

# Severn Estuary

## Flood Risk Management Strategy

### December 2008: Briefing Note

This Briefing Note is intended for those with an interest in flood management issues in the estuary. It outlines how the Environment Agency is producing a long-term strategy for flood management and how this links to other similar initiatives

#### Strategy scope

Our strategy has three main objectives:

- To define a 100 year plan of investment for flood defences by the Environment Agency and local authorities;
- To prioritise other flood risk management measures such as providing advice to utility companies to protect critical infrastructure, development control advice and flood warning investment;
- To decide where we should create new inter-tidal wildlife habitats to compensate for losses of habitat caused by rising sea levels.

It covers the coast from Gloucester to Lavernock Point near Cardiff and from Gloucester to Hinkley Point in Somerset.

#### Recent progress

We have enhanced our existing knowledge with up-to-date computer modelling to assess how current defences will perform over the next 100 years.

We are particularly concerned over the changes that will be caused by sea level rise. As expected, the risk of breaches in the defences increases markedly over time.

We are now working on considering the benefits provided by the defences, which will influence how much public money can be invested in future improvements.

We have not yet started work to find the most effective strategic options to protect people and property, but it is clear that some of the defences in their current positions are unlikely to be sustainable in the longer term.



Aerial view of the saltmarsh

There will be more over-topping and more erosion of those defences that are closest to the waterline, as sea level rise occurs.

We can not assume that all land will be protected for ever. We might have to abandon our defences when the cost of maintaining them becomes too great.

When we maintain or rebuild our defences to protect people and property, we must ensure that the estuary's flora and fauna do not suffer.

We have been working with ecologists from various organisations to help determine how we can do this. When we strengthen our defences we will endeavour to incorporate measures to ensure important inter tidal habitats are not lost as sea levels rise. To keep the estuary in balance there will also be a need to find additional areas for wildlife.

Our work will identify options that can be followed up over the 100-year period of the strategy.

The main consultants employed by the Environment Agency to produce the strategy are Atkins, supported by ABPMer. These firms are also working on the Severn Shoreline Management Plan.

#### **Interim works**

The Flood Risk Management Strategy is a long term plan, but there are urgent works which we need to undertake to ensure defences do not fail prematurely. In these cases we will provide interim solutions where:

- there is only one logical solution for the defences;
- or, where we can build an inexpensive short-term solution.

We are already working on projects at Congresbury Yeo (North Somerset), Pill (near Bristol) and Newport, Wales, that fall into this category.

#### **Shoreline Management Plan (SMP)**

The strategy has strong links to the Severn SMP that has just been started by the Bristol Channel Coastal Group. The SMP will draw on technical work already started under the strategy for consistency and efficiency.

#### ***What is the difference between a Shoreline Management Plan (SMP) and a Flood Risk Management (FRM) Strategy?***

**SMP: Promoted by the Bristol Channel Coastal Group, it provides the *policy* for coastal units from a choice of: advance the line of defence, hold the line, retreat or abandon the defence. It considers erosion and flood risks.**

**Strategy: Owned by the Environment Agency, it provides the economic case for investment, defines defence alignments and the optimum standard of protection for flood cells.**

Those working on the SMP and Strategy will liaise so that technical analysis is consistent and efficient. Consultation processes will flow from SMP policy issues through to the additional detail provided in the strategy.

#### **Timeline for the strategy**

We have adjusted the strategy programme to fit with SMP processes as much as possible. Key milestones are:

Environmental Scoping Report (joint for both studies) - Jan 2009

Develop preferred policies within SMP - May 2009

Consultation on draft SMP - Oct-Dec 2009

Develop preferred options within strategy - Nov 2009 - Jan 2010

Consultation on draft strategy - April-May 2010

#### **Severn Power Generation Study**

We are in touch with the feasibility study on power generation on the Severn. Our view is that flood risk management is not an important factor in any forthcoming decision on a Severn barrage. Expenditure on flood risk management over the next 100 years might be in the order of £1 billion, which is not reason for investing now in a barrage costing £14 billion or more. Our view is that any justification for a barrage needs to concentrate on energy production. Any proposal should comply fully with the EC Habitats and Birds Directives and other environmental legislation.