

Number: WG-19283



Llywodraeth Cymru  
Welsh Government

[www.cymru.gov.uk](http://www.cymru.gov.uk)

Welsh Government

## Consultation Document

### Strategic Environmental Assessment Scoping Document for the Water Strategy for Wales

Date of issue: 19 July 2013  
Responses by: 11 October 2013

## Overview

The Strategic Environmental Assessment will influence the development of the Water Strategy for Wales to make the most of positive outcomes that can arise from improving the water environment, and help to avoid or reduce the negative effects. It will also be undertaken to fulfil the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004 (known as the 'Strategic Environmental Assessment Regulations').

We are taking this opportunity to consult on the scope of the Strategic Environmental Assessment as a first step to influencing the Strategy, which is due to be published in November 2013.

## How to respond

Please respond to the consultation by completing the questionnaire provided with this document.

Alternatively, you can e-mail or send any comments to the address further below.

## Further information and related documents

**Large print, Braille and alternative language versions of this document are available on request.**

Insert any references to the internet, documents or information which might be useful to consultees e.g. consultation web address, detailed appendix to consultation.

## Contact details

For further information please contact:

Water Strategy Programme Manager  
Water Branch  
Energy, Water and Flood Division  
Welsh Government  
Crown Buildings  
Cathays Park  
Cardiff  
CF10 3NQ

email: [water@wales.gsi.gov.uk](mailto:water@wales.gsi.gov.uk)

Telephone: 029 2080 5175

## Data Protection

### How the views and information you give us will be used

Any response you send us will be seen in full by Welsh Government staff dealing with the issues which this consultation is about. It may also be seen by other Welsh Government staff to help them plan future consultations.

The Welsh Government intends to publish a summary of the responses to this document. We may also publish responses in full. Normally, the name and address (or part of the address) of the person or organisation who sent the response are published with the response. This helps to show that the consultation was carried out properly. If you do not want your name or address published, please tell us this in writing when you send your response. We will then blank them out.

Names or addresses we blank out might still get published later, though we do not think this would happen very often. The Freedom of Information Act 2000 and the Environmental Information Regulations 2004 allow the public to ask to see information held by many public bodies, including the Welsh Government. This includes information which has not been published. However, the law also allows us to withhold information in some circumstances. If anyone asks to see information we have withheld, we will have to decide whether to release it or not. If someone has asked for their name and address not to be published, that is an important fact we would take into account. However, there might sometimes be important reasons why we would have to reveal someone's name and address, even though they have asked for them not to be published. We would get in touch with the person and ask their views before we finally decided to reveal the information.

## **Contents**

<b>1.0</b>	<b>INTRODUCTION TO THE WATER STRATEGY FOR WALES.....</b>	<b>1</b>
<b>2.0</b>	<b>WHY ARE WE DOING A STRATEGIC ENVIRONMENTAL ASSESSMENT? .....</b>	<b>7</b>
<b>3.0</b>	<b>FOCUSING ON KEY ENVIRONMENTAL EFFECTS .....</b>	<b>7</b>
<b>4.0</b>	<b>PROVIDING A STRATEGIC CONTEXT.....</b>	<b>8</b>
<b>5.0</b>	<b>ENVIRONMENTAL CONTEXT.....</b>	<b>9</b>
<b>6.0</b>	<b>HOW WILL WE UNDERTAKE THE STRATEGIC ENVIRONMENTAL ASSESSMENT? .....</b>	<b>21</b>
<b>7.0</b>	<b>NEXT STAGES OF THE SEA .....</b>	<b>26</b>
<b>8.0</b>	<b>YOUR VIEWS .....</b>	<b>26</b>
	<b>APPENDIX A: POLICIES, PLANS AND PROGRAMMES TO BE CONSIDERED BY THE STRATEGIC ENVIRONMENTAL ASSESSMENT .</b>	<b>29</b>
	<b>APPENDIX B: STAKEHOLDERS WHO ATTENDED WATER STRATEGY.</b>	<b>36</b>
	<b>WORKSHOPS</b>	

## **1.0 Introduction to the Water Strategy for Wales**

Wales' natural resources – its landscape, habitats, air and water – provide the foundation for achieving the Welsh Government's overarching priorities:

*“healthy people living productive lives in a more prosperous and innovative economy; safer and more cohesive communities, with lower levels of poverty and greater equality; a resilient environment with more sustainable use of our natural resources and a society with a vital sense of its cultural heritage.”*

Water is one of our greatest natural assets and an integral part of Wales' heritage and national identity. It has, and continues to, mould our landscapes, assist our economic development and provide one of the key foundations for our natural environment. Water is fundamental to our economic future and it brings a sense of place and a range of benefits to the people of Wales.

Access to clean, safe, secure and resilient water supplies contribute significantly to the health, well-being and economy for our communities across Wales.

A good quality water environment attracts visitors to Wales to enjoy a wide range of responsible activities across our many scenic inland and coastal waterways, including water sports and walking. In addition it supports and promotes both commercial and recreational fishing in Wales. These attractions are assets to the Welsh tourism industry which make a significant contribution to our economy.

Through our Strategy we aim to protect and optimise the benefits provided by water whilst also delivering other economic, social and environmental goals. To achieve this we propose taking an ecosystem approach to managing water as a natural resource in Wales. This means that we will be looking at more integrated mechanisms to facilitate local level involvement and optimise the benefits and services we receive from water. This approach will also enable us to focus on the wider Welsh Government's priorities for Wales and integrate with our overall approach to Natural Resource Policy.

Water and sewerage services are critical in supporting economic activities across Wales from construction and housing to power generation and regeneration. The delivery of water and sewerage services is a significant industry in Wales, which invests heavily in its infrastructure to ensure that services such as collection, treatment and distribution are fit for purpose. In the current investment period (2010-15) the water industry is delivering capital investment of just under £2 billion.

### **1.1 The case for change**

Since the privatisation of the water industry in 1989 we have seen dramatic improvements in environmental and drinking water quality and we have also seen enhanced services for business and domestic customers across Wales.

It is the belief of some people in Wales that water is an infinite resource which can easily be replenished with little or no cost to the environment and the economy. However, water comes to consumers and businesses via a complex collection, storage, and delivery system which are costly to build and maintain. The abstraction of water from the environment and the disposal of our waste water also puts pressure on our ecosystems. There is a cost associated with the regulation of these activities.

Wales is facing a number of challenges such as climate change, population increase and more demand for water. These all have implications for water industry regulation, water storage, river regulation and flood prevention over the next thirty years and beyond.

We have to meet these challenges and a healthy, functioning environment is the basic building block of social and economic prosperity. However, we are not currently managing our natural resources, including water in a way that takes into account the connections between environmental, social and economic outcomes, or in a way that emphasises the importance of sustaining our environment in the long-term in order to improve the quality of life for present and future generations.

We need to value water more, understand the spatial variations of water resources across Wales and use it wisely to minimise our impact on the water environment and those that rely on water. To do this we need to understand the impacts from our direct use of water from rivers, lakes and reservoirs in Wales and better understand the full range of services we get from water. Water is heavily relied on by a wide range of business sectors in Wales, including agriculture, food and beverage production, cooling and energy generation, manufacturing and tourism. It also supports healthy diverse ecosystems.

In order for us to ensure that we manage our water effectively in Wales, we must take a more integrated approach to natural resource management. This means that all decisions affecting water as a resource look to optimise economic, social and environmental outcomes and are informed by involvement at a local level.

## **1.2 Programme for Government**

Our Programme for Government contains a range of commitments in relation to:

- developing a Water Strategy for Wales
- sustainable development
- natural resource management planning
- delivery of an Environment Bill
- Establishment of a single natural resource management body for Wales
- our Tackling Poverty Action Plan

### 1.3 The key objectives of the Water Strategy

The Water Strategy for Wales will be set within the context of our commitments which are highlighted in the Welsh Government Programme for Government.

The Water Strategy for Wales will set out the Welsh Government's position on a range of water policies for Wales. The Strategy will set out our proposals for integrated water management to meet future challenges and to ensure that we maximise the benefits a water and healthy eco-system can provide for our citizens, our economy and our environment.

The Welsh Government consulted on its proposed approach to natural resource management through the 2010 *A Living Wales: a new framework for our environment, countryside and seas* Green Paper and the 2012 *Sustaining a Living Wales* Green Paper. Responses to these consultations reflected a substantial degree of support for this fresh approach to the planning and management of natural resources in Wales.

There will be a focus on protecting and enhancing our water and sewerage assets and ensuring that there are sufficient, reliable water resources and waste water services available for all and to support the Welsh Government's agenda for jobs and growth.

The Strategy will set out our aspirations for future regulatory regimes governing water and waste water management within the industry and the environment as well focusing on tackling issues of water poverty and debt experienced by water customers.

It will also focus on developing land management practices and the need to understand water related ecosystems services to focus long term planning decisions.

Through the Water Strategy we will aim to achieve:

- a focus on the value of water as a whole, supporting the delivery of environmental, social and economic outcomes specific to Wales.
- changes in the way we deliver water policy, make decisions and regulate the water industry and environment, to ensure our communities and neighbourhoods have the highest possible standards of health and we deliver the best results for the economy and the environment.
- a more integrated approach to water and waste water management.
- realising opportunities for wider public involvement in decision making in managing water for benefits to people in Wales.
- a positive approach for landowners, farmers, fisheries, forestry, developers, industries, charities and other organisations to work towards the common goal of sustainable development, delivering positive environmental change and the creation of jobs and other benefits.

- ecosystem services provided by our water assets are not just confined to those with clear direct or marketable value, such as water resource supplies. They also include the many other ways we can value, cherish, or simply rely on a service that water provides.
- reducing debt, driving up efficiencies and delivering benefits for all customers while protecting vulnerable groups.
- compliance with statutory obligations that drive all-round water quality
- ensuring access to safe, secure and resilient environmental and drinking water for all, now and in the future

In developing this consultation we have sought advice and views from individuals and organisations with expertise and knowledge of water management on the issues, challenges and opportunities to progress a number of water policy areas. We have held seven workshops to seek aspirations, evidence, examples of good practice and identify challenges with stakeholders. A summary of the topics and aspirations of the policy areas under consideration is included in Table 1. A list of stakeholders who attended these workshops can be found in Annex B.

**Table 1:**

Topic & Date of workshop	Aspirations in Policy Area
Delivering High Standard Drinking Water Quality 7 February 2013	<ul style="list-style-type: none"> <li>• Access to a clean, wholesome, safe and resilient drinking water supply for everyone living in, working in or visiting Wales.</li> <li>• A strategic approach to tackling lead in water</li> <li>• Effective mechanisms to manage all private water supplies and distribution systems</li> <li>• An innovative approach to ensure that the water fittings in homes and businesses are fit for purpose and will not have an adverse impact on the quality of drinking water.</li> </ul>
Sewerage & Drainage Service 7 February 2013	<ul style="list-style-type: none"> <li>• To ensure we have a sustainable and well managed infrastructure system to manage both waste water and surface water</li> <li>• To have a well maintained sewerage system</li> <li>• Effluent is treated and disposed of properly whilst, where appropriate, investigating opportunities for its use</li> <li>• A reduction in pollution of water and land from sewerage systems</li> <li>• Increased use of innovative solutions</li> <li>• A strategic approach to the management of the aging and inherited foul sewerage assets.</li> </ul>
An ecosystem approach to water resources	<ul style="list-style-type: none"> <li>• To explore changes to the abstraction licensing system to ensure we have a catchment based approach that is adaptable to climate change.</li> </ul>

<p>13 February 2013</p>	<ul style="list-style-type: none"> <li>• The consideration of the role of clean water asset management plans to encourage a strategic approach to below ground leakage</li> <li>• Greater resilience through improved interconnectivity between water resource zones in Wales</li> <li>• Improved protection of smaller abstractions through a registration system</li> <li>• Improved water efficiency through water company per capita consumption targets</li> <li>• To review existing legislative, regulatory and planning processes associated with water management and explore ways to ensure they are fit for purpose now and in the future and that they align with wider natural resources planning principles.</li> <li>• Ensure that we understand the scale of the impacts on water availability now and in the future.</li> <li>• Taking account of ecosystem services</li> <li>• Inclusion of communities in decision making</li> <li>• A focus on combined water and land management at a catchment level.</li> <li>• Taking action on pollution</li> <li>• Conserving aquatic biodiversity</li> <li>• Support economic growth</li> </ul>
<p>The value of Water 13 February 2013</p>	<ul style="list-style-type: none"> <li>• Water should be a sustainably managed resource that is able to support our population, environment and economy.</li> <li>• Householders and businesses value their water and take responsibility for managing our natural capital.</li> <li>• Sufficient information is available to enable people to make informed and responsible choices about how they use their water.</li> <li>• Demand management will be integral to a resilient and secure supply of water across Wales.</li> <li>• We expect appropriate development plans, water efficiency and local solutions to be used to meet and control expanding demand.</li> <li>• We want the industrial, agricultural, tourism and water sector to work closely together in the future so they can both understand the overall value of each area and the benefits they jointly bring.</li> <li>• We will work to establish a meaningful value for water that can then be reflected in a system that compensates for the use of our resources.</li> </ul>

	<ul style="list-style-type: none"> <li>• We will continue to work with relevant stakeholders to develop the evidence base on the availability of water in Wales to identify where current and future pressures are.</li> <li>• We will work with partners to understand the scale and impact of our indirect water footprint.</li> <li>• We will work with partners to deliver pilots which deliver integrated natural resource managements systems including opportunities for payments for ecosystem services.</li> </ul>
<p>Water Management, Land Use and European Directives 26 February 2013</p>	<ul style="list-style-type: none"> <li>• We will review the opportunities for interventions for payments for ecosystem services with catchments.</li> <li>• We will look to facilitate the involvement of communities in decision making and planning.</li> <li>• We propose to create Water Management Planning Groups that will provide a forum for community groups, local businesses and individuals to become more involved in the decisions involving water management in their area/catchment.</li> <li>• We aim to better understand the impact of different land management practices on ecosystem services.</li> <li>• We propose to reassess guidance, and regulatory procedures governing land management across Wales.</li> <li>• We aim to recognise and better understand the true value of aquatic ecosystems and the services they provide. Take a long term commitment to ecological improvements.</li> </ul>
<p>Delivering results for customers – The Future of the Water Industry 10 May 2013</p>	<ul style="list-style-type: none"> <li>• How we can increase innovation in the water industry?</li> <li>• The role of industry regulators.</li> <li>• What we can learn from international experience?</li> <li>• The potential role of competition or further regulation in Wales and what form the industry should take.</li> </ul>
<p>Delivering Results for Household Customers – Tackling Water Poverty and Affordability Issues 10 May 2013</p>	<ul style="list-style-type: none"> <li>• Water bills are kept at an affordable level.</li> <li>• Customers have a choice of charging options that will reduce debt, drive up efficiencies and deliver benefits for all while protecting vulnerable groups.</li> <li>• Water and sewerage charges are fair and equitable.</li> <li>• Provide and identify gaps in provision and link with the wider advice services that the Welsh</li> </ul>

	<p>Government provides.</p> <ul style="list-style-type: none"> <li>• A phased and proportionate metering programme for Wales.</li> <li>• Customers are protected from any unnecessarily large increases in bills.</li> <li>• Identify affordability options for householders with private water supplies.</li> </ul>
--	--

## 2.0 Why are we doing a Strategic Environmental Assessment?

The primary purpose of a Strategic Environmental Assessment (SEA) is to develop a strategy that delivers better environmental outcomes. By working alongside the development of the strategy, the assessment can prompt changes that reduce any negative environmental effects and make the most of the benefits people receive from the environment. The SEA will also utilise an integrated approach to ensure that water policy is developed taking into account the health and resilience of the environment whilst also considering the benefits for society and the economy in Wales.

The SEA is undertaken to fulfil the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004 (known as the 'Strategic Environmental Assessment Regulations'). We will also use the SEA to influence the development of the Water Strategy for Wales to make the most of positive outcomes that can arise from improving the water environment, and help to avoid or reduce the negative effects.

We are taking this opportunity to consult on the scope of the SEA as a first step to influencing the Strategy. This will help us to learn more of the information we should be taking into consideration and understand which key environmental effects of the plan are of concern.

Section 8 sets out how you can provide comments on this document and includes four consultation questions. To enable you to consider your response as you read this document, these are also provided below:

### Consultation questions

1. Do you agree that we are focused on the key environmental effects?
2. Do you agree with the ecosystem services identified as being reliant on the Strategy?
3. Do you agree that we have identified the relevant ecosystem services that will influence or be impacted by the strategy?
4. Is there any other information that we should be taking into account as part of the assessment?

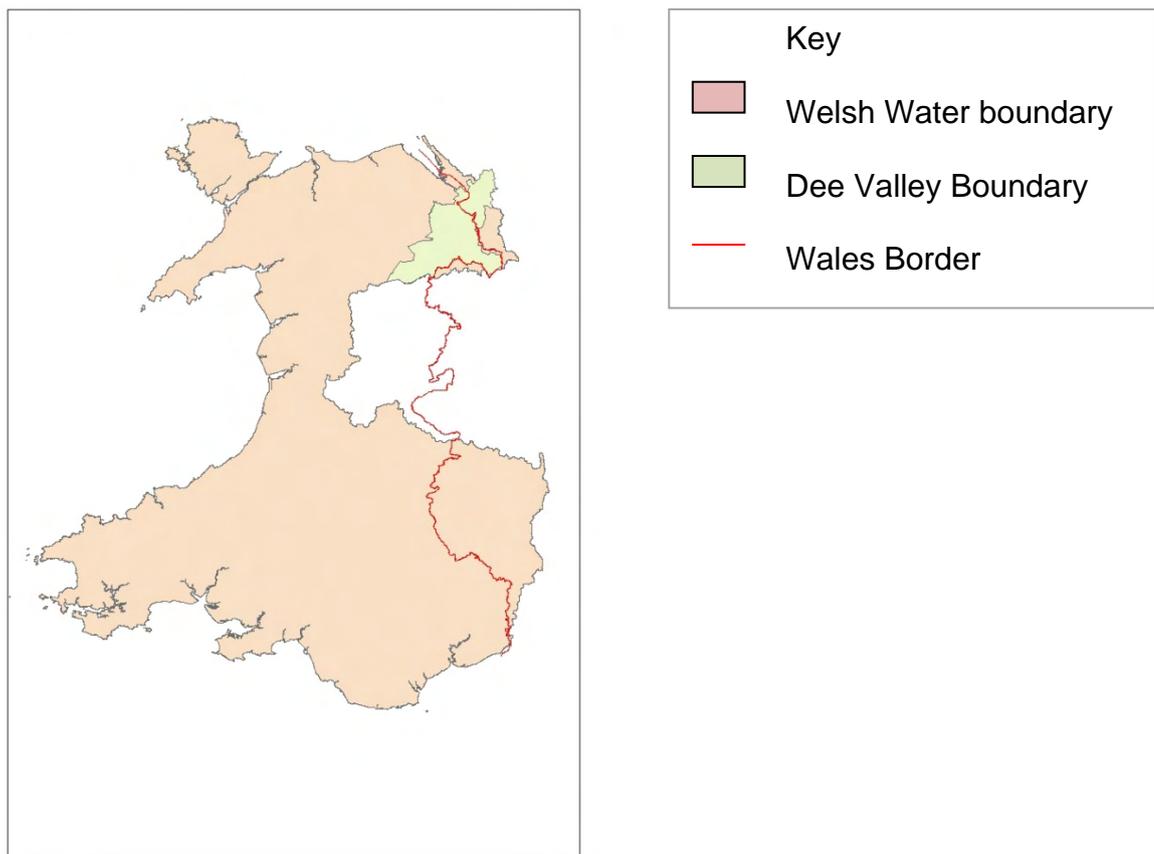
## 3.0 Focusing on key environmental effects

It would be a huge task to have to consider each and every environmental effect of implementing a strategy for managing water. We want to focus on

those effects that are significant. By significant we mean that they would result in noticeable change (both positive and negative) to people's lives and the environment.

The SEA will focus on those effects that are important at a national level. The study area is shown in Figure 1. Water Strategy policies relating to the water industry will apply to water companies which are wholly or mainly in Wales (Welsh Water, and Dee Valley Water). Water Strategy policies relating to the broader water environment will apply to all of Wales.

Figure 1: Study Area



#### 4.0 Providing a strategic context

The water environment is reliant upon and relied upon by many other ecosystem services and so in appraising options for the management of water in Wales we must consider a range of other policies, plans and programmes. Given the national context of this strategy, only relevant national policies, plans, strategies and legislation have been considered as part of this review.

They could:

- have a significant effect on the water environment and therefore we might need to think about how we adapt our policies;
- conflict with actions we want to include in the strategy;

- inform us of key environmental issues that we should consider or provide additional environmental information;
- help us to identify opportunities to take action that benefits the objectives of more than one plan or strategy; and
- help us to identify the potential cumulative effects of the strategy.

We have set out the plans that we consider to be relevant to the Water Strategy for Wales in Appendix A. These include a wide range of International, European and National Plans, Policies and Programmes such as the Ramsar Convention on Wetlands, the Water Framework Directive, the Environment Strategy for Wales, Planning Policy Wales and Low Carbon Wales.

We will be producing an Environmental Report to be published with the draft Water Strategy for Wales, that will provide a brief commentary of the key issues arising from the plans, policies and programmes and how we have taken them into account.

## **5.0 Environmental Context**

### **5.1 Introduction**

This section of the report presents an overview of the existing state of the environment in Wales. It focuses on the aspects of relevance to water but also considers the potential linkages (impacts or benefits) to ecosystem services that water provides. Water is a natural resource that creates habitats such as freshwater, wetlands, marine and coastal habitats. These habitats deliver or affect a range of provisioning, cultural and regulating ecosystem services in some way. Furthermore, water quantity and quality affects every possible habitat type. At a high level, the Water Strategy for Wales must identify and take into account the implications of policies on all ecosystem services and the habitats that support them.

The Strategic Environmental Assessment Regulations set out a number of environmental receptors to be considered during the assessment. In our assessment we want to focus on those potential environmental effects that are likely to be significant, whether positive or negative. The aim of this scoping report is to document and consult upon the environmental issues within the scope of the assessment to ensure it is appropriate.

The information presented in this section is at a strategic level, appropriate to the scale of a National Strategy. The review therefore focuses on the national context, identifying relevant existing environmental problems and any identified trends.

### **5.2 Population and Human Health**

Wales has seen a 5% increase in its population since 2001 to 3.06million in 2011<sup>1</sup>. This trend is likely to continue with the population projected to

---

<sup>1</sup> 2011 Census

increase by 5% to 3.17million by 2020 and 12% to 3.37million by 2035<sup>2</sup>. The population is projected to get gradually older, and the number of people aged 65 and over is projected to increase by around 55 per cent between 2010 and 2023. This increase in population and the ageing population increases demand for food, water and other basic services. The estimated number of households in Wales grew from around 1.1million in 1991 to nearly 1.3million by 2009. As a proportion, the number of one person households increased from 25% of all households in 1991 to 31% in 2009<sup>3</sup>. This trend is likely to continue, causing greater pressures on land for housing, food production, water demand and energy supply.

The health of the population within Wales is extremely variable with the South Wales Valleys having amongst the highest percentages of populations with poor health in England and Wales. Measures of health status such as life expectancy and health expectancy are shown to be more favourable in some geographical locations than others and to be strongly patterned with material factors such as income, employment, health, education, geographical access to services, community safety, physical environment and housing. Areas in Wales classed as the most deprived in Wales include parts of Denbighshire, Caerphilly, Merthyr Tydfil, and Rhondda Cynon Taf Local Authorities<sup>4</sup>.

The natural environment can play a major role in the health of a population and water related recreational activities are an important contributing factor. Wales has some of the finest water environments in the UK which contribute to enhancing the quality of people's lives and providing economic benefit through tourism. Recreational activities include swimming, fishing, sailing, canoeing, rowing, diving, etc. Many land based recreational activities are also linked with the water environment due to the rural corridors they provide and the variety of landscapes they pass through. The Wales Coastal Path attracts a significant number of visitors, approximately 3 million people within the first 12 months of it opening.

Tourism accounted for 13.3% of the total Welsh economy in 2009<sup>5</sup>, demonstrating its importance to Wales. It is also important to employment in Wales, contributing 12.7% of the total workforce. Although high levels of employment in the visitor economy can be found in cities, rural areas are particularly dependent on the sector. The landscape, recreational activities and its natural, cultural and historic heritage are all factors that draw people to Wales.

The people of Wales also obtain a range of cultural services from ecosystems associated with the water environment. As well as those mentioned above, the water environment can provide important areas of tranquillity, spiritual and religious importance as well as providing important opportunities for education whether it be research or teaching.

---

<sup>2</sup>Population projections produced by the Office for National Statistics, 26 Oct 2011

<sup>3</sup> Household estimates, 1991-2009 SDR 23/2011

<sup>4</sup> Welsh Index of Multiple Deprivation 2011. Welsh Government

<sup>5</sup> The Economic case for the Visitor Economy by Deloitte and Oxford Economics June 2010

## Relation to Water Strategy for Wales

- Increasing population means an increasing demand for food, water, housing, energy etc.
- Health and wellbeing can be improved through greater access to water and the natural environment, and there may be opportunities to enhance recreation.
- The natural environment in Wales, in particular aquatic environments, attract tourists, visitors and the local population to use and enjoy it as a cultural and recreational resource bringing economic and health benefits.
- Policies will need to consider possible positive and negative impacts on flood risk management.

### 5.3 Biodiversity, flora and fauna

All ecological processes are the product of interactions between different groups of organisms and are dependent upon there being a range of these present. In this sense, biodiversity – the variety and variability of living organisms – ultimately underpins the functioning of all ecosystems and thereby the delivery of all ecosystem services.

The natural environment is critical in providing clean air and water, food and raw materials. It controls water supplies, breaks down waste products and helps to regulate the climate, whilst providing space for recreation, and can have cultural and spiritual significance.

An array of legislation is aimed at protecting Wales' biodiversity, flora and fauna and as a consequence, the ecosystem services it provides. The importance of wetland habitat in Wales is reflected by the number and variety of international, national and local nature conservation designations.

Approximately 70% of the Welsh coastline is designated as either Special Areas of Conservation (SACs) or Special Protection Areas (SPAs), with a range of habitats such as coastal saltmarsh, grazing marsh, mudflats, reedbeds, cliffs, dunes and shingle. Management of the coast including shoreline reinforcements, flood defence, drainage, land reclamation have threatened coastal habitats and create challenges for future management.

Of the European designations present in Wales, 90 are Special Areas of Conservation (SACs), 20 are Special Protection Areas (SPA) and 10 are Ramsar sites. There are also designations under UK law, which protect over 1000 Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNRs).

Many Welsh rivers support salmon and trout (498 Freshwater Fish Waters), and the rivers of Wales account for more than half of the Sea Trout caught in England and Wales. As well as fish, water bodies and wetland areas within Wales support a number of protected plant and animal species.

Offshore, parts of the marine environment are designated within the Marine Protected Areas network. Marine Protected Areas incorporate different levels of protection and include SPAs, SACs and SSSIs with marine components, as well as a Skomer Marine Nature Reserve, and in the future; Marine Conservation Zones. There are ten potential sites within Welsh waters that are being considered for Marine Conservation Zones status. If designated, these areas (3-4 in total) would be highly protected with damaging activities excluded.

The Water Framework Directive includes specific objectives to improve the ecological status (or potential) of all surface waterbodies, and to achieve compliance with any objectives for favourable condition for “protected sites” (SAC/SPA/Ramsar) by 2015. These objectives include those required under the Habitats and Birds Directives.

The importance of biodiversity, flora and fauna in its own right is considered through a wealth of legislation, however, ecosystems services allows us to take account of the economic, health and social benefits we get from nature. Consideration of the direct impacts on this receptor as well as the ecosystem services it provides and regulates will be crucial in the development of the Water Strategy for Wales.

### **Relation to Water Strategy for Wales**

- Potential impact or benefit on ecosystems that are reliant on water.
- Potential impact or benefit on ecosystems that affect water quality and quantity.
- A Habitats Regulations Assessment will need to be undertaken to determine the likely effects of the Water Strategy for Wales on European Designated Sites.
- The potential influence of changes to water management on the condition of designated nature conservation sites and their ability to achieve standards set by the Water Framework Directive.
- The potential for opportunities to enhance or create water dependent habitat.

### **5.4 Geology and Soils**

The bedrock geology of Wales is extremely varied; sandstone, limestone and igneous bedrock, and there are also a range of important superficial deposits. This is known as geodiversity. Coal and metal mining has been very important to Wales historically. The South Wales Coalfield stretches across a large part of South Wales, and is still mined to some extent, although less than previously. Lead and silver were once produced from mines in mid Wales, from a series of mines inland from Aberystwyth. Copper was mined in Snowdonia and at Parys Mountain on Anglesey, whilst gold was exploited around Dolgellau and Pumpsaint. A number of other metals were produced including zinc, arsenic, antimony and manganese. The mining legacy in Wales has caused ongoing pollution to surface and groundwater and is the top issue for water bodies failing to reach good ecological status or potential under the Water Framework Directive in Wales.

Fforest Fawr Geopark is within the Brecon Beacons National Park in South Wales and its geological heritage is of European significance. Within Wales there are approximately 450 SSSIs designated for geology and earth science features<sup>6</sup>.

Approximately 41% of Wales is enclosed farmland, comprising 3.4% arable or horticultural land and 34% improved grassland. This supports a breeding flock of over 5 million ewes and ewe lambs (28% of the UK flock) within a total of some 11million animals. Beef cattle account for 14% of the UK herd and 10% of UK milk is produced in Wales. The main milk producing region is Carmarthenshire, with processors ranging from local dairies to specialist cheese-makers. Arable farming is less common due to the geography of Wales and potatoes, barley and wheat are the main crops grown here. The UK imports approximately 30% of its food requirements and one of the major challenges we face is to increase food production but not at the expense of other ecosystem services. Farmers are encouraged to manage their land in an environmentally sensitive way through “Glastir”, the Wales agri-environment scheme.

Geology and soils are important to ecosystems and their protection is vital as they provide a wide range of essential functions, including food production, storage of carbon, fibre and wood production and protection of biodiversity. Soils also play a critical role in the water cycle through the storage of water. Soils in Wales have suffered from degradation through unsustainable soil management, drainage and erosion by wind and rain, and through the impacts of climate change. There has been a loss of organic matter from soils in Wales between the 1970s and 2000<sup>7</sup>, which reduces the ability of soils to store water and may contribute to greenhouse gas emissions. Climate change is likely to exacerbate many of the pressures that soils face, for example, hotter, drier conditions make soils more susceptible to wind erosion, coupled with intense rainfall incidents that can wash soil away.

The geodiversity of Wales has led to the forming of landscapes and environmental settings that have strong cultural service value. For example, the mountains of Snowdonia attract tourists to Wales whilst coal mining has helped to define the cultural identity of the South Wales Valleys.

Diffuse pollution from agricultural land, as well as urban areas is one of the key pressures affecting water quality, identified by the Water Framework Directive as a priority area if objectives for water quality improvement are to be achieved.

Acidification is a particular problem in Wales, particularly in the uplands, as the bedrock is slow weathering and the soils have little or no acid neutralising capacity. It is estimated that 34% of soils in Wales are affected by acidic deposition.

---

<sup>6</sup> Geological Conservation review

<sup>7</sup> The Welsh Soils Action Plan

## Relation to Water Strategy for Wales

- Effective land management has the potential to deliver multiple benefits; protecting soils and hence maximising food production; storage of water and hence reducing diffuse pollution and reducing flood risk; water resource benefits by holding the water in the system for longer periods; biodiversity benefits.

### 5.5 Water

The aim of the strategy is to determine high level policies for the management of water and water services in Wales. The SEA will identify the potential implications of the policies on the water environment, be they beneficial or detrimental. It will take into account cumulative, indirect impacts and consider all ecosystem services that the water environment provides. These ecosystem services underpin basic human health and survival needs as well as supporting economic activities and enjoyment of life.

There is a wide range of legislation in Wales concerning the protection of the water environment, each of which has a slightly different focus, be it different water bodies (marine/coastal, ground, surface waters etc), or a focus on a particular sector (abstraction, water supply, fish, bathing waters etc). The purpose of the legislation in each case is ultimately for the protection, and where possible improvement, of the water environment, for the benefit of the human and natural environment.

The Water Framework Directive (WFD) rationalises and updates existing water legislation and ensures a co-ordinated approach to water management, based on the concept of river basin planning. The WFD provides a strategic approach to preventing deterioration of all water bodies, and provides a mechanism to improve and enhance their status over time. The WFD includes objectives to reduce pollution of water, to lessen the effects of droughts and floods, and improve the chemical, biological and ecological status of water bodies. The WFD sets a target of achieving at least “good” status in all water bodies by 2015, with provision to delay the achievement of good status (until 2021 or 2027), provided that certain conditions are satisfied.

Under the standards set by the WFD, 37% of all Wales water bodies are currently at good or better ecological status<sup>8</sup> in comparison to 31% in 2009. The top reasons for water body failure in Wales are pollution from abandoned mines and contaminated land, agricultural pollution, barriers to fish migration and impoundments. Sewage discharges, acidification, forestry, flood protection and land drainage, surface water drainage from urban and transport development, abstraction and industrial discharges are also factors. Natural Resources Wales’ ambition is to achieve 50% at good or better ecological status across Wales by 2015.

Water is abstracted from our water bodies for many purposes, including public water supply, agriculture, industry and electricity generation. Water resources

---

<sup>8</sup> Living Waters for Wales – Natural Resources Wales 2013

are already under pressure and in some places water bodies are already being damaged by abstraction. In the future, climate change (see Section 5.7) and population growth (see Section 5.1) will increase the pressure on water availability.

In Wales most of the water licensed for abstraction is from surface water rather than groundwater, with electricity generation being the sector abstracting the most (82%), followed by public water supply (13%), other industry (0.03%), fish farming and amenity ponds (0.01%) and spray irrigation, other agriculture and private water supplies accounting for a very low percentage of the total abstracted<sup>9</sup>.

The Welsh Government supports the generation of renewable electricity from rivers on its woodland estate. As well as producing electricity it can provide economic benefit to local communities. However, consideration needs to be taken for the potential impact on the ecology of the watercourse. Recently there has been an increasing demand for hydropower, with over 100 sites being investigated.

Around 357,000 properties in Wales, or 1 in 6 properties, are at risk of flooding from rivers, the sea, surface water or a combination of the three<sup>10</sup>. In addition to residential properties, many key industrial developments and other key infrastructure like power supplies, transport links and schools are situated on land at risk of flooding. As well as potentially being a risk to life, flooding can undermine the viability of communities and have a significant impact on the local economy.

Ecosystems can help to control flooding by storing water within soils and wetlands and thorough vegetation intercepting rainfall and reducing the volume of water that enters our streams and rivers. These same factors also contribute towards water quality management. Vegetation cover can control the amount of sediment that is mobilised and entrained within rivers, reducing the diffuse pollution that enters watercourses from fields and urban areas, whilst microbial action within wetlands breaks down pollutants.

### **Relation to Water Strategy for Wales**

- The aim of the Strategy is to sustainably manage water as a natural resource to safeguard all potential uses and optimise the benefits to our economy and people in Wales. In considering policies the strategy must seek to maximise benefit whilst minimising impacts on other receptors and ecosystem services.
- The WFD requires the prevention of the deterioration of the status of all water bodies, and sets aims to improve their status (chemical, biological and physical).

---

<sup>9</sup> Case for change – current and future water availability (Environment Agency)

<sup>10</sup> National Flood and Coastal Risk Management Strategy 2011, Welsh Government.

## 5.6 Air

Greenhouse gas emissions and contributions to climate change have not been considered in this section (this is considered separately in Section 5.7, climatic factors).

Local authorities are responsible for reviewing and assessing local air quality. If local air quality is likely to exceed health-based standards, local authorities must declare air quality management areas (AQMAs) and have action plans that work towards improvements. Within Wales, eight local authorities have declared air quality management areas. The AQMAs have been declared for either nitrogen dioxide (NO<sub>2</sub>) or particulate matter (PM<sub>10</sub>) concentrations. Natural Resources Wales is the responsible body in Wales for regulating industries which make the most significant contributions to air emissions/pollution; local authorities also regulate less polluting industry.

People living in urban areas are at greater risk of being exposed to poor air quality. The main sources of air pollutants in Wales are road traffic, power generation and other heavy industries<sup>11</sup>. Emerging environmental technologies for waste disposal and biomass burning for electricity production may introduce new air quality issues.

### Relation to Water Strategy for Wales

Air quality and emissions are not considered to be of significance or relevance in relation to this strategy. Local and temporary effects on air quality may arise from measures implemented through the strategy (e.g. effects of construction) however, we do not consider that significant strategic air quality impacts are likely to arise as a result of its implementation. We therefore propose to not consider this issue for any further assessment in the SEA.

## 5.7 Climatic Factors

Climate change is mostly caused by burning fossil fuels, deforestation and land use change. Through the Climate Change Act 2008, the UK has set itself a target of reducing greenhouse gas emissions by at least 80% compared to 1990 levels, by 2050; and aims to meet 15% of final energy consumption from renewable sources by 2020. The Welsh Government is committed to reducing greenhouse gas emissions in Wales by 3% every year from 2011, achieving at least a 40% reduction by 2020, against a 1990 baseline<sup>12</sup>.

It is predicted that, by the 2050s, temperatures across Wales could rise by 1.1 to 4.1°C. Annual average rainfall in Wales is predicted to remain roughly the same as present, but there is likely to be a large difference in the patterns of summer and winter rainfall. Increased winter rainfall is expected as a result of increased storminess, leading to intense, but short-lived, rainfall events.

---

<sup>11</sup> A living and working environment for Wales: the state of the Welsh Environment 2003. Welsh Assembly Government.

<sup>12</sup> Climate Change Strategy for Wales. (October 2010) Welsh Assembly Government.

Summer rainfall may decrease and short duration droughts (12-18months) are likely to become more frequent.

Future sea level rise along Wales' coast is likely to result in more severe coastal erosion and inundation events in low-lying coastal areas. The relative sea level rise around Wales is predicted to be 36cm by the 2080s. Over the longer term climate change could have a bigger impact on water resource availability than population growth<sup>13</sup>.

Ecosystems such as peatlands, wetlands, soils and forests absorb and store carbon and can make an important contribution to climate change mitigation. They also help to regulate microclimates, for example urban green spaces provide shade whilst forests can influence local rainfall patterns. Water has an important role in ensuring that a healthy and functioning ecosystem is maintained.

### **Relation to the Water Strategy for Wales**

- A changing climate will have impacts on the water environment and on water demand and there will be subsequent consequences on people, land use and amenity.

### **5.8 Material Assets**

Significant transport infrastructure in Wales includes Cardiff Airport, rail (such as the main line from London to Swansea which continues to Pembroke Dock), roads (including the M4 and A55), ports and ferry terminals (including Holyhead, Pembroke Dock, Milford Haven, Port Talbot and Swansea).

Welsh Water provides water supply and wastewater services to approximately 3 million customers in Wales and Herefordshire. Areas of central and eastern Wales receive water services from Severn Trent Water, whilst Dee Valley Water provides water supplies to almost 260,000 customers in Wrexham, Chester and the surrounding areas<sup>14</sup>. By area, Welsh Water is the predominant supplier of water and wastewater services in Wales, operating 65 impounding reservoirs, approximately 100 water treatment works, and 850 wastewater treatment works<sup>15</sup>. Water infrastructure in Wales includes river regulating reservoirs on the Rivers Dee, Wye and Severn. Water originating in Wales and released from these reservoirs is important to water supplies for other water companies including United Utilities, South Staffordshire Water, Severn Trent Water and Bristol Water.

---

<sup>13</sup> The case for change – current and future water availability (Environment Agency )

<sup>14</sup> <http://www.deevalleywater.co.uk/article.php?id=43> [Accessed June 2013]

<sup>15</sup> Welsh Water June Return Overview 2011. Available at:

[www.dwrcymru.com/eng/library/company\\_reports/2011/dcww\\_june\\_return\\_2011.pdf](http://www.dwrcymru.com/eng/library/company_reports/2011/dcww_june_return_2011.pdf). [Accessed June 2013]

Information from Dŵr Cymru Welsh Water's current Draft Water Resources Management Plan<sup>16</sup> (considered representative of Wales as a whole) shows that average per capita consumption of their customers is approximately 152 litres/head/day (l/h/d). Customers in unmetered households tend to use more water (163 l/h/d) than those in metered households. Demand for water has decreased significantly over the last 20 years from around 1040 MI/d to 824 MI/d due to the closure of heavy industry and reductions in leakage from the distribution network. Dŵr Cymru Welsh Water forecasts demand to decrease further to 785 MI/d by 2040.

Wales has a larger manufacturing sector than the UK average. Industrial and commercial development includes oil refineries and steel production. Energy infrastructure includes power stations on the Pembrokeshire coast and Wylfa on Anglesey.

Sea fishing, salmon net fisheries, mussel fisheries (such as the Menai Strait) and cockle beds (such as the Burry Inlet) are important to the local economy, with 25 areas designated as Shellfish Waters in Wales.

Although recycling rates have increased, continuing waste production and limited landfill site capacity within Wales means that waste management will remain an ongoing challenge. It is likely that some Local Authorities will find that they need to identify and establish sites for alternative waste treatment options to landfill.

### **Relation to Water Strategy for Wales**

- There will be increased demands on water supply, sanitation provision, drainage systems for urban runoff, flood defences, waste management and other key infrastructure as a result of a growing population.
- Public water supply infrastructure such as abstraction intakes from rivers, pumping stations and waste water treatment works are usually located in areas at risk of flooding.

### **5.9 Cultural Heritage**

The historic environment is both unique and irreplaceable and contributes greatly to the Welsh sense of identity and culture<sup>17</sup>. It is an important economic and social asset, encouraging tourism in Wales. Historic and cultural heritage features help to define the cultural identity of communities, and are part of the cultural services that ecosystems provide.

There are three World Heritage Sites in Wales, the Castles and Town Walls of King Edward in Gwynedd (four sites: Beaumaris, Caernarfon, Harlech and Conwy), the Blaenavon Industrial Landscape and Pontcysyllte Aqueduct and canal.

---

<sup>16</sup> Welsh Water Draft Water Resources Management Plan 2013. Available at <http://www.dwrcymru.com/en/Environment/Water-Resources/Draft-Water-Resources-Management-Plan-2013.aspx> [Accessed June 2013]

<sup>17</sup> The Welsh historic Environment Report: Position Statement 2006, Cadw

The Register of Landscapes of Historic Interest in Wales was developed by Cadw, Countryside Council for Wales and International Council of Monuments and Sites in 1998. The maps record evidence of past human activity in the present landscape, considering individual sites or monuments and also the larger patterns and spaces in-between. There are 58 areas in Wales on the register covering over 30,000 hectares.

The seas around Wales contain an immense wealth of archaeological sites and remains and many coastal sites and wrecks have been scheduled and some are protected under the Protection of Wrecks Act 1973.

Inland cultural heritage in Wales is protected through a number of different formal designations. There are approximately 4000 Scheduled Monuments, as well as numerous sites of historical or archaeological importance within Wales (e.g. Listed Buildings, and approximately 370 Registered Historic Parks and Gardens). These continue to be vulnerable to disturbance from development, land drainage, land management and water quality.

The influence of climate change may exacerbate problems and risks to heritage assets and features. Rising sea levels and possible increase in storminess may endanger historic landscapes, structures and archaeology around the coast.

### **Relation to Water Strategy for Wales**

- Changes to the management of the water environment can have impacts on cultural heritage and archaeology.

### **5.10 Landscape**

Wales is characterised by a beautiful and rugged landscape, which ranges from the mountains and lakes of Snowdonia and the estuaries of the mid-Wales coast, to the beaches and cliffs of Pembrokeshire, and the industrial heritage of the South Wales Valleys. The river systems drain radially off the upland interior. Wales is generally a predominantly pastoral landscape with agriculturally improved grassland being the single most extensive habitat type, followed by semi-improved grassland.

There are substantial areas (65,926ha) designated as Areas of Outstanding Natural Beauty (AONBs). These include the Llŷn Peninsula, Gower, Anglesey, part of the Clwydian Range and the Wye valley which straddles the Wales-England border. Approximately 500km of the Welsh Coast is designated as a Heritage Coast. Three National Parks (Brecon Beacons, Pembrokeshire and parts of Snowdonia) cover an area of 287,830ha, which is approximately 20% of Wales. The Brecon Beacons were awarded international dark sky status in February 2013, one of only five places in the world to hold this designation.

The large area of designated landscapes throughout Wales demonstrates their value to people as a cultural service. Many people find beauty, tranquillity or aesthetic value in the landscapes and seascapes of Wales

promoting social and mental wellbeing as well as the physical benefits of recreational ways of appreciating such landscapes (eg walking, climbing, cycling).

### **Relation to Water Strategy for Wales**

- Important landscapes and the water environment are often closely linked, with rivers, reservoirs, lakes and coastal waters being integral to landscape character.

### **5.11 Impact on Wider Ecosystem Service Delivery**

An ecosystem is made up of living organisms (from microorganisms, through fungi, plants, animals to people), their non-living surroundings (rocks, soils, air, sea, water etc.), and all the diverse and complex interactions that take place between them (from soil formation, through predator-prey relationships, to growing a potato crop). Everything we need to live, function and enjoy life in some way comes from our ecosystems, and these benefits from nature have become known as 'ecosystem services'. However, it has been all too easy for the natural environment to be over-exploited, so that not only does its natural value suffer, so too do the services it provides and eventually people as well. It is therefore essential that we recognise the value of our ecosystems, and that we manage our natural resources so that our underlying ecosystems are sustained in a healthy, functioning way. It is this feedback and balance between use and maintenance of the natural environment that is at the heart of the ecosystem approach.

The United Nations defines ecosystem services as “the benefits that people obtain from ecosystems”.

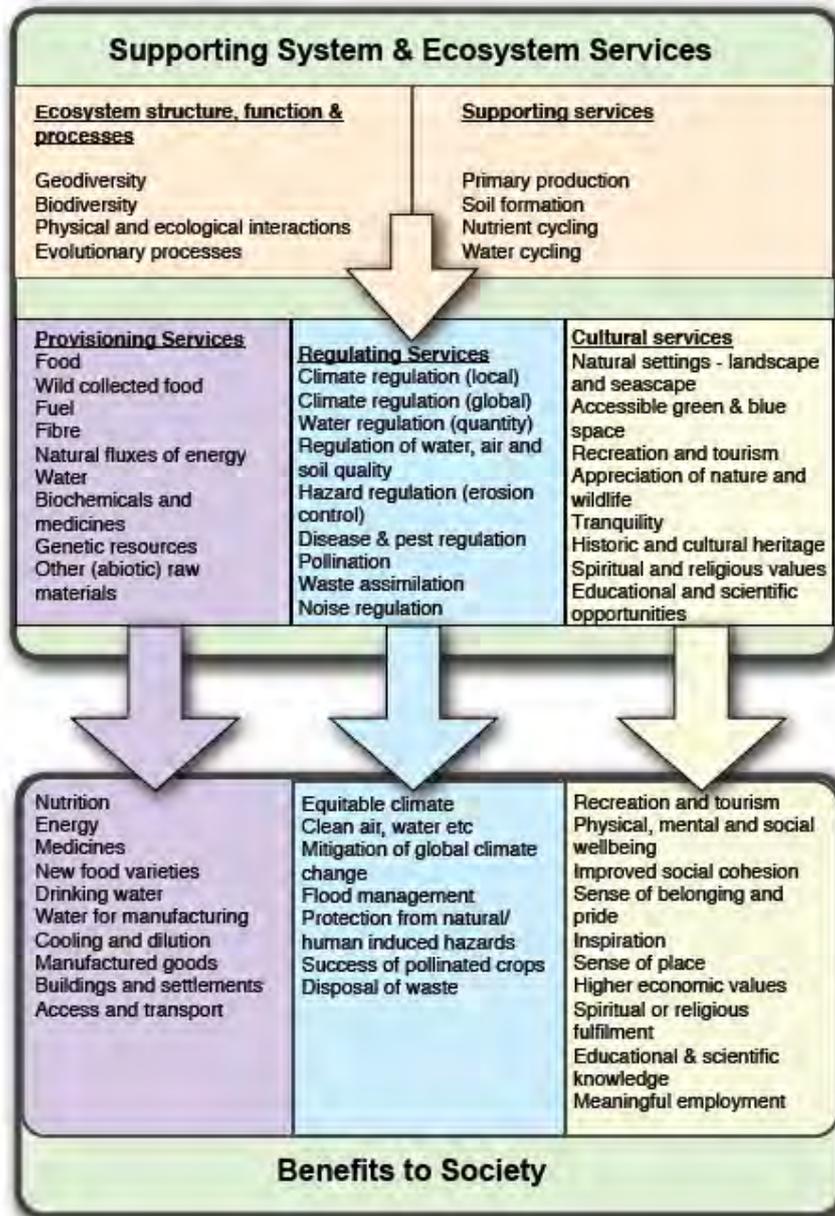
They can be divided into four categories:

- **Supporting system and services** necessary for the production of all other ecosystem services, such as soil formation, nutrients cycling and primary production
- **Provisioning services** such as crops, fish, timber and genetic material.
- **Regulating services** such as water purification, biological control mechanisms, carbon sequestration, pollination of commercially valuable crops etc.
- **Cultural services** providing a source of aesthetic, spiritual, religious, recreational or scientific enrichment.

### **The importance of ecosystem services**

The **UK National Ecosystem Assessment, 2017** (UK NEA) was the first analysis of the UK's natural environment in terms of the benefits it provides to society and continuing economic prosperity. It states that *‘our wealth as a nation and our individual well-being depend critically upon the natural environment. It provides us with the soil, food, water and air that are essential for life and with the minerals and raw materials for our industry and consumption. Less obviously, it provides the processes that purify air and*

water, and which sequester or break down wastes. It is also in our environment where we find recreation, health and solace, and in which our culture finds its roots and sense of place. Scientists refer to these services that our environment provides as 'ecosystem services' recognising that it is the interaction between the living and physical environments that deliver these necessities.'



## 6.0 How will we undertake the Strategic Environmental Assessment?

### 6.1 Scoping of Environmental Issues

A key purpose of the scoping stage is to focus the subsequent SEA on the significant environmental issues relevant to the Water Strategy for Wales. We have identified what we consider to be the significant environmental issues relevant to the strategy and this consultation will encourage stakeholders and statutory consultees to feed in their expertise and opinion. Certain elements, such as air quality, we consider are either not relevant to the SEA or the

Water Strategy or will not give rise to significant effects and so we are proposing scoping them out of the assessment (Table 2).

**Table 2: Scoping environmental effects for the Strategic Environmental Assessment**

<b>Environmental topic</b>	<b>Key effects to consider</b>	<b>To be addressed by the SEA?</b>
<b>Biodiversity, flora and fauna</b>	<ul style="list-style-type: none"> <li>• Effects on areas protected for their nature conservation value (e.g. European SACs and SPAs and Ramsar sites and the nationally designated SSSIs).</li> <li>• Effects on ecosystems that are reliant on water.</li> <li>• Effects on ecosystems that affect water quality and quantity.</li> <li>• The potential influence of changes to water management on the condition of designated nature conservation sites and their ability to achieve standards set by the Water Framework Directive.</li> <li>• Effects on the wider protection and enhancement of biodiversity.</li> </ul>	Yes
<b>Population and human health</b>	<ul style="list-style-type: none"> <li>• Ability to meet the demands of increasing population.</li> <li>• Effects on the recreational use of water.</li> <li>• Effects on regeneration and tourism.</li> <li>• Improving access to water environments and the associated health benefits.</li> <li>• Effects on water abstracted for drinking water.</li> <li>• Effects on water dependent industry, e.g. agriculture, energy and ports.</li> </ul>	Yes
<b>Geology and Soils</b>	<ul style="list-style-type: none"> <li>• Effects on sites designated for geological interest.</li> <li>• Influences on how land is managed.</li> </ul>	Yes
<b>Water</b>	<ul style="list-style-type: none"> <li>• In considering policies the strategy must seek to maximise benefit whilst minimising impacts on other receptors and ecosystem services.</li> <li>• Effects on the status of water bodies, ensuring no deterioration and aiming to provide a framework that can improve their status (chemical, biological and physical).</li> </ul>	Yes

	<ul style="list-style-type: none"> <li>• Effects on flood risk management.</li> </ul>	
<b>Air</b>	Air quality and emissions are not considered to be of significance or relevance in relation to this strategy. We do not consider that significant strategic air quality impacts are likely to arise as a result of its implementation.	No
<b>Climatic factors</b>	<ul style="list-style-type: none"> <li>• Mitigation and adaptation for a changing climate.</li> <li>• Effect on flood risk.</li> <li>• Changes in greenhouse gas emissions relating to water management.</li> </ul>	Yes
<b>Material assets</b>	<ul style="list-style-type: none"> <li>• Effects on water related infrastructure.</li> </ul>	Yes
<b>Cultural heritage</b>	<ul style="list-style-type: none"> <li>• Effects on sites designated for their historic importance.</li> <li>• Effects on the wider historic environment and culture.</li> </ul>	Yes
<b>Landscape</b>	<ul style="list-style-type: none"> <li>• Effects on landscapes designated for their quality.</li> <li>• Effects on wider landscape character and quality.</li> <li>• Visual impacts on the landscape setting.</li> </ul>	Yes

The SEA is being undertaken alongside the development of policies for the management of water in Wales. It will determine the environmental impact and effects of the benefits provided to the environment. In this way we will ensure that effects on the wider environment are taken into consideration and that the assessment influences the selection of options.

In the assessment, we will pay particular attention to the effects on those elements of the environment that have international or national designations (e.g. protected species, SACs, SSSIs, National Parks or World Heritage Sites). Where sites of international importance for biodiversity could be affected (SPAs, SACs and Ramsar Sites) we will undertake a separate assessment required by the Conservation of Habitats and Species Regulations (2010), as amended.

We will identify whether there is a risk of an accumulation of effects on a particular environmental issue (such as historical features) or in a particular location. These could arise as a result of several different policies within the strategy or a combination of effects with other plans and programmes.

We will focus on those issues that are significant at a strategic level and will assume that other assessments at a more local level (such as project environmental impact assessments) focus on more specific impacts.

## 6.2 Scoping of Elements within the Water Strategy for Wales

The assessment will focus on those policies within the Water Strategy for Wales that will result in physical change to the environment. It may include policies that are more focussed on promoting changes in behaviour, for example education campaigns. These are undoubtedly beneficial, but it is difficult to assess, with any certainty, whether these are likely to result in significant environmental effects. The Environmental Report will be clear on which actions have been assessed and which effects are too uncertain to justify consideration.

## 6.3 SEA Assessment Criteria

SEA assessment criteria are used in SEA to test the effects that the strategy could have on the wider environment. The SEA assessment criteria will be derived using the key environmental issues identified in this document and the responses received through the consultation process, as well as taking into account the review of relevant national plans and strategies.

The subsequent assessment in the SEA will be structured around a number of environmental topics (Population and human health, water, climatic factors, etc) against which the key elements of the Strategy will be assessed. In order to improve the identification of environmental effects, specific assessment criteria, structured in the form of a series of assessment questions have been developed in relation to each of the environmental topics.

**Table 3:**

<b>SEA Environmental topic</b>	<b>Assessment Criteria <i>Does the proposed strategy element.....</i></b>
Population & Human Health	<ul style="list-style-type: none"> <li>• Ensure the continuity of safe and secure drinking water supply?</li> <li>• Improve and enhance health and wellbeing of communities?</li> <li>• Conserve, and where possible improve, opportunities for recreation?</li> <li>• Reduce Inequality and social deprivation?</li> </ul>
Biodiversity, flora and fauna	<ul style="list-style-type: none"> <li>• Work with natural processes, improve ecological connectivity and promote healthy functioning ecosystems?</li> <li>• Conserve, and where possible enhance, protected and priority habitats and species?</li> </ul>
Geology & Soils	<ul style="list-style-type: none"> <li>• Contribute to and encourage sustainable land management?</li> <li>• Protect and conserve soils and soil function, and increase resilience to degradation?</li> <li>• Conserve sites designated for geological interest?</li> </ul>
Water	<ul style="list-style-type: none"> <li>• Contribute to the protection and improvement of the ecological status of water bodies, for the benefit of the human and/or natural environment?</li> </ul>

	<ul style="list-style-type: none"> <li>• Contribute to the attenuation of peak flood flows?</li> <li>• Conserve water resources during periods of drought?</li> </ul>
Climatic Factors	<ul style="list-style-type: none"> <li>• Contribute to the mitigation of factors contributing to climate change?</li> <li>• Contribute to the country's ability to adapt to climate change?</li> </ul>
Material Assets	<ul style="list-style-type: none"> <li>• Conserve and protect important material assets and infrastructure?</li> </ul>
Cultural Heritage	<ul style="list-style-type: none"> <li>• Conserve, and where possible enhance, protected and important cultural heritage assets?</li> </ul>
Landscape	<ul style="list-style-type: none"> <li>• Ensure the landscape character of Wales is conserved and, where possible, enhanced?</li> </ul>

These SEA assessment criteria will be used in the SEA to systematically identify the positive and negative effects that the proposed water strategy policies could have on the wider environment.

Specific environmental indicators and targets have not been developed to accompany the assessment criteria, because at this national and very high strategic level, it is not considered likely to add value to, or improve the accuracy of the assessment. At this national strategic level, it will not be possible to accurately record likely effects of the strategy on environmental indicators, or quantitatively record implications of the strategy against set targets. Instead, during the assessment, a qualitative description of how the strategy elements will affect each environmental issue will be included, so that the broad likely effects can be identified.

#### 6.4 Assessing Significance

At this high level of assessment all impacts are considered to have a degree of uncertainty associated with them and it is not possible to predict the impacts with any degree of precision. The assessment will identify the likely effects of the Water Strategy for Wales. And allocate them to one of three categories:

- Significant positive
- Not significant / neutral
- Significant negative

The national and high level nature of this strategy means that it is not possible to determine whether particular impacts have crossed a “threshold” to be considered significant. However, an indication of the characteristic 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.

- Impacts that are likely to result in a demonstrable change in the health and/or social or economic well being of communities.

## **7.0 Next Stages of the SEA**

We intend to publish the Water Strategy for Wales for consultation in November 2013. This will be accompanied by an Environmental Report that sets out the results of the SEA.

This will:

- outline how the plans and programmes we have reviewed could affect the Water Strategy for Wales.
- provide a commentary on how the SEA has been integrated with, and has influenced, the development of the Water Strategy.
- set out the strategic alternatives that we have evaluated and the reasons for the selection of the proposed approach.
- set out the environmental effects of the draft Water Strategy for Wales.
- indicate additional mitigation or management measures that can be taken to further improve the environmental outcomes.
- describe the monitoring proposed to identify any unforeseen adverse effects.

This Environmental Report will be available for comment with the draft Water Strategy for a period of 12 weeks. We will use the comments and information provided to further revise the strategy and consider how our evaluation of the environmental effects might have changed.

## **8.0 Your views**

This scoping document is available for consultation for a period of 12 weeks. The consultation period will end on 15 October 2013; however, we would encourage consultees to respond within the statutory consultation period of five weeks to ensure that comments can be fully taken into account in the assessment. We would like to hear your views on the key environmental effects that you think we should consider and why. We would also like you to tell us of any other information that you have or know of that you think we should consider.

We will take your comments into account when further refining our approach to the SEA. Any comments received will be incorporated into the Environmental Report published alongside the draft Water Strategy.

**Consultation  
Response Form**

Your name:

Organisation (if applicable):

email / telephone number:

Your address:

Question 1: Do you agree that we are focused on the key environmental effects?

Please enter here:

Question 2: Do you agree with the ecosystem services identified as being reliant on the Strategy?

Please enter here:

Question 3: Do you agree with the ecosystem services potentially impacted on by the Strategy?

Please enter here:

Question 4: Is there any other information that we should be taking into account as part of the assessment?

Please enter here:

Responses to consultations are likely to be made public, on the internet or in a report. If you would prefer your response to remain anonymous, please tick here:

## Appendix A: Policies, plans and programmes to be considered by the Strategic Environmental Assessment

Table 1 and 2 set out the national plans, policies and programmes. Rather than identify every possible plan or programme we intend to focus on those that are likely to significantly influence the plan or our consideration of the environmental effects.

**Table 1: International / European Plans and Programmes**

<b>Policy / Plan / Programme</b>	<b>Published by</b>	<b>Year</b>
The Bathing Waters Directive 2006/7/EC	European Commission	2006
The Bern Convention	European Commission	1981
The Birds Directive 2009/147/EC		2009
European Soils Charter	European Commission	2003
The Drinking Water Directive 98/83/EC	European Commission	1998
EU Biodiversity Strategy		1998
Thematic Strategy for Soil Protection	European Commission	2006
Ambient Air Quality and Cleaner Air for Europe Directive 2008/50/EC	European Commission	2008
Second Climate Change programme (ECCPii)	European Commission	2005
Addressing the challenge of water scarcity and droughts in the European Union	European Commission	2007
Waste Framework Directive 2008/98/EC	European Commission	2008
Sustainable Development Strategy	European Commission	2006
The Habitats Directive 92/43/EEC	European Commission	1992
The Freshwater Fish Directive 2006/44/EC	European Commission	2006
The Floods Directive 2007/60/EC	European Commission	2007
The Groundwater Directive 80/68/EEC	European Commission	1980
The Integrated Pollution Prevention & Control Directive 2008/1/EC	European Commission	2008
The Nitrates Directive 91/676/EEC	European Commission	1991
The Ramsar Convention on Wetlands	International Convention	1971
Renewable Energy Directive 2009/8/EC	European Commission	2009
The Shellfish Waters Directive 2006/113/EC	European Commission	2006
The Water Framework Directive 2000/60/EC	European	2000

	Commission	
The Urban Waste Water Directive 91/271/EEC	European Commission	1991

**Table 2: National plans, policies and programmes to be considered in the Strategic Environmental Assessment**

<b>Policy / Plan / Programme</b>	<b>Published by</b>	<b>Year</b>
Water for people and the environment: Water resources strategy for England and Wales	Environment Agency	2009
The invasive and non-native species framework strategy for Great Britain	Defra, Scottish Government, Welsh Government	2008
Understanding the risks, empowering communities, building resilience: The national flood and coastal erosion risk management strategy for Wales	Welsh Government	2011
UK Marine Policy Statement	HMG, NI Executive, Scottish Government, Welsh Government	2011
Managing the Environment in a Changing Climate	Environment Agency	2010
Policy Statement: Preparing for a Changing Climate	Welsh Government	2011
Planning Policy Wales	Welsh Government	2012
People, Places, Future – The Wales Spatial Plan	Welsh Government	2008
Environment Strategy for Wales	Welsh Government	2006
Wales Biodiversity Framework	Wales Biodiversity Partnership	2010
Technical Advice Notes (Nature Conservation and Planning, Design, Tourism, Development and Flood Risk, Transport, Waste, Renewable Energy, Coastal Planning )	Welsh Government	Various
Sustaining a Living Wales: A Green Paper on a New Approach to Natural Resource Management in Wales	Welsh Government	2012
Welsh Government: Proposals for a Sustainable Development Bill	Welsh Government	2012
Proposed Tourism Strategy for Wales (Tourism 2020)	Welsh Government	In consultation
Climbing Higher – The Welsh Government’s 20 year strategy for sport and physical activity in Wales	Welsh Government	2005
Metal Mines Strategy for Wales	Environment Agency Wales	2002
Wales Soils Action Plan (Consultation)	Welsh Government	2008
Wales Sustainable Development Scheme: One Wales, One Planet	Welsh Government	2009

Welsh Government Strategic Policy Position on Water	Welsh Government	2011
Low Carbon Wales	Welsh Government	2010
Climate Change Strategy for Wales	Welsh Government	2010
Low Carbon Revolution – the Welsh Government Energy Policy Statement	Welsh Government	2010
Preparing Wales for Climate Change. Energy Wales A Low Carbon Transition	Welsh Government	2012
National Waste Strategy for Wales: Towards Zero Waste 2009- 2050	Welsh Government	2010
Minerals Planning Guidance Notes	Welsh Government	Various
Farming, Food and Countryside: Building a Secure future – A New Strategy for Farming	Welsh Government	2009
Wales Transport Strategy	Welsh Government	2008
Minerals Planning Policy Wales	National Assembly for Wales	2001
Rural Development Plan for Wales (2007- 2013 and 2014-2020)	Welsh Government	2010
Wales Fisheries Strategy	Welsh Government	2008
Valuing the Welsh Historic Environment	Valuing Our Environment Partnership	2010
Making the Most of Wales' Coast: The ICMZ Management Strategy for Wales	Welsh Assembly Government	2007
Emerging Welsh Marine Spatial Plan	Welsh Government	

## **Appendix B: Stakeholders who attended Water Strategy Workshops**

- Afonydd Cymru
- Albion Water
- Associated British Ports
- Busnes Cymru Business Wales
- Cadw
- Canal & River Trust
- Carbon Trust Wales
- Centre for Ecology & Hydrology
- The Coal Authority
- Community Housing Cymru
- Consumer Council for Water
- Dee Valley Water
- Defra
- Denbighshire County Council
- Drinking Water Inspectorate
- Dŵr Cymru Welsh Water
- Energy Saving Trust
- English Heritage
- Environment Agency
- Farmers Union of Wales
- Federation of Small Businesses
- Gemserve
- Keep Wales Tidy
- Marine Conservation Society
- Natural England
- Natural Resources Wales
- National Parks Wales
- National Sewerage Association
- National Trust Wales
- Ofwat
- One Voice Wales
- Pembrokeshire County Council
- Royal Society for the Protection of Birds
- Severn Trent Water
- Swansea City & County Council
- Society of British Water and Wastewater Industries
- Water Regulations Advisory Scheme
- Wales Environment Link
- Wales Wildlife Trust
- Water UK
- Welsh Local Government Association
- Water Research Centre Plc
- Wye & Usk Foundation