Shropshire and Staffordshire Local Flood Risk Management Strategy

Part 3: Strategic Environmental Assessment for Shropshire

Environmental Report, December 2015

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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:

Heritage assets can be at risk from increased flooding which may damage the fabric of the asset or its setting, or they may be at risk during any flood alleviation works. These 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, and should support wider landscape benefits through promoting blue corridors and green infrastructure.

Any flood risk management measures employed should be sympathetic to local landscape character and be designed to be sensitive to any designated 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.

Monitoring

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

Shropshire Council has developed an Action Plan in Part 2 of the Strategy, which will be reviewed every 12 months by the Staffordshire and Shropshire Service Delivery Group, which will publish an annual statement setting out how the Strategy is being implemented.

1. Introduction

1.1. The Shropshire Flood Risk Management Strategy

Shropshire Council has produced 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 reflects 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 includes 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.

Selected Historical Flooding Events in Shropshire:

- October 1998 – Severn Valley: Shrewsbury, Bridgnorth (Heavy rainfall and flooding),
- November 2000 – Severn Valley: Shrewsbury, Bridgnorth (Heavy rainfall and flooding),
- July 2006 – Albrighton and Cosford (Heavy rain causing flash floods),
- June 2007 – Shifnal (watercourse burst its banks),
- June 2007 – Ludlow (Burway Bridge on River Corve collapsed),
- June 2007 – Bridgnorth (Severn Valley Railway line from Bridgnorth was closed after landslips),
- June 2007 – Much Wenlock and Farley (Surface water and fluvial flooding).
- June to November 2012 – Prolonged period of wet weather resulting in numerous local flooding issues across Shropshire

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

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.

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. Completion of a Strategic Environmental Assessment (SEA) is a requirement of the SEA Directive for a

flood risk management strategy, so the methodology for undertaking this assessment will follow Communities and Local Government's (CLG) Guidance on Strategic Environmental Assessment (SEA)[1], in accordance with the SEA Directive

2.2 Stages in the Strategic Environmental Assessment Process

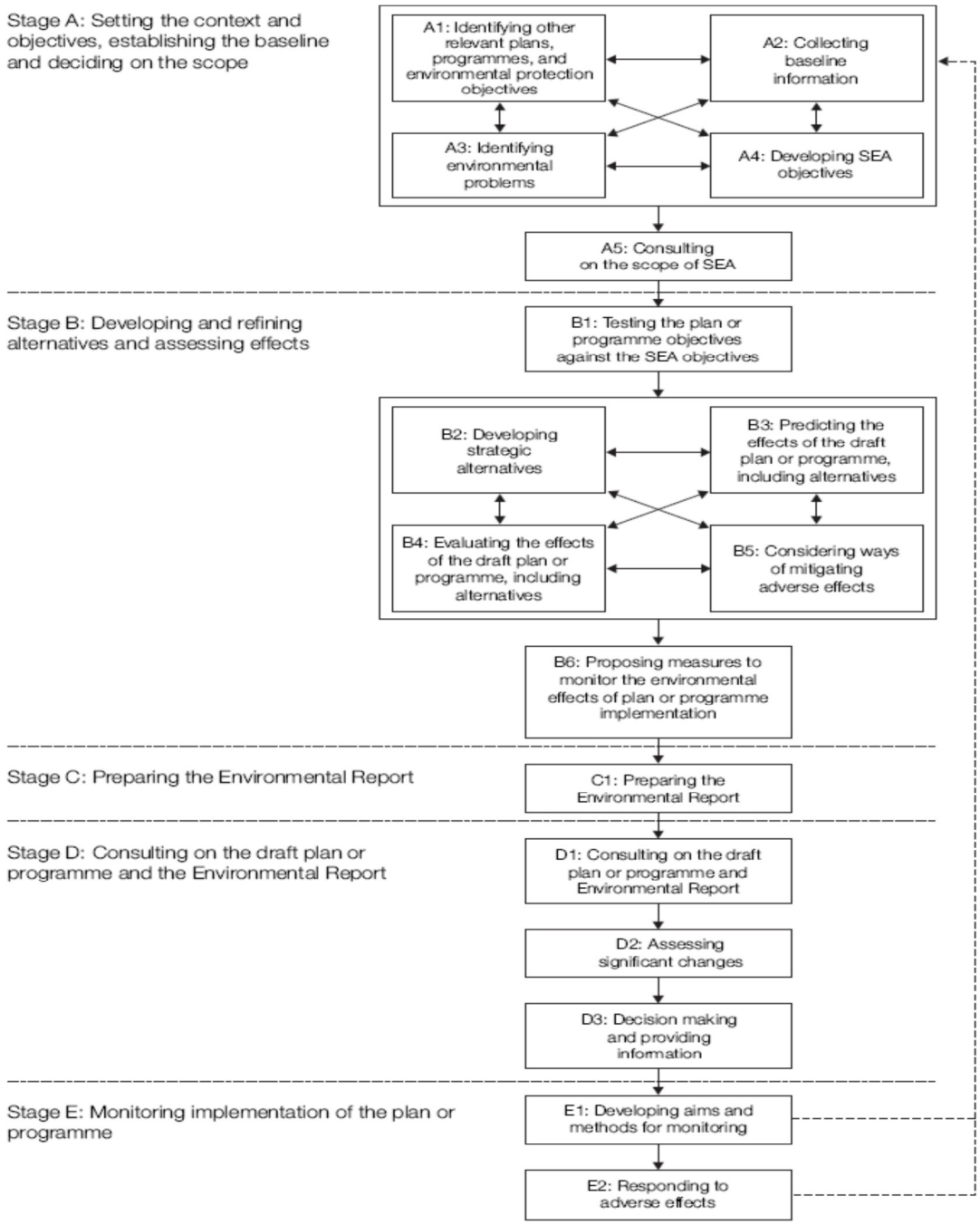
The Strategic Environmental Assessment (SEA) process is conducted in five stages[1]:

- 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

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

	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. 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.
(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

A Post Adoption Statement will be produced once the LFRMS and this SEA report have been published (see section 9.2)

2.4 Scope of the SEA

Stage A of the Strategic Environmental Assessment (SEA) was undertaken 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 Historic England for comment before being finalised. Comments received and the responses to them are listed in Appendix C.

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 Report[2], which sets the context within which the assessment has been

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

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;
- 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

Part 1 of the 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 Strategy provides details of the measures proposed to deliver the high level strategy objectives listed above.

The Sustainable Drainage Systems (SuDS) Handbook has been incorporated into the Strategy. The SuDS Handbook contributes to the delivery of Policy 4 in Shropshire Council's Role as Lead Local Flood Authority in the Consideration of Proposals for Sustainable Development. The council will seek to deliver SuDS as part of new development in its roles as statutory consultee for major planning applications and non-statutory consultee for non-major planning applications.

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. 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 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. The Flood and Water Management Act 2010, enacted by Government in response to the recommendations of The Pitt Review, designated unitary and county councils as Lead Local Flood Authorities (LLFAs) with new responsibilities for leading and co-ordinating the management of local flood risk; namely the flood risk arising from surface water runoff, groundwater and ordinary watercourses. This includes a statutory duty to develop, maintain, apply and monitor a strategy for the management of local flood risk.

In the spirit of the Flood and Water Management Act 2010, and recognising the current economic climate, Shropshire Council and Staffordshire County Council have entered into a collaborative working agreement with regard to

fulfilling their duties as Lead Local Flood Authorities (LLFAs). This Local Flood Risk Management Strategy (LFRMS) offers the first opportunity for us to formalise our longer term vision and shape individual priorities that deliver the greatest benefit to the people, property and environment of Shropshire and Staffordshire.

4.3. Planning and Environmental Context

A number of environmental plans and strategies will be drawn on through the delivery of local flood risk management to ensure consistency with and achievement of wider environmental objectives. Such plans and strategies include the Shropshire Biodiversity Action Plan, Shropshire and Telford and Wrekin Local Nature Partnership. formed a key part in developing the objectives and measures for managing local flood risk over the coming years as part of the Local Flood Risk Management Strategy (LFRMS).

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.

Severn River Basin Management Plan (2009)[3] 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 European Habitats Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna provides legal protection for habitats and species of European importance (Natura 2000 sites). The Conservation of Habitats and Species Regulations 2010 (usually referred to as the 2010 Habitats Regulations) implement the Directive into national legislation.

[3] Note that at the time of writing the expected 2015 update had not been published.

Article 6(3) of the Habitats Directive1 requires that any plan or project, which is not directly connected with or necessary to the management of a European site, but would be likely to have a significant effect on such a site, either individually or in combination with other plans or projects, shall be subject to an 'appropriate assessment' of its implications for the European site in view of the site's conservation objectives. In the light of the conclusions of that assessment, and subject to the provisions of Article 6(4) of the Habitats Directive, the competent authority (i.e. in this context the plan-making body) shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, having obtained the opinion of the general public. Article 6(4) provides that if, in spite of a negative assessment of the implications for the site, and in the absence of alternative solutions, the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected.

The Habitats Regulations Assessment refers to the assessment of the potential impacts of a development plan on one or more European Sites (collectively termed 'Natura 2000' [N2K] sites). Natura 2000 is a Europe- wide network of sites of international importance for nature conservation established under the European Council Directive 'on the conservation of natural habitats and of wild fauna and flora' (92/43/EEC; 'Habitats Directive').

The process to identify the likely impacts of a policy or proposal upon a Natura 2000 site, either alone or in combination with other plans and projects, and consider whether the impacts are likely to be significant or uncertainty exists. Straightforward counter-acting measures can be recommended for incorporation into policy wordings and then sites re-screened.

An HRA screening document (June 2015)[4] has been appended to the LFRMS

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.

[4] Shropshire and Staffordshire Local Flood Risk Management Strategy Habitat Regulations Assessment Screening Report June 2015 DRAFT – Version 1

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 102 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. Shropshire contains 2 Ramsar sites (the Midland Meres and Marshes Phase 1 and Phase 2) and 5 Special Areas for Conservation.

There are 4 National Nature Reserves and 830 locally designated sites of which 537 are Local Wildlife Sites (LWS) and 293 are Local Geological Sites (LGS), these locally designated sites are largely in private ownership.

5.3. Cultural Heritage

Shropshire has a rich heritage asset. Within Shropshire there are approximately 6892 listed buildings (including 118 Grade 1 Listed Buildings), 435 Scheduled Monuments, 32 Registered Parks and Gardens and 117 building conservation areas. Together with parts of The Pontcysyllte Aqueduct and Canal World Heritage Site.

There are also many undesignated heritage assets located throughout Shropshire , which are recorded on the Historic Environment Record (HER). Furthermore several District Councils maintain lists of locally important buildings and structures, which while not afforded statutory protection, are a material consideration within the planning process.

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.

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 approximately 72,000 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 expanses to 86% of the total land area. Based on Defra's farming statistics[5]:

- 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 (128,147ha), followed by crops and fallow (98,960ha). 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 zone[6].

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 is Britain's longest river and flows through Shropshire. The catchment has large areas at risk of fluvial flooding including parts of Shrewsbury and Bridgnorth. The Environment Agency Flood Zone map indicates that twosmall areas of Shrewsbury benefit from formal flood defences. A number of flood risk areas of national and local significance have been identified.

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

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

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 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 are 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. 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	Strategic Environmental Assessment (SEA) Objectives
Biodiversity	• Shropshire's diverse habitats support a variety of species and communities sensitive to changes. Habitats resilience and vulnerability	• To ensure compliance with natural environment statutory obligations

SEA Topic	Key Environmental Issue	Strategic Environmental Assessment (SEA) Objectives
	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). • Biodiversity on both designated and non-designated sites should be protected and enhanced.	• To conserve, and where possible enhance, protected and important habitats and species
Cultural Heritage/Historic Environment	• 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.	• To conserve and enhance the historic environment, heritage assets and their settings
Human Health	• 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.	• To improve and enhance the health and wellbeing of communities

SEA Topic	Key Environmental Issue	Strategic Environmental Assessment (SEA) Objectives
Material Assets	• Flooding in the past, has caused severe disturbance to communities in 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.	• To conserve and protect important material assets and infrastructure
Soil	• Agriculture plays an important role in the local economy of Shropshire.	• To conserve and protect the best and most productive agricultural land
Landscape	• Shropshire contains a number of diverse landscape types, (e.g. Shropshire Hills AONB,) which 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.	• To protect and conserve landscape
Water	• 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 a 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 ecological status by 2027. One reason for poor ecological status is high levels of nutrients in a water body. This could be exacerbated	• To protect and improve the water environment, for the benefit of the human and / or natural environment

SEA Topic	Key Environmental Issue	Strategic Environmental Assessment (SEA) Objectives
	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.	

7. Environmental Assessment

7.1. Introduction

The high level objectives of The 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 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 2020 (Biodiversity Strategy for England) and the Natural Environment and Rural Communities act.

The HRA screening document[7] concluded that the Shropshire and Staffordshire Local Flood Risk Management Strategy is not likely to have any significant negative effects on any European sites, alone or in combination with other plans or projects. Given this conclusion, should the recommended amendment be made, there would be no requirement to progress to the next stage of the Habitats Regulations Assessment.

[7] Shropshire and Staffordshire Local Flood Risk Management Strategy Habitat Regulations Assessment Screening Report June 2015 DRAFT – Version 1

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. The location and design of SuDS should also be informed by surrounding habitats and land-uses, as SuDS can contribute to green infrastructure and provision of features of value for wildlife to help species breed, feed and move through the landscape.

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. It should also be recognised that some designated sites in Shropshire may be shared with neighbouring counties, and thus cooperation across LA boundaries is important in these instances (e.g. River Teme SSSI which is shared between Hertfordshire, Powys, Shropshire and Worcestershire).

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 or SuDS schemes. Flood defence structures which protect designated sites should be carefully managed, to ensure that there is no habitat fragmentation, and SuDS should also be informed by surrounding habitats and land-uses, so that they contribute to green infrastructure and provision of features of value for wildlife.

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 and SuDS schemes should also be appropriate to the location in which they are being undertaken and the sensitivity of any cultural heritage assets.

Mitigation and Enhancement

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 any 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 greater, as they are less likely to be insured, more likely to be in poorer health and less able to finance repairs[8].

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 the A458 in 2007 and the A41 in 2013.

Objective 1 of The Strategy promotes understanding of flood risk from different sources and interactions, and aims to provide better records for historic flooding through investigating the cause of flood events. Flooding information will be risk based, with areas shown to be at locally significant risk analysed in more detail as part of a prioritised programme. This information will form the evidence base to help focus local resources and funding.

Objective 2 aim to raise awareness of the responsibilities for both man-made and natural drainage systems. This will be achieved by a series of measures including publicity information, engaging directly with those who are responsible, designation of features, consenting works and, where appropriate, using permissive land drainage powers to manage the ordinary watercourse network.

Objective 4 will manage flood risk and drainage associated with new development in a sustainable manner so no new flood risk is created and undertaken through 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.

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 away[9].

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

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

To conserve the best and most productive agricultural land should not conflict with other objectives including the aim to deliver a wider environmental objective of conserving and improving biodiversity and enhancing the natural environment. Sustainable farming practices can go hand in hand with a sustainable environment, for example maintenance of ditches and water course can benefit both agriculture and wildlife, setting aside field margins adjacent to the water course can reduce the amount of soil lost during intense rainfall events and reduce the input of diffuse pollutants. 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. As LLFA Shropshire Council should 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. The Soil Protection Review (A Cross Compliance requirement) specifically tackles degradation threats to soil, so acts as an effective tool to combat soil loss or damage.

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

Diffuse pollution arises from a number of sources including urban areas, roads, forestry and agriculture. This is having an adverse effect in a number of catchments exacerbated by flood events (see Appendix B).

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 the 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. Of special importance is Shropshire Hills AONB, which is Shropshire's only protected and uniquely sensitive landscape. Any flood risk management measures required in this area should be given due consideration, to help prevent significant impacts on the landscape.

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.

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. For example SuDS can be used to manage pollution to water bodies from surface water runoff and are therefore a sustainable approach to WFD.

The SuDS Handbook, the Climate Change Adaption Manual[10] and the Shropshire 'Climate Change Guide for Communities' 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 Table 7-9 in Appendix B, Shropshire has several reservoirs for water storage. 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

[10] http://publications.naturalengland.org.uk/publication/5629923804839936

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 flow[11]. Where measures introduced as a result of The Strategy are able to work with natural processes, these should aim to deliver physical (hydromorphology) improvements to the functioning of the water body.

The Strategy aims to promote the use of SuDS to reduce flood risk and the impact on the existing drainage systems and watercourses. It also aims to improve water quality through these measures. The use of 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'.

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.

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

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 has developed an Action Plan in Part 2 of the Strategy, which will be reviewed every 12 months by the Staffordshire and Shropshire Service Delivery Group, which will publish an annual statement setting out how the Strategy is being implemented.

8.2. Proposed Monitoring

Table 8.1 derived from the earlier Table 6.1 shows the proposed monitoring of the effects of The Strategy.

Table 8.1 Proposed Monitoring

Strategic Environmental Assessment (SEA) Topic	Strategic Environmental Assessment (SEA) Objectives	Proposed Monitoring
Biodiversity	To ensure compliance with natural environment statutory obligations. To conserve, and where possible enhance, protected and important habitats and species.	We will undertake a yearly review of the strategy and we will report back to ensure ongoing compliance , we will liaise with Natural England and act upon any issues which relate to the Strategy
Cultural Heritage	To conserve and enhance the historic environment, heritage assets and their setting.	We will undertake a yearly review of the strategy and we will report back to ensure ongoing compliance. We will liaise with Historic England and act upon any issues which relate to the Strategy
Human Health	To improve and enhance the health and wellbeing of communities	We will undertake a yearly review of the strategy and we will report back on any changes in flood risk and the potential effects negative and positive this will have upon human health.
Material Assets	To conserve and protect important material assets and infrastructure	As elements of the strategy are acted upon we will report back on any changes in flood risk and the potential effects negative and positive this will have upon material assets.

Strategic Environmental Assessment (SEA) Topic	Strategic Environmental Assessment (SEA) Objectives	Proposed Monitoring
Soil	To conserve and protect the best and most productive agricultural land	Every year we will review and report upon, whether any of the actions associated with the Strategy have led to any changes (positive and negative) with regard to the best and most productive agricultural land or any significant changes in land use.
Landscape	To protect, conserve and enhance the landscape	We will undertake a yearly review of the strategy and its potential effect upon landscape. We will report and act upon any issues if they relate to the Strategy
Water	To protect and improve the water environment, for the benefit of the human and / or natural environment	Every year we will review and report upon whether any of the actions associated with the Strategy have led to any changes (positive and negative) with regard to the water environment.

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) Report[12] 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".

The Post Adoption Statement will provide more details of the monitoring which can be done as a part of the LFRMS.

It is recommended that the impact of the implementation of the Local Flood Risk Management Strategy Action Plan on the SEA objectives is reviewed every 12 months.

12 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 Historic England) for comment as part of the consultation on The Strategy.

All parts of the Strategy were open for public consultation for 6 months, during which time all town and parish councils were contacted, as were all Shropshire Councillors and members of the relevant Flood Forum contact lists. The Strategy had a press release, along with a mention on local radio stations.

Around 50 comments were received and these have been reviewed and were taken into account as appropriate when the documents were finalised. No major changes to the principles in the Strategy were proposed during the consultation.

Work has also been undertaken since the consultation to streamline the documents, make the action plan easier to implement and monitor and update the Flood Risk Assessment to help inform future priorities.

9.2. Next Steps

The SEA regulations require a number of steps to be taken to adopt the plan or strategy, in this case the LFRMS. Regulation 16 (of the SEA legislation) details the post-adoption procedures for the SEA and requires that as soon as possible after adoption of the strategy for which the SEA has been undertaken, that the planning authority must make a copy of the strategy publically available alongside a copy of the SEA and an SEA adoption statement.

The SEA adoption statement must explain:

• How environmental and sustainability considerations have been integrated into the Strategy.

• How the Environmental Report has been taken into account during preparation of the strategy

• How options expressed by the public and consultation bodies during consultation on the strategy and the Environmental Report have been taken into account.

• Reason for choosing the Strategy as adopted ahead of any alternatives

• Measures taken to monitor the significant environmental and sustainability effects of the implementation of the strategy.

The production and publication of a Post Adoption Statement will therefore follow on from the publication of the final version of the LFRMS parts 1, 2 and 3.

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
SuDS	Sustainable Drainage Systems

Appendix A – Full Policy Context Review

Plan	Key Messages	Relevant SEA Directive Topics
International		
Convention on Biological Diversity (1992)[13]	Set the target to achieve by 2010 a significant reduction of the current rate of biodiversity loss.	**Biodiversity**
The Habitats Directive (92/43/EEC)[14]	Requires the protection of species and habitats of EU nature conservation designation	**Biodiversity**
Birds Directive 2009/147/EC (codified version of 79/409/EEC)[15]	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)[16]	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)[17] and Air Quality Regulations[18]	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)[19]	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)[20]	Promotes the protection and sustainable use of soil.	**Soil**
The Kyoto Protocol (1997)[21]	Sets legally binding measures to achieve the objectives of the United Nations	**Climatic Factors**

13 For further information visit: http://www.cbd.int/default.shtml

14 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

15 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

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

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

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

19 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

20 Http://ec.europa.eu/environment/soil/index.htm

Plan	Key Messages	Relevant SEA Directive Topics
	Framework Convention on Climate Change (UNFCC)	
EU Thematic Strategy on the prevention and recycling of Waste (2005)[22]	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)[23]	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)[24]	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)[25]	The revised Convention updates the provisions of a previous Convention (ETS No. 66) adopted by the Council of Europe in 1969. 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. 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.	**Cultural Heritage**
National		

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

22 European Commission Thematic Strategy on the prevention and recycling of waste accessible via: hhttp://ec.europa.eu/environment/waste/strategy.htm

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

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

25 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[26]	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[27] (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)[28]	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)[29]	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)30	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 England31	Deals with the importance of understanding, evaluating and protecting countryside character and diversity.	**Landscape**

26 http://www.environment-agency.gov.uk/research/policy/130073.aspx

27 http://www.jncc.gov.uk/page-1377

28 http://www.ukbap.org.uk/

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

30 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)[32]	The full potential of the historic environment should be realised and it should be accessible to all.	**Cultural Heritage, Material Assets**
Water Act 2003[33]	Encourage more efficient use of water resources	**Water**
Safeguarding Our Soils: A Strategy for England (2009)[34]	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)[35]	Will help to manage extreme weather events such as flooding and drought.	**Water**
The UK Climate Change Programme (2006)[36]	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)[37]	Advocates a holistic approach to flooding, addressing all types of flooding together	**Climatic Factors**
Making Space for Nature (2010)[38]	Underpins the recommendations outlined in HM Government's Natural Environment White Paper.	**Biodiversity, Climate Factors, Population, Water**
The Natural Choice: securing the value of nature (2011)[39]	Outlines the Government's vision for the natural environment over the next 50 years.	**Biodiversity, Climatic Factors, Population, Water**

31 http://www.defra.gov.uk/rural/ruralwp/whitepaper/default.htm

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

33 http://www.opsi.gov.uk/ACTS/acts2003/20030037.htm

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

35 http://www.legislation.gov.uk/ukpga/2010/29/contents

36 http://www.defra.gov.uk/environment/climatechange/uk/index.htm

37 http://www.defra.gov.uk/environ/fcd/policy/strategy/htm

38 http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf

39 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228842/8082.pdf

Plan	Key Messages	Relevant SEA Directive Topics
Waste Strategy for England (2007)[40]	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)[41]	Sets a series of substantial targets for the reduction of biodegradable municipal waste gong to landfill	**Population, Soil**
Securing the Future: UK Government Sustainable Development Strategy (2005)[42]	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)[43]	Promote and enhance biodiversity	**Biodiversity**
National Planning Policy Framework (2012)[44]	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. 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.	**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**

40 http://ww.defra.gov.uk/environment/waste/strategy/index.htm

41 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

42 http://www.sustainable-development.gov.uk/publications/uk-strategy/index.htm

43 http://www.legislation.gov.uk/ukpga/2006/16/contents

44 http://www.communities.go.uk/planningandbuilding/planningsystem/planningpolicy/planningpolicyframework/

Plan	Key Messages	Relevant SEA Directive Topics
	The planning system should contribute to and enhance the natural and local environment by: • 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**
	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**
	The planning system should contribute to and enhance the natural and local environment by: • 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	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	All

Plan	Key Messages	Relevant SEA Directive Topics
Midlands (2008)[45]	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.	
Shropshire Core Strategy (March 2011)[46]	The Shropshire Core Strategy DPD was adopted 24th 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
Shropshire Hills AONB Management Plan (2014)[47]	Management Plan for the AONB	**Biodiversity, Cultural Heritage, Landscape**
'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)[48]	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
A Cultural Strategy for Shropshire and	Evolution, Revolution and Innovation is the Cultural Strategy for Shropshire and	Biodiversity, Cultural Heritage,

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

46 http://www.shropshire.gov.uk/planningpolicy.nsf/open/BA2DFED094851949802579220004CC90D

47 http://www.shropshirehillsaonb.co.uk/looking-after/management-plan/

48 http://www.shropshire.gov.uk/sustainability.nsf/viewAttachments/CFOR-95FTHS/$file/Shropshire-Climate-Change-Strategy-2011.pdf

Plan	Key Messages	Relevant SEA Directive Topics
Telford & Wrekin 2009-2014[49]	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: • 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	Human Health, Material Assets, Population.
Shropshire Preliminary Flood Risk assessment (PFRA)[50]	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
Severn River Basin Management Plan (RBMP) [51]	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)[52]	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

49 http://www.shropshire.gov.uk/arts.nsf/viewAttachments/APUH-8SCMH8/$file/Cultural-Strategy-2009-14.pdf

50 http://www.shropshire.gov.uk/environmentmaintenance.nsf/open/E428CC81716567E38025790200593AC5

51 http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/gemi0910bssk-e-e.pdf

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

Plan	Key Messages	Relevant SEA Directive Topics
The River Severn Catchment Flood Management Plan (CFMP)[53]	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)[54]	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. A number of SWMPs are complete or are on-going. These include the Craven Arms, Church Stretton, Much Wenlock, Oswestry, Shifnal and Shrewsbury SWMPs.	Water

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

54 http://www.shropshire.gov.uk/environmentmaintenance.nsf/open/1A6FD5279D62AF9380257A1A0038EA41

Appendix B – Full Baseline Review

1. Biodiversity

1.1. Policy Context

The Habitats Directive[55] 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)[56] 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)[57] 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)[58] 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)[59] 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 and the Stiperstones and Corndon Hill Country Landscape Partnership Scheme. There are also area based partnerships which are working to deliver at a landscape scale (e.g. The Clun Catchment Partnership, Wrekin Forest Partnership and Clee Hill Partnership).

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, 1979[60]:

- To protect endangered species and their habitats.

55 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/

56 http://www.jncc.gov.uk/page-1377

57 http://www.legislation.gov.uk/ukpga/2006/16/contents

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

59 http://www.naturalshropshire.org.uk/ShropshireBiodiversityPartnership/tabid/37/Default.aspx

60 http://conventions.coe.int/Treaty/en/Treaties/Word/104.doc

Wild Birds Directive 2009/147/EC[61]:

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

Bonn Convention on the Conservation of Migratory Species of Wild Animals, 1979[62]:

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

Habitats Directive 92/43/EEC, 1992[63]:

- 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 2002[64]:

- 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 1981[65] (as amended by the Countryside Rights of Way Act 2000[66]):

- 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

61 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

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

63Council 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/

64 http://ec.europa.eu/environment/newprg/intro.htm

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

66 http://www.legislation.gov.uk/ukpga/2000/37/contents

- 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 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 Strategy[67]

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 • Floating water-plantain *Luronium natans* 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 *Luronium* 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 • 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 *Sphagnum papillosum, Sphagnum magellanicum*, *Sphagnum pulchrum*, all three British species of sundew *Drosera* spp., cranberry *Vaccinium oxycoccos*, bog asphodel *Narthecium ossifragum*, royal fern *Osmunda regalis*, white beak-sedge *Rhynchospora alba* and bog-rosemary *Andromeda polifolia*, together with the nationally scarce moss *Dicranum affine*. 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 • Degraded raised bogs still capable of natural regeneration

67 http://www.jncc.gov.uk/ProtectedSites/

Table 1-1: Condition of Designated Areas that could be affected by the Strategy[67]

Site	Condition/Status	Designated for
River Clun	Designated Special Area of Conservation	Annex II species present as a qualifying feature, but not a primary reason for site selection • Freshwater pearl mussel *Margaritifera margaritifera*
River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid	Designated Special Area of Conservation	Annex I habitats that are a primary reason for selection of this site • Watercourses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation Annex II species that are a primary reason for selection of this site • Atlantic Salmon *Salmo salar* • Floating water-plantain *Luronium natans* Annex II species present as a qualifying feature, but not a primary reason for site selection • Sea lamprey *Petromyzon marinus* • Brook lamprey *Lampetra planeri* • River lamprey *Lampetra fluviatilis* • Bullhead *Cottus gobio* • Otter *Lutra lutra*
The Stiperstones and The Hollies	Designated Special Area of Conservation	Annex I habitats that are a primary reason for selection of this site • 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 *Calluna vulgaris – Vaccinium myrtillus* dry heath, which is characteristic of the uplands. South-facing slopes support stands of H8 *Calluna vulgaris – Ulex gallii* 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. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
West Midlands Mosses	Designated Special Area of Conservation	Annex I habitats that are a primary reason for selection of this site • Natural dystrophic lakes and ponds. West Midlands Mosses contains three pools, one at Clarepool Moss and two at Abbots

Table 1-1: Condition of Designated Areas that could be affected by the Strategy[67]

Site	Condition/Status	Designated for
		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 associated with Schwingmoor development, a characteristic of this habitat type in the West Midlands. Schwingmoor is an advancing floating raft of bog-moss *Sphagnum*, often containing NVC type M3 *Eriophorum angustifolium* bog pool community, which grows from the edge of the pool and can completely cover over the pool. • Transition mires and quaking bogs. West Midlands Mosses represents Schwingmoor vegetation. Floating rafts of *Sphagnum*-dominated vegetation have developed over semi-liquid substrates within basins. In the UK this type of *Sphagnum*-dominated vegetation with a scatter of sedges *Carex* species and cranberry *Vaccinium oxycoccos* is confined to this part of England and mid-Wales.

There are 102 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 interest[68].

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

[68] Shropshire Council
SEA Environmental Report, November 2015

- **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;
- **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)[69] 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)[70] 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)[71]:

- 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)[72]

- 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)[73]:

- 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".

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

70 http://www.shropshire.gov.uk/media/161797/shropshire-council-PFRA.pdf

71 http://whc.unesco.org/en/conventiontext

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

73 http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm

The Convention for the Protection for the Architectural Heritage of Europe (The Granada Convention)[74]:

- 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)[75]:

- 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)[76]:

- 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)[77]:

- 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.

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 Clun[78]. Within Shropshire there are approximately 6892 listed buildings (including 118 Grade 1 Listed Buildings), 435 Scheduled Monuments, 32 Registered Parks and Gardens and 117 building conservation areas. Together with parts of The Pontcysyllte Aqueduct and Canal World Heritage Site.

-

However, some of these assets are considered to be 'at risk'; for many of the Scheduled Monuments the main risk is through inappropriate

74 http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=121&CM=1&CL=ENG
75 http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=143&CM=1&CL=ENG
76 http://www.legislation.gov.uk/ukpga/1979/46
77 http://www.legislation.gov.uk/ukpga/1990/9/contents
78 http://www.offasdyke.demon.co.uk/dyke.htm

management such as overgrown vegetation.[79] 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 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)[80] 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)[81]. 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)[82] 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 floods[83] 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

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

81 http://www.shropshire.gov.uk/arts.nsf/viewAttachments/APUH-8SCMH8/$file/Cultural-Strategy-2009-14.pdf

82 http://www.shropshire.gov.uk/environmentmaintenance.nsf/open/E428CC81716567E38025790200593AC5

83 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 conditions[84].

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.

84 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)[85] 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.

85 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 implemented[86].

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 below[87].

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

86 Shropshire Local Transport Plan Implementation Plan 2012/13 http://www.shropshire.gov.uk/traveltransport.nsf/viewAttachments/AMOS-95AE6P/$file/ltp-implementation-plan-2012-13.pdf

87 http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFAW-8TAKKB/$file/shropshire-council-PFRA.pdf

		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)[88] encourages the protection of soil. Similarly, the EU Thematic Strategy for Soil (2006)[89] promotes the protection and sustainable use of soil.

At the national level, the Safeguarding our Soils, A Strategy for England (2009)[90] 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)[91] 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)[92] requires Local Authorities to identify contaminated land in their area.

88 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/

89 Http://ec.europa.eu/environment/soil/index.htm

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

91 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

92 http://www.legislation.gov.uk/ukpga/1990/43/contents

5.3. Baseline Review

Agriculture

The predominant land use in Shropshire is agriculture and expanses to 86% of the total land area. Based on Defra's farming statistics[93]:

- 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 zone[94].

Topsoil

Loss of topsoil was experienced in a number of locations, following the heavy rain experienced in 2012. This lead 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 subject to the vagaries of the global market place and an increasing UK and global population is bringing about land use change that places greater demands on sensitive soils/landscapes. For Shropshire, agriculture is likely to remain an important aspect of the rural economy.

Key Environmental Issues

The key environmental issues identified are:

- Agriculture plays an important role in the local economy of Shropshire
- Loss of topsoil during intense spells of rainfall.
- Shropshire benefits from large areas of agricultural land and green open Space with the potential, where appropriate, to offer opportunities for flood storage and the delivery of wider environmental benefits." This is not to say that agricultural land is available for this purpose, but that it can be considered, in partnership with landowners, as a possible solution where appropriate.

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

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

6. Landscape

6.1. Policy Context

At the international level, the European Landscape Convention (2000)[95] 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)[96] seeks to put the historic environment at the heart of the planning system. The National Planning Policy Framework (NPPF) (2012)[97] 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 2014-2019[98] 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)[99]:

- 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)[100]:

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

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

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

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

98 http://www.cannock-chase.co.uk/assets/downloads/74646AONBmanagementplan2014-19_2.pdf

99 http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm

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

Countryside and Rights of Way Act (2000)[101]:

- 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 in a north-easterly direction. They present a variety of upland landscapes, as illustrated in Figure 6.1.

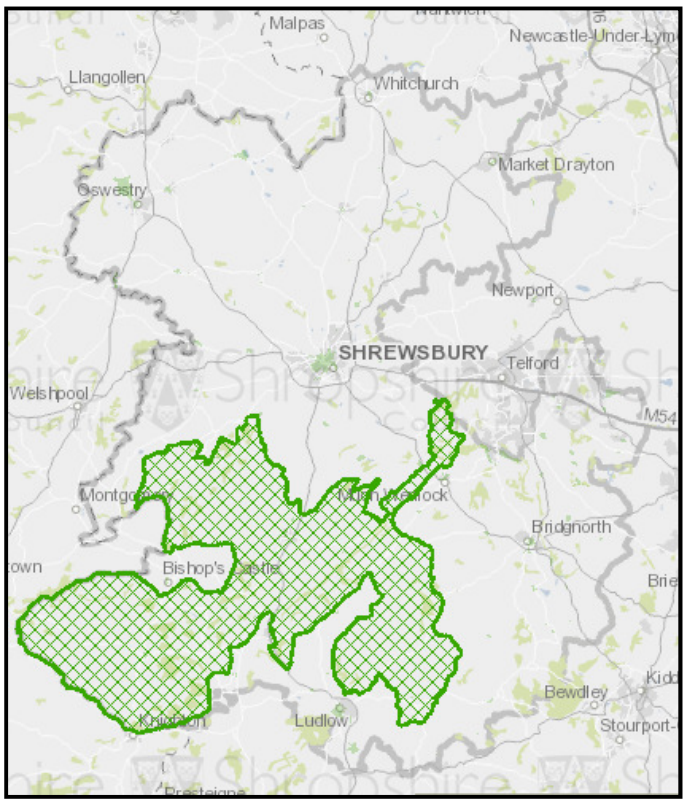


Figure 6.1: Area of Outstanding Natural Beauty in Shropshire[102]

101 http://www.jncc.gov.uk/page-1377

102 http://magic.defra.gov.uk/

The Shropshire Landscape Character Assessment[103] 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 Typology[104] 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.

[103] http://www.shropshire.gov.uk/environment.nsf/viewAttachments/STAK-927DSW/$file/an-introduction-to-shropshire's-landscapes.pdf
[104] http://www.shropshire.gov.uk/environment.nsf/viewAttachments/STAK-927DSW/$file/the-shropshire-landscape-typology.pdf

7. Water

7.1. Policy Context

At the international level, the Water Framework Directive (WFD) (2000/60/EC)[105] 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)[106] 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) Strategy[107]. 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) [108] 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) [109] 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 1991[110]:

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

105 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/

106 http://www.legislation.gov.uk/ukpga/2010/29/contents

107 http://www.environment-agency.gov.uk/research/policy/130073.aspx

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

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

110 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 2009[111]:

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

Water Framework Directive (WFD) 2000[112]:

- 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 2000[113]:

- 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 1km^2 square. These are deemed to be locally significant based on past and future flooding data. A total of 57 1km^2 'blue squares' have been identified in Shropshire and approximately 1,200 properties are at risk in a 1 in 100 year flood event[114]. Fluvial flood risk is relatively low while surface water provides a greater risk particularly in Ellesmere and Oswestry.

111 http://www.legislation.gov.uk/uksi/2009/2902/pdfs/uksi_20092902_en.pdf

112 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

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

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

The EA is the managing authority for designated Main Rivers in Shropshire[115]: These include, *inter alia*:

- River Severn;
- River Teme;
- River Tern;
- River Roden;
- Rea Brook;
- River Perry;
- River Worfe;
- River Clun;
- River Kemp;
- 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 floods[116].

The Shropshire Preliminary Flood Risk Assessment (PFRA) identifies the flood risk areas which have increased from forty 1km^2 to fifty-seven 1km^2 areas. These are areas with >200 people, >20 non-residential properties or >1 critical infrastructure affected by flooding in a 1km^2. 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 floods[117] identified clear gaps in the way that flood risk is managed, particularly in relation to

115 http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFAW-8TAKKB/$file/shropshire-council-PFRA.pdf

116 http://www.shropshire.gov.uk/environmentmaintenance.nsf/viewAttachments/CFAW-8TAKKB/$file/shropshire-council-PFRA.pdf

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

surface water and groundwater flooding and on the need for a more risk-based approach to reservoir safety.[118]

Local authorities are responsible for developing reservoir flood plans and the EA produce reservoir flood maps for large raised reservoirs (over 25,000 m^3 of water), as recommended by the Pitt Review. The maps show the largest area that might be flooded if a reservoir were to fail and release the water it holds[119].

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 25,000m^3, 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.[120]

Shropshire contains several reservoirs for water storage; some are outlined in Table 7-1. Patshull Great Pool is included, as although it is mostly sited on the Staffordshire side of the county boundary, a breach of any part of the embankment would result in a flood water inundation of Stratford Brook, which is located in Shropshire.

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

[118] http://www.groundwateruk.org/Flood-and-Water-Management-Act.aspx [accessed 26.04.13]
[119] http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=_e
[120] The Pitt Review, (2008), *Learning Lessons from the 2007 floods*

Wyldes Quarry (or Stevenshill) Reservoir	Cressage
Patshull Great Pool	Near Wolverhampton

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 2027[121]:

- 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 these are official known as
    - Common Brook - source to the River Perry; and
    - River Roden - source to an 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).

[121] 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&lg=1,3,7,8,9,&scale=6

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;
- 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 – Consultation Comments

Consultee	Ref	Page/ Para of Scoping report	Comment	Action
Historic England	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 and 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 *[NPPF text]* (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: • 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
			• 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.		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. Shropshire Landscape Assessment useful information for assessing landscape scale land management measures: http://www.shropshire.gov.uk/environment/shropshires-landscape/shropshire-landscape-assessment/	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
		environmental issues	the biodiversity topic as well as some changes in the terminology to accord with the NPPF. We offer a number of suggestions as follows: - 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	Recommended changes to the wording of the first proposed indicator to reflect national guidance: '*Conserve and enhance the historic environment, heritage assets and their settings'*	Noted – NPPF wording be incorporated into the Environmental Report
	14.		Suggested more detailed sub-objectives: • *Will the measures reduce the number of heritage assets at risk of flooding?* • *Will the measures harm the significance of designation and non-designated heritage assets, including their setting?* • *Will the measures help secure the sustainable reuse of a heritage asset and or improve its maintenance?* • *Will the measures lead to changes in groundwater levels or chemistry which could harm the significance of archaeological remains, including palaeo-environmental deposits?* • *Will the measures conserve and enhance the significance of heritage assets including the character and distinctiveness of historical townscapes and places?* • *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?* • *Will the measures provide opportunities for improved access, understanding and enjoyment of the historic environment?*	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: • '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. • 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?	The Heritage Protection White Paper is mentioned because historic assets are considered to contribute to the landscape character Components of the Shropshire Landscape Assessment have been referenced in this section Noted and this point has been brought out in the ecology section as a potential enhancement opportunity for habitat restoration