



A national flood and coastal erosion risk management strategy for England

Strategic Environmental Assessment:
Statement of Environmental Particulars

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1 Introduction

The National Flood and Coastal Erosion Risk Management Strategy for England sets the framework for managing flood and coastal risks and will help lead local flood authorities produce local strategies and decide what they and their partners need to do to manage local risks. The overall aim of the Strategy is to:

Manage flood and coastal erosion risks using the full range of options in a co-ordinated way. Communities, individuals, voluntary groups and private and public sector organisations will work together to:

- manage the threat to people and their property
- move the focus from providing Government funded activities towards a new approach that helps decision-making and action at the appropriate level – individual, community, or authority
- achieve environmental, social and economic benefits, consistent with the principles of sustainable development.

The ways of working are described under five themes:

- understanding the risks of flooding and coastal erosion around the country, working together to put in place long-term plans to manage these risks and making sure that other plans take account of them;
- avoiding inappropriate development in areas of flood and coastal erosion risk and being careful to manage land elsewhere to avoid increasing risks;
- maintaining and improving flood and erosion management systems to reduce the likelihood of harm to people and damage to the economy, environment and society;
- building public awareness of the risk that remains and providing more encouragement for people to manage the risks that they face;
- improving the prediction and warnings of flooding, co-ordinating a rapid response to flood emergencies and promoting faster recovery from flooding.

A copy of the final strategy can be found at: <http://www.official-documents.gov.uk>

1.1 Strategic Environmental Assessment

Under the Environmental Assessment of Plans and Programmes Regulations 2004, the National Strategy required a Strategic Environmental Assessment (SEA) as part of its preparation. The purpose of the SEA 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 SEA:

- Identifies, describes and evaluates the significant environmental effects of implementing the Plan and any alternatives;
- Identifies actions to prevent, reduce or as fully as possible offset any adverse effects;

- Provides an early and effective opportunity to engage in preparation of the plan – through consultation;
- Monitors the implementation of the plan to identify any unforeseen environmental effects and take remedial action where necessary;
- Reports all of the above in an environmental report.

The report was published together with the draft strategy and was made available between November and February to provide a three month period for consultation.

1.2 Purpose of the Statement of Particulars

This Statement of Environmental Particulars is a statutory requirement under the Environmental Assessment of Plans and Programmes Regulations 2004. It sets out how the findings of the Environmental Report have been taken into account and how views expressed during the consultation period have been taken into account as the Strategy has been finalised and formally approved.

For further details about how the assessment was undertaken and its findings, please refer to the Environmental Report available at <https://consult.environment-agency.gov.uk/porta>

2 How environmental considerations have been integrated into the Strategy

Environmental considerations have been integrated into the strategy through the following ways:

- Strategy preparation – The strategy is focused on providing a framework for flood risk management, but sustainability issues, including those related to the environment, have been a central consideration in the development of the strategy. The achievement of environmental, social and economic benefits, consistent with sustainable development is one of the overall aims of the Strategy and a statutory guidance document has been produced on the contribution of local flood authorities to sustainable development.

The Strategy states that in all instances flood and coastal erosion risk management should avoid damaging the environment and, wherever possible, work with natural processes and seek to provide environmental benefits. Compliance with environmental legislation, taking account of the carbon cost of solutions, considering impacts on cultural heritage and particularly taking account of the impacts on biodiversity and working to contribute to achieving the objectives of the Water Framework Directive are amongst the key messages within the Strategy.

- Stakeholder engagement – The Strategy has been prepared in consultation with appropriate expertise within the Environment Agency and Defra and other external stakeholders. We have also carried out a public consultation programme on the strategy that received approximately 175 written responses. These were generally supportive of the strategic approaches set out in the consultation document and the final strategy has been developed taking account of the responses received.
- SEA – Through the SEA, environmental effects have been identified together with appropriate mitigation measures. The Strategy includes a commitment that strategies and plans prepared within the framework of the National Strategy will be subject to Strategic Environmental Assessment.

3 How has the environmental report been taken into account

The Environmental Report found that the effects of the strategy would be predominantly positive. Flood risk management measures should result in positive impacts on people and their health. These effects could be further enhanced by the development of solutions that have multiple benefits. There should be similar benefits to both private and business properties. The planning of flood risk management strategies and schemes should take into account the anticipated effects of climate change. As a result the Strategy should also contribute to ability of the country to adapt to the effects of climate change.

The Environmental Report identified that significant benefits to biodiversity can result from flood and coastal erosion risk management measures. However, there can also be significant conflicts. These occur particularly in coastal areas where the need to protect coastal communities combined with sea level rise caused by climate change, can result in ‘coastal squeeze’ and the loss of internationally designated intertidal habitat. A Habitats Regulation Assessment has been undertaken to consider these issues in more detail.

Given that sustainability considerations have been at the heart of the preparation of the Strategy, the majority of measures identified to mitigate adverse effects or to build on the benefits of flood and coastal erosion risk management measures are incorporated into the Strategy or the statutory guidance on ‘Local Flood Authorities’ contribution to sustainable development’ or both. The Environmental Report has strengthened the need for these considerations to be incorporated into the development of strategies and projects arising from the National Strategy. Table 3.1 summarises the impacts, the proposed mitigation / enhancements and where this is addressed in the Strategy or sustainable development guidance.

Table 3.1: Addressing mitigation and enhancement in the National Strategy and Sustainable Development guidance.

| Environmental Topic | Mitigation / Enhancement | Included in |
|-----------------------------|---|---|
| Population and human health | Develop a better understanding of the vulnerabilities and determinants of health and wellbeing within a community before implementing measures. | The sustainable development guidance encourages approaches to reduce inequalities and increase health and well being. |

| Environmental Topic | Mitigation / Enhancement | Included in |
|----------------------------|--|--|
| Biodiversity | <p>Promote solutions that work with natural processes.</p> <p>Identify opportunities to introduce Water Framework Directive benefits.</p> <p>Use of Regional Habitat Creation Programmes for compensatory habitat</p> <p>Introduction of sustainable drainage systems.</p> | <p>All measures are identified in the Strategy, with the exception of the use of Regional Habitat Creation Programmes (RHCP), but reference is made to compliance with the Habitats Directive. The Habitats Regulations Assessment will identify the approaches to be used to comply with compensatory habitat requirements, including reference to the RHCP.</p> |
| Soil and contaminated land | <p>Take account of the location of contaminated land.</p> <p>Promote the use of land management to reduce flows and retain soils.</p> | <p>Contaminated land is not referred to in the Strategy or the guidance, but is covered by more general requirements to minimise adverse effects on the environment. The development of area specific FCERM plans and local schemes would, however, take account of the location of contaminated land.</p> <p>Innovative approaches including land management are promoted in the Strategy, these will contribute to retaining the quality and quantity of soil.</p> |
| Water | <p>Consider Water Framework Directive objectives and opportunities.</p> <p>Use of land management to contribute to reducing diffuse pollution</p> <p>Engage with operators where polluting activities may be at flood risk.</p> | <p>All measures are included in the Strategy.</p> |
| Climatic factors | <p>Adopting solutions that work with natural processes and provide carbon sequestration benefits.</p> <p>Minimise carbon cost of projects.</p> <p>Consider whether FCERM measures can contribute to adaptation to other effects of climate change, e.g. low flows.</p> | <p>The Strategy promotes solutions that work with natural processes, and the benefits of land management, these would have carbon sequestration benefits.</p> <p>The reduction of the carbon costs of projects is covered in both the Strategy and the sustainable development guidance.</p> <p>The Strategy encourages considering how FCERM schemes can contribute to reducing the impacts of climate change.</p> |

| Environmental Topic | Mitigation / Enhancement | Included in |
|----------------------------|---|---|
| Material assets | Enable those less likely to benefit taxpayers investment to access some investment. | <p>The Strategy is accompanied by a new funding model designed to secure funding from a wider range of sources and to spread resources more widely.</p> <p>Payments may be made to those whose agricultural land is flooded to reduce flood risk elsewhere.</p> |

4 How have opinions expressed during the consultation period been taken into account?

The consultation on the draft Strategy took place over a period of three months between November and February. This section only refers to the views expressed in relation to the Environmental Report in order to meet the requirements of the Environmental Assessment of Plans Programmes Regulations 2004. The consultation response document to the Strategy can be found on the Environment Agency web site at: <https://consult.environment-agency.gov.uk/portal>

There were no transboundary consultations as there are no effects on other EU Member States. However, as the Strategy only applies to England, the statutory bodies in Scotland and Wales were consulted to ensure that any potential cross border effects were taken into account.

4.1 Key issues

The key issue raised in response to the consultation related to the assessment of the effects on landscape and cultural heritage. The Environmental Report took the view that significant impacts on landscape and cultural heritage can result from flood and coastal erosion risk management activity. However, these are dependent on the location, the type of actions being undertaken and sensitivity of the resources. Given this context we considered that it would be difficult to identify any effects on these issues that are significant at a national scale and it would be more appropriate for these to be 'passed down' to be assessed at a more suitable level where actions to be taken in specific locations can be identified.

The consultation also identified the need to set out more clearly how the strategy will achieve environmental objectives and other benefits. To this end, a specific section has been included in the final document that clearly sets out the principles of sustainable FCERM, the need to link with other plans such as RBMPs, examples of sustainable FCERM measures and key legal obligations.

Consultation responses recognised the difficulty of assessing impacts at this strategic level, but also felt that 'passing down' the impacts to the next level of assessment resulted in these impacts being given insufficient emphasis. This is particularly the case given that both landscape and cultural heritage are subject to statutory designations. We have therefore included an outline of the potential effects of the strategy on these factors below. However, the position remains that we consider it isn't feasible to draw any firm conclusions on the significance of the impacts at a national level.

Landscape

Overview and trends

We value our landscapes because of their inherent interest, their contribution to both our national identity and local distinctiveness, their artistic inspiration and for the services they provide to us. The character of a landscape is a function of the geology, biodiversity, land use, cultural heritage and other cultural and artistic associations.

Landscapes are dynamic and are subject to change resulting from a number of factors. The Countryside Quality Counts Project monitored landscape change over a period of 13 years (1990-2003), based on landscape character areas. The study concluded that:

- The existing landscape character is being maintained in 51% of character areas with a further 10% being enhanced;
- 20% are showing signs of neglect and in a further 19% new landscape characteristics are emerging, i.e. the landscape is diverging from its current characteristics;
- Areas where landscape character was neglected or diverging are generally close to urban areas and transport routes.

The study also found that for rivers and coastal features the majority of landscapes (64%) are considered as maintained or enhanced. Those that are neglected occur in a belt through south and central England, northwards through the Yorkshire and Humberside region and the North.

Our most valued landscapes are designated as National Parks or Areas of Outstanding Natural Beauty and combined this covers 23% of the land area of England. Heritage coasts are a non statutory national designation that are applied to coastlines managed for their natural beauty covering 1,611km of the coast of England.

The European Landscape Convention (ELC) promotes landscape protection, management and planning, and European co-operation on landscape issues. The convention became binding from March 2007. It applies to all landscapes, towns and villages, as well as open countryside; the coast and inland areas; and ordinary or even degraded landscapes, as well as those that are afforded protection. The intent of the Convention is to be integrated into strategies, plans and actions that affect the landscape.

Effects of the National FCERM Strategy

Flood and coastal erosion risk management activities can contribute to the enhancement of the character of a landscape. For example, the introduction of management that works with natural processes is more likely to be compatible with the existing character of a landscape and is likely to enhance it where this is replacing a previously heavily modified system. Any associated biodiversity improvements may also benefit the landscape. In urban areas, if sensitively designed, flood or coastal erosion risk management features can contribute to the continuity and character of a

local townscape. The strategy supports approaches that are sensitive to the character of a landscape by:

- Encouraging the use of measures that work with natural processes wherever possible;
- Requiring projects to minimise damage to, and where possible improve, the function of the local natural and cultural environment
- Discouraging inappropriate buildings in areas of high flood risk
- Encouraging working with local communities that should result in solutions that are sensitive to how they value their environment.

However, there are risks that some forms of management will detract from the character of a landscape. For example, to provide adequate protection against the effects of climate change on sea level rise or the frequency of high flows in a river, could require walls of a height that is considered to be intrusive and cannot be fully mitigated, regardless of the sensitivity of the design. Other flood risk management measures can result in changes to the character of a landscape that are not easily categorised as adverse or beneficial. For example, managed realignment or reconnecting a river to its flood plain could have significant effects on land use.

The overall effect of the Strategy on landscape is not possible to determine at this strategic level. Assessing impacts (positive or negative) requires a greater level of detail of the options being considered within a particular locality. There is therefore insufficient certainty at this level to identify any significant effects.

Mitigation and enhancement

Promoting solutions that work with natural processes, minimise damage to the environment and seek to provide environmental benefits are all consistent with minimising adverse effects on the landscape. Particular attention will be required where work is taking place within or within the vicinity of designated landscapes.

Consideration should be given to the Natural England guidance on 'Integrating the intent of the European Landscape Convention into plans, policies and strategies'. In addition, Strategic environmental assessments and project level environmental assessments should all address the effects of any measures on the landscape and identify opportunities for contributing to enhancing the character of an area.

Historic Environment

Overview and trends

There are a range of designations at a national and local level that help to identify significant heritage assets within England. There are 18 World Heritage Sites in England. Of those features designated at a national level there are 19,724 scheduled monuments, c. 9,800 Conservation Areas and approximately 374,000

listed buildings¹. Registered parks and gardens and historic battlefields do not have the same level of legal protection, but are nevertheless recognised as important designated historic assets. It is also important to note that the vast majority of heritage assets in England are not designated, instead being recorded on local Historic Environment Records. A number of these locally recorded heritage assets meet the criteria for legal protection but have yet to be designated.

Over recent years, the number of listed buildings considered to be at risk has been 3-4% of the total. The corresponding figure for scheduled monuments has been 17-18%. These figures relate to all risks rather than exclusively to flood and coastal erosion.

Heritage can be demonstrated to be an inherent part of our culture. In 2009/10 just over 70% of adults had visited a heritage site within the last 12 months. Both English Heritage and the National Trust continue to grow their membership. This increased by 5% for both organisations in 2009/10.

The historic environment has also been shown to be important to the economy. Distinctive historic environments have been demonstrated to be influential in business location decisions. Investment in the historic environment can also be shown to be cost beneficial as well as influencing perceptions and values regarding a place².

Our historic pattern of settlement, our water based industries, transport systems and historic fortifications place many historic features close to rivers and the coast. Damage from all forms of flooding has been identified as one the likely risks to the historic environment from climate change³. Coastal erosion is also a significant threat to coastal historic assets. English Heritage are actively undertaking a 'rapid coastal zone assessment' to identify historic assets at risk from coastal erosion or flooding. Of the English Heritage owned estate 23 properties are contiguous with mean high water and 80 are considered to lie within the coastal zone.

Effects of the National FCERM Strategy

Measures taken to manage flood and coastal erosion risks can have significant benefits to the historic environment, by improving the level of protection, enhancing the longevity of features and reducing the costs of maintenance. English Heritage have highlighted the benefits of managing flood risk at the landscape level and specifically refer to the use of the natural environment by making more space for water and utilising natural processes. The Strategy supports such approaches.

However, flood and coastal erosion management can also have adverse effects. Listed buildings and scheduled monuments may be adjacent to rivers or on the coast and can be directly affected by construction works. Where decisions are taken to provide more space for water by realigning defences there may be historic sites that were once behind defences, but would now lie in front of the new line.

¹ Historic Environment Forum (2010), Heritage Counts 2010, English Heritage

² <http://hc.english-heritage.org.uk/>

³ Historic Environment Forum (2008), Heritage Counts 2008, English Heritage

The overall effect of the Strategy on the historic environment is not possible to determine at this strategic level. Assessing impacts (positive or negative) requires a greater level of detail of the options being considered within a particular locality. There is therefore insufficient certainty at this level to identify any significant effects.

Mitigation and enhancement

The strategy directs flood and coastal risk management projects to minimise damage, and where possible, improve the function of the natural and cultural environment. Particular attention should be given to the design of measures that directly affect historic assets or their setting.

The promotion of approaches that use natural processes may help to manage flood risk in a way that is less damaging to the historic environment. Where it isn't possible to avoid significant flood risk, the implementation of resilience measures is likely to help to reduce the damage caused by floods and aid recovery after an event.

Developing flood and coastal erosion risk management strategies does provide the benefit of helping to prioritise sites at risk from flooding and erosion for recording before they are lost.

4.2 Summary of other issues raised during consultation

The consultation set out four questions to provide a framework for responses. The key issues raised and how we have addressed them are presented in accordance with this structure and shown in Table 4.1.

Table 4.1: Summary of other issues raised during consultation and our response to these

| 1. Please tell us if there are any other key issues or trends that should be considered in the Strategic Environmental Assessment report. | |
|--|---|
| Key issues | Our response |
| Provision of trend data, particularly in terms of people and property at flood risk. | Chapter two of the Strategy document sets out a more comprehensive picture of the current levels of flood risk and likely future changes. |
| 2. Please tell us if there are any additional environmental effects (including those on humans) that need to be taken into account when developing the strategy. | |
| Key issues | Our response |
| <p>Additional attention should be given to indirect effects of FCERM activities. Amongst those highlighted were:</p> <ul style="list-style-type: none"> • Changes in flood or coastal erosion risk as a result of FCERM activities in another location along the same river or coast. • The sourcing of resources (particularly minerals) and the consumption of resources | <p>We agree that all of these indirect effects can result from FCERM activities, but it is less clear that these are significant at a national scale. In response to the particular concerns raised:</p> <ul style="list-style-type: none"> • The revised strategy includes an additional principle that a catchment and coastal cell based approach should be taken when managing flood risk locally. • The encouragement to work with natural processes will result in solutions that are based less on hard engineering. The Sustainable Development guidance includes advice on the sustainable procurement of goods and services and encourages a zero waste |

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| <p>and associated carbon emission and waste associated with construction</p> <ul style="list-style-type: none"> • Habitat fragmentation along rivers and between rivers and floodplains, particularly in non-designated sites. • The spread of alien species. • Effects on the agricultural community where land management approaches are adopted. • Effects on soil process and function. • Beneficial economic effects of FCERM solutions, particularly where improved amenity can attract additional visitors. | <p>target for FCERM activities. The guidance also encourages the use of carbon accounting and setting carbon budgets with the aim of decreasing greenhouse gas emissions. This is consistent with the Strategy which requires a reduction in the carbon costs of FCERM measures.</p> <ul style="list-style-type: none"> • Reducing habitat fragmentation associated with rivers and the control of invasive alien species are key issue addressed by the River Basin Management Plans. FCERM activities will be required to comply with the Water Framework Directive objectives for water bodies and where practicable, assist in delivering measures, set out in the plans, to restore the them to good status or potential (for heavily modified water bodies). • The effects on agricultural communities will be dependent on specific proposals and the location and therefore are better assessed as part of a strategy for a particular locations. The Strategy's emphasis on working with the local community enables agricultural interests to participate in developing solutions. Furthermore, the Sustainable Development guidance encourages approaches that support the local economy and specifically refers to the local food economy. • The SEA did refer to potential effects on soil process and function, but it is difficult to isolate those specifically related to FCERM activities at this level. These effects will be considered in more detail at the strategy and project levels. |
|---|---|

Question 3 - Please tell us if there is any additional mitigation for adverse effects that should be incorporated into the strategy.

| Key issues | Our response |
|--|--|
| <p>The benefits of using canals for flood alleviation were highlighted, either by providing a flood relief channel to rivers or by accepting discharges from development where sustainable drainage systems are not practicable.</p> | <p>We recognise that canals can serve a dual role and can assist in attenuating flood events, while their primary purpose is navigation.</p> |
| <p>The multiple benefits that can be achieved by the creation of wetlands were recognised. However, insufficient attention is given to wet woodlands which have potential benefits for managing water flow for both flood and drought, significant biodiversity benefits (National BAP habitat priority) and significant benefits for carbon sequestration. However, there has been experience of difficulties in gaining approval to implement these types of</p> | <p>We agree with the multiple benefits associated with the creation of wet woodland. The Strategy is not an appropriate document in which to promote one particular solution. However, the Environment Agency is working with the Forestry Commission to better understand how woodland can contribute to managing flood risk and identifying suitable locations where this approach can be adopted.</p> |

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| schemes. | |
| <p>The setting of mandatory mitigation requirements and the forms of assessment that would be applied to strategies and projects that result from the National Strategy.</p> | <p>The Strategy could only set out mandatory mitigation measures to be employed in risk management activities by becoming significantly more prescriptive. We consider that it is more appropriate for specific mitigation to be addressed at the local level and focused on the particular problem. However, the strategy does set out an approach to environmental management that requires mitigation to be considered at all levels of the development of risk management solutions. These include:</p> <ul style="list-style-type: none"> • Encouraging the management of risks that work with natural processes where possible. • Requiring that risk management should always seek to avoid damaging the environment and provide environmental benefit. • Reducing the carbon costs of FCERM measures. • Taking account of cultural heritage. • Requiring strategic environmental assessments to be carried out on all strategies. • Minimise damage to and where possible improve the function of habitats in line with the Water Framework, Habitats and Birds Directives. <p>The sustainable development guidance encourages the use of environmental impact assessment (EIA) techniques to assess the impact of activities. For some proposals EIA will be a mandatory requirement, under the relevant EIA regulations.</p> |
| <p>Compliance with Water Framework Directive objectives in water bodies protected at a European or international level may not be sufficiently stringent so as to protect and maintain the particular and specialised requirements of features of interest.</p> | <p>The measures required to be developed under the Water Framework Directive for protected areas (which includes European sites) must include the measures required under the Habitats and Birds Directives.</p> |

Question 4 - Please tell us if there are any key environmental indicators that should be incorporated into annual reporting on the strategy.

| Key issues | Our response |
|---|--|
| <p>A number of responses suggested that whilst there are no significant effects in relation to the water environment or soil and contaminated land, it would still be beneficial to include key environmental indicators associated with these topics to be able to ascertain in the future whether the actions of the National Flood and Coastal Erosion Risk Management Strategy are still resulting in no significant effects. The same could be said in relation to the impacts on landscape and cultural heritage.</p> | <p>With limited resources available for monitoring we consider it is important that we focus any monitoring effort at the strategic level on those environmental resources where FCERM activity is likely to have a significant effect.</p> <p>Activities under the Water Framework Directive result in regular monitoring of water quality and would also evaluate whether FCERM activities are a significant pressure in this regard.</p> <p>Soil quality tends to change slowly at a national scale and is monitored as part of the Countryside Survey⁴. We consider that it would be unrealistic to separate out the effects of FCERM activities at this scale.</p> <p>Contaminated land is not an effect resulting from FCERM activity, but can affect the location and construction of risk management measures. We consider that this best addressed on a case by case basis as part of strategies or schemes proposed by operating authorities.</p> |
| <p>Other indicators that were suggested:</p> <ul style="list-style-type: none"> • Biodiversity (e.g. BAP species and habitats) • Changes in the number of properties at flood risk • Greenhouse gas emissions | <p>Biodiversity is regarded as an important indicator as this can be adversely affected or can benefit from risk management measures. As the Water Framework Directive requires the achievement of good ecological status (or potential) for all water bodies, Defra have taken the view that this is an appropriate indicator to link to FCERM activities as well as providing assurance on our compliance with European law.</p> <p>Changes in the number of properties at flood risk will be reported to the Minister.</p> <p>Monitoring and reporting on greenhouse gas emissions across risk management activities undertaken by all flood authorities would require the establishment of a significant and reporting network. We do not consider this to be an appropriate use of limited resources at this time. Nevertheless, the Strategy and the Sustainable Development guidance both encourage the reduction of carbon emissions associated with risk management measures.</p> |
| Other key issues raised | |
| Key issues | Our response |
| <p>There were suggestions of other documents that should be considered in the review of plans, policies and programmes. These included: the Habitats Directive; the Environmental Liability Directive; the Ramsar Convention; Shoreline</p> | <p>Some of the European Directives had already been taken into account by reviewing the domestic legislation that implements the Directives.</p> <p>We have reviewed the other documents and found them to be consistent with the key themes identified in the Environmental Report.</p> |

⁴ <http://www.countrysidesurvey.org.uk/index.html>

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| <p>Management Plans; Catchment Flood Management Plans; TAN 15 in Wales; Ancient Monuments and Archaeological Areas Act 1979, Protection of Wrecks Act 1973, Town and Country Planning Act 1990, National Heritage Act 2002 or the European Landscape Convention</p> | |
| <p>Given that the SEA identified that adverse effects on European Natura 2000 sites were likely a question was raised as to whether the Strategy would be subject to a Habitats Regulation Assessment. This is considered particularly important as some sites are 'shared' with the devolved administrations, for example, The River Wye, Severn Estuary, and Upper Solway Flats and Marshes.</p> <p>The role of the Regional Habitat Creation Programme in providing compensatory habitat where European Sites are affected.</p> | <p>A Habitats Regulations Assessment is being undertaken at a strategic level. However, as the strategy does not identify specific actions to be taken in particular locations it will not be possible to identify any specific impacts on the integrity of sites resulting from the Strategy.</p> <p>Each region within the Environment Agency has a Regional Habitat Creation Programme. The primary purpose is to coordinate habitat creation projects that are required through flood risk management activities:</p> <ul style="list-style-type: none"> • To ensure compliance with the Habitats Regulations by creating compensation habitats as required and to replace habitats that are being lost due to deterioration; • To provide a contribution to achieving favourable condition of Sites of Special Scientific Interest (SSSIs); and • To contribute to Biodiversity Action Plan (BAP) targets |

5 Reasons for adopting the Strategy in its final form

The Environment Agency and Defra have taken into account the:

- Consultation responses to the strategy
- The changes made to the strategy in response to the consultation
- The findings of the SEA and the responses to the consultation on the Environmental Report
- The acceptance of the findings of the Habitats Regulation Assessment by Natural England and Defra

Based on these the Environment Agency and Defra have decided to adopt the Strategy.

In the adopted Strategy a number of changes have been made following consultation on the draft strategy. In terms of the changes to the management of flood and coastal erosion risk, the key changes are:

- The addition of a catchment and coastal cell based approach to the guiding principles on which flood and coastal erosion risk management should be based.
- The following have been added to actions that aim to make sure that innovative long-term strategic plans and local strategies are put in place to manage risks both nationally and locally:
 - Local resilience forums are to maintain and monitor Multi-Agency flood plans for coping with the impacts of floods when they happen.
 - The need to follow Defra and Treasury appraisal guidance is highlighted together with the approach to valuing agricultural land as part of this process.
 - Regional Flood and Coastal Committees will have a role in co-ordinating flood and coastal erosion risk management.
 - The importance of partnership working between lead local flood authorities, risk management authorities and communities is emphasised.
- Additional guidance is provided on achieving wider environmental benefits as part of flood and coastal erosion risk management measures.

These changes have been considered to determine whether they are likely result to any changes in the significant environmental effects of the strategy. We have concluded that these changes do not have an effect on the conclusions of the strategic environmental assessment, but do provide further support for considering catchments and coastal cells and developing solutions that work with natural processes and provide wider environmental benefits.

6 Monitoring

Measures are required to monitor the effects of the Strategy. While it is possible to monitor the environmental factors referred to in the Environmental Report, it will be difficult to attribute any changes as a direct outcome of the strategy. Nevertheless, it is reasonable to monitor key environmental indicators to determine whether any adjustments to strategy may be necessary in the future to improve the environmental outcomes.

The Environment Agency is required to report to the Secretary of State on the implementation of the plan and the strategy indicates that this will be undertaken annually. These annual reports will include information on:

- Assessment of the scale and magnitude of flood and coastal erosion risk to people, property, infrastructure and the environment and how these risks are changing (for example, due to climate change)
- Amount of inappropriate development permitted in the flood plain and coastal change management areas
- Working with natural processes, improving and maintaining environmental and cultural heritage and the wider environment.

In particular, the Environment Agency will monitor and report on Outcome Measures to determine how FCERM contributes to supporting the Water Framework Directive, the Habitats and Birds Directives and the wider enhancement of biodiversity.

Specific outcome measures monitored will be:

- Hectares of water-dependent habitat created or improved to help meet the objectives of the Water Framework Directive
- Hectares of inter-tidal habitat created to help meet the objectives of the Water Framework Directive for areas protected under the EU Habitats or Birds Directive
- Kilometres of river protected under the EU Habitats or Birds Directive improved to help meet the objectives of the Water Framework Directive
- Hectares of other biodiversity habitat created through flood or erosion management

In addition, the Environment Agency and other authorities undertake a range of monitoring that can be used to inform future reviews of the strategy.