

Shropshire and Staffordshire Local Flood Risk Management Strategy

Part 3: Strategic Environmental Assessment for Shropshire

Draft Report Environmental Report, March 2014

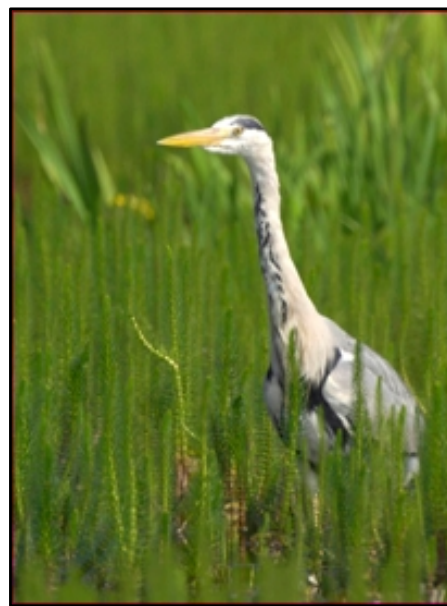


TABLE OF CONTENTS

Non-Technical Summary	iv
1. Introduction	1
1.1. The Shropshire Flood Risk Management Strategy	1
1.2. This Environmental Report	1
2. Strategic Environmental Assessment	3
2.1 Strategic Environmental Assessment	3
2.2 Stages in the SEA Process	4
2.3 Compliance with the SEA Regulations	6
2.4 Scope of the SEA	7
2.5 Related Plans and Programmes	8
2.6 Environmental Baseline	8
2.7 Identifying Environmental Issues	9
2.8 SEA Framework	9
3. The Strategy Objectives	11
3.1. Introduction	11
3.2. Objectives	11
4. Context Review: Related Plans and Programmes	12
4.1. Overview	12
4.2. Flood Risk Management Context	12
4.3. Planning and Environmental Context	12
5. Baseline Review	14
5.1. Introduction	14
5.2. Biodiversity	14
5.3. Cultural Heritage	14

5.4. Human Health	14
5.5. Material Asset	15
5.6. Soil	15
5.7. Landscape	15
5.8. Water	15
5.9. Key Environmental Issues	15
6. Methodology	17
6.1. Introduction	17
6.2. General Approach	17
7. Environmental Assessment	21
7.1. Introduction	21
7.2. Biodiversity	21
7.3. Cultural Heritage	23
7.4. Human Health	23
7.5. Material Assets	24
7.6. Soil	25
7.7. Landscape	26
7.8. Water	26
7.9. Cumulative Effects	28
8. Monitoring	29
8.1. Introduction	29
8.2. Proposed Indicators	29
9. Consultation and Next Steps	30
9.1. Consultation	30
9.2. Next Steps	30
10. Glossary of Terms	31

Appendix A – Full Policy Context Review	<u>33</u>
Appendix B – Full Baseline Review	<u>42</u>
Appendix C – Heritage Assets ‘at risk’	<u>69</u>
Appendix D – Consultation Comments	<u>75</u>

Non-Technical Summary

This non-technical summary accompanies the Environmental Report which sets out the findings of the Strategic Environmental Assessment of the Shropshire Local Flood Risk Management Strategy (hereafter referred to as 'The Strategy').

The European Union Strategic Environmental Assessment Directive is implemented into the United Kingdom legislation through the Strategic Environmental Assessment Regulations (2004).

Strategic Environmental Assessment

Strategic Environmental Assessment is undertaken to identify significant environmental effects that plans, programmes and strategies may have on the existing environment, and therefore increase the consideration of environmental issues in the plan making process.

The output of a Strategic Environmental Assessment is an Environmental Report which sets out the findings of the Strategic Environmental Assessment. The likely significant environmental effects of The Strategy are discussed and recommendations are made in relation to ways in which to reduce likely adverse effects on the environment or enhance beneficial effects. The report includes proposals for relevant environmental indicators to monitor the effects of the implementation of The Strategy.

Baseline and Context Review

This Environmental Report contains a review of the environmental baseline of Shropshire. Baseline information on the current and likely future state of the environment has been obtained in order to enable the effects of The Strategy to be adequately evaluated.

A review of related plans and strategies relevant to flood risk management and the development of The Strategy has been undertaken. This includes, but is not limited to, the National Planning Policy Framework, Water Framework Directive, The Pitt Review and the Flood and Water Management Act. A discussion of environmental protection objectives relevant to The Strategy is also included.

Summary of Significant Environmental Effects and Mitigation and Enhancement Opportunities

Biodiversity:

The Strategy takes a sustainable approach to flood risk management in order to deliver wider environmental benefits and improvements under the Water Framework Directive. The approach will be sensitive to habitats and wildlife.

Flood defence structures will be carefully considered and where possible natural processes will be applied.

Flood risk management measures introduced will aim to protect and enhance designated and undesignated habitats.

Cultural Heritage:

The Strategy does not make any specific reference to conserving the historic environment. Impacts will be dependent on the specific location, the type of flood risk management actions being undertaken and the sensitivity of the resources.

Given that cultural heritage assets will remain an important feature of Shropshire, flood risk management defences should seek to protect heritage assets of importance, where they are at risk of flooding, and should be sensitive to the location in which they are undertaken.

Human Health:

The Strategy seeks to deliver wider social benefits through enhancements that assist the health and wellbeing of communities, by increasing public knowledge of flood risk so better informed decisions can be made for the preparation and duration of flood events. Recreation and public access to waterside environments could improve through the promotion of blue corridors and green infrastructure. Improved flood risk management is also likely to have long term financial benefits for local communities as the population will be better protected and will have an improved ability to recover from flood events.

There is a need to place more emphasis on enhancing the environment in the most deprived areas and simultaneously protecting people and places from flooding.

Material Assets:

The Strategy is likely to have predominantly positive impacts on material assets. Improved understanding of flood risk should increase resilience and aid faster recovery from flood events. The Strategy also includes measures to avoid an increase in flood risk as a result of new development.

New developments will be managed in order to ensure no new flood risk is created and reduce flood risk where possible.

Soil:

The Strategy makes no specific reference to protecting soils and increasing resilience to soil degradation of the best agricultural land. However, it promotes better management of surface water through sustainable solutions which should have a positive impact. The promotion of Sustainable Drainage

Systems to reduce flood risk will have a positive impact on water quality through managing diffuse pollution from urban runoff.

Sustainable agricultural land management and long term protection measures to reduce soil degradation should be more actively promoted in order to protect the soils of the best agricultural land. This could deliver multiple benefits and reduce diffuse pollution.

Landscape:

The Strategy should have a positive impact in terms of enhancing the natural beauty and amenity of inland waters, through promoting blue corridors and green infrastructure.

Any flood risk management measures employed should be sensitive to the location in which they are being undertaken and the sensitivity of any landscape resources.

Water:

The Strategy includes measures to prevent additional flow from new development entering existing drainage systems and watercourses. It should have a positive impact on the human environment by reducing flood risk through engaging stakeholders in the flood management aspects of resilience to climate change.

The LLFA should ensure that reservoir flood plans and maps are considered, with actions taken by relevant authorities to ensure that reservoirs are safe.

Monitoring

The Strategic Environmental Assessment Regulations requires that the significant environmental effects of The Strategy should be monitored once it has been adopted. Monitoring of a series of environmental indicators, outlined in this Environmental Report, is proposed to determine whether changes to The Strategy may be required to account for future unexpected events.

Shropshire County Council is developing an Action Plan which will be reviewed every six months to accompany The Strategy. It will assess the delivery of mitigation measures and if there are any material impacts that change the prioritisation of activities. It is recommended the Action Plan reviews the proposed environmental indicators in this report.

1. Introduction

1.1. The Shropshire Flood Risk Management Strategy

Shropshire County Council is working to produce a Local Flood Risk Management Strategy (LFRMS) (hereafter referred to as 'The Strategy') under The Flood and Water Management Act (2010). The purpose of The Strategy is to guide the management of local flood risk across the county, reflecting local circumstances such as the level of risk and potential impacts of flooding.

The Strategy will reflect that it is not possible to stop all flooding; however, in accordance with the National Strategy for Flood and Coastal Erosion Risk Management (FCERM) it will include the following:

- Information on local flood risk in Shropshire, highlighting where problems have already occurred, or where areas fall in risk categories;
- Clarification of which authority is responsible for what in relation to the prevention and management of flooding;
- Detail on the measures that will be undertaken to manage flood risk;
- Clarification on how work is prioritised;
- Measures that communities can undertake to improve flood resilience, as it is not possible to stop all flooding; and
- Consideration on funding flood risk and investment planning.

The Strategic Environmental Assessment (SEA) process, culminating in the preparation of an Environmental Report, will inform the preferred long-term strategy through its identification of the likely significant effects of the implementation of the strategy on relevant environmental receptors.

1.2. This Environmental Report

URS have been appointed by Shropshire Council to carry out a Strategic Environmental Assessment (SEA) of The Strategy. The Strategic Environmental Assessment (SEA) is undertaken to identify significant effects that plans, programmes and strategies may have on the existing environment, and therefore increase the consideration of environmental issues in the decision making process.

This report sets out the framework for undertaking the Strategic Environmental Assessment (SEA) of The Strategy together with the scope of the assessment, evidence base and review of relevant plans, programmes and policies to inform the assessment. It includes a discussion of the likely significant effects of the implementation of The Strategy and recommendations are made in relation to ways in which to reduce likely adverse effects on the environment or enhance beneficial effects. The report includes proposals for relevant

environmental indicators to monitor the effects of the implementation of The Strategy.

This report will be subject to consultation with Shropshire County Council, the Environment Agency, Natural England and English Heritage.

2. Strategic Environmental Assessment

2.1 Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is required by European and by English law. It involves the systematic identification and evaluation of the environmental impacts of a strategic action (e.g. a plan or programme). In 2001, the EU legislated for Strategic Environmental Assessment (SEA) with the adoption of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the 'Strategic Environmental Assessment (SEA) Directive'). The aim of the Strategic Environmental Assessment (SEA) Directive is "to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes, with a view to promoting sustainable development".

The Directive was transposed by the Environmental Assessment of Plans and Programmes Regulations 2004 (the 'Strategic Environmental Assessment (SEA) Regulations'), which came into force on 21st July 2004. The Strategic Environmental Assessment (SEA) Regulations apply (with some specific exceptions) to plans and programmes subject to preparation and/or adoption by a national, regional or local authority or those prepared by an authority for adoption through a legislative procedure by Parliament or Government and are required by legislative, regulatory or administrative provisions.

Strategic Environmental Assessment (SEA) involves the systematic identification and evaluation of the potential environmental impacts of high-level decision-making (e.g. a plan, programme or strategy). By addressing strategic level issues, the Strategic Environmental Assessment (SEA) aids the selection of the preferred options, directs individual projects towards the most appropriate solutions or locations and helps to ensure that resulting schemes comply with environmental best practice. The Strategic Environmental Assessment (SEA) process also facilitates a transparent audit trail of how the strategy has been revised to take into account the Strategic Environmental Assessment (SEA).

In law, the potential environmental effects of a plan or programme must be considered before its adoption. Consideration should be made with regards to both the positive and negative impacts of options on wildlife and habitats, populations and health, soil, water, air, climate factors, landscape, cultural heritage and the inter-relationships between these receptors.

Flood risk management strategies clearly set a framework for future development and have much in common with the kind of plans and programmes for which the Strategic Environmental Assessment (SEA) Directive is designed. As a result, it is recommended that plan-making authorities assess policies using the approach described in the Strategic Environmental Assessment (SEA) Directive. It is important to note that although Strategic Environmental Assessment (SEA) is not a statutory

requirement for a flood risk management strategy, the methodology for undertaking this assessment will follow Communities and Local Government's (CLG) Guidance on Strategic Environmental Assessment (SEA)¹.

2.2 Stages in the Strategic Environmental Assessment Process

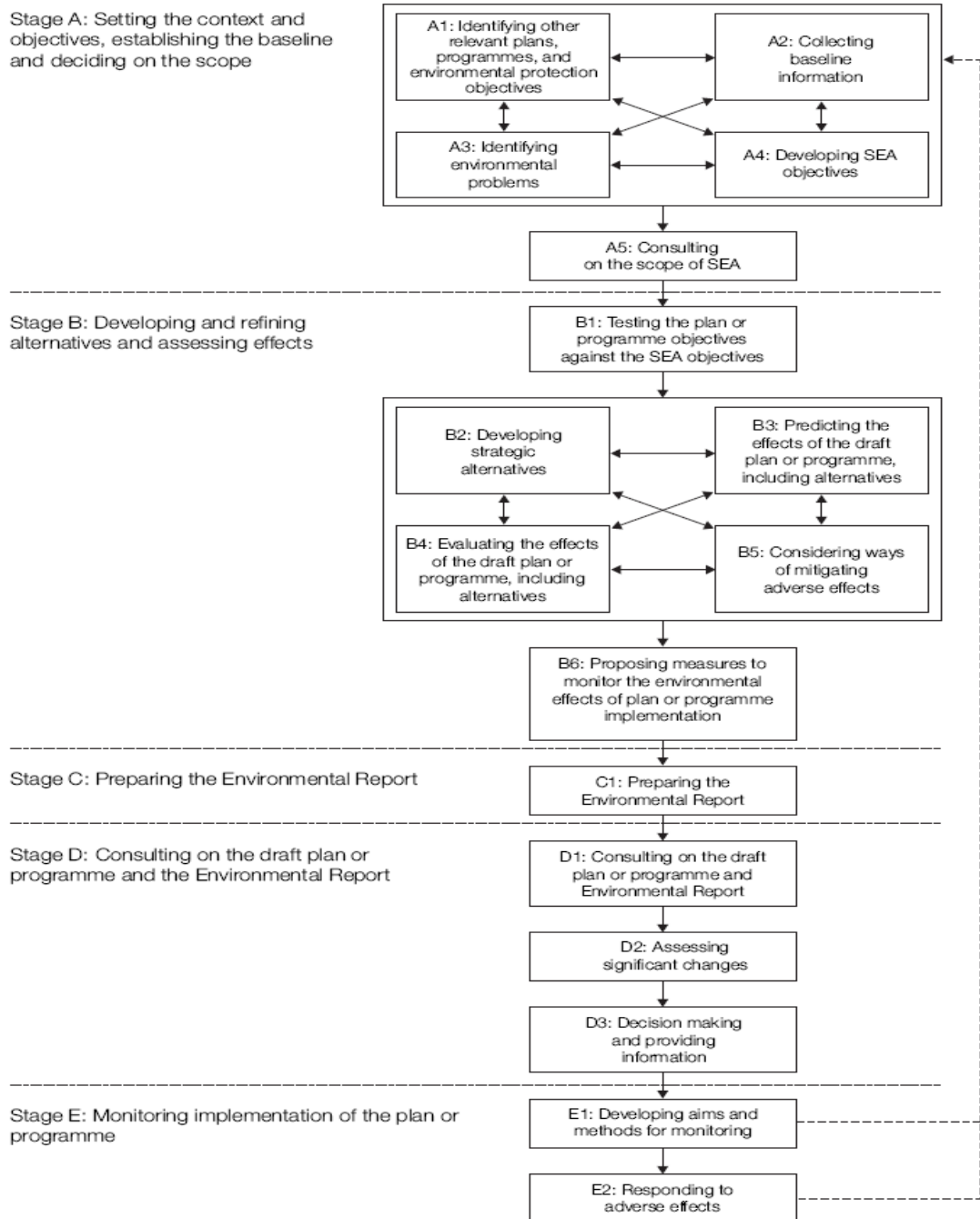
The Strategic Environmental Assessment (SEA) process is conducted in five stages¹:

- Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope;
- Stage B: Developing and refining alternatives and assessing effects;
- Stage C: Preparing the Environmental Report;
- Stage D: Consulting on the draft plan or programme and the Environmental Report; and
- Stage E: Monitoring the significant effects of implementing the plan or programme on the environment.

The recommended stages of the Strategic Environmental Assessment (SEA) process are shown in Figure 2.1 below.

¹ ODPM now CLG (2006) A practical guide to the Strategic Environmental Assessment Directive, Available: <http://www.communities.gov.uk/publications/planningandbuilding/practicalguidesea> (accessed: 06 October 2010)

Figure 2.1 Relationship between Strategic Environmental Assessment (SEA) stages.



2.3

Compliance with the Strategic Environmental Assessment Regulations

The Strategic Environmental Assessment (SEA) Regulations require the inclusion of specific information in order to demonstrate how the aims of the Strategic Environmental Assessment (SEA) Directive have been achieved.

The Table 2.1 below sets out the required content of the Environmental Report, as defined in Regulation 12(3) of the Strategic Environmental Assessment (SEA) Regulations, and details how these have been met in the Strategic Environmental Assessment (SEA) process to date, including the contents of this report.

Table 2.1 Required content as defined in the Strategic Environmental Assessment Regulations (Regulation 12(3))

Requirement	Where Covered
(a) An outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes	Section 4 and Appendix A
(b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	Section 5 and Appendix B
(c) The environmental characteristics of areas likely to be significantly affected	Section 5 and Appendix B
(d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	Section 5 and Appendix B
(e) The environmental protection objectives, established at international, Community or Member State 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	Section 5 and Appendix B
(f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors	Section 7
(g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme	Section 7
(h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Section 2 Alternatives considered by Shropshire Council (SC) and Staffordshire County Council (SCC) as Lead Local Flood Authorities (LLFA) included not

	<p>preparing a Local Flood Risk Management Strategy (LFRMS) or preparing an individual Local Flood Risk Management Strategy (LFRMS) for each county. The former was not a viable option since the Lead Local Flood Authorities are required to prepare a Local Flood Risk Management Strategy (LFRMS). The latter was rejected in favour of a shared-service approach because of the synergies this would bring.</p> <p>The Local Flood Risk Management Strategy (LFRMS) is primarily a procedural strategy that has correspondingly limited direct environmental effects. Therefore it is considered that the significant environmental effects of having an individual Local Flood Risk Management Strategy (LFRMS) for each county would be no different to those assessed for a joint strategy.</p>
(i) A description of the measures envisaged concerning monitoring in accordance with Article 10	Section 8
(j) A non-technical summary of the information provided under the above headings	Non-Technical Summary

2.4

Scope of the SEA

Stage A of the Strategic Environmental Assessment (SEA) was undertaken by URS in May 2013 and the findings documented in the Scoping Report. It involved establishing the context within which The Strategy is being prepared including identifying key issues and reviewing relevant plans, programmes and strategies. The Scoping Report was submitted to Shropshire Council, Environment Agency, Natural England and English Heritage for comment before being finalised. Comments received and the responses to them are listed in Appendix D.

The Strategic Environmental Assessment (SEA) Regulations require the assessment of the likely significant environmental effects of the plan or programme on issues such as:

- Air;
- Biodiversity (including flora and fauna);
- Climate;

- Cultural Heritage;
- Human Health;
- Landscape;
- Material Assets;
- Population;
- Soil;
- Water; and
- The interrelationship between the above factors.

The Strategic Environmental Assessment (SEA) Scoping Report includes a chapter on each of the relevant topics, taking into consideration those that have been scoped out. In order to successfully integrate differing issues and competing objectives it identifies the range of issues and interests that exist through a review of relevant plans and programmes and collection of relevant baseline data.

2.5 Related Plans and Programmes

Consideration of the context in which The Strategy is being prepared involves two steps. Firstly, related Plans and Programmes considered relevant to The Strategy must be identified. Secondly, these must be reviewed with the aim of establishing their implications for The Strategy and Strategic Environmental Assessment (SEA) (e.g. the opportunities they create or the constraints they present).

For practical reasons the identification of plans and programmes cannot result in an exhaustive or definitive list. The number of plans and programmes has been limited to the plans that are most relevant to the topic area and the implementation of The Strategy to provide an overview of the objectives and targets that are most likely to influence the development of The Strategy. **Appendix A: Full Policy Context Review** provides details of the full policy context review.

2.6 Environmental Baseline

Collection of baseline information forms an essential part of the Strategic Environmental Assessment (SEA) process. It is important to obtain sufficient baseline information on the current and likely future state of the environment in order to enable the plan's effects to be adequately predicted and evaluated. Where possible data should be collected which is able to show either a spatial or temporal trend.

2.7 Identifying Environmental Issues

The ultimate purpose of the Scoping stage of Strategic Environmental Assessment (SEA) is to identify environmental receptors that are likely to be

significantly affected by The Strategy and the Strategic Environmental Assessment (SEA) Directive outlines aspects of the environment that must be considered. However, if there are unlikely to be any significant effects upon a particular receptor it is possible to scope it out of the assessment.

One of the issues identified in the Strategic Environmental Assessment (SEA) Directive is climatic factors and this is taken to refer to potential effects of the implementation of The Strategy on the climate. Given that flood risk is driven by the climate rather than having an effect on the climate, it is considered that this topic is not relevant to the issues relating to The Strategy and can therefore be scoped out of the assessment. The potential effects of climate change such as extreme weather and flooding will of course be addressed under the appropriate topic headings, such as material assets and water.

The following Strategic Environmental Assessment (SEA) topics are considered unlikely to be significantly affected by The Strategy and have therefore been scoped out of the assessment:

- Air – The implementation of The Strategy will not have an effect on air quality; and
- Population – Although there is the potential for some individuals to be affected by the implementation of The Strategy it is unlikely that the wider population will be significantly affected. Effects relating to topic areas that are linked to population, such as flood risk and material assets, are assessed in detail and presented in this Environmental Report.

2.8 Strategic Environmental Assessment Framework

The output of the Scoping process is a Strategic Environmental Assessment (SEA) Framework comprising the identified environmental issues and potential indicators to measure the effects of the implementation of The Strategy on the environmental receptors. The Framework provides a means by which the environmental effects of The Strategy can be assessed and has been derived from the key environmental issues identified for the area and the key environmental objectives identified in the policy review. The Strategic Environmental Assessment (SEA) Framework is detailed in the Methodology section of this report in Table 6.1.

This Environmental Report can be read in conjunction with the Scoping Report², which sets the context within which the assessment has been undertaken. However, the relevant portions of the Scoping Report baseline and context review have been reproduced herein and updated where necessary. The remainder of this report is structured as follows:

- The Strategy Objectives;
- Context Review: Other relevant plans and programmes;

² URS, Shropshire Flood Risk Management Strategy SEA Scoping Report, May 2013

- Baseline Review (summary only, the complete baseline review is in Appendix B);
- Methodology;
- Environmental Assessment (including mitigation and enhancement - recommended measures to ameliorate adverse impacts or enhance beneficial impacts);
- Monitoring - recommended on-going monitoring of significant effects; and
- Consultation and next steps.

3. The Strategy Objectives

3.1. Introduction

The Group Strategy proposes actions to manage flood risk within Shropshire. Its objectives reflect the requirements of the Flood and Water Management Act (2010) and the National Flood and Coastal Erosion Risk Management (FCERM) Strategy (2011).

3.2. Objectives

The following high level objectives within The Strategy set out the approach to managing flood risk within Shropshire:

- 1. Develop a strategic understanding of flood risk from all sources**
- 2. Promote effective management of drainage and flood defence systems**
- 3. Support communities to understand flood risk and become more resilient to flooding**
- 4. Manage local flood risk and new development in a sustainable manner**
- 5. Achieve results through partnership and collaboration**
- 6. Be better prepared for flood events**
- 7. Secure and manage funding for flood risk management in a challenging financial climate**

Section 10 of The Group Strategy provides details of the measures proposed to deliver the high level strategy objectives listed above.

4. Context Review: Related Plans and Programmes

4.1. Overview

A review of plans and strategies relevant to flood risk management and the development of The Strategy including plans that:

- Refer to flood protection or flood defence;
- Relate to access to rivers and other water bodies;
- Involve the development of land or settlements within The Strategy area;
- Involve the protection of the natural environment within The Strategy area;
- Relate to regeneration, development or urban renaissance initiatives along the river corridor; and
- Contain a significant constraint or opportunity to our Strategy, such as proposed regeneration developments in the floodplain.

A full list of all the plans that have been reviewed is provided in **Appendix A: Full Policy Context Review** which also shows how these have been taken into account during the development of The Strategy. Several of the plans reviewed may be subject to changes following implementation of policies put forward by the coalition government formed in May 2010. A summary of the key findings is presented below in Sections 4.2 and 4.3.

4.2. Flood Risk Management Context

During the summer of 2007 many people, properties and infrastructure across Shropshire Council were affected by flooding from local sources (primarily surface water). Since then Shropshire Council has been pro-active in responding to flood risk, responding to key issues identified during the event and addressing the potential impact of new development by advocating the implementation of Sustainable Drainage Systems (SuDS).

The government commissioned an independent review following summer 2007 chaired by Sir Michael Pitt. The report published in 2008, highlighted the gaps with respect to responsibility for local sources of flooding and contains 92 proposals.

4.3. Planning and Environmental Context

National Planning Policy Framework (NPPF) sets out how planning should contribute to sustainable development. Development plan policies should take account of environmental issues such as potential impact of the environment on proposed developments by avoiding new development in areas at risk of flooding, and as far as possible, by accommodating natural hazards and the impacts of climate change.

Water Framework Directive (WFD) (2000/60/EC) promotes an integral and coordinated approach to water management at the river basin scale. The framework also encourages protection of soil and biodiversity and aims to improve the chemical and ecological status of inland waters.

Shropshire Council Preliminary Flood Risk Assessment (PFRA) (2011) did not identify any new indicative flood risk areas in Shropshire where the consequences are deemed to be worthy of reporting to the European Commission. However, there are flooding issues that must be addressed in The Strategy.

Severn River Basin Management Plan (2009) describes the river basin district and the pressures that the water environment faces, a small area of Shropshire drains into this river basin. It focuses on the protection, improvement and sustainable use of the water environment and the actions required to address the pressures. It sets out possible improvements by 2015 and the differences these actions will make to the local environment.

The full list in **Appendix A: Full Policy Context Review** provides an overview of the plans and documents relevant to The Strategy during its development and discusses the environmental protection objectives set an international and national level which are relevant to The Strategy.

5. Baseline Review

5.1. Introduction

The Strategic Environmental Assessment (SEA) was initially informed by a review of the environmental baseline of Shropshire.

Collection of baseline information forms an essential part of the Strategic Environmental Assessment (SEA) process. It is paramount to obtain sufficient baseline information on the current and likely future state of the environment in order to enable the plan's effects to be adequately predicted and evaluated. Collected data should show either a spatial or temporal trend where possible to enable more informed judgements of the current situation in terms of sustainability baseline of certain areas relative to others.

Further details on the baseline for each of the topics listed are provided in **Appendix B: Full Baseline Review**.

5.2. Biodiversity

There are several designated sites within the study area that could be affected by the results of the Strategy. Shropshire contains 108 Sites of Special Scientific Interest (SSSIs) covering a total of 8,254 ha. Sites of Special Scientific Interest (SSSIs) are designated for either their biological or geological interest.

5.3. Cultural Heritage

Shropshire has a rich heritage asset. Within Shropshire there are:

- 129 Grade I Listed Buildings;
- 538 Grade II* Listed Buildings;
- 7006 Grade II Listed Buildings;
- 32 Registered Parks & Gardens;
- Parts of 2 World Heritage Site – The Pontcysyllte Aqueduct and Canal and Ironbridge³; and
- 463 Scheduled Monuments.

5.4. Human Health

The health of people in Shropshire is generally better than the England average. Deprivation is lower than average and life expectancy for both men and women is higher than the England average. Life expectancy in the most deprived areas is 6.7 years lower for men and 4.3 years lower for women in the most deprived areas.

³ www.english-heritage.org.uk

Priorities in Shropshire include 'starting well' through a healthy child programme, 'living well' by tackling obesity and health inequalities, and 'aging well' by prevention of long term conditions.

5.5. **Material Asset**

Shropshire is largely rural county with the largest settlement being Shrewsbury with a population of 67,200. The population density is considerably lower than the average for England with 248 people per square mile.

Within Shropshire there are several strategic roads and four main rail corridors.

5.6. **Soil**

The predominant land use in Shropshire is agriculture and expands to 86% of the total land area. Based on Defra's farming statistics⁴:

- In 2008 there were 7,026 holdings in Shropshire, covering a total area of 274,549 hectares; and
- 7,624 (70.2%) of the agricultural labour force were farmers (full and part-time). The remaining (29.8%) were managers, regular hired workers and seasonal and casual workers.

Land use is dominated by permanent grassland across the county (128,147 ha), followed by crops and fallow (98,960). Large areas of land in the east, southeast and southwest are classified as nitrate sensitive areas, land in the north and east are nitrate valuable zones and a strip of land between Oswestry and Ellesmere is a deferred slurry storage zone⁵.

5.7. **Landscape**

The Shropshire Hills are designated as an Area of Outstanding Natural Beauty (AONB): the Shropshire Hills cover a quarter of Shropshire and stretch from the south-west to the north-east.

5.8. **Water**

The River Severn, Britain's longest river, flows through Shropshire. A total of 57 flood risk areas of national and local significance have been identified. Approximately 485 properties are at risk in a 1 in 100 year flood event⁶. Fluvial flood risk is relatively low while surface water provides a greater risk particularly in Ellesmere and Oswestry.

5.9. **Key Environmental Issues**

Following a review of the environmental baseline for Shropshire, a number of key environmental issues for each of the topics have been established. These

⁴ [http://www.shropshire.gov.uk/factsfigures.nsf/viewAttachments/SGAK-94VE2R/\\$file/e24-012-agriculture-in-Shropshire-2008.pdf](http://www.shropshire.gov.uk/factsfigures.nsf/viewAttachments/SGAK-94VE2R/$file/e24-012-agriculture-in-Shropshire-2008.pdf)

⁵ Magic <http://magic.defra.gov.uk/website/magic/viewer.htm?startTopic=magstatural&activelayer=cualIndex&query=NAME%20%3d%20%22SHROPSHIRE%22>

⁶ <http://www.sstaffs.gov.uk/pdf/Severn%20Catchment%20Flood%20Management%20Plan.pdf>

are discussed on a topic by topic basis within **Appendix B: Full Baseline Review** and Table 6.1 of this report summarises these within the context of the SEA Framework.

6. Methodology

6.1. Introduction

The Strategic Environmental Assessment (SEA) follows the structure of the Scoping Report and identifies the environmental issues and potential indicators to measure the effects of the implementation of The Strategy on the environmental receptors.

The aim of this was to screen the high level objectives of The Strategy for those that are likely to have a significant effect. The assessment was a qualitative exercise based on professional judgement taking into account the information gathered in the Scoping Report and other available background information.

6.2. General Approach

Given the high level nature of The Strategy, the assessment has sought to focus on the likely changes and impacts resulting from the strategy but has not attempted to quantify them. Consideration has been given as to whether the impacts are likely to be either significantly positive or negative. Whilst it is not possible to determine the significance of an impact, an indication of the characteristics of significant impacts can be provided:

- Impacts that are likely to result in an adverse effect on the integrity of features of national or international value or will demonstrably increase the extent or improve the value of such features;
- Impacts that are likely to conflict with environmental legal objectives, targets or duties; and
- Impacts that is likely to result in a demonstrable change in the health and/or social or economic wellbeing of communities.

The Strategic Environmental Assessment (SEA) Framework is outlined below in Table 6.1. This sets out the key environmental issues for each topic area, the Strategic Environmental Assessment (SEA) objectives against which the assessment has been undertaken and potential indicators. The Strategic Environmental Assessment (SEA) objectives form the assessment criteria used in this Environment Report and focus the assessment on key environmental outcomes.

Table 6.1 Strategic Environmental Assessment Framework: Key Environmental Issues and Potential Indicators

SEA Topic	Key Environmental Issue	SEA Objectives	Potential Indicator
Biodiversity	<ul style="list-style-type: none"> • Shropshire's diverse habitats support a variety of species and communities sensitive to changes. 	<ul style="list-style-type: none"> • To ensure compliance with natural 	<ul style="list-style-type: none"> • Condition and extent of designated

SEA Topic	Key Environmental Issue	SEA Objectives	Potential Indicator
	<p>Habitats resilience and vulnerability to flooding will differ.</p> <ul style="list-style-type: none"> • Most threatened habitats and 71% of the internationally protected sites in Shropshire are not in appropriate management therefore strategies to enhance and protect will be most beneficial to reduce this threat (in full consultation with Natural England). • Biodiversity on both designated and non-designated sites should be protected and enhanced. 	<p>environment statutory obligations</p> <ul style="list-style-type: none"> • To conserve, and where possible enhance, protected and important habitats and species 	<p>sites</p>
Cultural Heritage/Historic Environment	<ul style="list-style-type: none"> • A range of heritage assets are likely to be at risk of flooding, which may result in harm to or loss of their significance. This may be as a result of direct flood damage as well as inappropriate remedial works; • Proposed flood risk management measures and measures to improve resilience have the potential to impact on the significance of heritage assets, including the contribution made by their setting; and • Securing the sustainable reuse of heritage assets, including those identified as at risk, may be hindered by their location in high risk areas. 	<ul style="list-style-type: none"> • To conserve and enhance the historic environment, heritage assets and their settings 	<ul style="list-style-type: none"> • Number/area of heritage assets at risk of flooding; and • Proportion of conservation areas at risk from flooding
Human Health	<ul style="list-style-type: none"> • Flooding can result in effects on both physical and psychological health of individuals, which could exacerbate existing health issues. Repeated flooding can be a particular issue in relation to psychological health and well-being; and • Flooding has resulted in road closures in the past which exacerbates pressure on emergency services and aid workers trying to help the affected areas. 	<ul style="list-style-type: none"> • To improve and enhance the health and wellbeing of communities 	<ul style="list-style-type: none"> • Number of people at risk from flooding • Number of properties at risk of flooding • Number of services and infrastructure at risk from flooding

SEA Topic	Key Environmental Issue	SEA Objectives	Potential Indicator
Material Assets	<ul style="list-style-type: none"> • Flooding in the past, has caused severe disturbance to communities in Ironbridge, Shrewsbury, Bridgnorth, and Ludlow with impacts including impassable roads, residential and business floods, school closures and landslips; and • Transport links have become impassable in the past, flood defences need to be upgraded to reduce and prevent future events. 	<ul style="list-style-type: none"> • To conserve and protect important material assets and infrastructure 	<ul style="list-style-type: none"> • Number of services and infrastructure at risk from flooding
Soil	<ul style="list-style-type: none"> • Agriculture plays an important role in the local economy of Shropshire. However, in the event of flooding, classified nitrate valuable zones are vulnerable to increased nitrate 'pollution.' 	<ul style="list-style-type: none"> • To conserve and protect the best and most productive agricultural land • To reduce the risk to waters from diffuse pollution 	<ul style="list-style-type: none"> • Number of recorded pollution incidents
Landscape	<ul style="list-style-type: none"> • Shropshire's diverse landscape types could be eroded over time if significant development takes place within the county. The location of development will be influenced by flood risk and therefore some landscapes will be more likely to be affected than others; and • Land management options in support of reducing flood risk might harm or indeed help restore landscape character. 	<ul style="list-style-type: none"> • To protect and conserve landscape 	<ul style="list-style-type: none"> • Change to extent/character of landscape types
Water	<ul style="list-style-type: none"> • Recent flood events have resulted in substantial costs associated with a loss of arable production; • Although the likelihood of reservoir failure is very small there is the potential for the consequence of the failure to be large; • There are water bodies that are of poor or moderate ecological status, and therefore do not meet the Water Framework Directive target 'good' status. All water bodies in the county must reach good 	<ul style="list-style-type: none"> • To protect and improve the water environment, for the benefit of the human and / or natural environment 	<ul style="list-style-type: none"> • Number of properties at risk of flooding • Area of agricultural land at risk of flooding • Area at risk of present day 1:100 year flooding

SEA Topic	Key Environmental Issue	SEA Objectives	Potential Indicator
	<p>ecological status by 2027. One reason for poor ecological status is high levels of nutrients in a water body. This could be exacerbated through flood events which could increase diffuse pollution; and</p> <ul style="list-style-type: none"> Impacts upon surface water and groundwater may arise as a consequence of future flooding and potentially as a result of flood risk mitigation. 		<p>event</p> <ul style="list-style-type: none"> Ecological status of water bodies Changes to land use

7. Environmental Assessment

7.1. Introduction

The high level objectives of The Group Strategy, described in Section 3 of this report and the Local Flood Risk Guiding Principles within Shropshire's Part 2: Policies and Procedures document is the subject of this assessment. An assessment of the objectives has been undertaken which indicates that The Strategy and guiding principles are likely to have effects that are predominantly neutral or positive in nature. As there are overlaps between the likely impacts of The Strategy objectives, the impacts of The Strategy as a whole are reported on to avoid repetition.

Mitigation and enhancement measures are also provided in this section of the report. Mitigation is defined as "measures envisaged to prevent, reduce and as fully possible offset any significant adverse effects on the environment" (Directive 2001/42/EC). The assessment process has identified opportunities to enhance the positive and mitigate the negative significant environmental effects of actions proposed in The Strategy.

7.2. Biodiversity

7.2.1 Does the Strategy Comply with Natural Environment Statutory Obligations?

Objective 4 of The Group Strategy aims to manage local flood risk and new development by integrating flood risk management solutions alongside sustainable development and social and environmental benefits to enhance the natural environment. The Strategy complies with Water Framework Directive (WFD) which includes specific objectives to improve ecological status (or potential) of all surface water bodies and to achieve compliance with any objectives for favourable condition for 'protected areas' by 2015.

The Strategy follows guidance to ensure the flood risk measures implemented do not cause damage to habitats and wildlife. The Strategy has been designed to incorporate various overarching documents including; Biodiversity Action Plan (BAP) and the Natural Environment and Rural Communities act.

Mitigation and Enhancement

The opportunity exists to work with natural processes when delivering flood defences, which would help deliver policy objectives for the natural environment such as habitat enhancements or improved ecological connectivity. This should be achieved via the delivery of wider environmental objectives included within The Strategy.

Any measures introduced should aim to protect and enhance important habitats and species, both designated and undesignated and maintain healthy functioning ecosystems.

7.2.2 Does the Strategy conserve, and where possible enhance, protected and important habitats and species?

Shropshire contains a variety of habitats that support numerous species and communities. Some habitats are more resilient to flooding than others whereas other habitats, and their component species, are likely to be vulnerable to the effects of flooding.

The baseline review found that the condition of some of the features of Shropshire's international and national designated sites are in private ownership, of which 29% are known to be in appropriate management. Therefore increased monitoring and advice to landowners will help improve environments. The Strategy does aim to ensure that flood risk management schemes take account of their impact on protected environments. The Strategy could go further to ensure it has a positive impact on designated and undesignated habitats, and urban green space environments within Shropshire, particularly those which are in an unfavourable condition.

Some designated sites may rely on the presence of flood defence structures to achieve a favourable status. In these cases without careful consideration, flood risk management could result in losses of biodiversity through habitat fragmentation, as there could be significant conflicts with the maintenance and improvement of biodiversity. By prioritising solutions that work with natural processes and achieving Water Framework Directive (WFD) objectives, The Strategy will help to mitigate these effects.

Mitigation and Enhancement

As discussed in the above paragraph, the opportunity exists to protect both designated and undesignated habitats and contribute to improving them or maintaining them in a favourable condition. Flood risk management schemes should take account of their impact on both designated and undesignated habitats.

As discussed previously care should be taken to prevent inappropriate flood defence structures. Flood defence structures which protect designated sites should be carefully managed, to ensure that there is no habitat fragmentation.

Measures which aim to improve the biodiversity features of designated sites within Shropshire would need to be fully consulted with Natural England, for instance, Brown Moss Special Area of Conservation (SAC) and Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses Special Areas of Conservation (SACs) must be subject to a full consultation with Natural England, because the regime of annual flooding of the Special Areas of Conservation (SACs) is central to the integrity of the site.

7.3. Cultural Heritage

7.3.1 Does the Strategy Conserve, and where Possible Enhance, Protected and Important Habitats and Species?

Cultural heritage assets are likely to remain an important economic, social and environmental feature of Shropshire in the future. Some heritage assets are likely to be at risk of flooding, which has the potential to compromise their inherent value (sometimes called their 'significance'). Any proposed flood alleviation measures might also impact adversely on the historic environment.

Flood risk alleviation measures should also be appropriate to the location in which they are being undertaken and the sensitivity of any cultural heritage assets.

Mitigation and Enhancement

The Strategy does not make any specific reference to protecting and conserving the historic environment. Significant impacts on cultural heritage could result from flood risk management measures, which could be beneficial if they aim to conserve and enhance the cultural heritage assets. Impacts will be dependent on the specific location, the type of flood risk management actions being undertaken and the sensitivity of the resources.

7.4. Human Health

7.4.1 Does the Strategy Improve and Enhance the Health and Wellbeing of Communities?

Health and deprivation levels of people in Shropshire are likely to continue to be better than the national average (see Section 3 of Appendix B) however flooding can still result in effects on both physical and psychological health, which could exacerbate existing health issues. In particular, repeated flooding can be an issue in relation to psychological health and well-being.

The Strategy seeks to deliver wider environmental and social benefits, and so there should be opportunities to provide enhancements that benefit the health and wellbeing of communities. Objective 3 of The Strategy aims to support communities to understand flood risk and become more resilient to flooding so the affected communities can make informed decisions on how to protect themselves. Objective 6 is for emergency responders, partner organisations and communities to be better prepared for flood events, which has the potential to improve response time and the actions of people so they remain safe in the event of flooding and make sensible choices. If this is achieved then this will have a significant positive impact on the health and wellbeing of communities.

As a result of The Strategy, significant positive effects on human health are anticipated. Improved flood risk management, is likely to have long term financial benefits as the population will be better protected and will have an improved ability to recover from flood events. The Strategy aims to promote

self-help for property protection and aims to promote local community resilience to flooding emergencies, by providing appropriate support and information to ensure an effective response.

Mitigation and Enhancement

The Strategy aims to improve health, wellbeing and the standard of living in communities where possible. Where blue corridors and multi-functional green spaces are promoted, recreation and public access to waterside environments and open spaces should be a key consideration.

Whilst improved flood risk management is likely to have long term financial benefits on the population, analysis should be undertaken on proposed measures to ensure the most appropriate are chosen to enhance the health, wellbeing and standard of living of communities in conjunction with the West Midlands Strategic Health Authority and other stakeholders.

There should be emphasis on working to enhance the environment in the most deprived areas, at the same time as protecting people and places from flooding. As reported within the Environmental Report of the Strategic Environmental Assessment (SEA) for the National Flood and Coastal Erosion Risk Management (FCERM), flood impacts on deprived communities are likely to be greater, as they are less likely to be insured, more likely to be in poorer health and less able to finance repairs⁷.

7.5. Material Assets

7.5.1 Does the Strategy Conserve and Protect Important Material Assets and Infrastructure?

Flooding has had significant impact on communities in Shropshire. There are considerable heritage assets within the county, some of which are likely to be at risk of flooding. There are also important transport links within the county, which have been closed due to previous flooding events such as A454 in 2014 and the A41 in 2013.

Objective 1 of The Strategy promotes understanding of flood risk from all sources and aims to provide better records for historic flooding through investigating the cause of flood events. This objective should increase resilience and aid faster recovery from flood events. The Strategy aims to promote local community resilience to flooding and self-help for property protection to encourage maintenance of privately owned flood defence structures.

Objective 2 aims to promote effective management of drainage and flood defence systems. This will be achieved by using the permissive land drainage powers to manage the watercourse network and to approve systems including sustainable drainage in order to promote the need for no increase in surface water flow from sites.

⁷ Environment Agency. Environmental Report of the SEA for the National Strategy for Flood and Coastal Erosion Risk Management Strategy.

Objective 4 will manage local flood risk and new development in a sustainable manner so no new flood risk is created. This objective will also create opportunities to reduce local flood risk via early engagement with developers.

Mitigation and Enhancement

The Strategy actively seeks to keep inappropriate new development away from the floodplain in order to control flood risk therefore no mitigation is recommended.

The heritage assets in Shropshire are an irreplaceable resource and should be recognised as such in The Strategy.

The importance of managing the flood risk of roads is incredibly important as previous flood events have shown.

7.6. Soil

7.6.1 Does the Strategy Conserve and Protect the Best and Most Productive Agricultural Land?

Agriculture is an important feature of the local land and rural economy in Shropshire (see Appendix B). At a national level, soils in England have been degraded through unsustainable soil management, drainage and erosion by wind and rain. This situation is likely to be exacerbated through climate change where hotter conditions could make soils more susceptible to wind erosion, coupled with intense rainfall incidents that could wash soil away⁸.

The Strategy aims to deliver a wider environmental objective of conserving and improving biodiversity and enhancing the natural environment. It is hoped that the implementation of 'natural' Sustainable Drainage Systems (SuDS) measures that decrease surface water runoff will provide deep porous soils that are important to wildlife habitats. Better management of surface runoff will have a positive impact on resilience to soil degradation of the best and most versatile agricultural land.

Mitigation and Enhancement

The protection of topsoil is of particular importance due to the impacts of heavy rain in 2012, 2013 and 2014. The Shropshire Local Flood Risk Guiding Principles aim to work with landowners to increase awareness of flood risk and promote resilience by making risk and benefits more meaningful to people. Erosion control and re-vegetation to minimise soil loss and reduce sedimentation to protect water quality should be encouraged.

7.6.2 Does the Strategy Reduce the Risk to Waters from Diffuse Pollution?

The use of fertilisers and pesticides is having an adverse effect in a number of catchments exacerbated by flood events (see Appendix B). The increase in fertiliser/pesticide run-off and diffuse pollution, has resulted in areas of the

⁸ Environment Agency. Environmental Report of the SEA for the National Strategy for Flood and Coastal Erosion Risk Management Strategy.

county being designated as nitrate sensitive and nitrate vulnerable zones, which makes these areas vulnerable to increased nitrate ‘pollution’ from agriculture in the event of flooding⁹.

The Strategy aims to promote the use of more Sustainable Drainage Systems (SuDS) to reduce flood risk and impact on the existing drainage systems and watercourses and to improve water quality. The Strategy seeks to establish a joint Sustainable Drainage Systems (SuDS) approval body to establish a robust Sustainable Drainage Systems (SuDS) inspection system. The use of Sustainable Drainage Systems (SuDS) and green infrastructure will have a positive impact on water quality by offering opportunities to contribute to managing diffuse pollution from urban runoff as they aim to ‘green the grey’.

Mitigation and Enhancement

There is no mitigation recommended as The Strategy promotes the Water Framework Directive (WFD) targets to reduce water pollution.

7.7. Landscape

7.7.1 Does the Strategy Protect and Conserve Landscape?

Significant development over time has the potential to erode landscapes within Shropshire. The location of new development will be influenced by flood risk and therefore some landscapes will be more likely to be affected than others.

Significant impacts on landscape could result from flood risk management measures, but these will be dependent on the location, the type of actions being undertaken and the sensitivity of the resources.

The Strategy should have a positive impact in terms of enhancing the natural beauty and amenity of inland waters if it achieves the concepts demonstrated in the Developing Urban Blue Corridors Scoping Study. Managing urban flood risk and linking these solutions together to promote multifunctional spaces.

Mitigation and Enhancement

Flood risk management actions should be sensitive to the location in which they are being undertaken and sympathetic of any landscape resources.

In promoting blue corridors and green infrastructure, existing sensitive landscape should be protected and the amenity and natural beauty of inland waters enhanced.

⁹ Magic <http://magic.defra.gov.uk/website/magic/viewer.htm?startTopic=magstatural&activelayer=cualIndex&query=NAME%20%3d%20%22SHROPSHIRE%22>

7.8. Water

7.8.1 Does the Strategy Contribute to the Protection and Improvement of the Water Environment, for the Benefit of the Human and/or Natural Environment?

Flood risk is likely to continue to be an issue in some locations and there is the potential for increased flood risk over time as a result of climate change and the associated extreme weather events. Including measures that require planning decisions to take account of all flood risks and all new development to include consistent management of surface water, The Strategy should prevent additional flow entering existing drainage systems and watercourses benefitting the human and natural environment.

The Strategy aims to take a sustainable approach to flood risk management and incorporates Water Framework Directive (WFD) targets. The protection of the water environment is encouraged through reducing water consumption with promotion of water cycle management and raising awareness of future water demand via council-led initiatives, this should minimise the adverse effects of any measures and enhance the benefits to the water environment.

The promotion of Sustainable Drainage System (SuDS) and the creation of the Shropshire 'Climate Change Guide for Communities' are measures that will help provide benefits for the human and natural environment. The Strategy objective in relation to conserving and improving biodiversity and enhancing the natural environment promotes activities which will improve urban landscapes in terms of amenity and biodiversity.

Mitigation and Enhancement

As outlined in Appendix B, Shropshire contains reservoirs for water storage, although the likelihood of reservoir failure is very small there is also the potential for the consequence of the failure to be large. Local authorities are responsible for developing reservoir flood plans and as recommended by the Pitt Review, the Environment Agency produces reservoir flood maps for large reservoirs (over 25,000 cubic meters of water). The Lead Local Flood Authority (LLFA) should take the opportunity afforded by The Strategy to ensure that these flood plans and maps are considered, new development prevented in these areas and actions taken by relevant authorities to ensure that reservoirs, including smaller reservoirs, are safe.

The Strategy should aim to protect, improve and sustainably manage the use of the water environment for the benefit of the human and natural environment. The Environment Agency has in the past noted the possibility of morphological impacts in respect of previous flood defence and drainage schemes. For example, the supply and transport of sediment can be affected by the introduction of hard structures and the introduction of barriers designed to control flow¹⁰. Where measures introduced as a result of The Strategy are

¹⁰ Environment Agency. Environmental Report of the SEA for the National Strategy for Flood and Coastal Erosion Risk Management Strategy.

able to work with natural processes, these should aim to deliver physical (hydromorphology) improvements to the functioning of the water body.

7.9. Cumulative Effects

This section presents the likely cumulative and synergistic effects on the environment of the interaction between The Strategy and other relevant plans, strategies and legislation. As the relationship to the Water Framework Directive (WFD) is discussed in the assessment this section only identifies additional cumulative effects:

- The Strategy should have a positive impact in terms of the Shropshire's ability to adapt to climate change. The creation of Shropshire's Climate Change Guide for Communities will increase awareness on future flood risk. By promoting resilience, The Strategy both supports and enhances the national strategies and policies such as The UK Climate Change Programme (2006) and National Planning Policy Framework (NPPF) (2012) which aim to increase climate change adaptation;
- Collaboration with Staffordshire County Council enables functional flood defence choices to be made as both counties experience related flood issues that could lead to synergies and/or efficiencies but could also lead to adverse effects if their defence choices impact upon one another;
- The Strategy should increase resilience and aid faster recovery from flood events which will be of benefit to local communities. This supports sustainable economic development policies such as the UK Government Sustainable Development Strategy (2005) by minimising disruption and the impact on local communities; and
- The inclusion of blue corridors and improved linkage to green infrastructure assists The Strategy in promoting the health of communities. This supports and enhances national policy such as the NPPF which aims to increase access to high quality open spaces and opportunities for recreation to improve the health and well-being of local communities.

8. Monitoring

8.1. Introduction

Once The Strategy has been adopted, Article 17 of the Strategic Environmental Assessment (SEA) Directive requires that its significant environmental effects should be monitored. Monitoring is proposed to determine whether changes to The Strategy are required to account for unexpected events.

Shropshire Council are developing an Action Plan to accompany The Strategy, which will be used to monitor and update the delivery timescales and costs of these measures and to prioritise schemes as required and as resources or funding availability allows. Progress will be reported to the public every six months.

8.2. Proposed Indicators

The indicators listed on a topic by topic basis in Table 6.1 of this report are proposed to monitor the effects of The Strategy.

It should be noted that there are other influences on environmental outcomes, so it will not be possible for a direct relationship to be identified between the proposed indicators and The Strategy. Nevertheless, as reported within the Strategic Environmental Assessment (SEA) Report¹¹ for the National Flood and Coastal Erosion Risk Management (FCERM) Strategy (2011) “it is reasonable to monitor environmental outcomes to determine whether changes to The Strategy are required to further reduce conflicts or make a greater contribution to achievement of environmental objectives”.

It is recommended that the Action Plan includes the monitoring framework of this report. It should review the proposed environmental indicators in this report and their associated targets as part of the six monthly reviews.

¹¹ Environment Agency (2011) Strategic Environmental Assessment Report for the National Flood and Coastal Erosion Risk Management Strategy

9. Consultation and Next Steps

9.1. Consultation

The Strategic Environmental Assessment (SEA) Directive requires that the public, together with certain environmental bodies: *“ensure that the consultation bodies and the public consultees are given an effective opportunity to express their opinion on the relevant document”* (Article 13 (3)).

This Environmental Report will be made available online and sent to the statutory Strategic Environmental Assessment (SEA) consultees (Natural England, Environment Agency and English Heritage) for comment as part of the consultation on The Strategy.

9.2. Next Steps

The proposed measures to deliver each of the high level objectives outlined in Section 10 of The Group Strategy are required by the Flood and Water Management Act (2010) to also provide timescales for delivery of these measures and the costs and benefits for their delivery. These measures should be repeated in the main document of The Strategy, with proposed timescales and costs for delivery identified to meet the requirements of this Act.

This Environmental Report is intended to inform stakeholder consultation. When the statutory consultation period is complete, the comments received will be considered and will inform the environmental assessment of The Strategy and the preparation of the final Environmental Report.

10. Glossary of Terms

Key Term	Definition
Baseline	Starting point establishes both the present and future state of the environment.
Biodiversity	Biological diversity, number and abundance of species present.
Cumulative effect	Cumulative effects are the incremental effects of an action when added to other past, present, and reasonably foreseeable future actions.
Defra	Department of Environment, Food and Rural Affairs – Government Department established in 2001 with responsibilities including flood defence and wildlife conservation.
EC Directive	Legislation issued by the European Union that is binding on Member States in terms of the result to be achieved, but leaves choice as to methods.
Environmental assessment	A tool for integrating environmental considerations into decision-making by ensuring that significant environmental effects of the decision are taken into account. In the SEA Directive, an environmental assessment means ‘the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision making and the provision of information on the decision’, in accordance with the Directive’s requirements.
Environmental Impact Assessment (EIA)	The specified process for undertaking the environmental appraisal when a proposed scheme is covered by the Environmental Impact Assessment (Land Drainage Improvement Works) Regulations 1999 or other Regulations implementing EC Directive 85/337, and the amending EC Directive 97/11.
Environmental appraisal	The process whereby the environmental effects of a proposal are identified measured and assessed to determine their significance.
Environmental Report	Document required by the SEA Directive as part of an environmental assessment, which identifies, describes and evaluates the likely significant effects on the environment of implementing a strategy and its alternatives.
Flood defence	A structure (or system of structures) to reduce flooding from rivers or the sea
Floodplain	Any area of land over which water flows or would flow if there were no flood defences. It can also be a place where water is stored during a flood event.
Flood risk	The level of flood risk is the frequency or likelihood of the flood events together with their consequences (such as loss, damage, harm, distress and disruption).

FRMS	Flood Risk Management System
Groundwater	Water occurring below ground in natural formations (typically rocks, gravels and sands)
Habitats Directive	The Habitats Directive is an EU directive in relation to wildlife and nature conservation, which aims to protect habitats and species which are considered to be of European interest.
LFRMS	Local Flood Risk Management Strategy
NPPF	National Planning Policy Framework
PPS	Planning Policy Statement
SAC	Special Areas of Conservation
SEA	Strategic Environmental Assessment

Appendix A – Full Policy Context Review

Plan	Key Messages	Relevant SEA Directive Topics
International		
Convention on Biological Diversity (1992) ¹²	Set the target to achieve by 2010 a significant reduction of the current rate of biodiversity loss.	Biodiversity
The Habitats Directive (92/43/EEC) ¹³	Requires the protection of species and habitats of EU nature conservation designation	Biodiversity
Birds Directive 2009/147/EC (codified version of 79/409/EEC) ¹⁴	Provides for the protection of all naturally occurring wild bird species and their habitats, with particular protection of rare species	Biodiversity
The European Landscape Convention 2000 (signed 2006) ¹⁵	Promotes various actions at the landscape scale ranging from strict conservation through protection, management and improvement to actual creation.	Landscape
Air Quality Framework Directive (96/62/EC) ¹⁶ and Air Quality Regulations ¹⁷	Sets European-wide limit values for twelve air pollutants in a series of daughter directives	Air, Human Health, Biodiversity
The Water Framework Directive (2000/60/EC) ¹⁸	Promotes an integral and coordinated approach to water management at the river basin scale. Also encourages protection of soil and biodiversity.	Biodiversity, Soil, Water
EU Thematic Strategy for Soil (2006) ¹⁹	Promotes the protection and sustainable use of soil.	Soil
The Kyoto Protocol (1997) ²⁰	Sets legally binding measures to achieve the objectives of the United Nations	Climatic Factors

¹² For further information visit: <http://www.cbd.int/default.shtml>

¹³ Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna accessible via: http://ec.europa.eu/environment/nature/nature_conservation/eu_nature_legislation/habitats_directive/index_en.htm

¹⁴ Council Directive 2009/147/EC on the conservation of wild birds (codified version of 79/409/EEC)
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:EN:PDF>

¹⁵ http://www.coe.int/t/dg4/cultureheritage/heritage/Landscape/default_en.asp

¹⁶ Framework Directive 92/62/EC on ambient air quality assessment and management accessible via: <http://ec.europa.eu/environment/air/ambient.htm#1>

¹⁷ Regulations transposing the Air Quality Framework directive are at: <http://www.defra.gov.uk/environment/airquality/regulations.htm>

¹⁸ Directive 2000/60/EC of the European Parliament and the Council establishing a framework for the Community action in the field of water policy accessible via: http://ec.europa.eu/environment/water/water-framework/index_en.html

¹⁹ <http://ec.europa.eu/environment/soil/index.htm>

Plan	Key Messages	Relevant SEA Directive Topics
	Framework Convention on Climate Change (UNFCCC)	
EU Thematic Strategy on the prevention and recycling of Waste (2005) ²¹	Overall aim of Europe becoming a recycling society that seeks to avoid waste and uses waste as a resource.	Climatic Factors, Human Health, Soil
The Waste framework Directive (1975), Hazardous Waste Directive (1991) IPPC Directive (1996) and Landfill Directive (1999) ²²	Aims to ensure that all necessary measures have been taken to ensure that waste is recovered or disposed of without causing harm to human health or the environment	Human Health, Soil
The Convention for the Protection for the Architectural Heritage of Europe (The Granada Convention) ²³	The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented.	Cultural Heritage
The European Convention on the Protection of Archaeological Heritage (The Valetta Convention) ²⁴	<p>The revised Convention updates the provisions of a previous Convention (ETS No. 66) adopted by the Council of Europe in 1969.</p> <p>The new text makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. It is concerned in particular with arrangements to be made for co-operation among archaeologists and town and regional planners in order to ensure optimum conservation of archaeological heritage.</p> <p>The Convention sets guidelines for the funding of excavation and research work and publication of research findings. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage.</p>	Cultural Heritage
National		

²⁰ http://unfccc.int/kyoto_protocol/items/2830.php

²¹ European Commission Thematic Strategy on the prevention and recycling of waste accessible via: <http://ec.europa.eu/environment/waste/strategy.htm>

²² Access to these directives is via: <http://ec.europa.eu/environment/waste/legislation/a.htm>

²³ <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=121&CM=1&CL=ENG>

²⁴ <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=1&CL=ENG>

Plan	Key Messages	Relevant SEA Directive Topics
National Flood and Coastal Erosion Risk Management (FCERM) Strategy for England ²⁵	Sets out a statutory framework that will help communities, the public sector and other organisations to work together to manage flood and coastal erosion risk	Water
The Wildlife & Countryside Act (1981) as amended (most notably by the Countryside and Rights of Way (CRoW) Act ²⁶ (2000))	Principal instrument for the protection of Sites of Special Scientific Interest and endangered wildlife within the UK. The CRoW Act aims for increased public access to the countryside and strengthens protection for wildlife.	Biodiversity
UK Biodiversity Action Plan (1994) ²⁷	UK Response to the Convention on Biological Diversity. Sets out national and local biodiversity action plans. The aims of the strategy are to ensure that: Construction, planning, development and regeneration have minimal adverse impacts on biodiversity and enhance it where possible; Biodiversity conservation is integral to sustainable urban communities, both on the built environment, and in parks and green spaces; and biodiversity conservation is integral to measures to improve the quality of people's lives.	Biodiversity
Biodiversity 2020: A Strategy for England's wildlife and ecosystem services (2002) ²⁸	Ensures biodiversity considerations become embedded in all the main sectors of economic activity, public and private. It sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea.	Biodiversity
The Government White Paper: Heritage Protection for the 21st Century (2007) ²⁹	To put the historic environment at the heart of the planning system.	Cultural Heritage, Landscape
Rural White Paper (2000) Our Countryside: The Future – A fair deal for Rural England ³⁰	Deals with the importance of understanding, evaluating and protecting countryside character and diversity.	Landscape

²⁵ <http://www.environment-agency.gov.uk/research/policy/130073.aspx>

²⁶ <http://www.incc.gov.uk/page-1377>

²⁷ <http://www.ukbap.org.uk/>

²⁸ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf

²⁹ http://www.culture.gov.uk/Reference_library/Consultations/2007_current_consultations/hpr_whitepaper07.htm

Plan	Key Messages	Relevant SEA Directive Topics
The Historic Environment: A Force for Our Future (2001) ³¹	The full potential of the historic environment should be realised and it should be accessible to all.	Cultural Heritage, Material Assets
Water Act 2003 ³²	Encourage more efficient use of water resources	Water
Safeguarding Our Soils: A Strategy for England (2009) ³³	Improve the quality of England's soils. The vision is that by 2030, all England's soils will be managed sustainably and degradation threats tackled successfully.	Soil
Flood and Water Management Act (2010) ³⁴	Will help to manage extreme weather events such as flooding and drought.	Water
The UK Climate Change Programme (2006) ³⁵	A suite of new and established measures are predicted to reduce UK carbon emissions to 15-18% below 1990 levels by 2010. Also promotes anticipatory adaptation.	Biodiversity, Climatic Factors, Landscape, Population
Making Space for Water ^{Taking forward a new Government strategy for flood & coastal erosion risk management} (2004) ³⁶	Advocates a holistic approach to flooding, addressing all types of flooding together	Climatic Factors
Waste Strategy for England (2007) ³⁷	Promotes best practicable environmental option (BPEO), the waste hierarchy and the proximity principle. Sets a major target of increasing recycling rates to 25% by 2005/06.	Population, Soil
Directive 99/31/EC, Landfill Regulations (2002) and Amendment (2005) ³⁸	Sets a series of substantial targets for the reduction of biodegradable municipal waste going to landfill	Population, Soil

³⁰ <http://www.defra.gov.uk/rural/ruralwp/whitepaper/default.htm>

³¹ http://www.culture.gov.uk/Reference_library/Publications/archive_2001/his_force_future.htm

³² <http://www.opsi.gov.uk/ACTS/acts2003/20030037.htm>

³³ <https://www.gov.uk/government/publications/safeguarding-our-soils-a-strategy-for-england>

³⁴ <http://www.legislation.gov.uk/ukpga/2010/29/contents>

³⁵ <http://www.defra.gov.uk/environment/climatechange/uk/index.htm>

³⁶ <http://www.defra.gov.uk/enviro/fcd/policy/strategy/htm>

³⁷ <http://www.defra.gov.uk/environment/waste/strategy/index.htm>

³⁸ Council Directive 99/31/EC on the landfill of waste and the landfill (England and Wales) Regulations 2002 and Amendment Regulations 2005 accessible via: <http://www.opsi.gov.uk/SI/si2002/20021559.htm>

Plan	Key Messages	Relevant SEA Directive Topics
Securing the Future: UK Government Sustainable Development Strategy (2005) ³⁹	This replaced an earlier strategy published in 1999 and aims to enable people to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations	All
Natural Environment and Rural Communities Act (2006) ⁴⁰	Promote and enhance biodiversity	Biodiversity
National Planning Policy Framework (2012) ⁴¹	<p>Sets out how planning should contribute to sustainable development. The Government is committed to protecting and enhancing the quality of the natural and historic environment, in both rural and urban areas. A high level of protection should be given to most valued townscapes and landscapes, wildlife habitats and natural resources. Those with national and international designations should receive the highest level of protection.</p> <p>Development plan policies should take account of environmental issues such as the potential impact of the environment on proposed developments by avoiding new development in areas at risk of flooding, and as far as possible, by accommodating natural hazards and the impacts of climate change.</p>	All
	Proactive strategies should be adopted to mitigate and adapt to climate change, taking full account of flood risk and water supply and demand considerations.	Biodiversity, Climatic Factors, Landscape
	<p>The planning system should contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> • recognising the wider benefits of ecosystem services; and • minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures. 	Biodiversity

³⁹ <http://www.sustainable-development.gov.uk/publications/uk-strategy/index.htm>

⁴⁰ <http://www.legislation.gov.uk/ukpga/2006/16/contents>

⁴¹ <http://www.communities.gov.uk/planningandbuilding/planningsystem/planningpolicy/planningpolicyframework/>

Plan	Key Messages	Relevant SEA Directive Topics
	Heritage assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance.	Cultural Heritage, Material Assets
	Access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities.	Biodiversity, Human Health, Landscape, Soil
	<p>The planning system should contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> • preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and • remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. 	Soil, Water
	Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk, taking account of the impacts of climate change.	Landscape, Material Assets, Water
County/Local		
Regional Spatial Strategy for the West Midlands (2008) ⁴²	Sets out the long term spatial planning framework for the region. The Plan is a key tool to help achieve more sustainable development, protect the environment and combat climate change. It provides a spatial context within which Local Development Frameworks and Local Transport Plans need to be prepared, as well as other regional and sub-regional strategies and programmes that have a bearing on land use activities. These include the regional economic and housing strategies as well as strategies and programmes that address air quality, biodiversity, climate change, education, energy, community safety, environment, health and sustainable development. In addition, policies in this Plan carry weight in decisions made on	All

⁴² http://www.wmra.gov.uk/documents/RSS%20Full%20Doc%20Jan%2008.pdf?bcsi_scan_AB11CAA0E2721250=0&bcsi_scan_filename=RSS%20Full%20Doc%20Jan%2008.pdf

Plan	Key Messages	Relevant SEA Directive Topics
	planning applications and appeals for development.	
Shropshire Core Strategy (March 2011) ⁴³	The Shropshire Core Strategy DPD was adopted 24 th February 2011 – it forms one of the key documents of the Local Development Framework. The Core Strategy sets out the strategic planning policy for Shropshire, including a 'spatial' vision and objectives. It also sets out a development strategy identifying the level of development expected to take place in Shropshire (excluding the Borough of Telford and Wrekin) up until 2026.	All
'Saved' planning policies for Bridgnorth area, North Shropshire area, Oswestry area, Shrewsbury and Atcham area, Shropshire County council area and South Shropshire area.	These 'saved' policies continue to form part of the Development Plan within their relevant former Local Planning Authority boundary, and will therefore continue to help inform decisions on planning applications. The Core Strategy has replaced some of these policies. However, a small number of policies remain in place until adoption of the second major LDF document in 2014.	All
Shropshire Climate Change Strategy (2011) ⁴⁴	Shropshire Council's Climate Change Strategy brings together council policies and specific actions to help mitigate and adapt to climate change, and to ensure a sustainable future for the county. This strategy has three main objectives: to mitigate the effects of climate change through carbon reduction; to adapt services and their delivery to respond to changes in the climate; and to promote sustainable practices via all services.	Climatic Factors
Regional Spatial Strategy for the West Midlands (2008) ⁴⁵	Sets out the long term spatial planning framework for the region. The Plan is a key tool to help achieve more sustainable development, protect the environment and combat climate change. It provides a spatial context within which Local Development Frameworks and Local Transport Plans need to be prepared, as well as other regional and sub-regional strategies and programmes that have a bearing on land use activities. These include the regional economic and housing strategies as well as strategies and programmes that address air quality, biodiversity, climate change, education, energy, community safety, environment, health and sustainable development. In addition, policies in this Plan carry weight in decisions made on planning applications and appeals for development.	All

43 <http://www.shropshire.gov.uk/planningpolicy.nsf/open/BA2DFED09485194980257922004CC90D>

44 [http://www.shropshire.gov.uk/sustainability.nsf/viewAttachments/CFOR-95FTHS/\\$file/Shropshire-Climate-Change-Strategy-2011.pdf](http://www.shropshire.gov.uk/sustainability.nsf/viewAttachments/CFOR-95FTHS/$file/Shropshire-Climate-Change-Strategy-2011.pdf)

45 http://www.wmra.gov.uk/documents/RSS%20Full%20Doc%20Jan%2008.pdf?bcsi_scan_AB11CAA0E2721250=0&bcsi_scan_filename=RSS%20Full%20Doc%20Jan%2008.pdf

Plan	Key Messages	Relevant SEA Directive Topics
Shropshire Core Strategy (March 2011) ⁴⁶	The Shropshire Core Strategy DPD was adopted 24 th February 2011 – it forms one of the key documents of the Local Development Framework. The Core Strategy sets out the strategic planning policy for Shropshire, including a 'spatial' vision and objectives. It also sets out a development strategy identifying the level of development expected to take place in Shropshire (excluding the Borough of Telford and Wrekin) up until 2026.	All
'Saved' planning policies for Bridgnorth area, North Shropshire area, Oswestry area, Shrewsbury and Atcham area, Shropshire County council area and South Shropshire area.	These 'saved' policies continue to form part of the Development Plan within their relevant former Local Planning Authority boundary, and will therefore continue to help inform decisions on planning applications. The Core Strategy has replaced some of these policies. However, a small number of policies remain in place until adoption of the second major LDF document in 2014.	All
A Cultural Strategy for Shropshire and Telford & Wrekin 2009-2014 ⁴⁷	<p>Evolution, Revolution and Innovation is the Cultural Strategy for Shropshire and Telford and Wrekin. The strategy has been developed by the sub-regional Cultural Consortium whose members represent culture, regeneration, health, equality and diversity, safer communities and young people. As well as proving the value of culture in Shropshire, the aim of the strategy is to help enhance and create new ways to:</p> <ul style="list-style-type: none"> • Improve health and wellbeing • Think Green, Live Green • Learn about and through culture • Regeneration and economic sustainability • Develop a sense of place and a sense of identity • Connect people, places and organisations to share and deliver culture 	Biodiversity, Cultural Heritage, Human Health, Material Assets, Population.
Shropshire Preliminary Flood Risk assessment (PFRA) ⁴⁸	A Preliminary Flood Risk Assessment was completed in May 2011, a statutory obligation arising from the Flood Risk Regulations 2009. This assesses surface water flooding and identifies any flood risk areas of national significance and of local significance. A total of 57 flood risk areas deemed to be locally significant have been identified in Shropshire.	Human Health, Material Assets, Water

⁴⁶ <http://www.shropshire.gov.uk/planningpolicy.nsf/open/BA2DFED09485194980257922004CC90D>

⁴⁷ [http://www.shropshire.gov.uk/arts.nsf/viewAttachments/APUH-8SCMH8/\\$file/Cultural-Strategy-2009-14.pdf](http://www.shropshire.gov.uk/arts.nsf/viewAttachments/APUH-8SCMH8/$file/Cultural-Strategy-2009-14.pdf)

⁴⁸ <http://www.shropshire.gov.uk/environmentmaintenance.nsf/open/E428CC81716567E38025790200593AC5>

Plan	Key Messages	Relevant SEA Directive Topics
Severn River Basin Management Plan (RBMP) ⁴⁹	The River Basin Management Plan describes Severn River Basin District, and the pressures that the water environment faces. It shows what this means for the current state of the water environment in the river basin district, and what actions will be taken to address the pressures. It sets out what improvements are possible by 2015 and how the actions will make a difference to the local environment - the catchments and groundwater.	Water
Shropshire Middle Severn Abstraction Licensing Strategy (February 2013) ⁵⁰	Sets out the licensing strategy for the catchment in order to manage water resources sustainably. A balance needs to be maintained between the requirements of the environment and that of people. The Strategy contributes to achieving environmental objectives under the Water Framework Directive (WFD).	Water
The River Severn Catchment Flood Management Plan (CFMP) ⁵¹	Recommends a long term approach to managing the risk of fluvial flooding to people, property and the environment for the next 50 to 100 years.	Water
Surface Water Management Plans (SWMPs) ⁵²	<p>Having completed the PFRA for Shropshire, it is clear that some areas required further investigation. In some cases a Surface Water Management Plan (SWMP) is required. A SWMP is a detailed investigation into local sources of flood risk such as small watercourses, piped drainage systems and overland flow routes. The information gathered during the SWMP process helps plan work, apply for funding, and update flood risk maps. During the SWMP process the council works closely with other organisations such as the Environment Agency, Severn Trent Water and Dwr Cymru Welsh Water.</p> <p>A number of SWMPs are complete or are on-going. These include the Craven Arms, Church Stretton, Much Wenlock, Oswestry, Shifnal and Shrewsbury SWMPs.</p>	Water

⁴⁹ <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/gemi0910bssk-e-e.pdf>

⁵⁰ http://www.environment-agency.gov.uk/static/documents/Business/Shropshire_Middle_Severn.pdf

⁵¹ <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/gemi0909bqym-b-e.pdf>

⁵² <http://www.shropshire.gov.uk/environmentmaintenance.nsf/open/1A6FD5279D62AF9380257A1A0038EA41>

Appendix B – Full Baseline Review

1. Biodiversity

1.1. Policy Context

The Habitats Directive⁵³ seeks to protect habitats and species of European importance and requires Member States to take measures to maintain or restore natural habitats and species at a favourable conservation status. At the national level, the Wildlife and Countryside Act (1981) (as amended)⁵⁴ provides for the protection of Sites of Special Scientific Interest (SSSI) and protects listed species. Under the provisions of the Natural Environment and Rural Communities (NERC) Act (2006)⁵⁵ every public authority must, in exercising its functions, have regard to the purpose of conserving biodiversity. Within the Natural Environment and Rural Communities (NERC) Act conservation of biodiversity encompasses the restoration and enhancement of species populations and habitats, in addition to protection.

The National Planning Policy Framework (NPPF) (2012)⁵⁶ states that impacts from development on biodiversity should be minimised and net gains in biodiversity should be provided where possible.

The Shropshire Biodiversity Action Plan (SBAP)⁵⁷ was launched in 2002. It is updated on a rolling basis and has since revised its approach to focus on developing and delivering 12 Priority Areas for Conservation Action. Two of these areas are now in major funded projects to deliver landscape-scale conservation, including the Meres and Mosses of the Marches Nature Improvement Area.

1.2. Environmental Protection Objectives

The following objectives have been identified as relevant to this sustainability topic from a review of international, EU and national objectives:

Bern Convention on the Conservation of European Wildlife and Natural Habitats, 1979⁵⁸:

- To protect endangered species and their habitats.

Wild Birds Directive 2009/147/EC⁵⁹:

- To protect all naturally occurring wild bird species and their habitats, with particular protection of rare species.

53 Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna accessible via: <http://ec.europa.eu/environment/nature/legislation/habitatsdirective/>

54 <http://www.jncc.gov.uk/page-1377>

55 <http://www.legislation.gov.uk/ukpga/2006/16/contents>

56 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

57 <http://www.naturalshropshire.org.uk/ShropshireBiodiversityPartnership/tabid/37/Default.aspx>

58 <http://conventions.coe.int/Treaty/en/Treaties/Word/104.doc>

59 Council Directive 2009/147/EC on the conservation of wild birds (codified version of 79/409/EEC)

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:EN:PDF>

Bonn Convention on the Conservation of Migratory Species of Wild Animals, 1979⁶⁰:

- To protect threatened animals that migrate across national boundaries and/or the high seas.

Habitats Directive 92/43/EEC, 1992⁶¹:

- To protect important natural habitat (listed in Annex I, amended in Directive 97/62/EC) and species (listed in Annex II), using measures to maintain or restore their "favourable conservation status", principally through the designation of Special Protection Areas and Special Areas of Conservation, but also (through land-use and development policies) by management of the landscape features of importance to wildlife outside SPAs and SACs; and
- To safeguard species needing strict protection (Annex IV). This Directive is transposed into UK law through the Conservation (Natural Habitats &c.) Regulations, 1994.

The EU Sixth Environmental Action Plan 2002⁶²:

- Focuses attention on four priority areas for action: Tackling climate change; nature and biodiversity; environment and health; and natural resources and waste.

A 7th Environmental Action Plan is currently being developed. The Commission proposes to include nine priority objectives, which will include three thematic priority objectives intended to protect nature and strengthen ecological resilience, boost sustainable resource-efficient low-carbon growth and effectively address environment-related threats to health.

The Wildlife and Countryside Act 1981⁶³ (as amended by the Countryside Rights of Way Act 2000⁶⁴):

- Part I is concerned with the protection of wildlife;
- Part II relates to the countryside and national parks (and the designation of protected areas);
- Part III covers public rights of way; and
- Part IV deals with miscellaneous provisions of the Act.

1.3. Baseline Review

There are several designated sites within the study area that could be affected by the results of the Strategy. Table 1-1 lists the designated

⁶⁰ http://www.cms.int/documents/convtxt/cms_convtxt.htm

⁶¹ Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna accessible via: <http://ec.europa.eu/environment/nature/legislation/habitatsdirective/>

⁶² <http://ec.europa.eu/environment/newprog/intro.htm>

⁶³ http://www.legislation.gov.uk/ukpga/1981/69/pdfs/ukpga_19810069_en.pdf

⁶⁴ <http://www.legislation.gov.uk/ukpga/2000/37/contents>

Special Areas of Conservation (SAC) within Shropshire which could be affected by the Strategy, the reasons for designation and their existing condition.

Table 1-1: Condition of Designated Areas that could be affected by the Strategy⁶⁵

Site	Condition/Status	Designated for
Brown Moss SAC	Designated Special Area of Conservation	Annex II species that are a primary reason for selection of this site <ul style="list-style-type: none"> Floating water-plantain <i>Luronium natans</i> has been known to occur at Brown Moss for several years, and this site possibly represents a relict natural lowland population of the species. The population of <i>Luronium</i> at Brown Moss is relatively small, and appears to behave as a metapopulation, colonising the various pools according to their suitability.
Fenn's, Whixall, Bettisfield, Wem and Cadney Mosses SAC/SCI/cSAC	Designated Special Area of Conservation	Annex I habitats that are a primary reason for selection of this site <ul style="list-style-type: none"> This is a large lowland raised bog that straddles the English/Welsh border. It is amongst the largest and most southerly raised bogs in the UK. Although much of the site has been subject to peat extraction, areas of partially-cut and uncut mire still remain. In areas formerly subject to commercial peat-cutting, recent conservation management has led to the regeneration of bog-forming vegetation. Mire vegetation includes <i>Sphagnum papillosum</i>, <i>Sphagnum magellanicum</i>, <i>Sphagnum pulchrum</i>, all three British species of sundew <i>Drosera</i> spp., cranberry <i>Vaccinium oxycoccos</i>, bog asphodel <i>Narthecium ossifragum</i>, royal fern <i>Osmunda regalis</i>, white beak-sedge <i>Rhynchospora alba</i> and bog-rosemary <i>Andromeda polifolia</i>, together with the nationally scarce moss <i>Dicranum affine</i>. Over 1,700 invertebrate species have been recorded here, including 29 nationally rare Red Data Book species. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site <ul style="list-style-type: none"> Degraded raised bogs still capable of natural regeneration
River Clun	Designated Special Area of Conservation	Annex II species present as a qualifying feature, but not a primary reason for site selection <ul style="list-style-type: none"> Freshwater pearl mussel <i>Margaritifera margaritifera</i>
River Dee and Bala Lake/ Afon Dyfrdwy a	Designated Special Area of Conservation	Annex I habitats that are a primary reason for selection of this site

⁶⁵ <http://www.jncc.gov.uk/ProtectedSites/>

Table 1-1: Condition of Designated Areas that could be affected by the Strategy⁶⁵

Site	Condition/Status	Designated for
Llyn Tegid		<ul style="list-style-type: none"> • <u>Watercourses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation</u> <p>Annex II species that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> • Atlantic Salmon <i>Salmo salar</i> • Floating water-plantain <i>Luronium natans</i> <p>Annex II species present as a qualifying feature, but not a primary reason for site selection</p> <ul style="list-style-type: none"> • Sea lamprey <i>Petromyzon marinus</i> • Brook lamprey <i>Lampetra planeri</i> • River lamprey <i>Lampetra fluviatilis</i> • Bullhead <i>Cottus gobio</i> • Otter <i>Lutra lutra</i>
The Stiperstones and The Hollies	Designated Special Area of Conservation	<p>Annex I habitats that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> • This site in central Britain is an example of European dry heaths that contains features transitional between lowland heathland and upland heather moorland. The most extensive vegetation type present is H12 <i>Calluna vulgaris</i> – <i>Vaccinium myrtillus</i> dry heath, which is characteristic of the uplands. South-facing slopes support stands of H8 <i>Calluna vulgaris</i> – <i>Ulex gallii</i> heath, a predominantly lowland vegetation community of south-west Britain. The heathland of the Stiperstones is in excellent condition because it is managed by a programme of rotational, controlled winter burning and cutting. <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <ul style="list-style-type: none"> • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles
West Midlands Mosses	Designated Special Area of Conservation	<p>Annex I habitats that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> • Natural dystrophic lakes and ponds. West Midlands Mosses contains three pools, one at Clarepool Moss and two at Abbots Moss, that are examples of dystrophic lakes and ponds in the lowlands of England and Wales, where this habitat type is rare. The lake at Clarepool Moss is unusual as a dystrophic type on account of its relatively base-rich character, which is reflected in the presence of a diverse fauna and flora. The two at Abbots Moss are more typical, base-poor examples. The dystrophic lakes and ponds at this site are

Table 1-1: Condition of Designated Areas that could be affected by the Strategy⁶⁵

Site	Condition/Status	Designated for
		<p>associated with Schwingmoor development, a characteristic of this habitat type in the West Midlands. Schwingmoor is an advancing floating raft of bog-moss <i>Sphagnum</i>, often containing NVC type M3 <i>Eriophorum angustifolium</i> bog pool community, which grows from the edge of the pool and can completely cover over the pool.</p> <ul style="list-style-type: none"> • Transition mires and quaking bogs. West Midlands Mosses represents Schwingmoor vegetation. Floating rafts of <i>Sphagnum</i>-dominated vegetation have developed over semi-liquid substrates within basins. In the UK this type of <i>Sphagnum</i>-dominated vegetation with a scatter of sedges <i>Carex</i> species and cranberry <i>Vaccinium oxycoccos</i> is confined to this part of England and mid-Wales.

There are 108 Sites of Special Scientific Interest (SSSI) in Shropshire, covering a total of 8,254 ha. Sites of Special Scientific Interest (SSSIs) are designated for either their biological or geological interest⁶⁶.

Local Sites are sites of substantive nature conservation value or geological interest. In Shropshire, Local Sites consist of Local Wildlife Sites (LWS), formerly known as County Wildlife Sites and Local Geological Sites (LGS). There are 830 locally designated sites of which 537 are Local Wildlife Sites (LWS) and 293 are Local Geological Sites (LGS), largely in private ownership.

In addition to the designated sites discussed above, Shropshire also contains many habitats identified in the UK Biodiversity Action Plan.

Woodlands

- **Lowland Wood Pasture, Parkland and Veteran trees:** important for veteran trees, invertebrates and bats; and
- **Semi-Natural Broadleaved Woodland:** valuable for biodiversity. Those that remain relatively intact and unaltered are the most diverse.

Farmland, Grassland and Heathland

- **Field Margins:** strips around field edges managed to provide benefits for wildlife — can provide important food sources for birds and invertebrates;

⁶⁶ Shropshire Council
SEA Environmental Report, March 2014

- **Hedgerows:** an important linking habitat used by foraging birds and bats, dormice and a range of invertebrates (subject to the Hedgerow Regulations 1997);
- **Lowland Dry Acid Grassland:** occurs on acidic nutrient-poor mineral soils that tend to be free-draining. Typically associated with grazing animals i.e. tend to be pasture, and much of them are on hills or hillsides. Important for rare plants and invertebrates. Sensitive to nutrient changes;
- **Lowland Heath:** of restricted distribution, important for reptiles and invertebrates;
- **Upland Heath:** exists within a mosaic of habitat types such as acid grasslands, blanket bog, woodland, freshwater and rock. Two main types of heath: dry heath occurs on thin mineral soils and is characterised by heather; wet heath occurs on thin, water-logged peat soils which is characterised by cross-leaved heath;
- **Semi-improved upland rough grazing:** areas of permanent pasture that have undergone some amount of agricultural improvement to provide grazing land for sheep or cattle; and
- **Species-rich grassland (neutral and calcareous):** most threatened and rapidly disappearing habitats in Shropshire. Most valuable and extremely rich in species when they have not been improved.

Wetlands

- **Floodplain Grazing Marsh:** a key habitat associated with river floodplains. The winter flooding provides excellent habitat for wintering wildfowl and waders. Ideal for breeding waders in the spring. Traditionally grazed until the winter floods return and some areas cut in the late summer for hay. The floodwaters bring nutrients that replenish the land;
- **Standing Open Water:** provide habitat for a variety of threatened flora and fauna. Great crested newt and water vole notable fauna;
- **Reedbeds:** restricted distribution. Important for birds, may support water voles or rare plants. Sensitive to changes in hydrology;
- **Rivers and Streams:** provide important wildlife corridors. Likely to support water vole, otter, and a variety of invertebrates; and
- **Peat Bog:** support many species of plants and animals, including rare species that are adapted to the harsh conditions.

1.4. Likely Future Conditions

It is assumed that the number of international and national designated sites in the county is unlikely to alter substantially in the foreseeable future. Many are in private ownership of which 29% are known to be in appropriate management therefore increased monitoring and advice to landowners will help improve environments.

1.5. Key Environmental Issues

The key environmental issues identified are:

- Shropshire's diverse habitats support a variety of species and communities sensitive to changes. Habitats resilience and vulnerability to flooding will differ;
- Most threatened habitats and 71% of the internationally protected sites in Shropshire are not in appropriate management therefore strategies to enhance and protect will be most beneficial to reduce this threat (in full consultation with Natural England); and
- Overall, biodiversity on both designated and non-designated sites should be protected and enhanced.

2. Cultural Heritage

2.1. Policy Context

At the national level, the Government White Paper: Heritage Protection for the 21st Century (2007)⁶⁷ seeks to put the historic environment at the heart of the planning system. The National Planning Policy Framework (NPPF) recognises that heritage assets are an irreplaceable resource and should be conserved and enhanced in a manner appropriate to their significance, in order that they can be enjoyed for their contribution to the quality of life of current and future generations. The National Planning Policy Framework (NPPF) defines significance as *“the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic; Significance derives not only from a heritage asset’s physical presence, but also from its setting.”*

The Shropshire Preliminary Flood Risk Assessment (PFRA) follows the EA Final Preliminary Flood Risk Assessment (PFRA)⁶⁸ guidance and considers receptors at risk in line with the National Receptor Database (NRD). The National Receptor Database (NRD) includes information such as Cultural Heritage assets at risk from surface water flooding.

2.2. Environmental Protection Objectives

World Heritage Convention (1972)⁶⁹:

- Calls for the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage sites.

Circular on the Protection of World Heritage Sites (2009)⁷⁰

- Provides updated policy guidance on the level of protection and management required for World Heritage Sites. It also explains the national context and the Government’s objectives for the protection of World Heritage Sites, the principles which underpin those objectives and the actions necessary to achieve them.

European Landscape Convention (2000)⁷¹:

- Commits the UK to "recognise landscapes in law as an essential component of people’s surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity".

⁶⁷ <https://www.gov.uk/government/publications/heritage-protection-for-the-21st-century-white-paper>

⁶⁸ <http://www.shropshire.gov.uk/media/161797/shropshire-council-PFRA.pdf>

⁶⁹ <http://whc.unesco.org/en/conventiontext>

⁷⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7698/circularworldheritage.pdf

⁷¹ <http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm>

The Convention for the Protection for the Architectural Heritage of Europe (The Granada Convention)⁷²:

- Reinforces and promote policies for the conservation and enhancement of Europe's heritage.

The European Convention on the Protection of Archaeological Heritage (The Valetta Convention)⁷³:

- Makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. It is concerned in particular with arrangements to be made for co-operation among archaeologists and town and regional planners in order to ensure optimum conservation of archaeological heritage.

Ancient Monuments and Archaeological Areas Act (1979)⁷⁴:

- Provides for nationally important archaeological sites to be statutorily protected as “scheduled ancient monuments” (now Scheduled Monuments).

Planning (Listed Buildings and Conservation Areas) Act (1990)⁷⁵:

- Provides specific protection for buildings and areas of special architectural or historic interest.

2.3. Baseline Review

Shropshire has a rich and varied historic setting including the first iron bridge which was erected in Shropshire in 1779 over the River Severn and was designated as Ironbridge Gorge World Heritage Site in 1986⁷⁶.

Offa's Dyke defensive earthworks which marked the border between Offa's Mercian Kingdom and that of the Welsh Kingdom of Powys also add to the heritage of Shropshire dating back to the 8th century. Great stretches of the Dyke's remains lie in Shropshire around Oswestry, Chirbury and Clun⁷⁷. Within Shropshire there are⁷⁸:

- 129 Grade I Listed Buildings;
- 538 Grade II* Listed Buildings;
- 7006 Grade II Listed Buildings;

⁷² <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=121&CM=1&CL=ENG>

⁷³ <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=1&CL=ENG>

⁷⁴ <http://www.legislation.gov.uk/ukpga/1979/46>

⁷⁵ <http://www.legislation.gov.uk/ukpga/1990/9/contents>

⁷⁶ <http://www.english-heritage.org.uk/daysout/properties/iron-bridge/>

⁷⁷ <http://www.offasdyke.demon.co.uk/dyke.htm>

⁷⁸ <http://hc.english-heritage.org.uk/content/pub/2012/hc-2012-west-midlands.pdf>

- 32 Registered Parks and Gardens;
- 1 Registered Battlefield;
- Parts of 2 World Heritage Site – The Pontcysyllte Aqueduct and Canal and Ironbridge⁷⁹;
- 463 Scheduled Monuments; and
- 129 Conservation Areas.

However, some of these assets are considered to be ‘at risk’; for many of the Scheduled Monuments the main risk is through inappropriate management such as overgrown vegetation.⁸⁰ There are also issues related to erosion, decay and arable ploughing. A full list of heritage assets at risk is detailed in Appendix B.

2.4. Likely Future Conditions

There are unlikely to be substantial changes to the historic and cultural heritage environment given its importance in Shropshire. Built heritage conservation and cultural heritage assets are likely to remain an important economic, social and environmental feature of Shropshire.

There is the potential for increased flood risk over time as a result of climate change and increased incidences of extreme weather events. However this cannot be quantified on an asset by asset basis.

2.5. Key Environmental Issues

The key environmental issues identified are:

- A range of heritage assets are likely to be at risk of flooding, which may result in harm to or loss of their significance. This may be as a result of direct flood damage as well as inappropriate remedial works;
- Proposed flood risk management measures and measures to improve resilience have the potential to impact on the significance of heritage assets, including the contribution made by their setting; and
- Securing the sustainable reuse of heritage assets, including those identified as at risk, may be hindered by their location in high risk areas.

⁷⁹ www.english-heritage.org.uk

⁸⁰ http://www.english-heritage.org.uk/publications/har-2011-registers/acc-wm-HAR-register-2011.pdf?bcsi_scan_AB11CAA0E2721250=0&bcsi_scan_filename=acc-wm-HAR-register-2011.pdf

3. Human Health

3.1. Policy Context

At the national level, the UK Government Sustainable Development Strategy (2005)⁸¹ aims to enable people to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. The National Planning Policy Framework (NPPF) recognises that access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities. “Evolution, Revolution and Innovation” is the Cultural Strategy for Shropshire and Telford and Wrekin (2009-2014)⁸². As well as proving the value of culture in Shropshire, the aim of the strategy is to help enhance and create new ways to improve health and wellbeing of residents.

The Shropshire Preliminary Flood Risk assessment (PFRA)⁸³ assesses surface water flooding and identifies any flood risk areas of national significance and of local significance within Shropshire. A total of 57 flood risk areas deemed to be locally significant have been identified in Shropshire.

The Health Protection Agency has published health advice following floods⁸⁴ which outlines that the main threats to health during and immediately after a flood are drowning and injuries caused by accidents in flowing water. In addition to this, mental health and wellbeing can be affected after the flood event.

3.2. Baseline Review

The health of people in Shropshire is generally better than the England average. Deprivation is lower than average with life expectancy 6.7 years lower for men and 4.3 years lower for women in the most deprived areas in comparison to the least deprived areas. Life expectancy of women in Shropshire is higher than the England average.

Over the last 10 years, all-cause mortality rates have fallen. The early death rate from cancer, heart disease and stroke has fallen and is better than the England average.

About 18.1% of Year 6 children are classified as obese which is lower than the average for England.

The rate of statutory homelessness in Shropshire is higher than average. The estimated level of adult smoking, smoking related deaths and

⁸¹ <https://www.gov.uk/government/publications/securing-the-future-delivering-uk-sustainable-development-strategy>

⁸² [http://www.shropshire.gov.uk/arts.nsf/viewAttachments/APUH-8SCMH8/\\$file/Cultural-Strategy-2009-14.pdf](http://www.shropshire.gov.uk/arts.nsf/viewAttachments/APUH-8SCMH8/$file/Cultural-Strategy-2009-14.pdf)

⁸³ <http://www.shropshire.gov.uk/environmentmaintenance.nsf/open/E428CC81716567E38025790200593AC5>

⁸⁴ http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947339369

hospital stays for alcohol related harm are better than the England average.

Priorities in Shropshire include 'starting well' through a healthy child programme, 'living well' by tackling obesity and health inequalities, and 'aging well' by prevention of long term conditions⁸⁵.

3.3. Likely Future Conditions

The health and levels of deprivation of people in Shropshire are likely to continue to be better than the national average.

3.4. Key Environmental Issues

The key environmental issues identified are:

- Flooding can result in effects on both physical and psychological health of individuals, which could exacerbate existing health issues. Repeated flooding can be a particular issue in relation to psychological health and well-being; and
- Flooding has resulted in road closures in the past which exacerbates pressure on emergency services and aid workers trying to help the affected areas.

⁸⁵ www.apho.org.uk/resource/view.aspx?RID=127045

4. Material Assets

4.1. Policy Context

At the national level, Securing the Future: UK Government Sustainable Development Strategy (2005)⁸⁶ seeks to enable people to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. The National Planning Policy Framework (NPPF) sets out how planning should contribute to sustainable development. And states that a high level of protection should be given to most valued townscapes and landscapes; those with national and international designations should receive the highest level of protection. It also recognises that heritage assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance and that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. Where development is necessary, it should be made safe without increasing flood risk elsewhere. Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property. They should also manage any residual risk, taking account of the impacts of climate change.

At the regional level, the Shropshire Preliminary Flood Risk Assessment (PFRA) (2011) identifies that flooding can, and has, caused locally significant consequences to local communities in Shropshire. A total of 57 flood risk areas deemed to be locally significant have been identified in Shropshire.

The Core Strategy (CS) recognises that flood risk is a key issue in Shropshire and in some areas is a significant constraint to new development. The Core Strategy (CS) also recognises that local residents, environmental interests and other sensitive receptors should be protected from adverse impacts of development. Proposals should protect, enhance, expand and connect Shropshire's environmental assets, to create a multifunctional network of natural and historic resources.

4.2. Baseline Review

Shropshire's population is 306,100 presenting an 8% increase between the 2001 and 2011 Census. Shrewsbury is the largest settlement in the county with a population of 67,200. The county has a very low population density with an average of 248 people per square mile which is considerably lower than the average for England. The second largest settlement is Oswestry with a population of 16,800.

⁸⁶ <https://www.gov.uk/government/publications/securing-the-future-delivering-uk-sustainable-development-strategy>

Shropshire's strategic road network includes the eastbound A5 which becomes the M54 from Wellington in the Telford and Wrekin Council area. The A49 is the main north-south route running from Whitchurch to Ludlow. Shropshire has 19 railway stations located around Shrewsbury station which hosts the junction of 4 main lines:

- Wolverhampton to Shrewsbury Line;
- Shrewsbury to Chester Line;
- Welsh Marches Line between Cardiff and Manchester; and
- Cambrian Line towards Welshpool.

The south of the county has connections to the Welsh Marches and Heart of Wales line. The size of the network disguises the fact that most rural communities do not have immediate access to a railway station and are thus heavily reliant on road network transport.

Bus use has declined in recent years and road maintenance is required. It is felt that the network condition will gradually deteriorate in the future if additional funding is not implemented⁸⁷.

Shropshire's historic flood records do not record any historic floods having had 'significant consequences' (defined by Defra guidance as >30,000 people, >3,000 businesses' or >150 critical infrastructure). A number of historic events are considered as 'locally significant' detailed below⁸⁸.

Table 4.1: Historic Floods

Date	Location	Description
Summer 2012	Minsterley	Fluvial flooding from the Minsterley Brook resulted in flooding to around 10 properties on two separate occasions.
June 2007	Much Wenlock and Farley	Surface water and fluvial flooding through town affecting houses and businesses.
	Bridgnorth	Severn Valley Railway line from Bridgnorth was closed after landslips.
	Ludlow	The Burway Bridge on River Corve collapsed, and a residential property partially collapsed, on the main road into Ludlow, serving a gas main and causing the surrounding area to be

⁸⁷ [Shropshire Local Transport Plan Implementation Plan 2012/13](http://www.shropshire.gov.uk/traveltransport.nsf/viewAttachments/AMOS-95AE6P/$file/tp-implementation-plan-2012-13.pdf) [http://www.shropshire.gov.uk/traveltransport.nsf/viewAttachments/AMOS-95AE6P/\\$file/tp-implementation-plan-2012-13.pdf](http://www.shropshire.gov.uk/traveltransport.nsf/viewAttachments/AMOS-95AE6P/$file/tp-implementation-plan-2012-13.pdf)

⁸⁸ [http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFAW-8TAKKB/\\$file/shropshire-council-PFRA.pdf](http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFAW-8TAKKB/$file/shropshire-council-PFRA.pdf)
SEA Environmental Report, March 2014

		evacuated.
	Shifnal	Around 60 residential properties were flooded when the Wesley Brook running through the town burst its banks,
July 2006	Albrighton and Cosford	Heavy rain causing flash flooding, damage to properties, impassable roads and closed schools.
November 2000	Severn Valley: Shrewsbury, Bridgnorth	Widespread damage to properties along River Severn
October 1998	Severn Valley: Shrewsbury, Bridgnorth	Heavy rainfall and flooding along River Severn.

4.3. Likely Future Conditions

There is the potential for transport infrastructure to improve if increased funding is granted. Rail services and connections to the rest of the England, especially the south, could improve with the potential development of High Speed 2 rail link from Birmingham to London.

4.4. Key Environmental Issues

The key environmental issues identified are:

- Flooding in the past, has caused severe disturbance to communities in Shrewsbury, Bridgnorth, Shifnal, Much Wenlock, and Ludlow with impacts including impassable roads, residential and business property flooding, school closures and landslips; and
- Transport links have become impassable in the past, new flood defences need to be provided to reduce and prevent future events.

5. Soil

5.1. Policy Context

At the international level, the Water Framework Directive (WFD) (2000/60/EC)⁸⁹ encourages the protection of soil. Similarly, the EU Thematic Strategy for Soil (2006)⁹⁰ promotes the protection and sustainable use of soil.

At the national level, the Safeguarding our Soils, A Strategy for England (2009)⁹¹ seeks to improve the quality of England's soils. The National Planning Policy Framework (NPPF) recognises that both new and existing development should not contribute to, be put at unacceptable risk from, or be adversely affected by unacceptable levels of soil pollution or land instability; despoiled, degraded, derelict, contaminated and unstable land should be remediated and mitigated where appropriate.

5.2. Environmental Protection Objectives

The European Soil Thematic Strategy (2006)⁹² has the following objectives:

- Establish common principles for the protection and sustainable use of soils;
- Prevent threats to soils, and mitigate the effects of those threats;
- Preserve soil functions within the context of sustainable use; and
- Restore degraded and contaminated soils to approved levels of functionality.

Safeguarding our Soils, A Strategy for England (2009) has the overall vision *"By 2030, all England's soils will be managed sustainably and degradation threats tackled successfully. This will improve the quality of England's soils and safeguard their ability to provide essential services for future generations."*

Part IIA of the Environmental Protection Act (1990)⁹³ requires Local Authorities to identify contaminated land in their area.

⁸⁹ Directive 2000/60/EC of the European Parliament and the Council establishing a framework for the Community action in the field of water policy accessible via: <http://ec.europa.eu/environment/water/water-framework/>

⁹⁰ <http://ec.europa.eu/environment/soil/index.htm>

⁹¹ <https://www.gov.uk/government/publications/safeguarding-our-soils-a-strategy-for-england>

⁹² Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions - Thematic Strategy for Soil Protection [SEC(2006)620] [SEC(2006)1165] <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52006DC0231:EN:NOT>

⁹³ <http://www.legislation.gov.uk/ukpga/1990/43/contents>

5.3. Baseline Review

Agriculture

The predominant land use in Shropshire is agriculture and expands to 86% of the total land area. Based on Defra's farming statistics⁹⁴:

- In 2008 there were 7,026 holdings in Shropshire, covering a total area of 274,549 hectares; and
- 7,624 (70.2%) of the agricultural labour force were farmers (full and part-time). The remaining (29.8%) were managers, regular hired workers and seasonal and casual workers.

Land use is dominated by permanent grassland across the county (128,147 ha), followed by crops and fallow (98,960). Large areas of land in the east, southeast and southwest are classified as nitrate sensitive areas, land in the north and east are nitrate valuable zones and a strip of land between Oswestry and Ellesmere is a deferred slurry storage zone⁹⁵.

Land Pollution Incidents

Agriculture sector pollution incidents are recorded onto the EA's National Incidents Recording System. The incidents are recorded in accordance to impact on the environment, major impacts (category 1) to discernible impacts (category 4)⁹⁶.

The incidents have been recorded for the entire West Midlands (Shropshire, Staffordshire, Herefordshire, Worcestershire, Warwickshire and West Midlands) region per year from 2005 – 2009. The number of incidents has remained similar across these recorded years and in most recent years more minor incidents have been recorded (Category 3) than major or significant.

Topsoil

Loss of topsoil was experienced in a number of locations, following the heavy rain experienced in 2012. This led to pollution of watercourses and additional flooding. As topsoil is a valuable but limited resource it merits conservation where possible.

Likely Future Conditions

Agriculture is likely to remain an important aspect of the rural economy and therefore it is unlikely that the extent of the nitrate vulnerable zone will alter substantially. Land pollution incidents are likely to remain primarily in the lower impact categories, given the trend in recent years for more minor incidents recorded than major or significant.

⁹⁴ [http://www.shropshire.gov.uk/factsfigures.nsf/viewAttachments/SGAK-94VE2R/\\$file/e24-012-agriculture-in-Shropshire-2008.pdf](http://www.shropshire.gov.uk/factsfigures.nsf/viewAttachments/SGAK-94VE2R/$file/e24-012-agriculture-in-Shropshire-2008.pdf)

⁹⁵ Magic <http://magic.defra.gov.uk/website/magic/viewer.htm?startTopic=magstatrural&activelayer=cualIndex&query=NAME%20%3d%20%22SHROPSHIRE%22>

⁹⁶ http://www.environment-agency.gov.uk/static/documents/Research/MIDS_SOE_West_Agri_LM.pdf

Key Environmental Issues

The key environmental issues identified are:

- Agriculture plays an important role in the local economy of Shropshire. However, in the event of flooding, classified nitrate valuable zones are vulnerable to increased nitrate 'pollution'; and
- Loss of topsoil during intense spells of rainfall.

6. Landscape

6.1. Policy Context

At the international level, the European Landscape Convention (2000)⁹⁷ promotes various actions at the landscape scale ranging from strict conservation through protection, management and improvement to actual creation.

At the national level, the Government White Paper: Heritage Protection for the 21st Century (2007)⁹⁸ seeks to put the historic environment at the heart of the planning system. The National Planning Policy Framework (NPPF) (2012)⁹⁹ sets out how planning should contribute to sustainable development and commits to protect and enhance the quality of the natural environment, in both rural and urban areas. A high level of protection should be given to most valued landscapes and those with national and international designations should receive the highest level of protection.

At the county level, the Core Strategy (CS) sets out the strategic planning policy for Shropshire. It includes a 'spatial' vision and objectives. It also sets out a development strategy identifying the level of development expected to take place in Shropshire up until 2026. The Shropshire Hills Area of Outstanding Natural Beauty (AONB) Management Plan 2009-2014¹⁰⁰ aims to influence and guide organisations and individuals on a wide range of topics. Its vision is that *"the natural beauty of the Shropshire Hills landscape is conserved enhanced and helped to adapt by sympathetic land management, by co-ordinated action and by sustainable communities; and is valued for its richness of geology, wildlife and heritage, and its contribution to prosperity and wellbeing"*.

6.2. Environmental Protection Objectives

European Landscape Convention (2000)¹⁰¹:

- Commits the UK to "recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity".

Planning (Listed Buildings and Conservation Areas) Act (1990)¹⁰²:

- Provides specific protection for buildings and areas of special architectural or historic interest.

⁹⁷ http://www.coe.int/t/dq4/cultureheritage/heritage/Landscape/default_en.asp

⁹⁸ <https://www.gov.uk/government/publications/heritage-protection-for-the-21st-century-white-paper>

⁹⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

¹⁰⁰ <http://www.shropshirehillsaonb.co.uk/looking-after/management-plan/2009-14/>

¹⁰¹ <http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm>

¹⁰² http://www.legislation.gov.uk/ukpga/1990/9/pdfs/ukpga_19900009_en.pdf

Countryside and Rights of Way Act (2000)¹⁰³:

- Create a framework for public access to the countryside;
- Provides greater protection to Sites of Special Scientific Interest (SSSIs) and new arrangements for the management of Areas of Outstanding Natural Beauty (AONBs);
- Provides for the possibility of Conservation Area Boards for Area of Outstanding Natural Beauty (AONBs);
- Management Plans receive a statutory status; and
- Section 85 requires public bodies to have regard to the purposes of designations of Area of Outstanding Natural Beauty (AONBs).

6.3. Baseline Review

The Shropshire Hills are designated as an Area of Outstanding Natural Beauty (AONB): the Shropshire Hills cover a quarter of Shropshire and stretch from the south-west to the north-east in presenting a variety of upland landscapes, as illustrated in Figure 6.1.

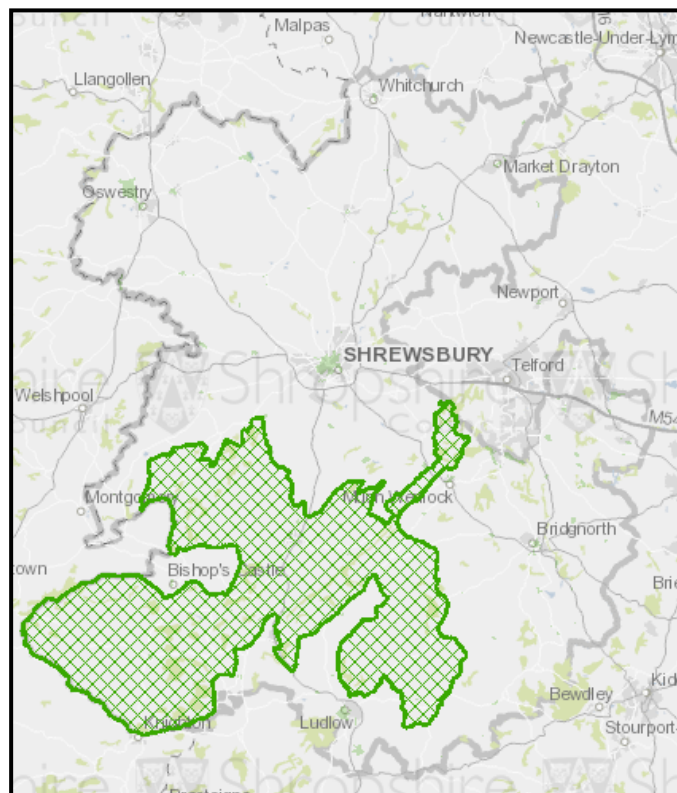


Figure 6.1: Area of Outstanding Natural Beauty in Shropshire¹⁰⁴

¹⁰³ <http://www.incc.gov.uk/page-1377>

¹⁰⁴ <http://magic.defra.gov.uk/>

The Shropshire Landscape Character Assessment¹⁰⁵ identifies twenty-seven separate landscape types within the county, made up of a different combination of components that determine landscape character. Their names reflect their characteristic land cover. Maps to depict this mix of land cover can be found in the Shropshire Landscape Character Assessment.

6.4. Likely Future Conditions

The extent of the Area of Outstanding Natural Beauty (AONB) is unlikely to alter substantially in the foreseeable future. The landscape types identified in the Shropshire Landscape Typology¹⁰⁶ could be eroded over time if significant development takes place within the county. This could either be in the form of strategic development in a few locations or piecemeal development across the county which results in a cumulative effect on landscape characteristics.

6.5. Key Environmental Issues

The key environmental issues identified are:

- Shropshire's diverse landscape types could be eroded over time if significant development takes place within the county. The location of development will be influenced by flood risk and therefore some landscapes will be more likely to be affected than others; and
- Land management options in support of reducing flood risk might harm or indeed help restore landscape character.

¹⁰⁵ [http://www.shropshire.gov.uk/environment.nsf/viewAttachments/STAK-927DSW/\\$file/an-introduction-to-shropshire's-landscapes.pdf](http://www.shropshire.gov.uk/environment.nsf/viewAttachments/STAK-927DSW/$file/an-introduction-to-shropshire's-landscapes.pdf)

¹⁰⁶ [http://www.shropshire.gov.uk/environment.nsf/viewAttachments/STAK-927DSW/\\$file/the-shropshire-landscape-typology.pdf](http://www.shropshire.gov.uk/environment.nsf/viewAttachments/STAK-927DSW/$file/the-shropshire-landscape-typology.pdf)
SEA Environmental Report, March 2014

7. Water

7.1. Policy Context

At the international level, the Water Framework Directive (WFD) (2000/60/EC)¹⁰⁷ promotes an integral and coordinated approach to water management at the river basin scale.

At the national level, the Flood and Water Management Act (2010)¹⁰⁸ will help to manage extreme weather events such as flooding and drought, and is implemented by the EA's National Flood and Coastal Erosion Risk Management (FCERM) Strategy¹⁰⁹. The National Planning Policy Framework (NPPF) recognises that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.

The Shropshire Middle Severn Abstraction Licensing Strategy (February 2013)¹¹⁰ identifies that a balance needs to be maintained between the requirements of the environment and that of people. The Strategy contributes to achieving environmental objectives under the Water Framework Directive (WFD). The River Severn Catchment Flood Management Plan (CFMP)¹¹¹ recommends a long term approach to managing the risk of fluvial flooding to people, property and the environment for the next 50 to 100 years.

The Shropshire Preliminary Flood Risk Assessment (PFRA) has identified a total of 57 flood risk areas deemed to be locally significant. It is clear that some areas of Shropshire require further investigation. In some cases a Surface Water Management Plan (SWMP) is required, which is a detailed investigation into local sources of flood risk. The information gathered during the Surface Water Management Plan (SWMP) process helps plan work, apply for funding, and update flood risk maps. A number of Surface Water Management Plans (SWMPs) are complete or are on-going, which includes the Craven Arms, Church Stretton, Much Wenlock, Oswestry, Shifnal and Shrewsbury Surface Water Management Plan (SWMPs).

7.2. Environmental Protection Objectives

Urban Wastewater Treatment Directive 1991¹¹²:

- The Directive aims to protect the environment from the adverse effects of wastewater discharges; and

¹⁰⁷ Directive 2000/60/EC of the European Parliament and the Council establishing a framework for the Community action in the field of water policy accessible via: <http://ec.europa.eu/environment/water/water-framework/>

¹⁰⁸ <http://www.legislation.gov.uk/ukpga/2010/29/contents>

¹⁰⁹ <http://www.environment-agency.gov.uk/research/policy/130073.aspx>

¹¹⁰ http://www.environment-agency.gov.uk/static/documents/Business/Shropshire_Middle_Severn.pdf

¹¹¹ <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/qemi0909bqvm-b-e.pdf>

¹¹² <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1991L0271:20081211:EN:PDF>

All urban waste water must undergo secondary treatment or equivalent, in particular for all discharges from agglomerations of more than 15,000 population equivalent (i.e. with a 5-day BOD of 60g of oxygen per day) and all discharges to freshwater and estuaries from agglomerations between 2,000 and 10,000 population equivalent.

Groundwater (England and Wales) Regulations 2009¹¹³:

- Seeks to prevent or limit the input of pollutants in to groundwater.

Water Framework Directive (WFD) 2000¹¹⁴:

- Aims to improve water quality and promote the sustainable use of all UK water bodies, including coastal waters, estuaries and all inland water bodies;
- It requires all UK river basins to reach "good status" by 2015, through demanding environmental objectives, including chemical, biological and physical targets; and
- Three types of UK water quality standards are being developed (a formal classification instrument should be completed in late 2007): Priority substances (and Priority Hazardous Substances); Specific Pollutants; and Physico-chemical pollutants.

Waterways for Tomorrow 2000¹¹⁵:

- DEFRA's aims for the inland waterways are to see an improving quality of infrastructure; a better experience for users through more co-operation between navigation authorities; and increased opportunities for all through sustainable development.

7.3. Baseline Review

Flood Risk

The River Severn, Britain's longest river, flows through Shropshire. The Preliminary Flood Risk Assessment (PFRA) process identifies places above the flood risk thresholds (referred to as 'blue squares') defined as greater than 200 people, 20 businesses, or 2 items of critical infrastructure at risk within a 1km² square. These are deemed to be locally significant based on past and future flooding data. A total of 57 1km² 'blue squares' have been identified in Shropshire and approximately 1,200 properties are at risk in a 1 in 100 year flood event¹¹⁶. Fluvial flood risk is relatively low while surface water provides a greater risk particularly in Ellesmere and Oswestry.

¹¹³ http://www.legislation.gov.uk/ukxi/2009/2902/pdfs/ukxi_20092902_en.pdf

¹¹⁴ Directive 2000/60/EC of the European Parliament and the Council establishing a framework for the Community action in the field of water policy accessible via: http://ec.europa.eu/environment/water/water-framework/index_en.html

¹¹⁵ <http://archive.defra.gov.uk/rural/documents/countryside/waterways/waterways-for-tomorrow.pdf>

¹¹⁶ <http://www.sstaffs.gov.uk/pdf/Severn%20Catchment%20Flood%20Management%20Plan.pdf>

The EA is the managing authority for designated Main Rivers in Shropshire¹¹⁷: These include, *inter alia*:

- River Severn;
- River Teme;
- River Tern;
- River Roden;
- Rea Brook;
- River Perry;
- River Worfe;
- River Corve; and
- River Onny.

Flood Events

The Shropshire Flood Forums database recorded 696 locations of previous flooding incidents across the county. These recordings combine fluvial, surface water and groundwater floods¹¹⁸.

The Shropshire Preliminary Flood Risk Assessment (PFRA) identifies the flood risk areas which have increased from forty 1km² to fifty-seven 1km² areas. These are areas with >200 people, >20 non-residential properties or >1 critical infrastructure affected by flooding in a 1km². Flooding has occurred in Shropshire a number of times, most recently in January 2013, December, November, September, July and June 2012, and 2007. A wetter than average May and June, extremely high rainfall totals and the intensity of rain caused extensive surface water flooding and rapid increases in river flows at many locations. The consequences of these floods have varied and resulted in numerous flood alerts by the EA.

Reservoirs

Sir Michael Pitt's Review of the summer 2007 floods¹¹⁹ identified clear gaps in the way that flood risk is managed, particularly in relation to surface water and groundwater flooding and on the need for a more risk-based approach to reservoir safety.¹²⁰

Local authorities are responsible for developing reservoir flood plans and the EA produce reservoir flood maps for large raised reservoirs (over 25,000 m³ of water), as recommended by the Pitt Review. The maps

¹¹⁷ [http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFaw-8TAKKB/\\$file/shropshire-council-PFRA.pdf](http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFaw-8TAKKB/$file/shropshire-council-PFRA.pdf)

¹¹⁸ [http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFaw-8TAKKB/\\$file/shropshire-council-PFRA.pdf](http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFaw-8TAKKB/$file/shropshire-council-PFRA.pdf)

¹¹⁹ The Pitt Review, (2008), *Learning Lessons from the 2007 floods*

¹²⁰ <http://www.groundwateruk.org/Flood-and-Water-Management-Act.aspx> [accessed 26.04.13]

SEA Environmental Report, March 2014

show the largest area that might be flooded if a reservoir were to fail and release the water it holds¹²¹.

Reservoirs in the UK have an extremely good safety record and reservoir flooding is very unlikely to happen. Although the likelihood of failure is very small the consequence of the failure of some dams can be large. As a result, after failures in the 1800s and in 1925, reservoir safety legislation was developed. Current legislation is the Reservoirs Act 1975 which ensures that all dams, with an above ground capacity greater than 25,000m³, are inspected frequently. All reservoirs subject to the Act will be very carefully inspected by an Inspecting Engineer at least once every 10 years, and examined by a Supervising Engineer at least once a year. It is best practice for owners of dams, certainly in public ownership or used for water supply and where the consequence of failure is high, to provide members of their staff who would visit the dam, usually at least 3 times per week to look for signs of distress.¹²²

Shropshire contains several reservoirs for water storage; some are outlined in Table 7-1.

Table 7-1: Reservoirs in Shropshire

Reservoir	Location
Black Dick's Lake	Near Shrewsbury
Bromfield Middle Pool	Near Ludlow
Bromfield Upper Pool	Near Ludlow
Chelmarsh	Near Bridgnorth
Dudmaston Big Pool	Near Bridgnorth
Hawk Lake	Near Market Drayton
Knighton	Near Market Drayton
Sunderton Pool	Near Shrewsbury
Pool's Farm	Ludlow
Wylde's Quarry (or Stevenshill) Reservoir	Cressage

¹²¹ <http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=e>

¹²² The Pitt Review, (2008), *Learning Lessons from the 2007 floods*
SEA Environmental Report, March 2014

Overall Ecological Status

Under the Water Framework Directive (WFD) designation there are 9 river waterbodies in the Shropshire area. These must all meet good ecological status or ecological potential by 2027¹²³:

- The majority of waterbodies in Shropshire are assessed as moderate ecological status;
- There are a number of waterbodies assessed as currently poor ecological status - these are dispersed throughout the county; and
- Two waterbodies in Shropshire currently have bad ecological status:
 - Common Brook - source to River Perry; and
 - River Roden - source to unnamed tributary.

Poor water quality from both diffuse and point sources have affected macro-invertebrate communities, limiting the diversity of species to those more tolerant of pollution. The main reasons that the ecology is failing to meet good status have been identified as high nutrient concentrations, morphology and in some cases low dissolved oxygen concentrations.

Water Pollution Incidents

The majority of water pollution incidents in Shropshire are lower impact incidents (categories 3 and 4). Serious (category 1 and 2) incidents in Shropshire have decreased.

7.4. Likely Future Conditions

Flood risk in Shropshire is likely to continue to be an issue in some locations and there is the potential for increased flood risk over time as a result of climate change and increased incidences of extreme weather events. The Water Framework Directive (WFD) requires that all waterbodies meet good ecological status, or good ecological potential, by 2027 and therefore it could be assumed that the ecological status of the waterbodies in Shropshire will improve over time in order to meet this requirement. Flooding is likely to have consequential impacts upon groundwater and surface water and potential exists for ecosystem impacts due to land use change (e.g. as a result of nitrogen release).

7.5. Key Environmental Issues

The key environmental issues identified are:

- Recent flood events have resulted in substantial costs associated with a loss of arable production;

¹²³ http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683.0&y=355134.0&scale=1&layerGroups=default&ep=map&textonly=off&lang=e&topic=wfd_rivers#x=381502&y=359347&lq=1.3,7,8,9,&scale=6
SEA Environmental Report, March 2014

- Although the likelihood of reservoir failure is very small there is the potential for the consequence of the failure to be large;
- There are waterbodies that are of poor or moderate ecological status, and therefore do not meet the Water Framework Directive (WFD) target 'good' status. All waterbodies in the county must reach good ecological status by 2027. One reason for poor ecological status is high levels of nutrients in a waterbody. This could be exacerbated through flood events which could increase diffuse pollution; and
- Impacts upon surface water and groundwater may arise as a consequence of future flooding and potentially as a result of flood risk mitigation.

Appendix C – Heritage Assets ‘at risk’

The following Table details the Heritage Assets considered to be ‘at risk’ by English Heritage, as at October 2012¹²⁴.

Name	Designation	Condition
Wattlesborough Castle	Listed Building Grade I	Poor
Alberbury Castle	Listed Building Grade II*	Very bad
Charlecotte Furnace	Scheduled Monument	Poor
Barn to west of Hall Farmhouse	Listed Building Grade II*	Poor
The Hermitage	Scheduled Monument	Poor
48 Mill Street	Listed Building Grade II*	Poor
Rockley Farmhouse	Listed Building Grade II*	Fair
Old Hall and attached garden wall	Listed Building Grade II*	Poor
Ludlow town walls	Listed Building Grade II	Poor
The Butter Cross	Listed Building Grade I	Poor
Remains of Lea Castle at Lower Lea Farm	Listed Building Grade II	Poor
Dovecote south east of South Hill Farm	Scheduled Monument	Very bad
Myddle Castle	Listed Building Grade II	Poor
Pitchford Hall	Listed Building Grade I	Fair
Brogynryn Hall	Listed Building Grade II*	Poor
Town walls, Shrewsbury	Listed Building Grade II*	Fair
Apprentice House of former Ditherington Flax Mill	Listed Building Grade II*	Poor
Flax dressing building at former Ditherington Flax Mill (The Cross Mill)	Listed Building Grade II*	Poor
Former Ditherington Flax Mill and attached former	Listed Building Grade I	Poor

¹²⁴ <http://www.english-heritage.org.uk/publications/har-2011-registers/acc-wm-HAR-register-2011.pdf>

malt kiln		
Stove House and Dye House at former Ditherington Flax Mill	Listed Building Grade II*	Poor
Pell Wall Hall	Listed Building Grade II*	Poor
Park House	Listed Building Grade II*	Poor
Hawkstone Windmill, Hawkstone Park	Listed Building Grade II*	Poor
Red Castle, Hawkstone Park	Listed Building Grade II	Poor
South Range, Silvington Manor	Listed Building Grade II*	Poor
The Old Rectory	Listed Building Grade II*	Poor
Cheney Longville Castle	Listed Building Grade II*	Poor
Hargreaves Farmhouse	Listed Building Grade II*	Very bad
Snailbeach New Smeltmill	Scheduled Monument	Poor
Candle House	Listed Building Grade II	Very bad
Little Shrawardine motte and bailey castle	Scheduled Monument	Generally unsatisfactory with major localised problems
Motte castle 200m south west of Bretchel	Scheduled Monument	Generally unsatisfactory with major localised problems
The Burgs, Bayston Hill	Scheduled Monument	Generally unsatisfactory with major localised problems
Lower Cleeton moat, a moat and fishponds 380m south east of Cleeton Court	Scheduled Monument	Generally satisfactory with significant localised problems
Motte castle immediately north west of Middleton Chapel	Scheduled Monument	Extensive significant problems
Bowl barrow 450m north west of Felton Farm, Bromfield	Scheduled Monument	Extensive significant problems
Roman camp north of Bromfield Farm	Scheduled Monument	Unknown
Castle Tump, a motte castle and causeway, 150m west	Scheduled Monument	Generally unsatisfactory with major localised

of Teme Bridge		problems
Moated site and fishponds 250m south west of Middleton Farm	Scheduled Monument	Generally unsatisfactory with major localised problems
Motte and bailey castle 150m north east of Wilmington	Scheduled Monument	Generally unsatisfactory with major localised problems
Offa's Dyke: section 2/3 mile long north from southern boundary of Rownal Covert	Scheduled Monument	Generally unsatisfactory with major localised problems
Offa's Dyke: section one mile 750yds from Dudston Covert to a point 300yds north of Lack Brook	Scheduled Monument	Generally unsatisfactory with major localised problems
Offa's Dyke: two section running 400yds south of Camlad Stream	Scheduled Monument	Generally unsatisfactory with major localised problems
Motte castle 80m north east of Home Farm	Scheduled Monument	Extensive significant problems
Bowl barrow 500m north of The Oak Farm	Scheduled Monument	Unknown
Offa's Dyke: section 400m south west of Springhill Farm	Scheduled Monument	Generally satisfactory but with significant localised problems
Bowl barrow 390m south east of Stanley Cottage	Scheduled Monument	Unknown
Castle motte 50m south east of St John the Baptist's Church	Scheduled Monument	Generally satisfactory but with significant localised problems
Moat Farm moated site, Condover	Scheduled Monument	Generally unsatisfactory with major localised problems
Norton Camp: a large multivallate hillfort, Craven Arms	Scheduled Monument	Generally unsatisfactory with major localised problems
The Mount motte and bailey castle, 120m north east of Hill House Farm, Diddlebury	Scheduled Monument	Generally unsatisfactory with major localised problems
Roman villa north east of Cottage Coppice, Harley	Scheduled Monument	Generally satisfactory but with minor localised problems
Motte 50m south east of St Martin's Church: part of a motte and bailey castle, Little Ness	Scheduled Monuments	Generally unsatisfactory with major localised problems
Offa's Dyke: section on the western slope of Llanfair	Scheduled Monument	Generally unsatisfactory with major localised

Hill, 1.4km south west of Burfield		problems
Offa's Dyke: section 890m north west and 320m west of Little Selley, Llanfair Waterdine	Scheduled Monument	Generally unsatisfactory with major localised problems
Bowl barrow on Acton Bank, 170m north of Acton House, Lydbury North	Scheduled Monument	Unknown
Nickless moat, Milson	Scheduled Monument	Generally unsatisfactory with major localised problems
Callow Hill Camp: a small multivallate hillfort, Minsterley	Scheduled Monument	Generally unsatisfactory with major localised problems
Roman villa at Linley Hall, More	Scheduled Monument	Unknown
Offa's Dyke: section 175m east of Cefn Bronydd	Scheduled Monument	Generally unsatisfactory with major localised problems
Small enclosed settlement on Fron, 340m west of John's Church	Scheduled Monument	Extensive significant problems
Nag's Head engine house, 230m north of Home Farm	Scheduled Monument	Extensive significant problems
Roman villa 150yds south east of Lea Hall	Scheduled Monument	Extensive significant problems
Roman camps south west of Stoneyford Cottages, Shifnal	Scheduled Monument	Unknown
Roman fort 300m east of Drayton Lodge Farm	Scheduled Monument	Unknown
Uxacona Roman site, Shifnal	Scheduled Monument	Unknown
Roman military site at Rhyn Park, St Martin's	Scheduled Monument	Unknown
Camp Ring motte and bailey castle, enclosure, fishpond and ridge and furrow 400m east of Culmington Farm	Scheduled Monument	Generally unsatisfactory with major localised problems
Castle Hill motte and bailey castle, Tong	Scheduled Monument	Generally satisfactory with but with significant localised problems
Moated site and fishpond 450m north west of Hunkington, Upton Magna	Scheduled Monument	Generally unsatisfactory with major localised problems

Robury Ring: a small enclosed settlement on Wentnor Prolley Moor	Scheduled Monument	Unknown
Hawcocks Mount ringwork castle 200m north east of Hawcocks Farm	Scheduled Monument	Generally unsatisfactory with major localised problems
Motte castle 250m west of Yockleton Hall	Scheduled Monument	Generally unsatisfactory with major localised problems
The Mount: a motte castle 200m west of Weston Farm	Scheduled Monument	Generally unsatisfactory with major localised problems
Castle Farm moat and associated water management features, Cheney Longville	Scheduled Monument	Generally unsatisfactory with major localised problems
Upper Barn moat	Scheduled Monument	Generally unsatisfactory with major localised problems
Ringwork 540m north of Lane Farm	Scheduled Monument	Generally unsatisfactory with major localised problems
Bowl barrow 120m south west of Dorrington Cottage	Scheduled Monument	Unknown
Moated site Leigh Hall, Worthen with Shelve	Scheduled Monument	Extensive significant problems
Snailbeach New Smeltmill, 350m north east of Green Acres	Scheduled Monument	Generally satisfactory but with significant localised problems
Tankerville lead mine, Worthen with Shelve	Scheduled Monument	Generally unsatisfactory with major localised problems
Two bowl barrows 290m north of Upper House Farm	Scheduled Monument	Unknown
Acton Burnell	Registered Park and Garden Grade II	Generally unsatisfactory with major localised problems
Condover Hall, Condover	Registered Park and Garden Grade II	Generally unsatisfactory with major localised problems
Beckbury	Conservation Area	At risk
Clee View, Highley	Conservation Area	At risk
Knockin	Conservation Area	At risk
Llanymynech	Conservation Area	At risk
Neenton	Conservation Area	At risk

Quatford	Conservation Area	At risk
Severn Gorge (part)	Conservation Area	At risk
Shifnal	Conservation Area	At risk
Stottesdon	Conservation Area	At risk
Whittington	Conservation Area	Poor

Appendix D – Consultation Comments

Consultee	Ref	Page/ Para of Scoping report	Comment	Action
English Heritage	1.	Pg. 15 Sect. 6	Another relevant European reference for the historic environment includes the European Landscape Convention. This recognises that the landscape is shaped by natural and cultural influences, and hence in response the assessment should also consider the cultural / historic dimension of the landscape.	Included Appendix B Section 6.2
	2.	6.1	As a headline point, we consider that it might also be useful to underline that the: Conservation <u>and</u> enhancement of the historic environment is integral to delivering sustainable development	NPPF wording incorporated into Environmental Report Appendix B section 2.1
	3.	Appendix A	In Annex A (page 40) we recommend the third sentence [<i>NPPF text</i>] (high level of protection) also refers to 'heritage assets'.	Noted – wording updated
	4.	6	Protection of World Heritage Sites 07/2009 circular still extant	Noted –incorporated into Environmental Report section 2.2
	5.	6.3	Recommend inclusion of the Management Plan for the Ironbridge Gorge World Heritage Site. The WHS is located within the plan areas of both Telford and Wrekin Council and Shropshire Council. Current published management plan (2001) available at: http://www.telford.gov.uk/info/100006/environment_and_planning/719/world_heritage_sites/4	Importance of the WHS noted however the inclusion of this is too detailed for level/scope of plan
	6.	6	Local level conservation area appraisals and accompanying management plans may be relevant, particularly for areas identified as at risk of flooding.	The strategy is higher level and therefore local level conservation area appraisals are too detailed for level/scope of plan
	7.	Baseline	Inclusion of: <ul style="list-style-type: none"> Information held on county based Historic Environment Record. This could be interrogated in various ways, as for example, heritage assets located in particular areas or river catchments, and or heritage assets associated with rivers and other water-dependent habitats or water –level management regimes (e.g. historic bridges, weirs, mills); 	The FRMS is concerned with general principles of flood risk management and therefore this information is too detailed for level/scope

Consultee	Ref	Page/ Para of Scoping report	Comment	Action
			<ul style="list-style-type: none"> Locally listed heritage assets; The character of the wider historic landscape and townscape and other valued historic landscapes; Areas of archaeological importance and the potential for unrecorded archaeology. This may include palaeo-environmental deposits that are particularly associated with deeply alleviated river valleys. 	of plan
	8.		<p>Mapping data where possible will aid the assessment process by identifying assets which may be at most risk from flooding and or potentially impacted by proposed measures to help manage flood risk or improve resilience.</p> <p>Shropshire Landscape Assessment useful information for assessing landscape scale land management measures: http://www.shropshire.gov.uk/environment/shropshires-landscape/shropshire-landscape-assessment/</p>	The FRMS is concerned with general principles of flood risk management and does not address site specific measures. The SEA cannot predict the indirect effects on landscape that may arise as a result of implementation so the identification of at risk assets would not be appropriate.
	9.		Reference to the Shropshire Preliminary Flood Risk Assessment: http://www.shropshire.gov.uk/media/161797/shropshire-council-PFRA.pdf	This will be incorporated where relevant
	10.	Baseline	For both designated and non-designated heritage assets, an important consideration is the contribution of their setting to their heritage interest or significance. The significance of a heritage asset can be harmed or lost by development within its setting. New development within the setting of a heritage asset may also offer opportunities for enhancing or better revealing its significance, for example, removing a culvert may serve to improve the character and experience of a historic townscape.	Whilst this is undoubtedly true, the FRMS is concerned with general principles than specific development. Therefore it is not appropriate to address the setting of assets.
	11	6.4	Identify the risk status associated with flood risk and or whether flood risk might exacerbate the problem.	Unfortunately it is not practical to identify the risk on an asset by asset basis.
	12.	Key	The identified issues could be expanded on to reflect similar considerations addressed under	Noted - NPPF wording will

Consultee	Ref	Page/ Para of Scoping report	Comment	Action
		environm ental issues	<p>the biodiversity topic as well as some changes in the terminology to accord with the NPPF. We offer a number of suggestions as follows:</p> <ul style="list-style-type: none"> - Most heritage assets are vulnerable to flooding and in Shropshire a range of heritage assets are likely to be at risk of flooding, which may result in harm to or loss of their significance. This may be as a result of direct flood damage as well as inappropriate remedial works (*); - Proposed flood risk management measures and measures to improve resilience have the potential to impact on the significance of heritage assets, including the contribution made by their setting; and -Securing the sustainable reuse of heritage assets, including those identified as at risk, may be hindered by their location in high flood risk areas. 	be incorporated into the environmental report
	13.	Table 12.2	<p>Recommended changes to the wording of the first proposed indicator to reflect national guidance: <i>'Conserve and enhance the historic environment, heritage assets and their settings'</i></p>	Noted – NPPF wording be incorporated into the Environmental Report
	14.		<p>Suggested more detailed sub-objectives:</p> <ul style="list-style-type: none"> • <i>Will the measures reduce the number of heritage assets at risk of flooding?</i> • <i>Will the measures harm the significance of designation and non-designated heritage assets, including their setting?</i> • <i>Will the measures help secure the sustainable reuse of a heritage asset and or improve its maintenance?</i> • <i>Will the measures lead to changes in groundwater levels or chemistry which could harm the significance of archaeological remains, including palaeo-environmental deposits?</i> • <i>Will the measures conserve and enhance the significance of heritage assets including the character and distinctiveness of historical townscapes and places?</i> • <i>Will the measures increase public awareness and understanding of appropriate responses for heritage assets affected by flooding and the design and implementation of other measures aimed at risk management or improving resilience?</i> • <i>Will the measures provide opportunities for improved access, understanding and enjoyment of the historic environment?</i> 	These sub-objectives are too detailed for level/scope of plan

Consultee	Ref	Page/ Para of Scoping report	Comment	Action
	15.	12 pg. 32	Remove the second indicator on cultural heritage – suggested replacements: <ul style="list-style-type: none"> • ‘Proportion of conservation areas at risk from flooding’ • ‘Number of flood risk management measures securing enhancements in the significance of heritage assets including their settings’ • ‘Number of designated and non-designated heritage assets harmed by flood risk management measures, including impacts on their settings.’ 	Second indicator removed and a suggested replacement / similar suitable alternative used in the Environmental Report
	16.	10 - Landscape	Following on from our comments on the Cultural Heritage topic, we have a number of suggestions on this section given their interrelationship. <ul style="list-style-type: none"> • Policy context: why is the Heritage Protection White Paper mentioned? As part of sustainable development, the NPPF also commits to protecting and enhancing the historic environment. NPPF commits to protecting and enhancing the historic environment. Relevant to the landscape topic as under European Landscape Convention landscape covers all areas (rural and urban) and recognises its cultural and natural dimensions. A high level of protection also extends to townscapes in terms of locally designated conservation areas. • Shropshire Landscape Assessment • Key environmental issues: Does the catchment based approach present both issues and opportunities in that land management options in support of reducing flood risk might harm or indeed help restore landscape character? 	<p>The Heritage Protection White Paper is mentioned because historic assets are considered to contribute to the landscape character</p> <p>Components of the Shropshire Landscape Assessment have been referenced in this section</p> <p>Noted and this point has been brought out in the ecology section as a potential enhancement opportunity for habitat restoration</p>