
Status :	STATUTORY
Brief Overview:	
<p>The Core Strategy is the key document within the LDF and provides the framework for future development in the District.</p>	
<p>The Proposed Submission document has followed on from the earlier consultation exercises and sets out specific policies and site allocations.</p>	
Relevance to / Implications for LFRMS:	
<p>The LDF Core Strategy, once adopted, will comprise an important part of the local planning policy framework within which the LFRMS will be implemented.</p>	
Specific Targets / Requirements / Indicators:	
None.	
Environmental Protection Objectives: (If international/EU/national):	
N/A	
Conflicts between objectives/requirements:	
N/A	

Document Name :	Kirklees Local Development Framework Annual Monitoring Report 2009/10
Date Of Publication	2011
Level:	LOCAL
Status :	STATUTORY

Brief Overview:

- The report covers a number of indicators including progress towards the Local Development Scheme (LDS) and latest information on housing, open space and shops and services.
- An updated Local Development Scheme timetable is provided within this document.
- The council has two adopted Supplementary Planning Documents. These relate to Negotiating Financial Contributions for Transport Improvements (Leeds Road, Huddersfield) and to Affordable Housing. The performance of these policies is outlined.
- Net housing completions for 2009/10 were 692.
- 88.86% of housing completions were on previously developed (brownfield) land.
- Based on current expectations of housing delivery, the council can demonstrate an adequate five year supply.

Relevance to / Implications for LFRMS:

The Annual Monitoring Report is part of the LDF and it must be published every year. The AMR looks at the progress of planned development plan documents set out in the local development scheme and measures the performance of the AMR.

Specific Targets / Requirements / Indicators:

The AMR does not set any specific targets but documents indicators used to monitor development plan policy.

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	Kirklees Community Strategy 2009-12
Date Of Publication	2009
Level:	LOCAL
Status :	STATUTORY

Brief Overview:

The Sustainable Community Strategy (SCS) sets out the strategic direction and long term vision for Kirklees. It is a strategy to promote the social, economic and environmental well-being of the area. Every council has a duty to prepare a SCS and the process involves consultation with its partners. The current SCS runs until Spring 2009.

The SCS will be built up from a number of key elements:

- Summary of the research findings from the Picture of Kirklees
- Challenges we face - both from national and international trends impacting on us and from the local challenges we need to address to enable us to move forward
- Areas we will focus on to tackle inequalities between different areas and communities in Kirklees
- Links to the Local Development Framework - the physical planning strategy for Kirklees
- The Economic Strategy and the Housing Strategy will be embedded within the SCS
- Incorporate the Local Area Agreement priorities where we have made commitments to

<p>improve our performance against some key national and local targets</p> <ul style="list-style-type: none"> • The seven locality plans will ensure there is a distinct focus on each locality • Some challenges we face can only be addressed through working with our partners at a regional level. Our SCS will draw out how we are using this regional work to improve Kirklees as part of the Leeds City Region.
<p>Relevance to / Implications for LFRMS:</p> <p>The LFRMS comprises an important part of delivering sustainable development in Kirklees.</p>
<p>Specific Targets / Requirements / Indicators:</p> <p>N/A</p>
<p>Environmental Protection Objectives: (If international/EU/national):</p> <p>N/A</p>
<p>Conflicts between objectives/requirements:</p> <p>N/A</p>

Document Name :	Vision 2012: A Blueprint for our Future
Date Of Publication	2002
Level:	LOCAL
Status :	STATUTORY
<p>Brief Overview: Sets out the aspirations, needs and priorities that local people and organisations identify for the District. Co-ordinates the actions of public, private, voluntary and community organisations that operate locally. Focus and shape existing and future activity of those organisations so they effectively meet community needs and aspirations. Help achieve sustainable development both locally and more widely with local goals and priorities relating, where appropriate, to regional, national and even global aims.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>The LFRMS comprises an important part of delivering sustainable development in Kirklees.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>The Vision contains 10 key commitments these are:</p> <ol style="list-style-type: none"> 1. Create a stronger economy better able to meet the needs of the community 2. Reduce all forms of discrimination and prejudice 3. Make Kirklees better connected 4. Increase children’s and young peoples attainments and opportunities 5. Make Kirklees safer 6. Make Kirklees cleaner and more attractive 7. Improve health, well-being and independence 8. Increase the number of safe, warm and affordable homes 9. Develop living vibrant town centres 10. Support the development of individuals and communities. <p>The Community Strategy contains numerous targets against which progress should be made by 2005 (numerous targets only those which are related to planning are noted here);</p> <ul style="list-style-type: none"> • Establishment of 300 new firms • Increase the number of visitors to Kirklees and the amount they spend in the district by a minimum of 5% between 2000 - 2004. • Review the UDP and develop a an up to date statutory land-use development plan to guide appropriate sustainable development by 2004 • 55% of new homes to be built on brownfield land by the end of 2005 • Reduce greenhouse gas emissions to 30% below 1990 levels. • 5% of energy should come from renewable sources. 	

<ul style="list-style-type: none"> Annual target of 120 affordable new homes each year.
Environmental Protection Objectives: (If international/EU/national): See above
Conflicts between objectives/requirements: N/A

Document Name :	Kirklees Biodiversity Action Plan
Date Of Publication	2002
Level:	LOCAL
Status :	NON-STATUTORY

Brief Overview: The action plan sets out the priorities for habitats and species and offers practical measures which can be implemented to achieve the conservation of the areas biodiversity heritage. The content of the plan is informed and guided by national targets so that its implementation is firmly linked to national priorities.

An additional Habitat Action Plan for Rivers, Riverine Corridors and Associated Habitats was produced that sets objectives for those particular habitats. The objectives are:

- Improve water quality in watercourses and water bodies, particularly where this will have significant benefits for biodiversity.
- Remove or adapt structures which are a barrier to the migration of aquatic species.
- Enhance in-stream habitats to provide better feeding and breeding opportunities for aquatic species.
- Prevent further fragmentation of semi-natural areas along the river corridors.
- Use opportunities to maximise overall habitat diversity along the waterways corridors, and reinforce links between existing habitats.
- Restore natural hydrological processes by encouraging more appropriate land management, installing sustainable urban drainage systems and creating new wetlands.
- Develop a strategic approach to dealing with alien plant and animal species.

Relevance to / Implications for LFRMS:

The plan highlights several areas throughout the District which are recognised as being important either due to the species found or the type of habitat. The LFRMS may offer opportunities for biodiversity/habitat enhancement.

Specific Targets / Requirements / Indicators: Numerous objectives set and recommended actions made. The plan does indicate many sites which require special consideration with regards to developments and policies. However there are few specific targets. The species and habitats noted as being locally important are:

Species; Red Wood Ant, Pillwort, Great-crested Newt, Marsh Helleborine, Water Vole, Floating Water Plantain, White Clawed Crayfish;

Habitats; Grasslands, Blanket Bog, Heathland, Woodlands, Cereal Field Margins, Hedgerows, Reed Beds, Riverine Corridors and associated habitats, Scrubland.

Environmental Protection Objectives: (If international/EU/national):

As above.

Conflicts between objectives/requirements:

N/A

Document Name :	2025 Kirklees Environment Vision
Date Of Publication	17 January 2007
Level:	LOCAL

Status :	NON-STATUTORY
Brief Overview:	
<p>The 2025 Kirklees Environment Vision seeks to enhance the districts economy and society through tackling the issues of climate change. The vision identifies two key challenges which it needs to face in order to achieve its goals, these challenges being:</p> <ul style="list-style-type: none"> • Climate change – action is now required at local, national and international level • Council is to take action at the local level – the KMC Environment Vision has identified the need to protect and develop habitats, open spaces, green networks, clean rivers, ponds and wetlands in order to achieve the aim of providing and nurturing a healthy environment that can help achieve an improved economy and healthier society. <p>The Kirklees Environment Vision will look to develop and continually update a work programme with detailed objectives, targets and indicators to deliver the Councils vision, and in turn help support the Councils Environment Policy, the Local Area Agreement and the Community Strategy.</p>	
Relevance to / Implications for LFRMS:	
The LFRMS may offer opportunities for environmental enhancement within the District.	
Specific Targets / Requirements / Indicators:	
<ul style="list-style-type: none"> • To protect and enhance the districts natural environment to help develop a more prosperous economy and society. • Protect and develop – habitats, open spaces, green networks, clean rivers, ponds and wet lands. 	
Environmental Protection Objectives: (If international/EU/national):	
As above	
Conflicts between objectives/requirements:	
N/A	

Document Name :	Kirklees Strategic Housing Market Assessment
Date Of Publication	2009
Level:	LOCAL
Status :	NON-STATUTORY
Brief Overview:	
<p>The Strategic Housing Market Assessment (SHMA) was prepared by Outside Consultants on behalf of Kirklees Council. The assessment provides the basis for the development of planning policy and housing strategy in Kirklees.</p> <ul style="list-style-type: none"> • The population of Kirklees, between 1991 and 2001, increased at a greater rate the region and it has a higher than average young population/ • Nationally, the average size of households, is declining • The greatest demand for households on the waiting list in Kirklees is for smaller properties • The entry-level property price, in 2008, was £100,000 – requiring a single income of £28,571 pa or a dual income of £34,483 pa – more than half of the district’s households earn below these thresholds. • Between 1997-2007, the problems of affordability became more severe • Between 2006 and 2031 the number of households in Kirklees in projected to grow from 166,000 to 213,000 • Regional patterns suggest that the main growth will come from one person households, increasingly comprising of 45-64 yr olds. This suggests an increased requirement for smaller properties, but properties that need to accommodate overnight guest, i.e. children. • The summary of net annual housing need modelled for this Assessment indicates that Kirklees has an annual shortfall of 1,540 units, which is higher than the RSS target. 	
Relevance to / Implications for LFRMS:	

Pressure for land use for housing development is an important part of the context within which the LFRMS will be implemented. Housing is included in the material assets to be addressed by the SEA.

Specific Targets / Requirements / Indicators:

N/A

Environmental Protection Objectives: (If international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	Calder Valley Strategic Flood Risk Assessment
Date Of Publication	November 2008
Level:	LOCAL
Status :	NON-STATUTORY
Brief Overview:	
Establishes the levels of risk of river and other watercourses flooding within the District	
Defined graphically the various flood zones based on risk	
Describes the framework for effective management of development within the various flood zones by use of a sequential approach	
Offers guidance to development control when dealing with applications in the differing types of zones	
The SFRA is a joint study with Wakefield and Calderdale council. For more information and flooding maps relating to Calderdale and Wakefield, please contact them directly.	
The SFRA should be read in conjunction Planning Policy Statement 25 (PPS25) and the PPS25 Practice Guide which outline government thinking on development and flood risk.	
Relevance to / Implications for LFRMS:	
Provides important context for the LFRMS.	
Specific Targets / Requirements / Indicators:	
As per PPS 25	
Environmental Protection Objectives: (If international/EU/national):	
As per PPS 25	
Conflicts between objectives/requirements:	
N/A	

Document Name :	Kirklees Preliminary Flood Risk Assessment
Date Of Publication	2009
Level:	LOCAL
Status :	NON-STATUTORY
Brief Overview:	
The PFRA provides a high-level overview of flood risk from local sources, such as surface water, ordinary watercourses and groundwater. The assessment assesses past and future flood risks within Kirklees; however it identifies no new Flood Risk Areas. The Councils historic records of local flood risk and a lack of understanding of future flood risk mean there is currently insufficient evidence to suggest further local areas for consideration.	
Relevance to/Implications for LFRMS:	
The PFRA is a key document of relevance to the LFRMS, and an important part of Kirklees Council's approach to managing flood risk within the District by setting out important evidence relating to flood risk in Kirklees.	

Specific Targets/Requirements/Indicators: N/A
Environmental Protection Objectives: (If international/EU/national): N/A
Conflicts between objectives/requirements: N/A

Document Name :	Kirklees Surface Water Management Plan
Date Of Publication	2011
Level:	LOCAL
Status :	NON-STATUTORY

Brief Overview:

As an authority at particularly high risk of flooding, Defra granted Kirklees Council funding to produce a Surface Water Management Plan. The Kirklees SWMP provides an evidence base for understanding surface water flood risk across the district. A district-wide, high-level, low-detail assessment of relative surface water flood risk has been carried out to provide a foundation for future, more detailed assessment work, targeted at the areas where the risk is highest. The SWMP includes the following:

- Development of a formal drainage asset recording system for all the surface water systems in the district.
- Development of a flood incident recording system to build up an understanding of where flood risk is located.
- Representation of the asset and incident information in a graphical format to allow improved visibility and easy cross-referencing of the data.
- An assessment of local surface water flood risk using the above data, EA surface water maps, topographic/demographic information and site surveys.
- Representation of the relative surface water flood risk across the district in a format that is understandable and accessible by the general public.
- A prioritised programme for future detailed investigation of the higher risk areas.
- A suite of measures that could be employed to mitigate the risk in the higher risk areas.

Relevance to / Implications for LFRMS:

The SWMP is a key document of relevance to the LFRMS. Both comprise an important part of Kirklees Council's approach to managing flood risk within the District, and the SFMP sets out important evidence relating to flood risk in Kirklees.

Specific Targets / Requirements / Indicators:

None.

Environmental Protection Objectives: (if international/EU/national):

N/A

Conflicts between objectives/requirements:

N/A

Document Name :	Kirklees Integrated Investment Strategy
Date Of Publication	2012
Level:	LOCAL
Status :	NON-STATUTORY

Brief Overview:

This strategy is a framework for investment which sets out Kirklees Council's priorities for allocating resources and attracting investment to improve the lives of our residents. It draws together shared social, economic and environmental priorities and incorporates aspects of housing, transport and connectivity, economic development, spatial planning and environmental activity for the sustainable development and regeneration of Kirklees. It is a shared vision for the District's future which seeks to transform the lives and wellbeing of all our citizens by creating ladders of opportunity by tackling issues of poor health and housing; overcoming barriers to growth; reducing rates of worklessness; promoting enterprise and giving people the skills to progress.

Relevance to / Implications for LFRMS:

The management of local flood risk is highly relevant to the social and economic development of the District.

Specific Targets / Requirements / Indicators:

No specific targets or indicators are identified.

Environmental Protection Objectives: (if international/EU/national):

N/A.

Conflicts between objectives/requirements:

N/A

Document Name:	Commissioning Strategy for Housing
Date Of Publication	2009 – 2012
Level:	LOCAL
Status:	NON-STATUTORY
<p>Brief Overview:</p> <p>The strategy sets out housing issues within the district:</p> <ul style="list-style-type: none"> • There is an increasing need for housing, and particularly affordable housing, that meets the needs and aspirations of the people of Kirklees. • There are real issues of community cohesion across Kirklees and some neighbourhoods are particularly deprived with poor living environments. • Kirklees' economy relies too much on low wage, low skill work; for Kirklees to be sustainable and to achieve economic growth that benefits everyone, we need to attract higher skilled, higher paid employment and equip our people to take advantage of this. • There are high levels of homelessness, overcrowding and under-occupancy and poor housing conditions; making better use of the homes we have would help to meet housing needs. • People need help and support to improve their health and well-being and live independently in the community. <p>The strategy identifies four overarching outcomes that must be achieved as a partnership to overcome the above issues</p> <ul style="list-style-type: none"> • A sufficient supply of new affordable, good quality and well designed homes that create and sustain places where people want and can afford to live and work. • Best use of existing homes across all tenures, improving access to and choice of housing that meets the needs of households. • A preventative and supportive approach to individuals' needs to help them to achieve their potential and contribute to sustainable communities • Homes and environments that support a good quality of life, health, independence and well-being. 	

<p>Relevance to / Implications for LFRMS:</p> <p>Pressure for land use for housing development is an important part of the context within which the LFRMS will be implemented. Housing is included in the material assets to be addressed by the SEA.</p>
<p>Specific Targets / Requirements / Indicators:</p> <p>N/A</p>
<p>Environmental Protection Objectives (If International/EU/National):</p> <p>N/A</p>
<p>Conflicts between objectives / requirements:</p> <p>N/A</p>

Document Name:	Kirklees Employment Land Supply Review
Date Of Publication	2010/11
Level:	LOCAL
Status:	NON-STATUTORY
<p>Brief Overview:</p> <p>The Kirklees Employment Land Supply Review (ELSR) analyses the supply of employment land that is allocated in the development plan and the planning applications and developments that have taken place on there.</p> <p>The assessment considers whether site is available or whether its status is: committed (planning permission for employment use), expansion (being held by owners for their own purposes), landlocked (only available for extension to existing and adjoining sites) or if there are physical constraints that would preclude the development of the site.</p> <p>The ELSR sets out detailed information considering the availability of employment land in the district.</p> <p>In total, there are 146.45ha of employment land in the district, with 86.57 ha being available. The available land is mostly located in the Huddersfield and Heavy Woollen area.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>The availability of land may be affected by measures proposed in the LFRMS.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>N/A</p>	
<p>Environmental Protection Objectives (If International/EU/National):</p> <p>N/A</p>	
<p>Conflicts between objectives / requirements:</p> <p>N/A</p>	

Document Name:	Kirklees Housing Land Supply Review
Date Of Publication	2010
Level:	LOCAL
Status:	NON-STATUTORY
<p>Brief Overview:</p> <p>The Housing Land Supply Review includes capacity from sites with planning permission (detailed, outline or validated), remaining Unitary Development Plan (UDP) housing allocations, expired permissions and other capacity identified through planning surveys.</p> <p>At 2010, the district had a dwelling capacity of 11,461 new build and 1,760 conversions. 53% of this capacity is located on brownfield land, 33% on greenfield, 13% is brownfield conversion and 1% greenfield conversion.</p> <p>43% of the capacity is from detailed planning permissions, 27% UDP allocations, 14% outline permissions and 15% expired permissions.</p>	
<p>Relevance to / Implications for LFRMS:</p> <p>The availability of land may be affected by measures proposed in the LFRMS.</p>	
<p>Specific Targets / Requirements / Indicators:</p> <p>N/A</p>	
<p>Environmental Protection Objectives (If International/EU/National):</p> <p>N/A</p>	
<p>Conflicts between objectives / requirements:</p> <p>N/A</p>	

Appendix 3
Updated Baseline Information

Baseline Information and Key Environmental Issues

Baseline Information

The SEA Directive requires the consideration of likely significant effects on the environment, including on 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 these factors. This list of issues is often referred to as the 'SEA topics'.

The sections below set out the baseline information and any local trends that can be identified from a range of data sources in relation to each of the above topics. At the end of each section, for each topic, the ways in which the LFRMS could potentially affect that topic are set out. Note that some topics (such as population and human health and flora and fauna) have been grouped together as there is a significant amount of crossover between these topics in terms of the data sources and the key environmental issues. In addition, one of the SEA topics, 'air', has been scoped out of the SEA as it is not considered to be relevant to the SEA of the LFRMS – measures that will be included in the LFRMS in order to manage local flood risk are not expected to have any effect on local air quality.

Population and Human Health

*Population*⁴

The resident population of Kirklees in the 2009 mid-year population estimate was 406,800 people. Of those, 49% were male and 51% were female. This compared with a resident population in Yorkshire and the Humber of 5,258,100 people, of whom 49% were male and 51% were female. By 2028, the population of Kirklees is estimated to reach 467,100. In 2001 the average age of the Kirklees population was 37.6 years. This compared to an England and Wales average of 38.6 years. In mid-2009, 17.7% of the resident population in Kirklees were of retirement age (65 and over for males or 60 and over for females) compared with 19.3% in England and Wales.

Kirklees has a population density of 9.5 persons per hectare. This has increased from the 1991 Census when the figure was 9.1 persons per hectare. Overall the population density of Kirklees is higher than the England and Wales average (3.8 persons per hectare) but below the West Yorkshire average (10.2 persons per hectare).

*Health*⁵

The 2001 census demonstrates that the general health of people in the District follows the national average and is slightly better than regional averages. The percentage of people describing their health as good was 67.7% within Kirklees compared to 68.6% nationally. Disability living allowance claimants in Kirklees as of February 2010 totalled 22,865, showing an increase from 18,660 in 2002.

There are a large number of health inequalities which are influenced by social determinants of health, such as housing quality, income levels, worklessness and access to public services.

The growing population and increasing population density are indicative of the pressure for development that exists within Kirklees, in particular for new housing. The LFRMS will affect the health and wellbeing of the local population by influencing the extent that people in Kirklees perceive themselves to be at risk of flooding, which can have a detrimental effect on mental health and wellbeing. In addition, the LFRMS and the measures included within it will affect the

⁴ Population data taken from Office of National Statistics (ONS), Kirklees Fact Sheets 2010

⁵ Health data taken from Office of National Statistics, Kirklees Fact Sheets 2010, Office of National Statistics 2010

extent to which health-related services and facilities (such as health centres and open space used for recreation) are at risk from flooding. There may also be opportunities to increase the ecosystems services derived from the water environment through the measures to be included in the LFRMS, for example increasing access to outdoor recreation through the provision of enhanced green infrastructure.

Biodiversity (including flora and fauna)

*Environment, Biodiversity and Natural Resources*⁶

There are extensive areas of moorlands within Kirklees which provide a range of habitats and contain a number of species that have ecological significance of European importance and form part of the South Pennine Moors Special Area of Conservation (SAC) and Special Protection Area (SPA). Small areas of the South Pennine Moors SAC and SPA are within areas of flood zone 3a, particularly to the south of Marsden.

In addition to the SAC and SPA, the District contains 5 further Sites of Special Scientific Interest (SSSIs) covering an area of 4872.5 ha. It also contains 22 Sites of Scientific Interest covering 577.3 ha representing county-wide ecologically important sites. In addition there are 45 Sites of Wildlife Significance (covering 410 ha) and 84 Biodiversity Action Plan (BAP) sites (covering 679.6 ha). BAP priority species in Kirklees that depend on the aquatic environment include the water vole, white-clawed crayfish and floating water plantain. The Council has itself designated 9 Local Nature Reserves (LNRs), the majority of which are within or very close to settlements within the District. Kirklees District also includes many undesignated biodiversity assets.

Compared to the national average of 12%, about 6% of the land area in Kirklees is devoted to tree cover. Most of this land is located to the south of Huddersfield town centre, stretching out through the Holme and Dearne Valleys.

Depending on the measures to be included in the LFRMS, it could affect biodiversity through construction activities potentially causing disturbance to habitats and species, or through changing land uses, changing water levels or habitat creation and enhancement. If necessary, a separate Habitats Regulations Assessment (HRA) will be undertaken to consider the likely effects of the measures in the LFRMS on European designated sites (SACs, SPAs and Ramsar sites).

Soil

Soil types are a major component of the Agricultural Land Classification (ALC) system which defines the agricultural potential of land and is used in land use planning. The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a - this is the land which is most flexible, productive and efficient and which can best deliver future crops. It is estimated that about 21% of all farmland in England is classed as either Grade 1 or Grade 2, with a similar amount classed as subgrade 3a⁷. The best quality agricultural land in Kirklees is mainly located to the north and east of the District, around the main urban centres and within many of the areas of highest flood risk. In these areas there are large expanses of land classed as Grade 3. To the south and west of the District, soil quality is generally lower (Grades 4 or 5). There are no large areas of Grade 1 or 2 land in Kirklees.

There are around 400 contaminated sites within Kirklees, which have been highlighted through previous or current use as being 'of concern'. It is noted that contaminated sites are often located within flood zones because they are mostly former industrial sites which were historically located close to water power or water supply from the river network. As such, future flood management engineering works are likely to be located on former contaminated sites. There are only two sites within Kirklees which are formally classed as contaminated in line with national criteria - these sites, both of which are adjacent to rivers, are Grosvenor Chemicals at Linthwaite (adjacent to the River Colne) and Dr Reddy's at Mirfield (adjacent to the River Calder). Other significant potentially contaminated sites include Syngenta Chemicals, Huddersfield which is located at the Rive Colne, and Fenay Beck confluence.

⁶ Biodiversity data taken from Annual Monitoring Report 2009/10,

⁷ Natural England Technical Information Note TIN049 Agricultural Land Classification: protecting the best and most versatile agricultural land. First edition 13 January 2009 www.naturalengland.org.uk

Flooding can cause soil erosion, or cause soil pollution, which can affect soil quality and structure, and damage crops. Soils can act as a 'sponge' absorbing flood waters and in so doing preventing flooding elsewhere. Flooding in areas of contaminated land could affect water quality. Increased hard-standing, including the paving over of gardens to enable off-road car parking, could increase run-off and localised flood risk. The LFRMS could include measures to address these issues.

Water

Flood Risk

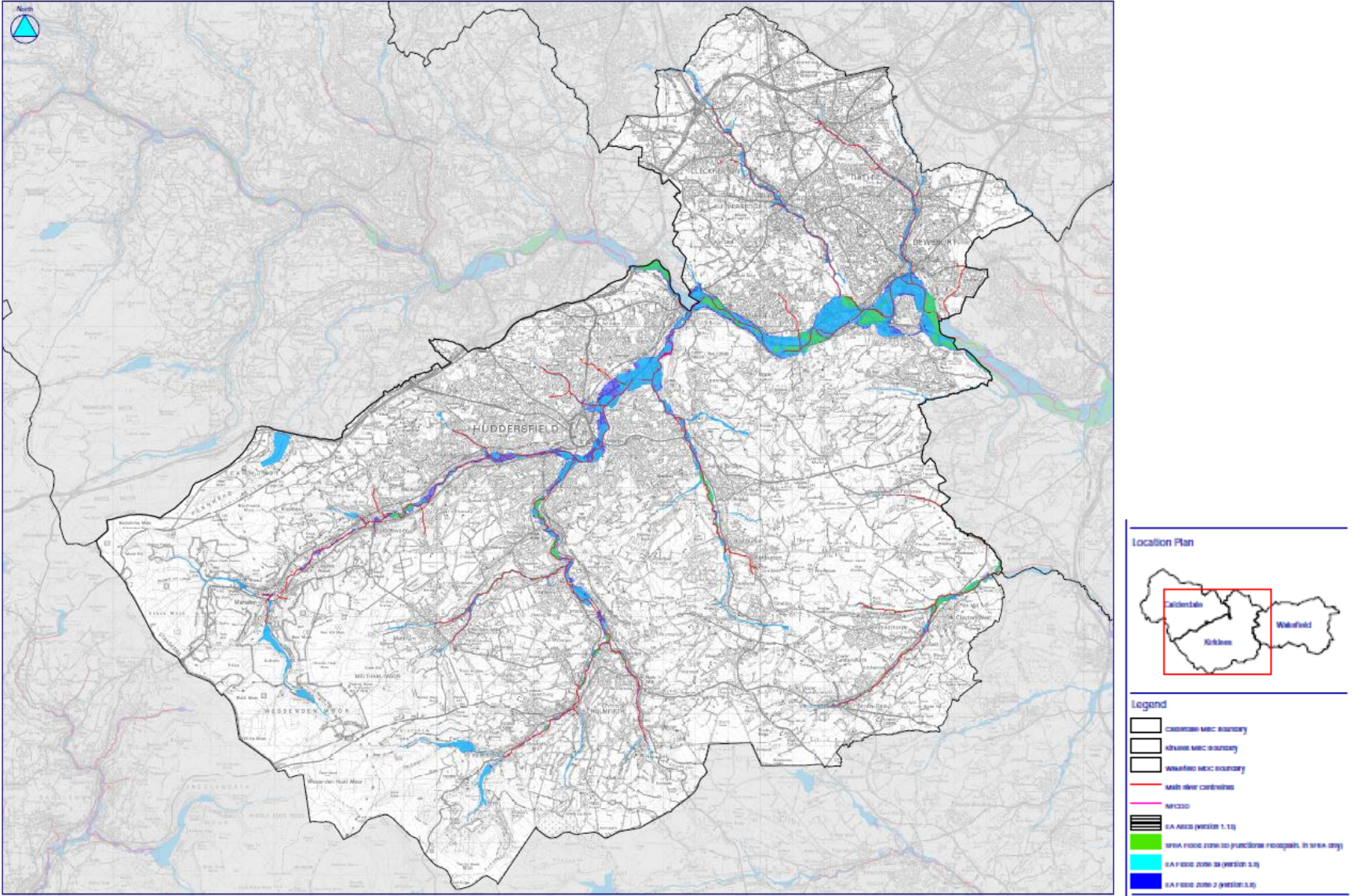
The risk of flooding within the District has been determined through the production of a Strategic Flood Risk Assessment (SFRA)⁸ which has identified areas of potential flood risk, particularly around the rivers Colne and Calder. Further information regarding local flood risk has been obtained from the Kirklees Surface Water Management Plan⁹ and the Kirklees Preliminary Flood Risk Assessment¹⁰. **Figure 4.1** overleaf, taken from the SFRA, maps the areas of high flood risk (from surface water) within Kirklees.

⁸ Calder Valley Strategic Flood Risk Assessment (November 2008).

⁹ Kirklees Council (2011) Kirklees Surface Water Management Plan

¹⁰ Flood Risk Regulations (2009) Preliminary Assessment Report for Kirklees

Figure 1 Kirklees Fluvial Flood Risk Map



Source: Calder Valley Strategic Flood Risk Assessment (November 2008).

There was significant local flooding in the summers of 2002, 2004 and 2007 and in January 2008. The 2007 floods flooded up to an estimated 500 properties across Kirklees District and were described by many residents as the worst in living memory. The flooding was widespread across the District but particular hotspots occurred around Ravensthorpe, Liversedge, Cleckheaton, Chickenley, Mirfield, Milnsbridge, Brockholes, New Mill, Denby Dale, Scissett and Clayton West¹¹.

Following the 2007 floods, the Environment Agency produced maps that identified areas susceptible to surface water flooding following severe rainfall. The maps predict the extent of flooding from a severe rainfall event with a 1 in 200 return period, and the number of residential properties in Kirklees estimated to flood is shown in **Figure 4.2** below.

Figure.2 Residential properties in Kirklees at Risk from Surface Water Flooding

Area	Number of residential properties at risk
Huddersfield	5,500
Dewsbury	1,900
Holmfirth/Honley	1,600
Cleckheaton/Liversedge	1,400
Batley	1,100
Marsden	450
Skelmanthorpe/Clayton West	420
Mirfield	320
Kirkburton	170
Meltham	160
Denby Dale	150
Heckmondwike	90
Shepley/Shelley	90
Flockton	10
Total No in Kirklees	13,360

Source: Kirklees Surface Water Management Plan (2011).

The Environment Agency's recent work on identifying areas susceptible to surface water flooding has highlighted the scale and relative risk of flooding in Kirklees. It has shown that:

- Kirklees ranks 55th of the 149 LLFA's in England in terms of general flood risk.
- Excluding counties and London boroughs, Kirklees ranks 7th behind Hull, Birmingham, Brighton, Doncaster, Leeds and Leicester in terms of the flood risk to be managed by the LLFA¹².

It is likely that the risk of flooding will increase as a result of climate change. The outputs from the UK Climate Change Projections programme identifies the main implications as being:

¹¹ Kirklees Surface Water Management Plan (2011).

¹² Flood Risk Regulations (2009) Preliminary Assessment Report for Kirklees

- More frequent and intense rainfall events causing flash flooding in low-lying areas.
- More and faster surface water runoff and overland flows, causing sewers, drains and rivers to overflow.
- Rising groundwater levels, causing increased spring source activity and higher spring flows.

Water Quality

The objectives of the Water Framework Directive (WFD) are to prevent deterioration of waterbodies and to improve them such that they meet the required status for that given waterbody (rivers, lakes, estuaries, coastal and groundwaters). The majority of waterbodies in Kirklees have been classed as being of moderate status and as such are failing to meet the WFD standards. Achieving and maintaining high water quality is important for biodiversity, and it is also recognised that the District's rivers and waterways are an important recreation resource.

The River Holme from Mag Brook to the River Colne and Fenay Beck from the source to the River Colne are the worst failing waterbodies in Kirklees.

It is recognised that flood protection schemes can themselves affect water quality, for example as a result of modification of the flow regime.

Measures included in the LFRMS are likely to be designed for the primary purpose of managing local flood risk in Kirklees. Water quality can be affected by flooding incidents; therefore the management of flood risk (including through the LFRMS) can influence water quality. The promotion of Sustainable Drainage Systems (SuDS) in the LFRMS will help to improve the quality of surface water discharging from development sites.

Climatic Factors

Climate Change and Energy Efficiency¹³

The Council recognises that climate change will impact upon the citizens and businesses of Kirklees, not least through an increase in extreme weather events including flooding. Between 2003 and 2010 Kirklees Council completed a Local Climate Impacts Profile (LCLIP) which examined extreme weather events affecting the District. Taking the results gathered by all five West Yorkshire authorities that undertook their own LCLIP, it was found that flooding accounted for 33% of the extreme weather events experienced and the associated damage.

Kirklees Council and is taking action to address these issues through implementing various measures. Government targets place requirements upon the Council to act to reduce greenhouse gas emissions, for example the Energy White Paper requires a 60% reduction in emissions by 2050. The key objectives of the Council's 2025 Environment Vision are to reduce greenhouse gases, raise the environmental standards of buildings and develop a green network. This includes reducing carbon dioxide emissions by greater than 30% by 2020 from a 2005 baseline. The DECC figures for emissions in Kirklees are set out in **Figure 4.3** below:

Figure 3 Carbon Dioxide Emissions in Kirklees

Year	Industry and Commercial (kt CO2)	Domestic (kt CO2)	Road Transport (kt CO2)	Total (kt CO2)
2005	1,123	1,003	468	2,594
2006	1,086	997	455	2,539
2007	1,007	964	462	2,434
2008	987	961	442	2,390

¹³ Climate Change and Energy Efficiency data taken from CPA Corporate Self assessment Big Picture Fact Sheets (Fuel Poverty G1, Renewable Energy G4, Energy Management G8), EMAS Annual Report 2006/07, Renewable and Low Carbon Energy Study (Maslen, September 2010), Landscape Capacity Study for Wind Energy Developments in the South Pennines (JMA, January 2010)

Over the last 17 years, Kirklees Council has undertaken many actions to reduce the emissions of greenhouse gases from its own buildings and those in the District, while also carrying out measures to tackle fuel poverty. There is considerable potential for reducing greenhouse gas emissions through improvements in the energy efficiency of housing stock. During the 1990s, the Council identified that affordable warmth was one of the primary objectives of its tenants and, with limited resources, funded an Energy Unit to develop policies and target investment to reduce the effects of climate change and fuel poverty within the domestic sector.

All Council buildings use renewable energy supplied via the national grid and since 1990, a 30% reduction on carbon dioxide emissions has been achieved. The Council is currently working towards reducing emissions by a further 30% by 2020. All the energy used for powering street lights and signs is provided by 100% combined heat and power (CHP).

The increased use of renewable technologies for energy production is actively supported by Kirklees Council. However, it is recognised the use of such technologies can have an impact upon our landscape and biodiversity. The majority of the renewable installations that have taken place within the District have been at the domestic or small scale. The Council has participated in two studies to increase the understanding of the opportunities and constraints regarding renewable and low carbon energy production in the District, namely the Landscape Capacity study for Wind Energy Developments in the South Pennines (JMA, 2010) and the Renewable and Low Carbon Energy Study (Maslen, 2010). In relation to the water environment, interest in hydro power in Kirklees is increasing and the Council has recently investigated the potential for retrofitting small hydropower units to existing river weirs.

In addition to increasing the production of renewable energy, people and businesses within Kirklees will be required to adapt to the increased flood risk (through both proactive and reactive measures) in line with National Indicator 188 – planning to adapt to climate change. Kirklees Council's scoring against that indicator has increased from Level 1 (public commitment and impact assessment) in 2007/08 to Level 4 (implementation, monitoring and continuous review) in 2010/2011.

Localised flooding could impact upon renewable energy schemes, including those in more rural areas. In addition, climate change is likely to have a direct effect on local flood risk as a result of increased precipitation and more frequent extreme weather events. The LFRMS, along with other plans and strategies such as the West Yorkshire Adaptation Action Plan¹⁴, will help Kirklees District to adapt to and mitigate these impacts by developing a strategy for dealing with the increasing flood risk.

Material Assets

There is no definition within the SEA Directive with regards to what is covered by 'material assets'. In the context of this SEA of the LFRMS this topic has been taken to include tangible assets which may be affected by flooding including residential properties, employment sites, community facilities (including education facilities), waste management facilities and transport infrastructure.

Housing¹⁵

Based on Office of National Statistics projections, it has been estimated that the future housing requirement (based on need between 2010 and 2028) is for around 1,850 homes per annum. However, the Council has based its future housing requirement upon a combination of need and economic realities affecting delivery resulting in a requirement of approximately 1,410 houses per annum. The housing delivery numbers for the previous two years have been 1,098 completions during 2008/09, with 89% on previously developed land and 692 in 2009/10, also with 89% on previously developed land. There is a particular identified need for affordable housing provision within the District.

¹⁴ Association of West Yorkshire Authorities (September 2010) West Yorkshire Adaptation Action Plan.

¹⁵ Housing data from Local Development Framework Annual Monitoring Report 2009/10, Land Registry, Strategic Housing Market Assessment 2009

The Kirklees Core Strategy (Proposed Submission Version) allocates the majority of the new housing to be delivered within the Plan period to the larger settlements in the north and north east of the District – Huddersfield, Batley and Dewsbury, which include some areas of particularly high flood risk (flood zones 2 and 3a). However, the Core Strategy includes a variety of measures to ensure that the new housing to be provided throughout the District does not exacerbate the existing flood risk, for example requiring the incorporation of SuDS to ensure that specified runoff rates are not exceeded.

The housing stock requires widespread investment - there are 7,684 unfit properties and 7,800 homes in poor repair in the private sector. The Council stock requires £262 million over the next 5 years to achieve a decent standard. There are also 3,600 homes across Kirklees recorded on council tax records as being long-term empty properties.

Employment & Economic Activity¹⁶

The employment rate in Kirklees (the number of residents in work as a percentage of the 16-64 population) is currently 69%. This is just below the GB average. In September 2010, there were 11,080 Job Seekers Allowance claimants in Kirklees. The unemployment rate, 4.2% of working age residents, was marginally higher than the regional average, and remained above the GB average (4.1% and 3.5% respectively). Just under a third of Kirklees jobseekers are aged under 25, well above the GB average of 29%. Numbers have increased by 1,500 (76%) since the start of the recession. The 2009 Kirklees Employer Survey found that 61% of all employers surveyed employed no-one under 25, an even higher proportion than in the 2008 Survey (57%). The number of long term unemployed has also increased significantly, from 1,480 in April 2008 to 3,630 in September 2010, an increase of 146%. A third of Kirklees jobseekers have been claiming for more than 6 months (GB: 36%).

In order to address some of these issues, the Kirklees Core Strategy (Proposed Submission version) allocates new employment land to be provided throughout the District. In allocating the broad locations for this employment land, consideration has been given to the location of high flood risk areas as one of a number of potential constraints.

Community Facilities (including education facilities)¹⁷

Within Kirklees, there are 33 parks which include facilities such as children's play spaces, tennis courts, bowling greens and sports pitches. In addition these types of facility also exist outside the formal park environment. Generally there is a reasonable distribution throughout Kirklees, but there is the inevitable concentration in the larger towns where there are also examples of further specialist resources. In addition there are three purpose-built sports halls and further facilities within secondary schools that are available for public use. The majority of purpose built commercial leisure and cultural facilities are contained within the main towns, particularly Huddersfield. It is recognised that green spaces can offer good opportunities for the storage of flood water and for SuDS.

Within Kirklees there are 192 schools distributed across the district. These are broken down into; Nursery/Primary (153), Middle (6), Secondary (25), Special (6) and Pupil Referral units (2). There are also 9 establishments classified for the provision of further education, including adult and continuing education. Huddersfield University provides main tertiary education provision within Kirklees, catering for over 24,000 students as at July 2010.

Given the nature of the settlement pattern of Kirklees it is not surprising there are a number of small settlements in the west and south which have only very limited direct access to facilities such as post offices, food shops and doctors surgeries. However, nearly all such settlements have a primary school within them and most have an hourly daytime bus service to surrounding towns where such facilities exist.

Given the higher concentration of community and education facilities in the more built up parts of the District, a higher proportion than might be expected will be located in the areas of flood zones

¹⁶ Employment & Economic Activity data from Office of National Statistics, Kirklees Economic Development Bulletin Jan 2011, Kirklees Local Economic Assessment 2010/11, Kirklees Fact Sheets 2010

¹⁷ Data taken from Education, Skills and Training – Kirklees Fact Sheet 2010 and Open space strategy 2007 (2010 update, Tourism & Visitor Strategy 2004 -2008, Kirklees Fact Sheets 2010

2 and 3a which are spread around the Rivers Colne and Calder, around Dewsbury, Mirfield and Huddersfield.

Waste Management Facilities¹⁸

During the period 2009/10 a total of 214,000 tonnes of municipal waste was generated. Approximately 31.3% of waste was recycled or composted. The majority of the non-recycled/composted household waste is converted to electricity in the Huddersfield Vine Street Waste to Energy from Waste (EfW) Plant). The Plant is located within an area of flood zone 2 land, near to the centre of Huddersfield. The council landfilled approximately 14% of its municipal waste in 2009/10. Most landfilled, municipal waste is exported out of Kirklees.

Approximately 97% of Kirklees households have access to the green bin scheme with mixed dry recyclables being collected from the kerbside, now mainly on a 2-weekly basis. The Council currently provides a kerbside collection of glass to approximately 125,000 households on a monthly/4-weekly cycle. There is an ongoing publicity campaign to increase awareness of the need to reduce household waste and increase recycling which incorporates environmental education in schools.

Transport infrastructure¹⁹

The M62 between Leeds and Manchester runs across the northern border of the District. Within Kirklees, the main strategic highways are those leading into and out of Huddersfield (e.g. the A640, A629, A62, A616, and those within the urban conurbation in the north of the District. Some of these strategic routes are within areas of higher flood risk, in particular the A62, much of which runs through an area of flood zone 3a as it approaches Huddersfield from the north east. In terms of rail links, Huddersfield station is well-served by trains operating between Manchester and Leeds, with the line being one of the busiest in the north of England. Parts of the line between Huddersfield and Dewsbury cross through areas of flood zone 3a.

The 2001 census indicates that 70% of households in Kirklees have access to one or more cars compared to 73.2% in England and Wales, which is an increase of 7.5% on the 1991 census figure. The number of households with two or more cars in Kirklees equates to 26.9% compared to 29.4% in England & Wales.

The 2001 census highlights that in Kirklees, 66.5% of all people employed aged between 16 – 74 travel to and from work by car/van either as a driver or passenger. There has been an increase of 12.5% in the number of drivers between 1991 and 2001. People using public transport equates to 12.1 %.

Flood Defences

The catchments of the Rivers Calder and Don contain a range of flood defences, some of which are within Kirklees District (although many are located in larger urban centres outside of Kirklees such as Sheffield and Rotherham). There are no formal flood defences on ordinary watercourses in Kirklees. The management of defences along the designated main rivers rests with the Environment Agency and will therefore be addressed in the National Strategy.

The LFRMS aims to reduce local flood risk in Kirklees, and thereby the risk facing material assets such as residential properties, employment sites, community facilities, waste management facilities and transport infrastructure that can be damaged by flooding. Measures included in the LFRMS may also have implications for the location and design of forthcoming developments.

Cultural Heritage (including architectural and archaeological heritage)

Kirklees has some 3,000 listed buildings - the highest number of any local planning authority in the region. Huddersfield, which is home to a particularly fine set of Victorian public and commercial buildings, has the 3rd highest number of listed buildings of any town or city in England, and given the extent of flood zone 2 and 3a land through central and eastern Huddersfield, it is inevitable that some of these assets will be at higher risk from flooding.

¹⁸ Waste data taken from Kirklees Waste Management Strategy 2004 and Kirklees AMR 2009/2010.

¹⁹ Transport data from Office of National Statistics, Kirklees Fact Sheets 2010

In addition, there are 59 Conservation Areas (the third highest number of Conservation Areas of any district in Yorkshire), 5 Historic Parks and Gardens, 19 Scheduled Monuments and part of one of the region's seven Registered Battlefields.

Cultural heritage assets such as listed buildings can be damaged through flooding; therefore the LFRMS will provide protection through the measures designed to reduce flood risk. Any measures in the LFRMS that involve construction could potentially affect the setting of such assets.

Landscape

The landscape of the District is distinctive and ranges in the west from the high wind swept moors of the South Pennines, through the central plateau that dips down towards the east and which is incised by river valleys to produce characteristic steep gritstone edges, whilst to the north the land is described by a large number of individual settlements separated by tracts of agricultural pasture lands. Despite a population of approximately 400,000 people there is little coalescence of settlements, primarily due to the physical landscape.

The south western parts of District's upper moorland form 10% of the Peak District National Park with much of the remainder being within the much larger South Pennine Heritage Area.

Most agricultural activity within the District relates to cattle and sheep rearing, with some milk production and intensive poultry rearing. There is no significant arable production. As a result, the agricultural landscape is one of intensive grassland within fields that contain few natural field boundaries. It is a deteriorating landscape, particularly around the edges of most of the settlements. Farm buildings are being converted into dwellings, horse grazing is increasing, and management is declining with some fields just being abandoned as agricultural incomes continue to decline.

The historic association with coal mining particularly in the eastern parts of the District has left few relics of association. The only mineral activities are four clay and shale quarries, two small sand and gravel quarries in the Calder Valley near to Mirfield and Dewsbury and two large and seven small or medium sized stone quarries. One of the larger stone quarries has a national reputation for dimension building stone and flags. The extent of stone extraction was historically much more extensive as is evident by the wide distribution of now abandoned quarries most of which are overgrown. Coal mining has affected the eastern part of Kirklees' landscape in particular.

Measures proposed in the Kirklees LFRMS could affect the local landscape if they involve construction (particularly in sensitive landscapes such as the Peak District National Park), changes in land use or changing water levels.

Appendix 4

SEA Matrices for the Local Flood Risk Management Strategy (Public Consultation Version)

LFRMS Objective 1: Improve the level of understanding of local flood risk within the LLFA

Measures associated with this LFRMS objective:

- 1.1: Record drainage and flood assets
- 1.2: Maintain a public asset register
- 1.3: Designating flood/drainage assets
- 1.4: Recording/mapping flood incidents
- 1.5: Carry out flood investigations
- 1.6: Assessment of high flood risk locations in SWMP
- 1.7: Improve skills and knowledge of FRM officers
- 1.8: Information from stakeholder engagement

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District’s community and economic assets	+	While the measures associated with this LFRMS objective will not involve direct physical works to manage the risk of flooding to the District’s community and economic assets, they are expected to have an indirect positive effect on overall flood risk as they will combine to improve the evidence base and skills available to the Council for managing flood risk in the most appropriate and effective ways. In particular, measure 1.6 involves the assessment of high flood risk locations identified in the Surface Water Management Plan ²⁰ (which were informed in part by the presence of flood receptors including business premises and social infrastructure) – this will help to ensure that appropriate mitigation can be implemented in those areas.
2. Minimise the number of residential properties at risk from flooding	+	Although the measures associated with this LFRMS objective will not result directly in physical works to manage the risk of flooding to residential properties, the measures should combine to have an indirect positive effect on overall flood risk by improving the level of evidence and skills available to the Council for dealing with flood risk. In particular, measure 1.6 involves the assessment of high flood risk locations identified in the Surface Water Management Plan (which were informed in part by the presence of flood receptors including residential properties) – this will help to ensure that appropriate mitigation can be implemented in those areas.

²⁰ Kirklees Council (2011) Kirklees Surface Water Management Plan.

SA Objectives	SEA Score	Justification
3. Minimise the risk of disruption from flooding to the transport network of the District	+	Although the measures associated with this LFRMS objective will not result directly in physical works to manage the risk of flooding which could potentially disrupt the transport network in the District, the measures should combine to have an indirect positive effect by improving the level of evidence and skills available to the Council for dealing with flood risk. In particular, measure 1.6 involves the assessment of high flood risk locations identified in the Surface Water Management Plan (which were informed in part by the presence of flood receptors including key transport links) – this will help to ensure that appropriate mitigation can be implemented in those areas.
4. Secure the efficient and prudent use of land and protect soil quality	+	By combining to contribute to an overall reduction in flood risk in Kirklees (by improving the level of evidence and skills available to the Council for dealing with flood risk), the measures associated with this LFRMS objective should help to protect land and soils and reduce the likelihood of adverse effects from flooding events (e.g. soil erosion caused by high levels of surface water run-off). None of the measures will result directly in physical works or actions that could affect land use.
5. Protect and enhance the character of Kirklees	0	The measures associated with this LFRMS objective are not considered likely to have a direct effect on the character of Kirklees as they will not result in any physical works or development; rather they relate to improving the evidence and skills available to the Council for managing flood risk.
6. Preserve and enhance the historic environment	+	By combining to contribute to an overall reduction in flood risk (by improving the level of evidence and skills available to the Council for dealing with flood risk), the measures associated with this LFRMS objective should help to reduce the risk that both designated and undesignated heritage assets within Kirklees face from flooding, thereby having a positive effect on the quality of the historic environment. None of the measures will result directly in physical works or actions that could have an adverse impact on the setting of historic assets in the District.
7. Maximise opportunities to protect and enhance biodiversity	+	By combining to contribute to an overall reduction in flood risk (by improving the level of evidence and skills available to the Council for dealing with flood risk), the measures associated with this LFRMS objective should help to protect biodiversity from the potential adverse impacts of flood events (including both direct impacts and indirect impacts e.g. those resulting from water pollution caused by flooding). None of the measures associated with this LFRMS objective will result directly in physical works or actions that could have an adverse impact on designated or undesignated biodiversity in the District, and as such the Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS

SA Objectives	SEA Score	Justification
		concluded that the measures associated with this objective would not have any significant effects on the integrity of European sites (SACs, SPAs and Ramsar sites) in and around Kirklees.
8. Reduce the risk of soil and water pollution	+	By combining to contribute to an overall reduction in flood risk (by improving the level of evidence and skills available to the Council for dealing with flood risk), the measures associated with this LFRMS objective should help to protect water quality by reducing the likelihood of adverse impacts arising from flood events (e.g. as a result of soil erosion or run-off washing chemical fertilisers into watercourses). None of the measures associated with this LFRMS objective will result directly in physical works or actions that could have an adverse impact on soil or water quality in the District
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	+?	Improving the evidence base available to the Council in relation to flood risk will help to inform appropriate decision-making regarding the siting of new development. In particular, measure 1.4 is likely to have a positive effect on this objective as it involves mapping the location of flooding incidents, which will improve the evidence base regarding historical incidences of flooding, which can be used to inform future decision making. In addition, designating flood/drainage assets (measure 1.3) is likely to enhance their status and may mean that the need to avoid new development having an adverse impact on such assets is given greater consideration. However, there is some uncertainty attached to this potential impact as the status of designated flood/drainage assets and the implications of the designation in planning terms are not clear. Finally, by identifying the location of drainage assets under measure 1.1, further geographical information relevant to flood risk management will be available, which can again be taken into consideration when assessing potential new development sites.

LFRRMS Objective 2: Improve the level of understanding of local flood risk amongst partners and stakeholders

Measures associated with this LFRMS objective:

- 2.1: Publish a clear strategy and communicate it.
- 2.2: Develop information strategy to improve partner and stakeholder knowledge.
- 2.3: Improve and maintain the Council's FRM web pages.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	+	While the measures associated with this LFRMS objective will not involve direct physical works to manage the risk of flooding to the District's community and economic assets, they should combine to have an indirect positive effect on overall flood risk as they will improve communication between the Council, its partners and stakeholders and the general public. The resulting improved understanding of flood risk amongst partners and stakeholders should encourage support and increase the success of flood risk management measures thereby contributing to a reduction in overall flood risk (including that affecting community and economic assets). In particular, improving communication with the general public via improvements to the Council's flood risk management web pages (through measure 2.3) could result in improved public knowledge about appropriate actions to take in the event of flooding (depending on the information to be presented on the improved web pages), which could reduce the extent of damage to community and economic assets.
2. Minimise the number of residential properties at risk from flooding	+	Although there are no direct links between the measures associated with this objective and the implementation of physical works to manage the risk of flooding to residential properties, the measures should combine to have an indirect positive effect by improving levels of public understanding and engagement. Improving householders' knowledge about appropriate resilience measures and reactions to flooding events, which could be achieved by publishing accessible and clearly understandable information through measure 2.1 and via improvements to the Council's flood risk management web pages through measure 2.3, could reduce the extent of risk to residential properties and reduce the severity of the impacts of flood events on such properties.
3. Minimise the risk of disruption from flooding to the transport network of the District	+	Although there are no direct links between the measures associated with this objective and the implementation of physical works to manage the risk of flooding to the District's transport network, the measures should combine to have an indirect positive effect on overall flood risk (and therefore also the potential impacts on the transport network) by improving levels of public understanding and engagement with flood risk management by LLFA partners and stakeholders. While it is not currently clear exactly what actions the

SA Objectives	SEA Score	Justification
		measures will involve, i.e. which stakeholders will be targeted as the Council seeks to communicate its strategy (measure 2.1), if the Council were to work directly with relevant partners such as the Highways Agency it should be possible to ensure that appropriate resilience measures are in place to minimise the potential impacts as far as possible when flood events do occur.
4. Secure the efficient and prudent use of land and protect soil quality	+	By contributing to an overall reduction in flood risk in Kirklees (by improving levels of public, LLDA partner and stakeholder understanding and engagement with flood risk management), the measures associated with this LFRMS objective should have an indirect positive effect on the protection of land and soils by reducing the likelihood of the potential adverse effects that could otherwise occur from flooding events (e.g. soil erosion caused by rapid surface water run-off). None of the measures will result directly in physical works or actions that could affect land use.
5. Protect and enhance the character of Kirklees	0	The measures associated with this LFRMS objective are not considered likely to have a direct effect on this SEA objective as they will not result in any physical works or development; rather they relate to improving levels of public understanding and engagement with flood risk management.
6. Preserve and enhance the historic environment	+	By contributing to an overall reduction in flood risk (by improving levels of public, LLDA partner and stakeholder understanding and engagement with flood risk management), the measures associated with this LFRMS objective should help to reduce the number of both designated and undesignated heritage assets within Kirklees that are at risk from flooding, thereby having an indirect positive effect on preserving the quality of the historic environment. None of the measures will result directly in physical works or actions that could have an adverse impact on the setting of historic assets.
7. Maximise opportunities to protect and enhance biodiversity	+	By contributing to an overall reduction in flood risk (by improving levels of public, LLDA partner and stakeholder understanding and engagement with flood risk management), the measures associated with this LFRMS objective should have an indirect positive effect on the protection of habitats and species from the potential adverse impacts of flood events (both direct impacts and indirect impacts e.g. those resulting from water pollution caused by flooding). None of the measures will result directly in physical works or actions that could have an adverse impact on designated or undesignated biodiversity, and as such the Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS concluded that the measures associated with this objective would not have any significant effects on the integrity of European sites (SACs, SPAs and Ramsar sites) in and around

SA Objectives	SEA Score	Justification
		Kirklees..
8. Reduce the risk of soil and water pollution	+	By contributing to an overall reduction in flood risk (by improving levels of public, LLDA partner and stakeholder understanding and engagement with flood risk management), the measures associated with this LFRMS objective should have an indirect positive effect on the protection of soil and water quality by reducing the likelihood of adverse impacts occurring from flooding events (e.g. as a result of soil erosion or run-off washing chemical fertilisers into watercourses). None of the measures will result directly in physical works or actions that could have an adverse impact on soil or water quality.
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	+?	Although the measures associated with this LFRMS are not considered likely to have a direct effect on determining the location of new development in relation to high flood risk areas, there may be an indirect positive effect as improving stakeholder understanding of flood risk could reduce the chances of inappropriately sited development proposals coming forward, and may increase the likelihood of such proposals being considered appropriately in light of the potential impacts on flood risk.

LFRMS Objective 3: Ensure that local communities understand their responsibilities in relation to local flood risk management

Measures associated with this LFRMS objective:

- 3.1: Publish and distribute information explaining responsibilities, local flood risk, property protection/resilience etc.
- 3.2: Involve local communities in local initiatives and schemes.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	+	While the measures associated with this LFRMS objective will not involve the Council undertaking direct physical works to manage the risk of flooding to the District's community and economic assets, measure 3.1 involves the Council distributing advice to landowners with regards to the type of measures that they could employ on their land to manage overall flood risk (including that potentially affecting community and economic assets). The two measures in combination should have further indirect positive effects on reducing overall flood risk as they will combine to improve local people's awareness and understanding of their responsibilities in relation to managing flood risk. In particular, encouraging local people to implement appropriate resilience measures to protect their property (measure 3.1) should have positive effects by helping to ensure that community and economic assets are as well protected as possible, thereby reducing the extent of damage in the event of flooding.
2. Minimise the number of residential properties at risk from flooding	+	While the measures associated with this LFRMS objective will not involve the Council undertaking direct physical works to manage the risk of flooding to residential properties in Kirklees, measure 3.1 involves the Council distributing advice to landowners with regards to the type of measures that they could employ on their land to manage overall flood risk (including that potentially affecting residential properties). The two measures in combination should have further indirect positive effects on reducing overall flood risk as they will combine to improve local people's awareness and understanding of their responsibilities in relation to managing flood risk. In particular, encouraging local people to implement appropriate resilience measures to protect their property (measure 3.1) should have positive effects by helping to ensure that residential properties are as well protected as possible, thereby reducing the extent of damage in the event of flooding.
3. Minimise the risk of disruption from flooding to the transport network of the District	+	Although there are no direct links between the measures associated with this objective and the implementation of physical works by the Council to manage the risk of flooding to the District's transport network, measure 3.1 involves the Council distributing advice to landowners with regards to the type of measures that they could employ on their land to reduce overall flood risk (including that which could potentially disrupt the transport network). The two measures in combination should combine to have further indirect

SA Objectives	SEA Score	Justification
		positive effects on reducing overall flood risk by improving local people's understanding of their responsibilities in relation to managing flood risk and encouraging community action.
4. Secure the efficient and prudent use of land and protect soil quality	+?	By contributing to an reduction in overall flood risk in Kirklees (by improving local people's understanding of their responsibilities in relation to managing flood risk), the measures associated with this LFRMS objective should have an indirect positive effect on the protection of land and soils by reducing the likelihood of their being adversely affected by flooding events (e.g. soil erosion caused by rapid surface water run-off). None of the measures will result directly in physical works being undertaken by the Council that could affect land use in the District; however, measure 3.1 involves the Council distributing advice to landowners with regards to the type of measures that they could employ on their land to manage local flood risk. Depending on the nature of those measures, there could potentially be impacts on the prudent use of land and soil quality; therefore the likely positive effect associated with this objective is currently uncertain.
5. Protect and enhance the character of Kirklees	?	While neither of the measures associated with this LFRMS objective will result directly in physical works being undertaken by the Council that could affect land use in the District, measure 3.1 involves the Council distributing advice to landowners with regards to the type of measures that they could employ on their land to manage local flood risk. Depending on the nature of those measures, there could potentially be impacts on local character; however the potential effects are uncertain without more information about the nature of any such actions and the location (for example changes in the landscape within close proximity of the Peak District National Park in the south west of Kirklees could have particularly significant effects).
6. Preserve and enhance the historic environment	0	The measures associated with this LFRMS objective are not considered likely to have a direct effect on this SEA objective.
7. Maximise opportunities to protect and enhance biodiversity	+?	By contributing to an overall reduction in flood risk (by improving local people's understanding of their responsibilities in relation to managing flood risk), the measures associated with this LFRMS objective should have an indirect positive effect on the protection of habitats and species from the potential adverse impacts of flood events (both direct impacts and indirect impacts e.g. those resulting from water pollution caused by flooding). None of the measures will result directly in physical works being carried out by the Council that could have an adverse impact on designated or undesignated biodiversity; however measure 3.1 involves the Council distributing advice to landowners with regards to the type of measures that they could employ on their land to manage local flood risk.

SA Objectives	SEA Score	Justification
		Depending on the nature of those measures and the locations at which they are implemented, there could potentially be impacts on biodiversity. In light of this, the Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS concluded that, while measure 3.2 would not have any significant effects on the integrity of European sites (SACs, SPAs and Ramsar sites) in and around Kirklees, the potential for measure 3.1 to have such effects remains uncertain. As such, the potential positive effect associated with this SEA objective is currently uncertain.
8. Reduce the risk of soil and water pollution	+?	By contributing to an overall reduction in flood risk (by improving local people's understanding of their responsibilities in relation to managing flood risk), the measures associated with this LFRMS objective should have an indirect positive effect on the protection of water quality by reducing the likelihood of adverse impacts occurring from flooding events (e.g. as a result of soil erosion or run-off washing chemical fertilisers into watercourses). None of the measures will result directly in physical works being carried out by the Council that could have an adverse impact on soil or water quality; however measure 3.1 involves the Council distributing advice to landowners with regards to the type of measures that they could employ on their land to manage local flood risk. Depending on the nature of those measures and the locations at which they are implemented, there could potentially be impacts on soil or water quality. As such, the potential positive effect associated with this SEA objective is currently uncertain.
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	0	The measures associated with this LFRMS objective are not considered likely to have a direct effect on this SEA objective.

LFRMS Objective 4: Maximise the benefits from partnership working with flood risk partners and our stakeholders

Measures associated with this LFRMS objective:

- 4.1: Continue to develop the Kirklees Flood Partnership and contribute to the Yorkshire LLFA Liaison Group and Yorkshire Action and Learning Alliance.
- 4.2: Ensure that policies and programmes promoted through the Strategy complement and support works across the rest of the Calder and Don catchments.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	+	While the measures associated with this LFRMS objective will not involve direct physical works to manage the risk of flooding to the District's community and economic assets, they should have an indirect positive effect on reducing overall flood risk (including that potentially affecting community and economic assets). The Yorkshire LLFA Liaison Group and the Yorkshire Action and Learning Alliance allow for information sharing and co-working between authorities in the region, therefore contributions to those organisations (measure 4.1) should increase the chances of successful flood risk management measures being developed and implemented within Kirklees, as flooding is a cross-boundary issue. While it is not clear exactly what the work of the Kirklees Flood Partnership involves, a local-level partnership of relevant stakeholders should have positive effects in relation to information sharing and stakeholder engagement. These actions should combine to contribute to an overall reduction in the risk of flooding in Kirklees, including the flood risk facing community and economic assets. Measure 4.2 should also help to minimise the risk of flooding (including to community and economic assets) as policies and programmes aiming to manage flood risk will be more successful when they share aims and seek to support one another.
2. Minimise the number of residential properties at risk from flooding	+	While the measures associated with this LFRMS objective will not involve direct physical works to manage the risk of flooding to residential properties in the District, they should have an indirect positive effect on reducing overall flood risk (including that potentially affecting residential properties). The Yorkshire LLFA Liaison Group and the Yorkshire Action and Learning Alliance allow for information sharing and co-working between authorities in the region, therefore contributions to those organisations (measure 4.1) should increase the chances of successful flood risk management measures being developed and implemented within Kirklees, as flooding is a cross-boundary issue. While it is not clear exactly what the work of the Kirklees Flood Partnership involves, a local-level partnership of relevant stakeholders should have positive effects in relation to information sharing and stakeholder engagement. These actions should combine to contribute to an overall reduction in the risk of flooding in Kirklees, including the flood risk facing residential properties. Measure 4.2

SA Objectives	SEA Score	Justification
		should also help to minimise the risk of flooding (including to residential properties) as policies and programmes aiming to manage flood risk will be more successful when they share aims and seek to support one another.
3. Minimise the risk of disruption from flooding to the transport network of the District	+	While the measures associated with this LFRMS objective will not involve direct physical works to manage the risk of flooding which can disrupt the transport network in the District, they should have an indirect positive effect on reducing overall flood risk (including that potentially affecting transport infrastructure). The Yorkshire LLFA Liaison Group and the Yorkshire Action and Learning Alliance allow for information sharing and co-working between authorities in the region, therefore contributions to those organisations (measure 4.1) should increase the chances of successful flood risk management measures being developed and implemented within Kirklees, as flooding is a cross-boundary issue. While it is not clear exactly what the work of the Kirklees Flood Partnership involves, a local-level partnership of relevant stakeholders should have positive effects in relation to information sharing and stakeholder engagement. These actions should combine to contribute to an overall reduction in the risk of flooding in Kirklees; thereby reducing the likelihood of flooding causing disruption to the transport network. Measure 4.2 should also help to minimise the risk of flooding (including to the transport network) as policies and programmes aiming to manage flood risk will be more successful when they share aims and seek to support one another.
4. Secure the efficient and prudent use of land and protect soil quality	+	By contributing to an overall reduction in flood risk in Kirklees (by improving partnership working with other authorities and stakeholders and improving co-working between various flood management policies and programmes), measures 4.1 and 4.2 should have an indirect positive effect on helping to protect land and soils by reducing the likelihood of their being adversely affected by flooding events (e.g. soil erosion caused by rapid surface water run-off). Neither of these measures will result directly in physical works that could have an effect on land use or soil quality in the District.
5. Protect and enhance the character of Kirklees	0	The measures associated with this LFRMS objective are not considered likely to have a direct effect on the character of Kirklees as they will not result in any physical works or development; rather they relates to improving partnership working with other authorities and stakeholders in relation to managing flood risk and improving the level of co-working between various flood management policies and programmes.
6. Preserve and enhance the historic environment	+	By contributing to an overall reduction in flood risk (by improving partnership working with other authorities and stakeholders and improving co-working between various flood

SA Objectives	SEA Score	Justification
		management policies and programmes), the measures associated with this LFRMS objective should help to reduce the number of both designated and undesignated heritage assets within Kirklees that are at risk from flooding, thereby having an indirect positive effect on the quality of the historic environment. Neither of these measure will result directly in physical works that could have an effect on the setting of historic assets within Kirklees.
7. Maximise opportunities to protect and enhance biodiversity	+	By contributing to an overall reduction in flood risk (by improving partnership working with other authorities and stakeholders and improving co-working between various flood management policies and programmes), the measures associated with this LFRMS objective should have an indirect positive effect on the protection of biodiversity from the potential adverse impacts of flood events (both direct impacts and indirect impacts e.g. those resulting from water pollution caused by flooding). Neither of these measures will result in physical works that could have an adverse impact on designated or undesignated biodiversity, and as such the Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS concluded that there would be no significant effects on the integrity of European sites (SACs, SPAs and Ramsar sites) in and around Kirklees as a result of either measure.
8. Reduce the risk of soil and water pollution	+	By contributing to an overall reduction in flood risk (by improving partnership working with other authorities and stakeholders and improving co-working between various flood management policies and programmes), the measures associated with this LFRMS objective should have an indirect positive effect on the protection of water quality by reducing the likelihood of adverse impacts occurring from flooding events (e.g. as a result of soil erosion or run-off washing chemical fertilisers into watercourses). Neither of these measures will result directly in physical works that could have an adverse impact on soil or water quality.
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	+?	Depending on the future actions of the Kirklees Flood Partnership, the Yorkshire LLFA Liaison Group and the Yorkshire Action and Learning Alliance (the details of which are not known at this stage), partnership working and the engagement of a wider range of stakeholders in flood risk management (as a result of measure 4.1) may help to reduce the number of proposals coming forward for development in inappropriate locations, and it may increase the likelihood of development proposals being assessed appropriately in light of their potential impacts on flood risk. Ensuring that policies and programmes promoted through the Strategy complement and support works across the rest of the Calder and Don catchments (measure 4.2) is not expected to have a direct effect on this SEA objective.

LFRRMS Objective 5: Actively manage flood risk associated with new development proposals

Measures associated with this LFRMS objective:

- 5.1: Develop and apply a robust local policy on FRM and drainage solutions on new development sites.
- 5.2: Develop a process with the Planning Department to create clear advice and direction to developers on FRM and drainage.
- 5.3: Establish the SuDS Approval Body (SAB).

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	++	The measures associated with this LFRMS objective will combine to ensure that new development (including that of community and economic assets) incorporates robust flood risk management measures. For example, under measure 5.1, ambitious targets will be set for permitted discharges from new and redeveloped sites and measure 5.2 aims to better integrate flood risk management considerations into planning. As well as reducing levels of flood risk at new development sites, the measures will contribute to reducing the overall flood risk throughout the District (including that potentially affecting community and economic assets). Given the scale of new employment development proposed in the District through the emerging Kirklees Core Strategy, the effects of these measures are likely to be significantly positive.
2. Minimise the number of residential properties at risk from flooding	++	The measures associated with this LFRMS objective will combine to ensure that new development (including that of residential properties) incorporates robust flood risk management measures. For example, under measure 5.1, ambitious targets will be set for permitted discharges from new and redeveloped sites and measure 5.2 aims to better integrate flood risk management considerations into planning. As well as reducing levels of flood risk at new development sites, the measures will contribute to reducing the overall flood risk throughout the District (including risk of flooding to residential properties). Given the scale of new residential development proposed in the District through the emerging Kirklees Core Strategy, the effects of these measures are likely to be significantly positive.
3. Minimise the risk of disruption from flooding to the transport network of the District	++	The measures associated with this LFRMS objective will combine to ensure that new development incorporates robust flood risk management measures. For example, under measure 5.1, ambitious targets will be set for permitted discharges from new and redeveloped sites and measure 5.2 aims to better integrate flood risk management considerations into planning. As well as reducing levels of flood risk at new development sites, the measures will contribute to reducing the overall flood risk throughout the District and therefore the likelihood of the transport network being disrupted by flooding. As such, a significant positive effect on this SEA objective is likely.

SA Objectives	SEA Score	Justification
4. Secure the efficient and prudent use of land and protect soil quality	+	The measures associated with this LFRMS objective will combine to contribute to a reduction in overall flood risk throughout Kirklees by ensuring that new development incorporates flood risk management measures. This is likely to have an indirect positive effect on soil quality by reducing the likelihood of flooding events having negative effects on soils (e.g. as a result of soil erosion caused by rapid surface water run-off). The measures relate to criteria for new development, but will not themselves lead directly to new developments which could affect the use of land or soil quality.
5. Protect and enhance the character of Kirklees	0	The measures associated with this LFRMS objective are not considered likely to have a direct effect on local character as they will not themselves lead directly to new developments which could affect local character.
6. Preserve and enhance the historic environment	+	The measures associated with this LFRMS objective will combine to contribute to a reduction in the overall extent of flood risk throughout Kirklees by ensuring that new development incorporates flood risk management measures. This is likely to have an indirect positive effect on the historic environment by reducing the likelihood of flood events having negative effects on both designated and undesignated heritage assets such as listed buildings. The measures relate to criteria for new development, but will not themselves lead directly to new developments which could affect the historic environment.
7. Maximise opportunities to protect and enhance biodiversity	+	The measures associated with this LFRMS objective will combine to contribute to a reduction in the overall extent of flood risk throughout Kirklees by ensuring that new development incorporates flood risk management measures. This is likely to have an indirect positive effect on biodiversity by reducing the likelihood of flood events having negative effects (both directly and indirectly e.g. as a result of water pollution caused by flooding). The measures relate to criteria for new development, but will not themselves lead directly to new developments which could affect designated or undesignated biodiversity, and for this reason the Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS concluded that the measures associated with this objective would not have any significant effects on the integrity of European sites (SACs, SPAs and Ramsar sites) in and around Kirklees.
8. Reduce the risk of soil and water pollution	+	The measures associated with this LFRMS objective will combine to contribute to a reduction in the overall extent of flood risk throughout Kirklees by ensuring that new development incorporates flood risk management measures. This is likely to have an indirect positive effect on water quality by reducing the chances of flooding events having negative effects (e.g. as a result of soil erosion or run-off washing chemical fertilisers into watercourses).

SA Objectives	SEA Score	Justification
		The measures relate to criteria for new development, but will not themselves lead directly to new developments which could affect soil or water quality.
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	++	A significant positive effect on this SEA objective is likely as the measures associated with this LFRMS objective are specifically designed to ensure that new development does not contribute to an increased risk of flooding by requiring new developments to incorporate robust flood risk management measures (measure 5.1). Ensuring that flood risk management considerations are better integrated into planning (measure 5.2) should have a significant positive effect on ensuring that new development is sited appropriately.

LFRRMS Objective 6: Take a sustainable approach to FRM, maximising environmental and social benefits from policies and programmes

Measures associated with this LFRMS objective:

- 6.1: Ensure the environmental consequences of implementing the LFRMS are considered against the technical, economic and social benefits.
- 6.2: Work with the Environment Agency to embed policies from local River Basin Management Plans, local environmental policies and “European” protected sites into FRM procedures into FRM procedures and programmes.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District’s community and economic assets	+	Ensuring that the likely environmental implications of the LFRMS are considered through a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on minimising the risk of flooding to community and economic assets, as all measures in the LFRMS are being assessed for their potential impacts on this issue. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed, either by amending the LFRMS measures as appropriate or by identifying appropriate mitigation measures.
2. Minimise the number of residential properties at risk from flooding	+	Ensuring that the likely environmental implications of the LFRMS are considered through a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on minimising the risk of flooding to residential properties, as all measures in the LFRMS are being assessed for their potential impacts on this issue. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed either by amending the LFRMS measures as appropriate or by identifying appropriate mitigation measures.
3. Minimise the risk of disruption from flooding to the transport network of the District	+	Ensuring that the likely environmental implications of the LFRMS are considered through a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on minimising the risk of flooding disrupting transport infrastructure, as all measures in the LFRMS are being assessed for their potential impacts on this issue. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed either by amending the LFRMS measures as appropriate or by identifying appropriate mitigation measures.
4. Secure the efficient and prudent use of land and protect soil quality	+	Ensuring that the likely environmental implications of the LFRMS are considered through a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on the efficient use of land and the protection of soil quality, as all measures in the LFRMS are being assessed for their potential impacts on these issues. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed either by amending the

SA Objectives	SEA Score	Justification
		<p>LFRMS measures as appropriate or by identifying appropriate mitigation measures. In addition, ensuring that flood risk management activities within Kirklees are undertaken in line with local environmental policies and policies from local River Basin Management Plans, and will require Environmental Impact Assessments where relevant (measure 6.2) will add further protection to the District's natural environmental assets, including land and soils. The measures associated with this LFRMS objective will not lead directly to new development which could affect land use or soil quality.</p>
<p>5. Protect and enhance the character of Kirklees</p>	<p>+</p>	<p>Ensuring that the likely environmental implications of the LFRMS are considered through a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on local character, as all measures in the LFRMS are being assessed for their potential impacts on local character. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed either by amending the LFRMS measures as appropriate or by identifying appropriate mitigation measures. In addition, working with the Environment Agency to ensure that FRM activities within Kirklees are undertaken in line with local environmental policies and policies from local River Basin Management Plans (measure 6.2), will add further protection. The local environmental policies are assumed to include the relevant Core Strategy policies relating to landscape protection (including that of the Peak District National Park) and local character in Kirklees. In addition, measure 6.2 requires Environmental Impact Assessments of schemes and initiatives promoted by the LFRMS where relevant. The measures associated with this LFRMS objective will not lead directly to new development which could affect local character.</p>
<p>6. Preserve and enhance the historic environment</p>	<p>+</p>	<p>Ensuring that the likely environmental implications of the LFRMS are considered through a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on the historic environment (including both designated and undesignated heritage assets), as all measures in the LFRMS are being assessed for their potential impacts on this issue. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed either by amending the LFRMS measures as appropriate or by identifying appropriate mitigation measures. In addition, working with the Environment Agency to ensure that FRM activities within Kirklees are undertaken in line with local environmental policies and policies from local River Basin Management Plans, and will require Environmental Impact Assessments where relevant (measure 6.2) will add further protection to the District's historic environment. The measures associated with this LFRMS objective will not lead directly to new development which could affect the setting of heritage</p>

SA Objectives	SEA Score	Justification
		assets.
7. Maximise opportunities to protect and enhance biodiversity	+	Ensuring that the likely environmental implications of the LFRMS are considered through a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on biodiversity, as all measures in the LFRMS are being assessed for their potential impacts on this issue. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed either by amending the LFRMS measures as appropriate or by identifying appropriate mitigation measures. In addition, working with the Environment Agency to ensure that flood risk management activities within Kirklees are undertaken in line with local environmental policies and policies from local River Basin Management Plans, and will require Environmental Impact Assessments where relevant (measure 6.2) will add further protection to the District's natural environment, including biodiversity. The measures associated with this LFRMS objective will not lead directly to new development which could affect biodiversity. For this reason, the Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS concluded that the measures associated with this LFRMS objective would not have any significant effects on the integrity of European sites (SACs, SPAs and Ramsar sites) in and around Kirklees, and would in fact provide mitigation for potential negative effects from other LFRMS measures.
8. Reduce the risk of soil and water pollution	+	Ensuring that the likely environmental implications of the LFRMS are considered a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on soil and water quality, as all measures in the LFRMS are being assessed for their potential impacts on these issues. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed either by amending the LFRMS measures as appropriate or by identifying appropriate mitigation measures. In addition, working with the Environment Agency to ensure that flood risk management activities within Kirklees are undertaken in line with local environmental policies and policies from local River Basin Management Plans, and will require Environmental Impact Assessments where relevant (measure 6.2) will add further protection to the District's natural environmental assets, including soil and water. The measures associated with this LFRMS objective will not lead directly to new development which could affect soil or water quality.
9. Prevent inappropriate new development in high flood risk areas and ensure development	+	Ensuring that the likely environmental implications of the LFRMS are considered through a Strategic Environmental Assessment, which will be monitored as the Strategy is implemented (measure 6.1), may have a positive effect on ensuring that new development

SA Objectives	SEA Score	Justification
does not contribute to increased flooding for existing property and people elsewhere		does not increase the risk of flooding, as all measures in the LFRMS are being assessed for their potential impacts on this issue. The fact that the SEA is being undertaken iteratively allows for any potential negative impacts to be identified and addressed either by amending the LFRMS measures as appropriate or by identifying appropriate mitigation measures.

LFRMS Objective 7: Improve and/or maintain the capacity of existing drainage systems by targeted maintenance

Measures associated with this LFRMS objective:

- 7.1: Identify highest risk open and closed watercourses, highway drains and other drainage/flood features.
- 7.2: Develop an affordable cyclical maintenance regime based on risk.
- 7.3: Implement a responsive, reactive maintenance regime based on risk.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding (including the risk to community and economic assets) in Kirklees, as maintaining the capacity of drainage systems through both regular and ad-hoc maintenance works (measures 7.2 and 7.3) will ensure that surface water drainage is maximised. While the overall effect of the measures will be positive, the effect is not expected to be significant as it is acknowledged in the measures that there will be resource constraints which may affect the frequency and extent of the cyclical maintenance regime to be carried out under measure 7.2, which may limit the extent of the potential positive effects.
2. Minimise the number of residential properties at risk from flooding	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding (including the risk to residential properties) in Kirklees, as maintaining the capacity of drainage systems through both regular and ad-hoc maintenance works (measures 7.2 and 7.3) will ensure that surface water drainage is maximised. While the overall effect of the measures will be positive, the effect is not expected to be significant as it is acknowledged in the measures that there will be resource constraints which may affect the frequency and extent of the cyclical maintenance regime to be carried out under measure 7.2, which may limit the extent of the potential positive effects.
3. Minimise the risk of disruption from flooding to the transport network of the District	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding in Kirklees and therefore the potential for disruption to the transport network, as maintaining the capacity of drainage systems through both regular and ad-hoc maintenance works (measures 7.2 and 7.3) will ensure that surface water drainage is maximised. While the overall effect of the measures will be positive, the effect is not expected to be significant as it is acknowledged in the measures that there will be resource constraints which may affect the frequency and extent of the cyclical maintenance regime to be carried out under measure 7.2, which may limit the extent of the potential positive effects.

SA Objectives	SEA Score	Justification
4. Secure the efficient and prudent use of land and protect soil quality	+	Maintaining the capacity of drainage systems through both regular and ad-hoc maintenance works (measures 7.2 and 7.3) will ensure that surface water drainage is maximised, reducing runoff rates which could otherwise have a negative effect on soil quality by causing soil erosion. As such, a positive effect on this SEA objective is likely. Again, the effect is not likely to be significant due to the restrictions that the Council faces in terms of available resources to carry out a cyclical maintenance regime under measure 7.2, meaning that the work can only be targeted in the highest flood risk areas.
5. Protect and enhance the character of Kirklees	0	Work to maximise the capacity of drainage systems through regular and ad-hoc maintenance is not considered likely to have a direct effect on local character.
6. Preserve and enhance the historic environment	+	The measures associated with this LFRMS objective will combine to reduce the overall risk of flooding as a result of both regular and ad-hoc maintenance works (measures 7.2 and 7.3) which will ensure that surface water drainage is maximised. Positive effects are therefore likely in relation to the protection of the historic environment as the likelihood of both designated and undesignated historic assets such as listed buildings being adversely affected by flooding would be reduced. Again, the effects are not expected to be significant as it is acknowledged in the measures that there will be resource constraints which may affect the frequency and extent of the cyclical maintenance regime to be carried out under measure 7.2, which may limit the extent of the potential positive effects.
7. Maximise opportunities to protect and enhance biodiversity	+?	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding and therefore the potential for adverse impacts on biodiversity (both direct impacts and indirect impacts e.g. those resulting from water pollution caused by flooding), as maintaining the capacity of drainage systems will ensure that surface water drainage is maximised. However, there is also potential that clearance works could have a direct effect on biodiversity (designated or undesignated) in the affected channels. For this reason, the Habitats Regulations Assessment that is being carried out in relation to the Draft LFRMS concluded that there are uncertainties with regards to the potential effects of measures 7.2 and 7.3 on European sites (SACs, SPAs and Ramsar sites) in and around Kirklees. However, it is noted that measure 7.2 specifies that watercourse maintenance will be balanced with the sensitive treatment of biodiversity elements. While the overall effect of the measures is therefore likely to be positive, there are some uncertainties attached. Again, the effect is not expected to be significant as it is acknowledged in the measures that there will be resource constraints which may affect the frequency and extent of the cyclical maintenance regime to be carried out under measure

SA Objectives	SEA Score	Justification
		7.2, which may limit the extent of the potential positive effects.
8. Reduce the risk of soil and water pollution	+	Maintaining the capacity of drainage systems as a result of both regular and ad-hoc maintenance works (measures 7.2 and 7.3) will ensure that surface water drainage is maximised, reducing runoff rates which could otherwise have a negative effect on water quality (e.g. as a result of soil erosion or run-off washing sediments and/or chemical fertilisers into watercourses). As such, a positive effect on soil and water quality is likely. Again, the effect is not likely to be significant due to the restrictions that the Council faces in terms of resources to carry out maintenance, meaning that the cyclical regime can only be targeted in the highest flood risk areas which could potentially limit the extent of the positive effects.
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	0	The measures associated with this LFRMS objective are not considered likely to have a direct effect on this SEA objective.

LFRRMS Objective 8: Encourage proactive, responsible maintenance of privately-owned flood defence and drainage assets

Measures associated with this LFRMS objective:

- 8.1: Identify highest risk private flood defence and drainage assets.
- 8.2: Develop technical advice for owners to guide them in preparing local maintenance plans.
- 8.3: Establish risk-based consenting and designation process.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	+?	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding in Kirklees (including the risk to community and economic assets), as encouraging private landowners to maintain the capacity of watercourses on their land by assisting them to develop local maintenance plans (measure 8.2) will ensure that surface water drainage is maximised. While the overall effect of the measures is likely to be positive, the effect is not expected to be significant as the success of the measures will depend to some extent on the response of private landowners to the advice and guidance provided by the Council. There are also some uncertainties attached to measure 8.3 and the likely positive effect, depending on the consenting processes that the Council establishes, as this could affect how straightforward it is for private owners to gain consent for flood risk management works within their watercourses.
2. Minimise the number of residential properties at risk from flooding	+?	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding in Kirklees (including the risk to residential properties), as encouraging private landowners to maintain the capacity of watercourses on their land by assisting them to develop local maintenance plans (measure 8.2) will ensure that surface water drainage is maximised. While the overall effect of the measures is likely to be positive, the effect is not expected to be significant as the success of the measures will depend to some extent on the response of private landowners to the advice and guidance provided by the Council. There are also some uncertainties attached to measure 8.3 and the likely positive effect, depending on the consenting processes that the Council establishes, as this could affect how straightforward it is for private owners to gain consent for flood risk management works within their watercourses.
3. Minimise the risk of disruption from flooding to the transport network of the District	+?	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding in Kirklees (which could otherwise cause disruption to the transport network) as encouraging private landowners to maintain the capacity of watercourses on their land by assisting them to develop local maintenance plans (measure 8.2) will ensure that surface water drainage is maximised. While the overall effect of the

SA Objectives	SEA Score	Justification
		measures is likely to be positive, the effect is not expected to be significant as the success of the measures will depend to some extent on the response of private landowners to the advice and guidance provided by the Council. There are also some uncertainties attached to measure 8.3 and the likely positive effect, depending on the consenting processes that the Council establishes, as this could affect how straightforward it is for private owners to gain consent for flood risk management works within their watercourses.
4. Secure the efficient and prudent use of land and protect soil quality	+	Encouraging private landowners to maintain the capacity of drainage systems on their land by assisting them to develop local maintenance plans (measure 8.2) will ensure that surface water drainage is maximised, reducing runoff rates which could otherwise have a negative effect on soil quality by causing soil erosion. As such, a positive effect on this SEA objective is likely. Again, the effect is not likely to be significant due to the fact that the success of the measures will depend to some extent on the response of private landowners to the advice and guidance provided by the Council. There are also some uncertainties attached to measure 8.3 and the likely positive effect, depending on the consenting processes that the Council establishes, as this could affect how straightforward it is for private owners to gain consent for flood risk management works within their watercourses.
5. Protect and enhance the character of Kirklees	0	Encouraging private landowners to carry out regular work to maximise the capacity of drainage systems on their land is not considered likely to have a direct effect on local character.
6. Preserve and enhance the historic environment	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding in Kirklees which could otherwise have adverse effects on the historic environment (including both designated and undesignated heritage assets), as maintaining the capacity of drainage systems will ensure that surface water drainage is maximised. Again, the effect is not likely to be significant due to the fact that the success of the measures will depend to some extent on the response of private landowners to the advice and guidance provided by the Council. There are also some uncertainties attached to measure 8.3 and the likely positive effect, depending on the consenting processes that the Council establishes, as this could affect how straightforward it is for private owners to gain consent for flood risk management works within their watercourses.
7. Maximise opportunities to protect and enhance biodiversity	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding in Kirklees and therefore the potential for associated adverse impacts on biodiversity (both direct impacts and indirect impacts e.g. those

SA Objectives	SEA Score	Justification
		<p>resulting from water pollution caused by flooding), as maintaining the capacity of drainage systems will ensure that surface water drainage is maximised. However, there is also potential that clearance works carried out by landowners on the advice of the Council could have a direct effect on biodiversity (designated or undesignated) in the affected channels. For this reason, the Habitats Regulations Assessment that is being carried out in relation to the Draft LFRMS concluded that there are uncertainties with regards to the potential effects of measure 8.2 on European sites (SACs, SPAs and Ramsar sites) in and around Kirklees. However, the measure specifies that maintenance plans will manage and maintain 'a healthy and attractive biodiverse environment', as well as the efficient flow of water. While the overall effect of the measures is therefore likely to be positive, there are some uncertainties attached. Again, the positive effect is not expected to be significant as the success of the measures will depend to some extent on the response of private landowners to the advice and guidance provided by the Council. There are also some uncertainties attached to measure 8.3 and the likely positive effect, depending on the consenting processes that the Council establishes, as this could affect how straightforward it is for private owners to gain consent for flood risk management works within their watercourses.</p>
8. Reduce the risk of soil and water pollution	+?	<p>Encouraging private landowners to maintain the capacity of drainage systems on their land by assisting them to develop local maintenance plans (measure 8.2) will ensure that surface water drainage is maximised, reducing runoff rates which could otherwise have a negative effect on water quality (e.g. as a result of soil erosion or run-off washing chemical fertilisers into watercourses). As such, a positive effect on this SEA objective is likely. Again, the effect is not likely to be significant due to the fact that the success of the measures will depend to some extent on the response of private landowners to the advice and guidance provided by the Council. There are also some uncertainties attached to measure 8.3 and the likely positive effect, depending on the consenting processes that the Council establishes, as this could affect how straightforward it is for private owners to gain consent for flood risk management works within their watercourses. As such, there is some uncertainty attached to the likely positive effect.</p>
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	0	<p>The measures associated with this LFRMS objective are not considered likely to have a direct effect on this SEA objective.</p>

LFRMS Objective 9: Establish a robust policy on water management and use available information on flood risk to assess the suitability of the allocation of sites for different land uses through the Local Development Framework process

Measures associated with this LFRMS objective:

- 9.1: Use available information on flood risk to identify appropriate development potential.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	++	A significant positive effect on this SEA objective is likely as the overarching purpose of the measure associated with this LFRMS objective is to use the available evidence to ensure that new development (which is assumed to include new community and economic assets) is directed to areas of lower flood risk, and to ensure that new development does not increase the risk facing other areas (including where community and economic assets may be located). As such, the extent and value of community and economic assets in Kirklees at risk from flooding should reduce over the medium to long-term.
2. Minimise the number of residential properties at risk from flooding	++	A significant positive effect on this SEA objective is likely as the overarching purpose of the measure associated with this LFRMS objective is to use the available evidence to ensure that new development (which is assumed to include new residential properties) is directed to areas of lower flood risk, and to ensure that new development does not increase the risk facing other areas (including where residential properties may be located). As such, the number of residential properties in Kirklees at risk from flooding should reduce over the medium to long-term.
3. Minimise the risk of disruption from flooding to the transport network of the District	++	A significant positive effect on this SEA objective is likely as the overarching purpose of the measure associated with this LFRMS objective is to use the available evidence to ensure that new development (which is taken to include new transport infrastructure) is directed to areas of lower flood risk, and to ensure that new development does not increase the risk facing other areas (including where transport infrastructure may be located). As such, the risk of disruption to the transport network in Kirklees caused by flooding should reduce over the medium to long-term.
4. Secure the efficient and prudent use of land and protect soil quality	+	The overarching purpose of the measure associated with this LFRMS objective is to ensure that development is steered to areas which are at lower risk from flooding, and areas where development will not increase the risk of flooding elsewhere. While this is likely to have a positive effect in relation to reducing the overall flood risk in Kirklees and therefore reducing the potential adverse effects of flood events on soil quality (e.g. increased soil erosion), the application of the measure could potentially limit the extent of available land which is considered to be suitable for new development, by prioritising flood risk over other concerns

SA Objectives	SEA Score	Justification
		such as soil quality. However, there is no evidence that this will occur, particularly given that other local planning policies included in the emerging Kirklees Core Strategy would apply. The ambition to avoid development on inappropriate sites leading to an increase in flood risk elsewhere may result in less development coming forward on greenfield land, which would have an indirect positive effect in relation to the prudent use of land. It is also noted that the measure specifies that social and environmental factors (assumed to include effects on soils) will be considered as part of an overall approach to determining the most sustainable solutions. As such, the effects of the measure on this SEA objective are likely to be positive.
5. Protect and enhance the character of Kirklees	+	The overarching purpose of the measure associated with this LFRMS objective is to ensure that development is steered to areas which are at lower risk from flooding, and areas where development will not increase the risk of flooding elsewhere. This could potentially limit the extent of available land which is considered to be suitable for new development, by prioritising flood risk over other concerns such as local character. However, there is no evidence that this will occur, particularly given that other local planning policies included in the emerging Kirklees Core Strategy would apply. The ambition to avoid development on inappropriate sites leading to an increase in flood risk elsewhere may result in less development coming forward on greenfield land, which would have an indirect positive effect on local landscape character. It is also noted that the measure specifies that social and environmental factors (assumed to include local character) will be considered as part of an overall approach to determining the most sustainable solutions. As such, the effects of the measure on this SEA objective are likely to be positive.
6. Preserve and enhance the historic environment	+	The overarching purpose of the measure associated with this LFRMS objective is to ensure that development is steered to areas which are at lower risk from flooding, and areas where development will not increase the risk of flooding elsewhere. While this is likely to have a positive effect in relation to reducing the overall flood risk in Kirklees and therefore reducing the potential for adverse effects of flood events on the historic environment (including both designated and undesignated heritage assets), the application of the measure could potentially limit the extent of available land which is considered to be suitable for new development, by prioritising flood risk over other concerns such the historic environment. However, there is no evidence that this will occur, particularly given that other local planning policies included in the emerging Kirklees Core Strategy would apply and it is also noted that the measure specifies that environmental and social factors will be considered as part of an overall approach to determining the most sustainable solutions. Therefore, the effect of the measure on this SEA objective is likely to be positive.

SA Objectives	SEA Score	Justification
7. Maximise opportunities to protect and enhance biodiversity	+/-?	The overarching purpose of the measure associated with this LFRMS objective is to ensure that development is steered to areas which are at lower risk from flooding, and areas where development will not increase the risk of flooding elsewhere. While this is likely to have a positive effect in relation to reducing the overall flood risk in Kirklees and therefore reducing the potential adverse effects of flood events on biodiversity (both direct and indirect effects such as those arising from changes in water quality), the application of the measure could potentially limit the extent of available land which is considered to be suitable for new development, by prioritising flood risk over other concerns such as biodiversity. However, there is no evidence that this will occur and so the potential negative effect is classed as uncertain. The ambition to avoid development on inappropriate sites leading to an increase in flood risk elsewhere may result in less development coming forward on greenfield land, which is likely to have an indirect positive effect on biodiversity by avoiding habitat loss. It is also noted that the measure specifies that social and environmental factors (assumed to include biodiversity) will be considered as part of an overall approach to determining the most sustainable solutions. While the measure relates to the criteria to be applied to new development, it will not itself lead directly to new development and on this basis the Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS concluded that the measure associated with this objective would not have any significant effects on the integrity of European sites (SACs, SPAs and Ramsar sites) in and around Kirklees. As such, the effects of the measure on this SEA objective are likely to be positive.
8. Reduce the risk of soil and water pollution	+	The overarching purpose of the measure associated with this LFRMS objective is to ensure that development is steered to areas which are at lower risk from flooding, and where development will not increase the risk of flooding elsewhere. As such, an indirect positive effect on soil and water quality is likely as the overall flood risk in the District should be reduced and therefore so would the likelihood of flooding events causing water pollution incidents (e.g. as a result of soil erosion or run-off washing chemical fertilisers into watercourses).
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	++	The measure associated with this LFRMS objective is likely to have a significant positive effect on the prevention of inappropriate new development in high flood risk areas as the primary purpose of the measure is to use the enhanced knowledge and evidence gathered through other LFRMS measures to influence land allocations in local plans in order to reduce the extent of assets at risk from flooding and to ensure that new development coming forward does not increase the risk of flooding elsewhere.

LFRMS Objective 10: Maximise opportunities to reduce surface water run-off from the upper catchments

Measures associated with this LFRMS objective:

- 10.1: Develop proposals to engage with significant landowners to employ land management techniques and initiatives which help to reduce the rate of surface water run-off.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	++	The measure associated with this LFRMS objective involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the overall risk of flooding across the District, including the risk to community and economic assets. As such, a significant positive effect on this SEA objective is likely.
2. Minimise the number of residential properties at risk from flooding	++	The measure associated with this LFRMS objective involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the overall risk of flooding across the District, including the risk to residential properties. As such, a significant positive effect on this SEA objective is likely.
3. Minimise the risk of disruption from flooding to the transport network of the District	++	The measure associated with this LFRMS objective involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the overall risk of flooding across the District, including the risk of disruption to the District's transport network. As such, a significant positive effect on this SEA objective is likely.
4. Secure the efficient and prudent use of land and protect soil quality	+	The measure associated with this LFRMS objective involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby lower the overall risk of flooding across the District. As such, a positive effect is likely as there are less likely to be adverse impacts from flood events on soils (e.g. soil erosion). However, given that the actions encouraged will relate to land management techniques there may be further effects in relation to the prudent use of land and soil quality although this is currently uncertain without more information about what type of land management measures landowners would be encouraged to implement.
5. Protect and enhance the character of Kirklees	+	The measure associated with this LFRMS objective involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby lower the overall risk of flooding across the District. If the measure results in actions such as new planting or other land management activities that may affect the appearance of the local area, there may be positive effects on local character.

SA Objectives	SEA Score	Justification
6. Preserve and enhance the historic environment	+	The measure associated with this LFRMS objective involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the overall risk of flooding across the District, including the risk of adverse effects from flooding on both designated and undesignated historic assets. As such, a positive effect on this SEA objective is likely.
7. Maximise opportunities to protect and enhance biodiversity	+?	The measure associated with this LFRMS objective involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the risk of flooding across the District. This may have positive effects on biodiversity as the reduced overall flood risk will reduce the likelihood of adverse impacts on biodiversity arising from flooding events (both direct impacts and indirect impacts e.g. those resulting from water pollution caused by flooding). However, there is uncertainty regarding the nature of the changes in land management that may take place in the upland south westerly parts of the District in order to regulate rates of run-off and how they might affect biodiversity. This is of particular concern given that the south western part of the District includes parts of the South Pennine Moors SAC which is sensitive to changes in hydrology. For this reason, the HRA that has been carried out in relation to the Draft LFRMS could not conclude that there would be no likely significant negative effects from measure 10.1 on any European sites (SACs, SPAs and Ramsar sites) in and around Kirklees. However, it was also noted that regulating run-off rates should help to regulate water flow which could have a positive effect on maintaining the integrity of these sites. As such, the potential positive effect is uncertain without more detailed information about what actions landowners would be encouraged to take and where in order to reduce rates of run-off.
8. Reduce the risk of soil and water pollution	+	The measure associated with this LFRMS objective involves working with major landowners to implement action on the ground to reduce the rate of surface water run-off and thereby reduce the overall risk of flooding across the District. This is likely to have a positive effect on reducing water pollution by reducing the likelihood of flood events having an adverse impact on water quality (e.g. as a result of soil erosion or run-off washing sediments and/or chemical fertilisers into watercourses).
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing	0	The measure associated with this LFRMS objective is not considered likely to have a direct effect on this SEA objective.

SA Objectives	SEA Score	Justification
property and people elsewhere		

LFRRMS Objective 11: Identify projects and programmes which are affordable, maximising capital funding from external sources

Measures associated with this LFRMS objective:

- 11.1: Develop a pragmatic programme of schemes and initiatives which are likely to be funded through the National Programme or Local Levy.
- 11.2: Develop and implement a policy on de-culverting, consistent with the LDF Core Strategy using evidence in the SWMP and RBMP to aid prioritisation.
- 11.3: Determine all other funding sources, Council, partners and other external and maximise 'match-funding'.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the risk of flooding (including that facing community and economic assets) in Kirklees, by ensuring that a realistic and financially deliverable programme of works to manage flood risk is developed (measures 11.1 and 11.3) and by encouraging de-culverting (measure 11.2).
2. Minimise the number of residential properties at risk from flooding	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the risk of flooding (including that facing residential properties) in Kirklees, by ensuring that a realistic and financially deliverable programme of works to manage flood risk is developed (measures 11.1 and 11.3) and by encouraging de-culverting (measure 11.2).
3. Minimise the risk of disruption from flooding to the transport network of the District	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the risk of flooding in Kirklees, which could otherwise cause disruption to the transport network, by ensuring that a realistic and financially deliverable programme of works to manage flood risk is developed (measures 11.1 and 11.3) and by encouraging de-culverting (measure 11.2).
4. Secure the efficient and prudent use of land and protect soil quality	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the risk of flooding in Kirklees by ensuring that a realistic and financially deliverable programme of works to manage flood risk is developed (measures 11.1 and 11.3) and by encouraging de-culverting (measure 11.2). In this way, a positive effect on soil quality is likely as the likelihood of adverse effects from flood events (e.g. as a result of rapid surface water runoff causing soil erosion) would be reduced.
5. Protect and enhance the character of Kirklees	+?	The removal of culverting under measure 11.2 may have positive effects on the appearance of the local landscape if it results in watercourses being reintroduced into the landscape.
6. Preserve and enhance the	+	The measures associated with this LFRMS objective will combine to have a positive impact

SA Objectives	SEA Score	Justification
historic environment		on reducing the risk of flooding in Kirklees by ensuring that a realistic and financially deliverable programme of works to manage flood risk is developed (measures 11.1 and 11.3) and by encouraging de-culverting (measure 11.2). In this way, a positive effect on the historic environment is likely as the likelihood of adverse effects from flood events on both designated and undesignated heritage assets would be reduced.
7. Maximise opportunities to protect and enhance biodiversity	+?	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding in Kirklees by ensuring that a realistic and financially deliverable programme of works to manage flood risk is developed (measures 11.1 and 11.3) and by encouraging de-culverting (measure 11.2). In this way, a positive effect on biodiversity is predicted as the likelihood of adverse effects from flood events (both direct impacts and indirect impacts e.g. those resulting from water pollution caused by flooding) would be reduced. The Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS concluded that likely significant effects on European sites (SACs, SPAs and Ramsar sites) in and around Kirklees cannot be ruled out, as the measures associated with this LFRMS objective could result in physical works including culvert removal (measure 11.2), which could have direct impacts on the integrity of the South Pennine Moors SAC and SPA if works take place in the catchments affecting the SAC and SPA. Similar impacts on biodiversity in non-designated areas could also occur; however the potential for this is uncertain without more detailed information about the nature and location of the works to be carried out. As such, the likely effect of these measures is positive, but with some uncertainties attached.
8. Reduce the risk of soil and water pollution	+	The measures associated with this LFRMS objective will combine to have a positive impact on reducing the overall risk of flooding in Kirklees by ensuring that a realistic and financially deliverable programme of works to manage flood risk is developed (measures 11.1 and 11.3) and by encouraging de-culverting (measure 11.2). In this way, a positive effect on water quality is likely as the likelihood of adverse effects from flood events (e.g. as a result of soil erosion or run-off washing chemical fertilisers into watercourses) would be reduced.
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	0	The measures associated with this LFRMS objective are not considered likely to have a direct effect on this SEA objective.

LFRRMS Objective 12: Ensure local FRM knowledge is aligned with the Council's emergency planning procedures

Measures associated with this LFRMS objective:

- 12.1: Embed the LFRMS into response and recovery plans and use developing knowledge on flood risk to 'tune' emergency procedures.

SA Objectives	SEA Score	Justification
1. Minimise the risk of flooding to the District's community and economic assets	+	While the main focus of the measure associated with this LFRMS objective relates to the actions to be taken after a flooding event has already occurred, it also specifies that 'post-flooding feedback will add to the information held by the Flood Management team to provide an ever-improving record of local flood risk'. In this way, by contributing to the overall evidence base available to the Council (the LLFA) for flood risk management, the measure could have an indirect positive effect on minimising the risk of flooding across Kirklees, including to the District's community and economic assets.
2. Minimise the number of residential properties at risk from flooding	+	While the main focus of the measure associated with this LFRMS objective relates to the actions to be taken after a flooding event has already occurred, it also specifies that 'post-flooding feedback will add to the information held by the Flood Management team to provide an ever-improving record of local flood risk'. In this way, by contributing to the overall evidence base available to the Council (the LLFA) for flood risk management, the measure could have an indirect positive effect on minimising the risk of flooding across Kirklees, including to residential properties.
3. Minimise the risk of disruption from flooding to the transport network of the District	+	While the main focus of the measure associated with this LFRMS objective relates to the actions to be taken after a flooding event has already occurred, it also specifies that 'post-flooding feedback will add to the information held by the Flood Management team to provide an ever-improving record of local flood risk'. In this way, by contributing to the overall evidence base available to the Council (the LLFA) for flood risk management, the measure could have an indirect positive effect on minimising the risk of flooding occurring across Kirklees and causing disruption to the District's transport network.
4. Secure the efficient and prudent use of land and protect soil quality	+	While the main focus of the measure associated with this LFRMS objective relates to the actions to be taken after a flooding event has already occurred, it also specifies that 'post-flooding feedback will add to the information held by the Flood Management team to provide an ever-improving record of local flood risk'. In this way, by contributing to the overall evidence base available to the Council (the LLFA) for flood risk management, the measure could have an indirect positive effect on protecting soil quality as the adverse impacts on soils that can be associated with flooding events (e.g. soil erosion caused by high levels of

SA Objectives	SEA Score	Justification
		surface water run-off) may be less likely to occur. The measure associated with this LFRMS objective will not result directly in physical works or actions that could have an adverse impact on land use or soil quality.
5. Protect and enhance the character of Kirklees	0	The measure associated with this LFRMS is not expected to have an effect on local character.
6. Preserve and enhance the historic environment	+	While the main focus of the measure associated with this LFRMS objective relates to the actions to be taken after a flooding event has already occurred, it also specifies that 'post-flooding feedback will add to the information held by the Flood Management team to provide an ever-improving record of local flood risk'. In this way, by contributing to the overall evidence base available to the Council (the LLFA) for FRM, the measure could have an indirect positive effect on protecting both designated and undesignated historic assets in Kirklees (such as listed buildings) from the potential impacts of flooding. The measure associated with this LFRMS objective will not result directly in physical works or actions that could have an adverse impact on the setting of heritage assets.
7. Maximise opportunities to protect and enhance biodiversity	+	While the main focus of the measure associated with this LFRMS objective relates to the actions to be taken after a flooding event has already occurred, it also specifies that 'post-flooding feedback will add to the information held by the Flood Management team to provide an ever-improving record of local flood risk'. In this way, by contributing to the overall evidence base available to the Council (the LLFA) for flood risk management, the measure could have an indirect positive effect on protecting biodiversity assets from the potential adverse impacts of flooding (both direct impacts and indirect impacts e.g. those resulting from water pollution caused by flooding). The measure associated with this LFRMS objective will not result directly in physical works or actions that could have an adverse impact on biodiversity (designated or undesignated). For this reason, the Habitats Regulations Assessment that has been carried out in relation to the Draft LFRMS concluded that the measures associated with this objective would not have any significant effects on the integrity of European sites (SACs, SPAs and Ramsar sites) in and around Kirklees.
8. Reduce the risk of soil and water pollution	+	While the main focus of the measure associated with this LFRMS objective relates to the actions to be taken after a flooding event has already occurred, it also specifies that 'post-flooding feedback will add to the information held by the Flood Management team to provide an ever-improving record of local flood risk'. In this way, by contributing to the overall evidence base available to the Council (the LLFA) for flood risk management, the measure could have an indirect positive effect on reducing the likelihood of soil and water quality

SA Objectives	SEA Score	Justification
		being adversely affected by a flooding event (e.g. as a result of soil erosion or run-off washing sediments and/or chemical fertilisers into watercourses). The measure associated with this LFRMS objective will not result directly in physical works or actions that could have an adverse impact on soil or water quality.
9. Prevent inappropriate new development in high flood risk areas and ensure development does not contribute to increased flooding for existing property and people elsewhere	+	While the main focus of the measure associated with this LFRMS objective relates to the actions to be taken after a flooding event has already occurred, it also specifies that 'post-flooding feedback will add to the information held by the Flood Management team to provide an ever-improving record of local flood risk'. In this way, by contributing to the overall evidence base available to the Council (the LLFA) for flood risk management, the measure could have an indirect positive effect by equipping the Council with the information required to ensure that future development is sited in the most appropriate way to avoid an increase in the extent of assets at risk from flooding.

Appendix 5

Consultation Comments Received in Relation to the
Draft SEA Report

Table 1: Comments from Statutory Consultees on the Draft SEA Report (June 2012) for the Kirklees Local Flood Risk Management Strategy

Note that the amendments to the SEA Report that are detailed in this appendix have been addressed in **Sections 5 and 6** of this final SEA Report and the accompanying Non-Technical Summary.

Statutory Consultee	Comment <i>(note that paragraph references in this column refer to those of the Draft SEA Report (June 2012))</i>	Response
Natural England	Section 5.15 - SEA objective 7 has the potential to have some negative effects, such as removal or loss of habitat, as identified in the section. This should be reflected in Table 5.1. Measures to minimise or avoid potential negative effects should be identified, and alternatives considered where appropriate.	Noted. As described in section 5.15 of the Draft SEA Report, the broad effects of LFRMS objectives 3, 7, 8, 10 and 11 are positive; however there are uncertainties attached as it is not currently possible to rule out some negative effects resulting from the measures proposed. However, negative effects are not considered likely, and as such the SEA scores applied in the matrices in Appendix 4 and summarised in Table 5.1 reflect an uncertain minor positive effect rather than any likely negative effects. The wording of Section 5.15 in this final SEA Report has been amended to clarify this.
Natural England	Table 6.1 - For SEA objective 5, Natural England advises that the monitoring should also include a reference to the number of land management initiatives occurring within designated sites within Kirklees.	This additional monitoring measure has been added to the monitoring framework proposed in Table 6.1 of this final SEA Report.