

## FLOOD AND COASTAL EROSION RISK MANAGEMENT

Anyone who has suffered flooding or coastal erosion will testify to the stress, disruption and unhappiness that can be caused as well as the physical danger and loss. For flooding, feelings of fear continue long after the actual flood event and storms at sea, heavy rain and high river levels can cause worry for those at risk even if flooding does not occur. Those owning property near the edge of an eroding coastline can experience great uncertainty and fear too, long before any actual property loss might take place.

In recognition of this, and the destructive power of rivers in flood and the sea, the Government takes the threat very seriously and is working hard with partners and stakeholders to manage the risk effectively.

Flooding and coastal erosion are natural occurrences which cannot always be prevented or predicted in advance. Changes in our climate such as more severe storms and wetter winters, together with sea level rise, will tend to increase the likelihood of floods and coastal erosion happening though we are

striving to reduce both the likelihood and impacts by the actions we take.

- Around 2.1 million domestic and commercial properties in England are at risk, corresponding to some 4 - 5 million people
- Approximately £250 billion of assets are at risk
- Our top priority is to avoid loss of life. Next we plan to improve the standard of protection for at least 100,000 households between 2005 and 2008.

### A NEW STRATEGY

Defra is leading development of a new cross-Government Strategy for Flood and Coastal Erosion Risk Management, 'Making space for water', in close consultation with stakeholders. This is taking a holistic approach to management of risk from all forms of flooding (river, coastal, groundwater, surface run-off and sewer) and coastal erosion and is seeking to make sure that the programme helps deliver sustainable development.

We are looking further at:

- giving the Environment Agency a strategic overview of all forms of flooding and coastal erosion and what form this should take;
- identifying the most effective way to tackle the several causes of urban flooding;
- ways to help people adapt to changing risk of flooding and coastal erosion;
- feasibility of a pilot grant scheme to make individual properties more flood resistant and resilient where publicly-funded improvement projects may be impractical;
- working with natural processes and developing approaches to flooding and erosion which achieve many objectives at once, such as improved nature conservation.

## ROLES AND RESPONSIBILITIES

Defra has **policy** responsibility for flood and coastal erosion risk management in England. Delivery on the ground is the responsibility of **operating authorities** - the Environment Agency (EA), local authorities and internal drainage boards (IDBs). We fund most of the EA's flood related work and grant aid individual capital improvement projects carried out by local authorities and IDBs. We have produced a set of High Level Targets and other guidance material for operating authorities. We do not build defences ourselves, or decide which projects the operating authorities should carry out.

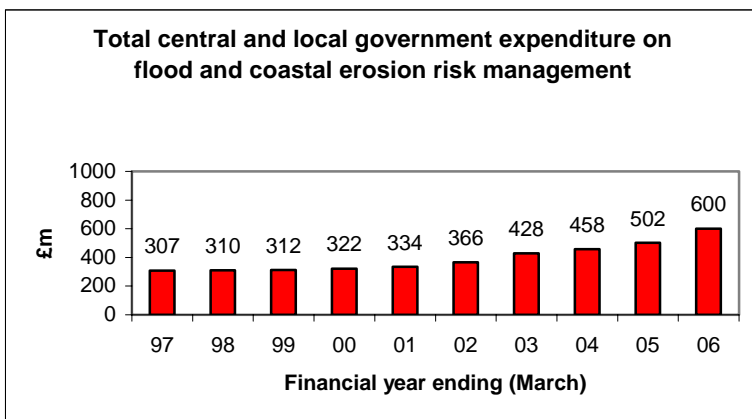
The EA is the principal flood risk management operating authority, with permissive powers (as opposed to a legal obligation) to manage flood risk from designated **main rivers** and the sea. The EA is also responsible for increasing public awareness of flood risk, flood forecasting and warning and for general supervision of all matters relating to flood risk management. We agree targets with EA annually which are set out in its corporate plan.



EA's Thames Barrier will reduce the risk to London until well beyond 2030. Their *Thames Estuary 2100* project is preparing a strategy to the year 2100 for the future management of flood risk.

Local authorities and, in areas with special drainage needs, internal drainage boards have similar powers for **ordinary** watercourses (that is those not designated main river). Coastal local authorities have powers to carry out works to manage the risk from coastal erosion and in some areas may also manage the risk from sea flooding.

It is important to remember that anybody who lives or works in areas at risk has a role to play in reducing the consequences of flooding. The EA can provide further advice on flood protection and how to make your home or business more flood-resistant.



Central and local government spent some £600 million in 2005-06, an increase of 40% in real terms and a doubling in cash terms since 1996-97.

Despite these large increases, we still have to prioritise proposed projects for funding to ensure that the maximum benefit is gained from the money we spend. We do so on a national basis using a fair

and objective system based on the benefits each proposal is likely to provide compared to its cost. It is important that individual proposals are carefully appraised to ensure value for money for the general taxpayer. Unfortunately it is not possible to justify defending all locations to the same standard or at all in some cases.

## EMERGENCY PLANNING AND FLOODING INSURANCE

Although we can reduce the risk in many locations, we cannot prevent all flooding – there is always the possibility that extreme events will overtop or breach any defences. We must make sure we are as well prepared as possible to deal with the impacts. At the national level, Defra has the lead role in Government for flood emergencies and our lead department plan sets out the co-ordination arrangements at local, regional and central levels for flooding from rivers or the sea. The Government has set up regional resilience teams in each of the English regions to enhance the co-ordination of planning for wide impact events, such as major flooding.



Flooding poses a serious risk to human life.

- In June 2004 Defra took part in EA's 'Exercise Triton' - a major exercise to test our emergency response to a major flood across a large stretch of the east coast
- The EA will invest over £200 million in flood warning systems in England over a ten year period up to 2012-13

To reduce risk to life and the consequences of flooding, the Government invests large sums in flood warning. It also funds the EA's flood risk maps and public awareness campaigns to ensure people are aware of the risk and what they might be able to do to help themselves in the event that flooding occurs.

To ensure flood insurance cover remains available for as many people as possible, the Government has agreed a "Statement of Principles" with the Association of British Insurers whose members provide most domestic insurance covering flood risk in England. The Statement sets out the commitments made by the insurance industry to maintain flood cover for the majority of domestic and small business properties at risk, in association with commitments made by the Government on flood risk management.

### TAKING A STRATEGIC APPROACH

The Government provides funding to encourage a long-term strategic and sustainable approach which helps ensure work in one place does not cause problems in another and to ensure the best ways of managing risk are identified

- **Catchment Flood Management Plans (CFMPs)** are led by the EA and aim to encourage an integrated, sustainable and strategic approach to the management of flood risk in river catchments.
- **Shoreline Management Plans (SMPs)** are led by coastal groups with a lead authority (a local authority or EA). They provide large-scale assessments of the risks associated with coastal processes and long term policy frameworks to reduce risk in a sustainable manner. Pilot revisions of three existing SMPs have been done and new guidance for the authorities is to be published soon, prior to national revision of all SMPs.

Both CFMPs and SMPs are subject to public consultation and take account of wider social, environmental and economic objectives.

## DISCOURAGING INAPPROPRIATE DEVELOPMENT IN AREAS OF FLOOD RISK

Over the centuries we have built on flood plains for sound economic and social reasons. More buildings and development in the flood plain (along with increased national wealth and therefore assets at risk) will tend to increase the consequences of flooding. The Department for Communities and Local Government (DCLG) leads on development planning policy and has given local planning authorities clear guidance to ensure that where new development is necessary in such areas, it is appropriate and safe, does not increase flood risk elsewhere, and where possible reduces flood risk overall. The EA is funded by Defra to advise planning authorities on development proposals to ensure flood risk is properly taken into account.

### **DCLG's Planning Policy Statement 25 *Development and Flood Risk* (PPS 25)**

PPS 25 was published in December 2006 and aims to:

- ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding;
- direct development away from areas at highest risk.

### **CLIMATE CHANGE**

Potential changes in our climate look likely to include more severe storms and more intense winter rainfall. This, together with sea level rise, will tend to increase the probability of flooding and coastal erosion. Defra gives guidance to the operating authorities to ensure this is taken into account in decisions now. More fundamentally we want to reduce the impacts of climate change through control of 'greenhouse' gas emissions.



Storm events are expected to increase as a result of climate change.

The Government commissions a wide range of scientific research on climate change and funds programmes on climate modelling and work on impacts and adaptation which will also help us manage better the increasing risks of flooding and coastal erosion.

### **More Information**

For more information, please visit our website at <http://www.defra.gov.uk/enviro/fcd/> or, for information on any aspect of Defra's work, please contact the Defra Helpline by telephone on 08459 33 55 77 or by email at [helpline@defra.gsi.gov.uk](mailto:helpline@defra.gsi.gov.uk)

The Environment Agency's website is at <http://www.environment-agency.gov.uk/> or you can ring their Floodline number on (0845) 988 1188 or contact them by email at [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)