

# Local Flood Risk Management Strategy

## Strategic Environmental Assessment SEA Statement

Warwickshire County Council

March 2016

# Notice

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# Abbreviations

Abbreviation	Definition
DCLG	Department for Communities and Local Government
DEFRA	Department for Environment, Food and Rural Affairs
ER	Environmental Report.
FCERM	Flood and Coastal Erosion Risk Management
HRA	Habitat Regulations Assessment
LFRMS	Local Flood Risk Management Strategy
RMA	Risk Management Authority
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
WCC	Warwickshire County Council

# 1. Introduction

## Background

- 1.1. Strategic Environmental Assessment (SEA) of Local Flood Risk Management Strategies (LFRMSs) is required under European Directive 2001/42/EC 'on the assessment of certain plans and programmes on the environment' (the 'SEA Directive'). In addition, under the Habitats Regulations 2010, it is necessary to assess whether a LFRMS is likely to have a significant effect upon European Sites.
- 1.2. Warwickshire County Council (WCC) has worked in partnership with local authorities, local landowners, developers, the Woodland Trust, the Environment Agency and other agencies to produce a LFRMS to set out how local flood risk will be managed in Warwickshire. The LFRMS has now been finalised for adoption.
- 1.3. The SEA for the WCC LFRMS began in January 2015. The SEA process for the LFRMS has been carried out independently by Atkins Ltd for WCC from May 2015. This SEA Statement is the last of three documents that have been produced as part of the process, the first being the Scoping Report (prepared by WCC), the second being the Environmental Report (prepared by Atkins Ltd) and the third being this SEA Statement (also prepared by Atkins Ltd).
- 1.4. The SEA has been informed by the Habitats Regulations Assessment (HRA) which was undertaken by WCC.

## SEA Statement

- 1.5. The Environmental Assessment of Plans and Programmes Regulations 2004 (The SEA Regulations) require a number of steps to be taken upon adoption of a plan or strategy (in this case the WCC LFRMS). Specifically, Regulation 16 sets out the post-adoption procedures for the SEA and requires that, as soon as is reasonably practicable after the adoption of a plan or strategy for which SEA has been carried out, the local planning authority must make a copy of the plan or strategy, its accompanying Environmental Report and the SEA Statement publicly available.
- 1.6. The SEA Statement must explain:
  - How environmental considerations have been integrated into the LFRMS;
  - How the Environmental Report has been taken into account in preparation of the LFRMS;
  - How the opinions expressed in the consultation on Scoping Report and the Draft Environmental Report have been taken into account;
  - The reasons for choosing the Final LFRMS as adopted, in the light of other reasonable alternatives considered; and
  - The measures that are to be taken to monitor the significant environmental effects of the implementation of the Final LFRMS.
- 1.7. The SEA Statement for the WCC LFRMS should be read together with the Environmental Report which accompanies the LFRMS on adoption.

## Local Flood Risk Management Strategy

- 1.8. The Flood and Water Management Act 2010 (the Act) establishes that flood risk will be managed within the framework of National Strategies for England and Wales and Local Strategies for each Lead Local Flood Authority (LLFA) area. The responsibilities for each LLFA include the preparation and maintenance of a strategy for local flood risk management in their areas, co-ordinating views and activity with other bodies and communities through public consultation and scrutiny, and delivery planning. In the development of a LFRMS, LLFAs should balance the needs of communities, the economy and the environment.

- 1.9. The Warwickshire LFRMS provides an overview and assessment of local flood risk, setting out objectives and measures for how WCC will manage and reduce local flood risk. It covers the county of Warwickshire comprising the five local authorities of North Warwickshire, Nuneaton and Bedworth, Rugby, Stratford upon Avon and Warwick. The Act also requires that the LFRMS must specify the following:
- The risk management authorities in the county;
  - The flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the county;
  - The assessment of local flood risk for the purpose of the Strategy;
  - The objectives for managing local flood risk;
  - 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; and
  - How the Strategy contributes to the achievement of wider environmental objectives.
- 1.10. The LFRMS must be consistent with the national Flood and Coastal Erosion Risk Management (FCERM) strategy, produced by the Environment Agency in September 2011.
- 1.11. The LFRMS will form the framework within which communities have a greater say in local risk management decisions. In combination with the FCERM strategy, the LFRMS will encourage more effective risk management by enabling people, communities, business and the public sector to work together to:
- Ensure a clear understanding of the risks of flooding and 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 residual risk;
  - Encourage innovative management of flood and coastal erosion risks, taking account of the needs of communities and the environment;
  - Form links between the local flood risk management strategy and local spatial planning;
  - Ensure that emergency plans and responses to flood incidents are effective and that communities are able to respond properly to flood warnings; and
  - Help communities to recover more quickly and effectively after incidents.
- 1.12. Local flood risk is defined by the Act as meaning flood risk derived from surface runoff, groundwater and ordinary watercourses. Ordinary watercourses are defined as those which do not form part of a main river. Flood risk from the sea, main rivers and large reservoirs is therefore not defined as local flood risk and is the concern of the Environment Agency. Such sources of flood risk do, however, need to be considered insofar as they may interact with those flood risks defined as local, in order to ensure that all joint risks of flooding are assessed at the local scale.

## Strategic Environmental Assessment

- 1.13. The EU Directive 2001/42/EC<sup>1</sup> (the “SEA Directive”) on assessment of effects of certain plans and programmes on the environment came into force in the UK through the Environmental Assessment of Plans and Programmes Regulations 2004<sup>2</sup> (the “SEA Regulations”). The SEA Regulations apply to a wide range of plans and programmes, including LFRMSs, and modifications to them.
- 1.14. ‘A Practical Guide to the Strategic Environmental Assessment Directive’ by the ODPM, the Scottish Executive, the Welsh Assembly Government and the Northern Ireland Department of the Environment, published in September 2005, provides guidance on how to comply with the Directive in an environmental assessment of a plan or programme. This guide has been considered in the preparation of the SEA for the LFRMS.

<sup>1</sup> European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment

<sup>2</sup> Statutory Instrument 2004 No. 1663, The Environmental Assessment of Plans and Programmes Regulations 2004

- 1.15. An overview of the SEA process that has been undertaken for the WCC LFRMS is provided in Chapter 2.

## Habitats Regulations Assessment

- 1.16. The EU Habitats (92/43/EEC) and Birds (2009/147/EEC) Directives aim to protect European birds and species and the habitats that support them. In the UK, the Directives are implemented through the Conservation of Habitats and Species Regulations 2010, as amended. These are known as the Habitats Regulations.
- 1.17. The legislation requires 'competent authorities' to undertake an 'appropriate assessment' of plans, projects and strategies that may have a significant effect on the site, if those plans, projects or strategies are not directly concerned with the management of the protected sites themselves. The process that includes the 'appropriate assessment' is known as a Habitats Regulations Assessment (HRA).
- 1.18. Paragraphs 109, 113, 118 and 119 of the National Planning Policy Framework (NPPF) are relevant to HRAs. Specifically, paragraph 118 states that any *'sites identified, or required as compensatory measures for adverse effects on European sites Special Protection Areas (SPA) and Special Areas of Conservation (SAC), potential SPAs, possible SACs and listed or proposed Ramsar sites... should be given the same protection as European sites'*.
- 1.19. The HRA of the LFRMS was undertaken by WCC as a separate exercise to the SEA and a HRA Stage 1 Screening Report was prepared by WCC for the Draft LFRMS. A total of five European sites were identified for inclusion within the HRA based on their geographic location (within Warwickshire or a 15km buffer) and their potential to be impacted by the LFRMS. These were then refined following an assessment of the likely impacts of the LFRMS to two sites: Ensor's Pool Special Area of Conservation (SAC) in Nuneaton, Warwickshire and the River Mease SAC in the neighbouring counties of Derbyshire, Leicestershire and Staffordshire.
- 1.20. Following the initial HRA screening of the December 2014 version of the LFRMS, three measures in the LFRMS were scoped in as having the potential to lead to Likely Significant Effects to a European site. No in-combination effects were anticipated from the other plans and projects. A number of 'incorporated mitigation measures' were added to the LFRMS. Following consultation with Natural England in January and February 2016, further amendments were then made to the LFRMS and associated appendices to address the specific concerns raised by Natural England.
- 1.21. The final March 2016 LFRMS was re-screened with the result that there were no Likely Significant Effects on any European Sites / Natura 2000 sites due to the amended wording and new commitments made in the final version of the LFRMS.
- 1.22. The findings of the HRA were integrated into the SEA where appropriate.

## 2. Overview of the SEA Process – Role of the SEA in developing the LFRMS

### Scoping

- 2.1. The SEA started as the preparation of the LFRMS began and it has progressed concurrently in an iterative manner in order to feedback environmental and sustainability objectives and policies into the plan making process. The SEA has been used as a tool for improving the LFRMS formulation process from inception through production to adoption of the solutions included in the LFRMS.
- 2.2. Initially, work undertaken for the Scoping Report in establishing the environmental baseline and identifying key environmental and social, including health, issues in the Warwickshire area identified opportunities and relevant environmental themes. This had implications for the development of the LFRMS and played a key role in developing a framework set of objectives known as the SEA framework.

### Compatibility assessment between SEA Objectives and LFRMS Challenges

- 2.3. At the initial stages of developing the Draft LFRMS an analysis was undertaken to identify to what extent the five Draft LFRMS objectives were compatible with the SEA objectives contained in the SEA framework. This is detailed in Section 7 of the Environmental Report. With the exception of LFRMS objective 2, the Draft LFRMS objectives were compatible with the SEA objectives or compatibility was deemed to be dependent on implementation and therefore could not be ascertained with certainty at this stage.
- 2.4. Recommendations regarding the wording of LFRMS objectives 1 and 2 were made to improve the potential for more sustainable implementation of the objectives. These recommendations were considered by WCC which resulted in objective 1 being modified in line with the SEA recommendation, and objective 2 being reworded for clarity.
- 2.5. It is considered that the final LFRMS objectives represent an improvement on the previous objectives from the perspective of environmentally sustainable development, largely taking into account the SEA recommendations.

### Consideration of Strategic alternatives

- 2.6. Section 8 of the Environmental Report considers the analysis of alternatives, and should be read in conjunction with this SEA Statement.
- 2.7. It is normal practice when developing a strategy to propose different ways (options) of fulfilling its objectives. The approach adopted by WCC in the formulation of the LFRMS must respond to the key objectives, high level principles and measures set out in the National FCERM. In addition, guidance from DEFRA and DCLG specifies particular approaches which the Council must follow.
- 2.8. This left little flexibility to develop 'real' strategic options for the LFRMS as the overall strategy had already been defined nationally. In reality, the development of the LFRMS was a case of pursuing a series of alternative measures in parallel with the national measures. Some of these were pursued to a greater extent, others to a lesser extent depending on local priorities for each of the identified LFRMS objectives.






2.9. As part of the LFRMS development process, WCC initially identified a number of alternative measures for each LFRMS's objectives. The assessment considered two possible options ('Do Nothing' and 'Do-More') to each alternative measure; the 'Do More' option being the proposed alternative measure and 'Do Nothing' being the non-adoption of the proposed alternative measure. The following measures were considered:

- LFRMS Objective 1:
  - Measure 1A: Further develop the Surface Water Management Plan for the county to gain a better understanding of key flooding hotspots, risks and associated consequences.
  - Measure 1B: Work with partners to investigate locally significant flooding incidents and identify sources, pathways and receptors of flooding.
- LFRMS Objective 2:
  - Measure 2A: The actions of the emerging SWMP to be progressed, where suitable flood risk management schemes are identified and funding to be sought.
  - Measure 2B: To work with partners to encourage flood management activities by riparian landowners on ordinary watercourses and flood defence structures as well as limiting the development of constrictions on ordinary watercourses through consenting and, if necessary, enforcement.
  - Measure 2C: To work with partners to encourage flood schemes by third parties, riparian landowners and stakeholders.
- LFRMS Objective 3:
  - Measure 3A: To continue to develop the Warwickshire Strategic Flood Forum (WSFF) and relations with other partners.
  - Measure 3B: To share knowledge and training opportunities with partners.
  - Measure 3C: Continue to work with and support community flood action groups, Town and Parish Councils and other community groups.
  - Measure 3D: To work with neighbouring Lead Local Flood Authorities to ensure a catchment-based approach to local flood risk management.
- LFRMS Objective 4:
  - Measure 4A: To work with partners to reduce the impacts of flooding by enabling an efficient response to, and recovery from, flooding incidents by partners and stakeholders.
  - Measure 4B: To work with partners to reduce the harmful consequences of local flooding to communities and human health through pro-active actions, community activities and education programmes that enhance preparedness and resilience to local flood risk, thereby promoting community cohesion and minimising community disruption.
- LFRMS Objective 5:
  - Measure 5A: To work with partners to produce local policies and guidance and set standards to promote a positive impact on flood risk from new development, and to prevent any increase in flood risk, including the possible impacts of climate change.
  - Measure 5B: To maximise opportunities for contributions towards existing and proposed flood risk management from new development to address local flood risk.

2.10. The 'Do Nothing' and 'Do-More' options for each measure were tested against the SEA objectives (see Table 2.1). The assessment showed that the 'Do More' option was the preferred option for each of the measures, as the 'Do Nothing' option may not be compatible with the SEA objectives in most cases.




























































































































**Table 2.1 Assessment summary for the strategic alternatives**

Key:

	conflict with SEA objectives - Measure is likely to have a negative effect on the SEA objective
	may / may not be compatible with SEA objectives - Measure may have a positive or negative effect on the SEA objective depending on implementation
	compatible with SEA objectives - Measure is likely to have a positive effect on the SEA objective
n/a	not applicable or not relevant to the SEA objective
neutral	no effect

**SEA Objectives**

- 1 Reduce health inequalities and promote community health, social care and well-being
- 2 Reduce the risk of surface, groundwater and sewer flooding taking account of climate change
- 3 Conserve and enhance Warwickshire's biodiversity, geodiversity and green infrastructure network
- 4 Conserve and enhance European sites (HRA specific objective)
- 5 Safeguard and strengthen landscape character and quality
- 6 Conserve and enhance the historic environment, heritage assets and their settings
- 7 Protect and enhance soil and soil function, and increase resilience to degradation
- 8 Reduce the causes of climate change
- 9 Protect and improve the water environment
- 10 Encourage people and businesses to take action to manage the flood risks they face

Measure	Option	SEA1	SEA2	SEA3	SEA4	SEA5	SEA6	SEA7	SEA8	SEA9	SEA10
1A	Do Nothing										
	Do-More										
1B	Do Nothing										
	Do-More										
2A	Do Nothing										
	Do-More										
2B	Do Nothing										
	Do-More										
2C	Do Nothing										
	Do-More										
3A	Do Nothing										
	Do-More			neutral	neutral	neutral	neutral	neutral	neutral	neutral	
3B	Do Nothing										

Measure	Option	SEA1	SEA2	SEA3	SEA4	SEA5	SEA6	SEA7	SEA8	SEA9	SEA10
	Do-More	😊	😊	neutral	neutral	neutral	neutral	neutral	neutral	neutral	😊
3C	Do Nothing	😐	😐	😐	😐	😐	😐	😐	😐	😐	😐
	Do-More	😊	😊	neutral	neutral	neutral	neutral	neutral	neutral	neutral	😊
3D:	Do Nothing	😐	😐	😐	😐	😐	😐	😐	😐	😐	😐
	Do-More	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
4A	Do Nothing	😐	😐	n/a	n/a	n/a	n/a	n/a	n/a	n/a	😐
	Do-More	😊	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	😊
4B	Do Nothing	😐	😐	n/a	n/a	n/a	n/a	n/a	n/a	n/a	😐
	Do-More	😊	😊	n/a	n/a	n/a	n/a	n/a	n/a	n/a	😊
5A	Do Nothing	😐	😐	😐	😐	😐	😐	😐	😐	😐	😐
	Do-More	😊	😊	neutral	neutral	neutral	neutral	neutral	neutral	neutral	neutral
5B	Do Nothing	😐	😐	n/a	n/a	n/a	n/a	n/a	n/a	n/a	😐
	Do-More	😊	😊	n/a	n/a	n/a	n/a	n/a	n/a	n/a	😊

2.11. Recommendations for additional measures in order to enhance the environmental sustainability performance of the LFRMS were also made, as follows:

- LFRMS Objective 1 - In addition to the measures identified, the creation of a register of flood defence assets would further improve local knowledge on localised flooding and ascertain where further investigations are required to assess whether the risk or impacts associated with flooding can be minimised.
- LFRMS Objective 2 - In addition to the measures identified, it is recommended that a measure promoting solutions which work with the natural environment and reduce environmental impacts should be sought. This would result in increased compatibility with wider environmental sustainability objectives.
- LFRMS Objective 3 – No recommendations.
- LFRMS Objective 4 - Further measures that could be considered in the development of the preferred strategy include working with partners to improve communications during flood events and establish a co-ordinated approach to the provision of management

measures during flood events. This would strengthen the compatibility with the SEA objectives already identified.

- LFRMS Objective 5 - Further measures that could be considered in the development of the preferred strategy include the development of further policy and guidance to control inappropriate development and the promotion of SuDS measures in new development. This would improve the contribution of this objective to wider environmental objectives.

2.12. WCC developed a LFRMS Preferred Option that fully took on board the SEA recommendations above; and a revised set of measures was included in the Draft LFRMS (see Table 2.2).

## Assessment of Draft LFRMS preferred strategy

2.13. Following on from the assessment of strategic options, a draft preferred strategy for the LFRMS was developed. This was based on the 'Do More' option for each of the measures identified above, taking on board the SEA recommendations made above.

2.14. In addition, the Draft LFRMS preferred strategy identified a number of 'No Regrets' measures, comprising actions that WCC and partners have already undertaken, are currently doing, and should continue to do to effectively manage local flood risk in Warwickshire. These measures have been prioritised by WCC on the basis of the number of properties at risk of flooding and the likelihood of a scheme receiving funding.

2.15. These 'No Regrets' measures were also considered in the assessment of the Draft LFRMS preferred strategy. They were assessed according to their relationship with the LFRMS Objectives and as an integral part of the Draft LFRMS strategy.

2.16. The Draft LFRMS preferred strategy (June 2015) was assessed against the SEA framework and the full results are presented in the Environmental Report. The assessment summary is presented in Table 2.2.

**Table 2.2 Assessment summary for the preferred measures**

Key:

Assessment Scale	Assessment Category	Significance of Effect
+++	Strongly positive	Significant
++	Moderately positive	
+	Slightly positive	Not Significant
0	Neutral or no obvious effect	
-	Slightly negative	
--	Moderately negative	Significant
---	Strongly negative	
?	Effect uncertain	

Measures	SEA 1	SEA 2	SEA 3	SEA 4	SEA 5	SEA 6	SEA 7	SEA 8	SEA 9	SEA 10
<b>Objective 1: To develop a better understanding of local flood risk in Warwickshire</b>										
1A: Further develop the Surface Water Management Plan for the county to gain a better understanding of key flooding hotspots, risks and associated consequences.	+	++	+	+	+	+	+	+	+	0
1B: Work with partners to investigate locally significant flooding incidents and identify	+	++	0	0	0	0	0	0	0	++

Measures	SEA 1	SEA 2	SEA 3	SEA 4	SEA 5	SEA 6	SEA 7	SEA 8	SEA 9	SEA 10
sources, pathways and receptors of flooding.										
1C: Further develop and continue to maintain a register of flood risk management assets with a record of the significant structures with respect to flood risk, together with details of ownership and state of repair and where appropriate the designation of such structures or features, which may affect flood risk.	0	++	0	0	0	0	0	0	0	+
1D: Review the Preliminary Flood Risk Assessment as required by the EU Floods Directive and Flood Risk Regulations (2009).	0	+	0	0	0	0	0	0	0	0
'No Regrets' Measure: Solving minor drainage systems blockages during investigative work.	+	+	0	0	0	0	0	0	0	0
<b>Objective 2: Adopt an economically and environmentally sustainable approach to management of local flood risk in Warwickshire</b>										
2A: The actions of the emerging SWMP to be progressed, where suitable flood risk management schemes are identified and funding to be sought.	++	+++	--	--	--	--	--	--	--	--
2B: To work with partners to encourage flood management activities by riparian landowners on ordinary watercourses and flood defence structures as well as limiting the development of constrictions on ordinary watercourses through consenting and, if necessary, enforcement.	++	+++	--	--	--	--	+	--	++	+++
2C: To work with partners to encourage flood schemes by third parties, riparian landowners and stakeholders.	++	+++	--	--	--	--	--	--	--	+++
2D: To lead on the implementation of local flood risk management schemes and work with partners to best utilise funding obtained through a prioritised risk-based approach.	++	+++	+	+	+	+	+	+	++	+++
2E: To promote environmentally sustainable solutions including de-culverting, natural flood risk management, blue/green infrastructure, increased tree cover, catchment sensitive farming.	++	++	+	+	+	+	+	+	+	+
2F: To ensure that Natura 2000 sites within Warwickshire are not adversely affected by flood risk management activities.	0	0	+++	+++	+	0	0	0	+	0
2G: Aim to ensure a no net loss of biodiversity and where possible look to provide a net gain through habitat creation and enhancement, contributing to wider environmental objectives.	0	+	+++	+++	+	0	0	0	+	0
'No Regrets' Measure: Leading on and assisting in the completion of flood alleviation schemes where there are clearly identified flood risk management issues (such as in Aston Cantlow, Weddington, Polesworth, etc.).	++	+++	--	--	--	--	--	--	--	--
'No Regrets' Measure: Quick win small-scale flood risk management schemes such as minor highway works.	+	+	-	-	-	-	-	-	-	-
'No Regrets' Measure: Bidding for funding allocations for flood alleviation schemes (such as in Snitterfield, Fenny Compton, Ladbroke, Broadwell, Cherington, etc.).	++	+++	--	--	--	--	--	--	--	--
<b>Objective 3: Adopt a collaborative approach to local flood risk management</b>										

Measures	SEA 1	SEA 2	SEA 3	SEA 4	SEA 5	SEA 6	SEA 7	SEA 8	SEA 9	SEA 10
3A: To continue to develop the Warwickshire Strategic Flood Forum (WSFF) and relations with other partners.	+	+	0	0	0	0	0	0	0	++
3B: To share knowledge and training opportunities with partners.	0	+	0	0	0	0	0	0	0	+++
3C: Continue to work with and support community flood action groups, Town and Parish Councils and other community groups.	+	+	0	0	0	0	0	0	0	+++
3D: Continue to engage local communities building on the progress made by the Community Flood Resilience Pathfinder Project.	+	+	0	0	0	0	0	0	0	+++
3E: To work with neighbouring Lead Local Flood Authorities to ensure a catchment-based approach to local flood risk management.	+	++	+	+	+	+	+	+	+	+
<b>Objective 4: Promote community preparedness and resilience to local flood risk</b>										
4A: To work with partners to reduce the impacts of flooding by enabling an efficient response to, and recovery from, flooding incidents by partners and stakeholders.	++	0	0	0	0	0	0	0	0	++
4B: To work with partners to reduce the harmful consequences of local flooding to communities and human health through pro-active actions, community activities and education programmes that enhance preparedness and resilience to local flood risk, thereby promoting community cohesion and minimising community disruption.	+++	++	0	0	0	0	0	0	0	+++
4C: Continue the work of the Warwickshire Flood Resilience Community Pathfinder project in supporting local groups to increase the resilience of their communities to flooding.	+++	++	0	0	0	0	0	0	0	+++
4D: Continue to work with partners to improve communications and advice given during flooding events.	+	0	0	0	0	0	0	0	0	+
4E: To work with partners to establish a co-ordinated approach to the provision of temporary flood risk management measures.	+	+	0	0	0	0	0	0	0	+
'No Regrets' Measure: Engagement with flooded communities, in particular through the Community Flood Resilience Pathfinder project.	+++	++	0	0	0	0	0	0	0	+++
<b>Objective 5: Enable planning decisions to take full account of local flood risk and seek to reduce local flood risk through development</b>										
5A: To work with partners to produce local policies and guidance and set standards to promote a positive impact on flood risk from new development, and to prevent any increase in flood risk, including the possible impacts of climate change.	+	++	0	0	0	0	0	0	0	0
5B: To maximise opportunities for contributions towards existing and proposed flood risk management from new development to address local flood risk.	+	++	0	0	0	0	0	0	0	0
5C: Develop byelaws where beneficial to control development.	+	++	+	0	0	0	0	0	+	0

Measures	SEA 1	SEA 2	SEA 3	SEA 4	SEA 5	SEA 6	SEA 7	SEA 8	SEA 9	SEA 10
5D: Work with relevant partners to promote SuDS measures for new developments through the LLPA's role as a statutory consultee on major planning applications.	+	+++	+	0	+	0	+	0	++	0

2.17. The assessment indicated that, in general, the June 2015 Draft LFRMS proposals are likely to result in positive or neutral environmental effects, with the exception of some of the measures under LFRMS Objective 2.

2.18. Significant positive effects are predicted with regards to the promotion of community health and wellbeing (SEA objective 1), reducing the risk of flooding (SEA objective 2), and encouraging people and businesses to take action (SEA objective 10). These significant effects arise as these measures are likely to ensure that:

- critical areas requiring more urgent prioritisation would be allocated funding;
- knowledge of local flood risk is improved and the results of the flood risk investigations shared with partners;
- public participation in flood risk management activities is actively encouraged;
- the level of information on local flood risk issues is improved and knowledge is shared and collaboration is achieved;
- information is shared and discussion with property owners with regards flood resilience measures takes place;
- local policies, guidance and standards are produced to prevent flood risk arising from new development; these will strengthen the basis for rejection of planning applications that could have an adverse impact on flood risk;
- opportunities for funding contributions are identified thus increasing the ability for implementation of flood risk schemes; and
- SuDS are implemented as necessary.

2.19. However, a number of measures under LFRMS objective 2 could lead to significant adverse effects on most SEA objectives as they propose funding to be sought for flood risk management schemes emerging from the SWMP and encouragement of flood management activities by riparian landowners.

2.20. As a result of the assessment, the Draft Environmental Report made a series of recommendations that aimed to improve the overall environmental performance of the Draft LFRMS. Table 2.3 lists the recommendations contained within the Draft Environmental Report and how these have been considered and/or incorporated into the Draft LFRMS.

**Table 2.3 Recommendations made in the Draft Environmental Report**

Recommendation of the Draft Environmental Report	How the recommendation is reflected in the Draft LFRMS
<p>As the recommendation for the change of wording of LFRMS Objective 1 had been accepted (see Section 2.11) by WCC, it is further recommended that the wording of Measure 1A is changed to recognise that the associated consequences of the LFRMS can be economic, social and environmental. This is in line with the fact that an SEA will be necessary for the Surface Water Management Plan and that economic analysis will also be undertaken.</p>	<p>The recommendation has been taken on board and the wording for Measure 1A has been revised as follows:</p> <p><i>‘Further develop the Surface Water Management Plan for the county to gain a better understanding of key flooding hotspots, risks and associated economic, social and environmental consequences.’</i></p>
<p>As Measures 2A, B and C proposed under LFRMS Objective 2 could lead to significant adverse environmental effects and other proposed measures (in particular Measures 2D and E) within the same objective are not considered sufficiently robust to counteract adverse effects it is recommended that the measures are altered as follows: ‘Measure 2D: An additional action could indicate that schemes with the most multiple benefits will be implemented’.</p>	<p>The recommendation has been taken on board and the wording for Measure 2D has been revised as follows:</p> <p><i>‘To lead on the implementation of local flood risk management schemes and to work with partners to best utilise funding streams through a prioritised risk-based approach and through promoting schemes with the most multiple benefits.’</i></p>
<p>Measure 2E: The proposed action should read ‘Environmentally sustainable solutions will be fully considered in WCC led and in all other flood risk management measures, using a catchment based approach where applicable.’</p>	<p>The recommendation has been taken on board and the wording for Measure 2E has been revised as follows:</p> <p><i>‘Environmentally sustainable solutions will be fully considered in WCC led and in all other flood risk management measures, using a catchment based approach where applicable.’</i></p>

2.21. No recommendations for additional measures or actions under LFRMS objectives 3, 4 and 5 were required, as these objectives result in positive or neutral environmental effects.

## 3. Assessment of the Final LFRMS

3.1. The Draft LFRMS Preferred Strategy took on board the SEA recommendations set in the previous chapter. The final version of LFRMS has now been reviewed (as part of the preparation of this SEA Statement) to establish whether the updated document would require any changes to be made to the earlier assessment of the Draft LFRMS.

3.2. It should be noted that the Draft Environmental Report has been re-issued under the title Environmental Report to accompany the Final LFRMS on adoption and readers should refer to the latter document for previous assessment results.

3.3. The changes made to the LFRMS measures are set out in Table 3.1.



**Table 3.1 Changes made to LFRMS measures**

<b>Draft LFRMS measure tested in the Draft Environmental Report</b>	<b>Final LFRMS measure</b>	<b>Comments</b>
1C: Further develop and continue to maintain a register of flood risk management assets with a record of the significant structures with respect to flood risk together with details of ownership and state of repair and where appropriate the designation of such structures or features, which may affect flood risk.	1C: Further develop and continue to maintain a register of flood risk management assets with a record of the significant structures with respect to flood risk.	The actions identified under this measure have not changed. The requirement for a record of structures remains part of the measure and one of the actions associated with this measure. This results in no change to the assessment undertaken in the ER.
1D: Review the Preliminary Flood Risk Assessment as required by the EU Floods Directive and Flood Risk Regulations 2009	1D: Review the Preliminary Flood Risk Assessment as required by the EU Floods Directive and Flood Risk Regulations 2009 and contribute to the other requirements.	This measure has been slightly reworded to include contribution to other requirements. These other requirements have not been determined, and therefore this results in no change to the assessment undertaken in the ER.
2B: To work with partners to encourage flood management activities by riparian landowners on ordinary watercourses, and flood structures, as well as limiting the development of constrictions on ordinary watercourses through consenting and, if necessary, enforcement.	2B: WCC to work with partners to encourage flood management and maintenance activities by riparian landowners on ordinary watercourses, and flood defence and drainage structures, as well as limiting the development of constrictions on ordinary watercourses through consenting and, if necessary, enforcement.	The reworded measure includes specific reference to maintenance, and a new action under this measure has been included to encourage maintenance. Whilst this change enhances the wording of the LFRMS measure, there is still no guarantee that activities and structures will not lead to significant adverse environmental effects. This therefore results in no change to the assessment undertaken in the ER.
2C: To work with partners to encourage flood schemes by third parties, riparian landowners and stakeholders.	2C: WCC to work with partners, including those in the Warwickshire Strategic Flood Forum (WSFF), to encourage flood schemes by third parties, riparian landowners and stakeholders and to ensure that Natura 2000 sites and Sites of Special Scientific Interest (SSSIs) are not adversely affected by flood risk management activities.	The rewording of this measure includes greater protection for protected sites. This has resulted in a change in the assessment undertaken in the ER. It is considered to have a positive impact on SEA Objectives 3 and 4 to conserve and enhance biodiversity and to conserve and enhance European sites. No change to the assessment of other objectives is predicted.
2D: To lead on the implementation of local flood risk management schemes and work with partners to best utilise funding obtained	2D: To lead on the implementation of local flood risk management schemes and to work with partners to best utilise funding streams	The rewording of this measure includes greater potential for promoting schemes with multiple benefits. This results in an increase in the positive impact on a number of SEA objectives,

Draft LFRMS measure tested in the Draft Environmental Report	Final LFRMS measure	Comments
through a prioritised risk-based approach.	through a prioritised risk-based approach and through promoting schemes with the most multiple benefits.	including SEA Objective 3 to conserve and enhance biodiversity, geodiversity and green infrastructure network, SEA objective 5 to Safeguard and strengthen landscape character and quality, SEA Objective 6 to Conserve and enhance the historic environment, SEA objective 7 to protect and enhance soil and soil function and SEA objective 8 to reduce the causes of climate change. Overall, a strongly positive impact is not recorded for all objectives as there is no guarantee that a scheme addressing all SEA objectives will be possible.
2E: To promote environmentally sustainable solutions including de-culverting, natural flood risk management, blue/green infrastructure, increased tree cover, catchment sensitive farming.	2E: To ensure environmentally sustainable solutions are fully considered in WCC led and in all other flood risk management measures, using a catchment based approach where applicable.	The rewording of the measure to “ensure” that sustainable solutions are fully considered, and the inclusion of an action to undertake a feasibility to study to seek opportunities for implementation of natural catchment management techniques provides commitment to the consideration of sustainable solutions. However, this does not change the assessment undertaken in the ER as the measure does not provide certainty that such solutions will be implemented, only that their potential will be explored.
<p>2F: To ensure that Natura 2000 sites within Warwickshire are not adversely affected by flood risk management activities.</p> <p>2G: Aim to ensure a no net loss of biodiversity and where possible look to provide a net gain through habitat creation and enhancement, contributing to wider environmental objectives.</p>	Measures 2F and 2G have been combined into Measure 2F: Aim to ensure a no net loss of biodiversity, particularly in Local Wildlife Sites, and where possible look to provide a net gain through habitat creation and enhancement, contributing to wider environmental objectives.	These measures have been combined into a single measure, which has been expanded to include Local Wildlife Sites. This measure was assessed in the ER to have a strongly positive significant effect on the SEA Objective 3 related to biodiversity, and this effect is considered to remain the same with the inclusion of Local Wildlife Sites.
Not included in the Draft LFRMS	2G: To ensure no deterioration in Water Framework Directive (WFD) waterbody status as a result of flood risk management activities, and where possible look to enhance status through implementation of the recommendations of the River Basin Management Plans	This measure has been added to the LFRMS to reflect the importance of WFD. This is considered to have a positive impact on SEA Objective 9 to protect and improve the water environment. This may also contribute to the SEA Objectives 3 (to conserve and enhance Warwickshire’s biodiversity, geodiversity and green infrastructure network) and 4 (to

Draft LFRMS measure tested in the Draft Environmental Report	Final LFRMS measure	Comments
	(RBMPs).	conserve and enhance European sites) where there is a link between water quality and these sites. No deterioration in water quality may also have a positive effect on SEA objective 1 in relation to promoting community health and well-being. This measure has a neutral effect on the other SEA objectives.
4C: Continue the work of the Warwickshire Flood Resilience Community Pathfinder project in supporting local groups to increase the resilience of their communities to flooding.	4C: Continue the work of the Warwickshire Community Flood Resilience Pathfinder project in supporting local groups to manage local flood risk and increase the resilience of their communities to flooding	Minor re-wording of the measure. This therefore results in no change to the assessment undertaken in the ER.
5D: Work with relevant partners to promote SuDS measures for new developments through the LLPA's role as a statutory consultee on major planning applications.	5D: Work with relevant partners to promote SuDS measures for new developments through the role as a statutory consultee on major planning applications	Minor re-wording of the measure. This therefore results in no change to the assessment undertaken in the ER.

- 3.4. The revised wording of the existing measures identified above relates to enhanced wording of measures to meet the objectives of the LFRMS. The changes are not considered to fundamentally change the assessment and the review has concluded that the SEA scoring and the justifications for these measures set out in the Draft Environmental Report remain valid.
- 3.5. Measure 2D has been updated to include specifically the promotion of schemes with the most multiple benefits. The inclusion of multiple benefits results in an improvement in the performance of this objective against the SEA objectives, in particular SEA Objective 3 to conserve and enhance biodiversity, geodiversity and green infrastructure network, SEA objective 5 to Safeguard and strengthen landscape character and quality, SEA Objective 6 to Conserve and enhance the historic environment, SEA objective 7 to protect and enhance soil and soil function and SEA objective 8 to reduce the causes of climate change.
- 3.6. Measure 2C has been updated to include protection for Natura 2000 sites and SSSIs. This has resulted in a change in the assessment undertaken in the ER, as shown in Table 3.2. It is considered to have a positive effect on SEA Objectives 3 and 4 to conserve and enhance biodiversity and to conserve and enhance European sites. No change to the assessment of other objectives is predicted.
- 3.7. Measure 2G is additional to the measures included in the Draft LFRMS. An assessment of this measure, as shown in Table 3.2, indicates that overall it will have a strongly positive effect on SEA Objective 9 to protect and improve the water environment, and a slightly positive effect on SEA Objectives 3 and 4 related to protection of biodiversity and protected European sites. This measure may also have a slight positive effect on SEA Objective 1 in relation to community health and well-being by ensuring no deterioration in water quality related to WFD waterbody status.

Table 3.2 Assessment of Measures 2C and 2G

Measure	SEA 1	SEA 2	SEA 3	SEA 4	SEA 5	SEA 6	SEA 7	SEA 8	SEA 9	SEA 10
<b>Objective 2: Adopt an economically and environmentally sustainable approach to management of local flood risk in Warwickshire</b>										
2C: WCC to work collaboratively with partners, including those in the Warwickshire Strategic Flood Forum (WSFF), to encourage flood schemes by third parties, riparian landowners and stakeholders and to ensure that Natura 2000 sites and Sites of Special Scientific Interest (SSSIs) are not adversely affected by flood risk management activities.	++	+++	+	+	--	--	--	--	--	+++
2D: To lead on the implementation of local flood risk management schemes and to work with partners to best utilise funding streams through a prioritised risk-based approach and through promoting schemes with the most multiple benefits.	++	+++	++	+	++	++	++	++	++	+++
2G: To ensure no deterioration in WFD waterbody status as a result of flood risk management activities and where possible look to enhance status through implementation of the recommendations of the River Basin Management Plans.	+	0	+	+	0	0	0	0	+++	0

Key: see Table 2.2

3.8. In conclusion, the environmental and social performance of Final LFRMS remains the same as recorded in the Draft Environmental Report, with the exception of the inclusion of Measures 2C and 2G as reported above.

## 4. Consultation in the SEA process

4.1. Two consultation periods are required by the SEA Regulations. The first, for the Scoping Report, involves consulting the statutory consultation authorities comprising the Environment Agency, Natural England and Historic England. The second, for the Draft Environmental Report, involves consulting those same organisations and the wider public. Further information is provided below:

### Scoping Report

4.2. The Scoping Report was the subject of consultation between February and March 2015. The report detailed:

- The plans, policies and programmes relevant to the LFRMS;
- Environmental, social and health baseline information;
- The key environmental, social and health issues and problems facing the area; and
- A framework of objectives and indicators based on the tasks above, to be used in the SEA assessment process (“The SEA Framework”).

4.3. Comments were received from the Environment Agency and Natural England. Appendix A summarises the main consultees’ comments on the Scoping Report and indicates how these

comments were addressed in the preparation of the Draft LFRMS and Draft Environmental Report.

## **Environmental Report**

- 4.4. The Draft Environmental Report and Draft LFRMS were the subject of public consultation from 11th September 2015 to 4th December 2015. The Draft Environmental Report, which included the information contained in the Scoping Report, indicated how the Scoping Report consultation responses were considered, presented the assessment of effects of the LFRMS strategic alternatives and of the LFRMS preferred strategy, proposed mitigation measures and recommendations to improve the environmental performance of the LFRMS and proposed a monitoring programme for the significant effects identified by the SEA. No comments on the Draft Environmental Report were received. Comments on the LFRMS were received from the Environment Agency and are presented in Appendix B for information only. No change to the Draft Environmental Report has been required as a result of consultation.

## 5. Monitoring requirements

- 5.1. The SEA Directive states that 'member states shall monitor the significant environmental effects of the implementation of plans and programmes....in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action' (Article 10.1). In addition, the Environmental Report should provide information on a 'description of the measures envisaged concerning monitoring' (Annex I (i)) (Stage E).
- 5.2. SEA monitoring involves measuring indicators which will enable the establishment of a causal link between the implementation of the plan and the likely significant effect (beneficial or adverse) being monitored. It can be used to answer questions such as:
  - Were the assessment's predictions of environmental effects accurate?
  - Is the LFRMS contributing to the achievement of desired environmental objectives?
  - Are mitigation measures performing as well as expected?
  - Are there any adverse effects? Are these within acceptable limits, or is remedial action required?
- 5.3. A preliminary monitoring programme was proposed in the Draft Environmental Report. Following consultation on the Draft Environmental Report, no comments were received on the Draft Environmental Report and therefore no amendments to this monitoring programme have been made in the Environmental Report.
- 5.4. Table 5.1 contains the monitoring programme for the Final LFRMS for those effects deemed to be significant. This includes significant cumulative adverse effects in combination with other plans. It contains indicators which have been identified taking the requirement for post-implementation monitoring into consideration and which should be considered by WCC when implementing the LFRMS.
- 5.5. Existing guidance recommends monitoring to be incorporated into Local Authority's existing monitoring arrangements. It is therefore recommended that the monitoring of the SEA of the LFRMS is undertaken alongside other regular monitoring programmes.

**Table 5.1 Monitoring Programme**

<b>No</b>	<b>Predicted Effect</b>	<b>Potential Indicators to Monitor Change</b>	<b>Target</b>	<b>Responsibility /frequency of monitoring</b>
1	Promote community health and well-being of the population and reduce health inequalities	Number of elderly people at risk of the adverse consequences of flooding	Reduce	WCC/Annual
		Number of flood risk management schemes that reduce people's ability to access green spaces	Nil	WCC/Annual
		Number of disabled people at risk of flooding	Reduce	WCC/Annual
		Number of households and businesses registered for flood warnings as a percentage of total number of households and businesses at risk of flooding	Reduce	WCC/Annual
2	Reduce the risk of surface, groundwater and sewer flooding taking account of climate change	Number of residential properties within flood risk areas	Reduce	WCC/Annual
		Number of non-residential properties within flood risk areas	Reduce	WCC/Annual
3/4	Conserve and enhance Warwickshire's biodiversity, geodiversity and green infrastructure	Number of flood risk management interventions which have an adverse effect on European Sites (through increased flood risk or flood management interventions)	Nil	WCC/Annual
		Area of SSSI lost to flood risk management interventions	Nil	WCC/Annual
	Conserve and enhance European	Area of protected woodland and trees lost through flood risk management interventions	Nil	WCC/Annual

	sites (HRA specific objective)	Area of LNR lost to flood risk management interventions	Nil	WCC/Annual
		Number of new flood risk management interventions delivering habitat creation or enhancement	Increase	WCC/Annual
		Number of flood risk management interventions that work with natural processes	Increase	WCC/Annual
		Area of green space important for wildlife corridors identified and safeguarded or enhanced as part of flood management	Increase	WCC/Annual
		Number of flood risk management interventions that improve land stability	Increase	WCC/Annual
9	Protect and improve the water environment	Length of improved watercourse as part of flood risk management interventions	Increase	WCC/Annual
		Number of new developments generating an increase in surface water runoff	Nil	Local Authorities/Annual
		Number of new developments incorporating Sustainable Urban Drainage	Increase	Local Authorities/Annual
10	Encourage people and businesses to take action to manage the flood risks they face	Number of people who understand the consequences of flood risk and how to live with it (informed through action groups etc)	Increase	WCC/Annual



# Appendix A. Scoping Report Consultation Comments

(To be read in conjunction with the WCC Final LFRMS: Strategic Environmental Assessment Environmental Report to which all references apply)

## Responses to the SEA Scoping Report

Question	Representation	Response	Action
<b>Respondent: Natural England (25 March 2015)</b>			
<p>Comments on the Warwickshire Local FRM Strategy (with interest for the SEA)</p>	<p>None of the 5 objectives identified for the LFRMS would appear to demonstrate a positive approach to contribution to wider environmental objectives. Objective 2 aspires to adopt an environmentally sustainable approach but further explanation of this objective makes little reference to environmental issues. We would draw your attention to Section 40 of the Natural Environment and Rural Communities Act (2006) which states that <i>'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'</i>. Section 40(3) of the same Act also states that <i>'conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'</i>.</p> <p>We would encourage the use of some flood risk management options, such as upstream flood storage, as these can have significant biodiversity enhancements and contribute to green infrastructure (GI).</p> <p>We also welcome retrofitting sustainable urban drainage systems (SUDS), which can reduce or in some cases replace the need for a whole new scheme, in some built up areas.</p> <p>The LFRMS is a "strategic matter" in that flooding doesn't respect local authority boundaries and as such would need to be considered on a wider scale with adjoining authorities responsible for flood strategy preparation and management. Liaison with other authorities in the area would be encouraged in order to ensure cross boundary consistency of approach and more efficient use of resources in times of budgetary constraint; thus ensuring the Duty to Co-operate was effectively met.</p>		<p>The SEA has taken the comment about the need to demonstrate a positive approach to the contribution to the wider environment into account and has recommended that a new objective is added to the LFRMS as part of the Compatibility Assessment in Chapter 7 of the Environmental Report.</p>
<p>Comments on Scoping Report</p>			

Question	Representation	Response	Action
<p>Q1. Have there been any significant omissions of plans, programmes or environmental protection objectives relevant to the scoping of this report?</p>	<p>Countryside and Rights of way Act 2010.</p> <p>Additionally in appendix 4 there is no reference made to underlying legislation.</p>		<p>Included in review of plans in Appendix A of the Environmental Report.</p> <p>Underlying legislation is referenced in Appendix A of the Environmental Report.</p>
<p>Q2. Do you agree with the selection of key environmental issues for Warwickshire?</p>	<p>Yes.</p>	<p>N/A</p>	<p>N/A</p>
<p>Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the assessment?</p>	<p>Appendix 3 section 3.6.2 Wildlife Habitats, refers to data regarding the favourable conservation status of SSSI's in Warwickshire, from 1st June 2011. This information is updated regularly, therefore results may differ now.</p> <p>Appendix 3 section A3.6.1 states that 'there are <u>approximately</u> 62 nationally designated Sites of Special Scientific Interest (SSSIs) in Warwickshire'. There are 62 SSSI's in Warwickshire. The use of the word 'approximately' is unnecessary.</p> <p>Section A3.6.2 identifies Ensor's Pool Special Area of Conservation (SAC) as a candidate SAC, which is incorrect. Ensor's pool has been formally designated as a SAC. However, on page 19 section 5.3 it is acknowledged that while the White-clawed</p>	<p>Comments welcomed</p>	<p>Most recent conservation status of SSSIs reviewed in Appendix B of the Environmental Report.</p> <p>Removed word 'approximately' in Appendix B of the Environmental Report.</p> <p>Text to corrected to remove 'candidate' SAC status in Appendix B of the Environmental</p>

Question	Representation	Response	Action
	<p>crayfish of the SAC have been lost, it is still under designation. On page 71 section A3.6.1 it is also correctly identified as a site designated at European level.</p>		<p>Report.</p>
<p>Q4. Are there any key baseline data available that are or could be used in support of the issues that have not been identified? Are you aware of any appropriate targets that the report should cite?</p>	<p>NE has a range of data sources that may be useful in the production of an SA. Our datasets are now all downloadable and responsible authorities should be referred to the website at <a href="http://www.naturalengland.org.uk/publications/data/">http://www.naturalengland.org.uk/publications/data/</a></p> <p>Other useful sources of data include:</p> <ul style="list-style-type: none"> <li>• <a href="#">MAGIC (Defra's GIS package for environmental assets)</a></li> <li>• <a href="#">SSSI/European Sites condition assessments</a></li> <li>• <a href="#">National Character Areas</a></li> </ul> <p>Natural England does not hold locally specific information relating to:</p> <ul style="list-style-type: none"> <li>• local sites (biodiversity and geodiversity)</li> <li>• local landscape character</li> <li>• local or national biodiversity priority habitats and species.</li> </ul> <p>We recommend that you seek further information from the appropriate bodies (which may include the local records centre, your local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document). A more comprehensive list of local groups can be found at <a href="#">Wildlife and Countryside link</a>.</p> <p>Soil</p> <p>Soil is a finite resource that fulfils many important functions and services (ecosystem services) for society, for example as a growing medium for food, timber and other</p>	<p>References provided are welcomed.</p>	<p>Due to the high level nature of the LFRMS (in that no physical interventions are proposed) baseline data presented in the Environmental Report is commensurate with this high level.</p> <p>Once physical interventions are identified through the Surface Water Management Plan at a later stage, they will be assessed as part of the SEA to be undertaken of the Plan.</p>

Question	Representation	Response	Action
	<p>crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore important that the soil resources are protected and used sustainably. For guidance on how adverse impacts on soils can be minimised please refer to Defra's <u><a href="#">Good practice guide for handling soils and Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites</a></u>.</p> <p>Agricultural Land Classification and Best and most versatile (BMV) land</p> <p>Copies of the <u><a href="#">Provisional Agricultural Land Classification map</a></u> for your area are available on the Natural England Website or alternatively the data is available to view and download from the <u><a href="#">'MAGIC' website</a></u>. Further information is also available in the <u><a href="#">ALC Technical Information Note</a></u>.</p>		
<p>Q5. Do the SEA objectives provide a sound framework against which to assess the environmental credentials of the emerging LFRMS?</p>	<p>We consider that the SEA objectives cover the key environmental issues that are relevant to the emerging LFRMS.</p>	<p>N/A</p>	<p>N/A</p>
<p>Q6. Do you agree with the decision-making criteria?</p>	<p>The report has identified the landscape importance of the Cotswold's Area of Outstanding Natural Beauty (AONB) located at the south of the county. However the Indicators and Decision Making Criteria, make no reference to the Cotswold's AONB.</p>	<p>Comment welcomed.</p>	<p>The safeguard the Cotswolds Area of Outstanding Natural Beauty has been added to the decision-making criteria for SEA objective 5 Safeguard and strengthen landscape character and quality in Chapter 6 of the</p>

Question	Representation	Response	Action
			Environmental Report.
Habitats Regulations Assessment	Natural England notes that a HRA has been prepared and considers that this should be submitted to us for comment as soon as is practicable.		HRA to be sent by WCC to Natural England for consultation.
<b>Respondent: Environment Agency (25 March 2015)</b>			
General Comments on the Warwickshire Local FRM Strategy  (with interest for the SEA)	<p>We are satisfied that the Project Brief/draft strategy meets the statutory requirements.</p> <p>The LFRMS rightly states that it should cover local flood risk (surface water, ordinary watercourses and groundwater flooding) but it should also consider interactions with Main River flooding too.</p> <p>To ensure that the local strategy is consistent with the national FCERM strategy, we have reviewed the content against the 6 guiding principles i.e.</p> <ol style="list-style-type: none"> <li>1) Community focus and partnership working</li> <li>2) Catchment cell approach</li> <li>3) Sustainability</li> <li>4) Proportionate, risk based approaches</li> <li>5) Multiple benefits</li> <li>6) Beneficiaries should be encouraged to invest in risk management</li> </ol> <p>... The objectives are consistent with the guiding principles of the national FCERM Strategy. However, we feel that more could be done to encourage a catchment cell approach and deliver multiple benefits, particularly meeting wider environmental objectives e.g. working with natural process and the specific water-body objectives and measures set out in the River Basin Management Plan.</p>		The decision making criteria for SEA

Question	Representation	Response	Action
	<p>... We suggest that Objective 5 is re-worded to make it clearer, something along the lines of “Ensure all development takes into account local flood risk and seeks a reduction overall” this objective should include the policy requirements of the emerging / adopted Local Plans that may include specific targets such as a reduction in run-off to the QBAR rate (Warwick Local Plan).</p>		<p>objective 2 (Reduce the risk of surface, groundwater and sewer flooding taking account of climate change) and SEA objective 9 (Protect and improve the water environment) include the need to work with natural processes in delivering the SEA objectives (see Chapter 6 of the Environmental Report).</p> <p>The SEA has recommended the re-wording of Objective 5 to take account this comment (see Chapter 7 of the Environmental Report).</p>
Comments on Scoping Report			
	<ul style="list-style-type: none"> <li>• 2.30 – This section should be updated in light of the DCLG consultation on 18 December 2014.</li> <li>• Appendix 2 – The National FCERM Strategy is repeated twice (on page 39 and</li> </ul>	Comments noted.	Update made





# Appendix B. Draft LFRMS Consultation Comments

(Environment Agency's comments on the Draft LFRMS presented here for context. Note: No comments on the Draft Environmental Report were received.)

Mr M Green  
Warwickshire County Council  
Department Of Planning Transport &  
Economic Strategy  
PO Box 43  
Warwick  
Warwickshire  
CV34 4SX

**Our ref:**  
**Your ref:**  
**Date:** 7 December 2015

Dear Mr Green

### **Local Flood Risk Management Strategy (LFRMS) Phase 2, September 2015**

Thank you for consulting the Environment Agency in relation to Phase 2 of the LFRMS and associated documents, we have reviewed its contents and have the following comments to make:

#### Local Flood Risk Management Strategy

We are pleased to see that many of the suggestions that we made on Phase 1 have been incorporate into the latest version of the LFRMS Phase 2. In response to your comments, we would reply as follows, referenced as per the consultation response listings:

- Ref EA 8 – We would like to point out as LLFAs must, in exercising their functions so far as they affect a river basin district, have regard to the relevant river basin management plan (RBMP). This means you must avoid causing deterioration of water bodies or preventing their improvement, and carry out actions that contribute to the improvement of water bodies as set out in the RBMP. The National FCERM Strategy also highlighted the importance of meeting WFD objectives. Opportunities to implement RBMP objectives as part of the development and delivery of the LFRMS should be identified. There is no mention of the Eel Regulations 2009 and how they require fish passes on flood defence structures, removal of obstructions and/or screening at water intakes and outfalls for the protection of eels.
- Ref EA 8 - Section 6.1 Table 6.1 (p.32) – Includes recommended climate change allowances from Table 5 in NPPF. We would like to make you aware that the allowances are shortly to be revised to reflect the latest climate projections in UKCP09 and wider flood risk research published since 2009. The main change to the allowances will be for peak river flow. Allowances will be provided for each river basin district, similar to those in 'Adapting to climate change: Guidance for flood risk management authorities'.

Additional Comments:

Objective 2 – The last part of the title of the needs changing i.e. remove the word “Adopt” at the end of the objective.

Objective 2A – Include “EA” in list of partners. We recommend that the following actions are added to this objective:

- To review the data set used to determine the top 40 flood risk sites in the SWMP.
- Consult stakeholders on the development of the prioritised list.

The prioritised list of local flood risk management capital schemes should be in line with projects on the 6 year programme. What factors will be taken into account when prioritising schemes?

We would like to be consulted on future updates of the SWMP. We understand that the SWMP currently focuses on the first two phases of the cycle; preparation and risk assessment but we are keen to see details of the later phases i.e. options, implementation and review. This should include details of how the top 40 sites will be reviewed and updated i.e. on completion of a scheme or availability of more detailed hydraulic modelling etc.

Section 3.6.4 – We consider the final paragraph on Natural Catchment Management techniques could be made more prominent in the LFRMS, either as a separate section or at least as part of the Climate Change section 3.6.1. There should be a better explanation of how this approach in the long term is more sustainable, takes a catchment based approach, improves the quality and quantity of ground and surface waters in line with WFD and reduces silt/dredging removal in the lower, often urban areas, parts of the catchment and the costs associated with it, both financially and ecologically.

#### Warwickshire Stage 1 SWMP – Appendix C

- Section 1.13 – Please could you provide a copy of the Strategic Flood Map GIS Workspace and interactive PDF?
- Section 2.11 – The SWMP Guidance (2010) in Box 3, page xiv states that “*consideration of sewer flooding in ‘dry weather’ resulting from blockage, collapse, pumping station failure should be excluded from the SWMPs as this is the sole concern of the sewerage undertaker*”. This section should be amended to reflect the guidance.

#### Draft Planning Advice (Sept 2015, V2) – Appendix G

We would question whether providing Planning Advice is appropriate in the LFRMS; we think it is preferable to have it as a standalone document with links to it on your website. However, we have reviewed the content and have the following comments to make:

- Section 3.0 (b) final paragraph – we recommend that the wording is changed as it implies that only watercourses “running through a site” should be considered, whereas the source of flood risk on a site may be associated with a nearby watercourse offsite. Instead of stating that the “...applicant should have the watercourse modelled as part of the FRA” we recommend that this is replaced with a “hydraulic assessment of the watercourse should be undertaken as modelling may not be required for all sites and simple Manning’s capacity calculations may suffice”.
- Section 4.0 – In areas shown to be at risk of surface water flooding, what mitigation measures will be taken? For the Kenilworth train station site which is at risk of surface

water flooding, we understand that over-sized attenuation was installed. Could a similar mitigation approach be taken on other sites at risk of surface water flooding?

- Section 4.1 (p.8) – The LLFA should agree the allowable discharge rate into all watercourses even if its Main River (on EA's behalf) as part of their new statutory consultee role unless the development falls within a designated areas with critical drainage problems or in an area of interest e.g. near a proposed flood alleviation scheme. Any works in, under or within 8m of a Main River e.g. a new headwall will still require Flood Defence Consent from the EA.
- Section 4.2 (p.8) – The EA will continue to comment on surface water drainage for “live” planning applications where we have commented previously and for discharge of condition applications where we have recommended the surface water drainage condition. However, for large strategic/phased sites as suggested at the recent Warwickshire Strategic Flood Forum, we recommend that these are packaged together and handed over to the LLFA to manage.
- Section 4.4 (b) (p.8) – For complex controls, it should be made clear that to mitigate for climate change, the proposed 1 in 100 + CC year runoff rate must be no greater than the 1 in 100 year runoff rate.
- Section 4.5.2 (p.8) – Is the requirement for a 50% betterment in existing brownfield runoff rate included within your Local Plan Policies as it would make it easier to enforce?
- Section 8.3.5 – In the table, it should be made clear that for Main Rivers, a 8m byelaw distance applies.
- Section 9.8 – The wording of this paragraph should be made stronger to ensure that the LLFA does not support built development over a culverted watercourse due to the failure risk and an easement is provided either side for future maintenance access. Lawton's 'making Space for Nature' supports the approach of using rivers and streams as key corridors to allow species movement and connectivity, so should be referenced as supporting the approach.
- Section 11.0 – We support the additional allowance for urban creep.
- Section 14.0 – We assume that by providing modelling requirements in the Planning Advice document that the LLFA will take on the role of requesting and reviewing hydraulic modelling of ordinary watercourses submitted as part of a FRA? We suggest that point (i) is removed as this is not relevant to modelling and points (ii), (iii) and (iv) are also removed as modelling requirements are site specific rather than rigid parameter e.g. the blockage of key structures depends on orifice size and likelihood of blockage and the +20% allowance for flow is likely to change in the near future with the publication of the updated Climate change allowances for planners. We recommend that this section is replaced with “The LLFA should be contacted to discuss modelling requirements on ordinary watercourses” to avoid any confusion.

Our Asset Performance team would like to make you aware of the following failing asset culverts in Warwickshire where a significant fix is required, most of these are Highways culverts:

- Snitterfield (SP2110159540)
- Spring Lane, Kenilworth (SP2917272182)
- Whateleys Drive, Kenilworth (SP2917372071)
- Tanyard Stream, Kenilworth (SP2915071422)
- Sports Ground, Leamington (SP3178467148)
- Onslow Croft, Leamington (SP3170866982)
- Kenilworth Road, Leamington (SP3169267108)
- St John's Brook, Warwick (SP2768966123)
- Saltisford Brook, Warwick (SP2772564677)

We already have plans in place for Snitterfield and St John's Brook but most of the others are fairly recent fails and we are still waiting an engineering assessment. We have a routine inspection programme for all Main Rivers so it's worth noting that more assets may be added to the list at any time. Please contact Ed Lavis in our Asset Performance Team (01543 405051 or [edward.lavis@environment-agency.gov.uk](mailto:edward.lavis@environment-agency.gov.uk)) to discuss this further.

Yours Sincerely

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