

## The Parrett Catchment Project

### Flood risk management and biodiversity



### Overview

With extensive low-lying land, a much altered river drainage system and with rivers being tidal for many miles inland, it is predicted that deep and prolonged flooding will become more frequent in Somerset. The damaging floods of 1999-2000 demonstrated that Somerset's historic river system was unable to cope with major future events, affecting communities and wildlife alike. It also showed that disparate organisations needed to work together, and together with the local community, to reduce flood risk.

The Parrett Catchment Project (PCP) was developed in 2000 to help manage deep and prolonged flooding, which is likely to become more frequent with climate change, in the River Parrett area in Somerset. A key objective of the project was to create new wet grassland, fen, reed beds and wet woodland, which help to restore the natural function of the catchment to attenuate flood waters. These sites provide improved habitat, thereby enabling 'species permeability' in response to climate change.

The PCP is a partnership of 30 organisations, with its management group consisting of representatives from the following core organisations:

- Somerset Drainage Boards Consortium
- Somerset County Council
- National Farmers' Union
- Sedgemoor District Council
- Environment Agency
- South Somerset District Council
- Taunton Deane Borough Council
- Farming and Wildlife Advisory Group (FWAG)

The project is funded from two sources: the European Union Regional Development Fund through the Joint Approach for the Management of Flooding project; and major stakeholders on the management group.

## Climate Change Adaptation measures

An 18-month consultation period resulted in the development of a 50-year vision for the Parrett catchment. This vision comprises 12 components that together will reduce the amount and speed of runoff down the river catchment, reducing the risk of damaging floods in the Levels and Moors and benefiting important wildlife habitats. The components include:

- Improving land and soil stewardship
- Planting woodlands on unstable soils in the upper catchment and along floodplain river corridors
- Raising riverbanks along key stretches
- Implementing sustainable drainage systems (SuDS) within existing and new developments
- Running an awareness-raising programme including:
  - The Big Sponge – a campaign to show how everyone can get involved in reducing flood risk
  - An annual River Festival, bringing people together from the upper and lower catchment
  - Rivers Resource – teachers on-line education pack using the River Parrett and the issue of flooding as a case study. Visit [www.parrettcatchment.info](http://www.parrettcatchment.info) to download the pack
- Reviewing the feasibility of building a tidal sluice on the River Parrett downstream of Bridgwater
- Reviewing the feasibility of spreading floodwater across the Somerset moors
- Upgrading pumping stations

The 'Farming Water' Programme is part of the PCP's catchment vision. This programme, which has been supported by EU funding, has assisted farmers in:

- Converting areas of arable land on high risk soils to grassland and native woodland, thereby creating valuable habitats for wildlife
- Converting farmland along river corridors in the floodplain to native woodland to slow the speed of river flow. This also provides 'green corridors' which assist species to move through the landscape in response to climate change
- Building demonstration flood retention schemes on farmland to trap flood water until the flood peak has passed. These schemes are multi-purpose, being used also for irrigation in summer and enhancing biodiversity on the farm
- The Farming Water Programme has also carried out studies into the best places in the catchment for new woodland to work to reduce flood risk. There has also been a number of soil monitoring projects to measure how different farm land uses affect the amount of runoff. The results are convincing

## Successes / benefits of adapting

- Improvement in water level management in recent years is beginning to help reduce shrinkage in mineral peat soils
- New grassland, wetland and woodland habitat created and water quality improvements achieved as a direct result of the work with the farming community
- By taking climate change seriously in 2002 the PCP was able to pull down £650,000 from the European Regional Development Fund for a four year project called the *Joint Approach for Managing Flooding (JAF)* project. The results of JAF demonstrate substantial returns over the cost of investing in this approach. PCP was also able to pull in a further £170,000 for a 12-month project to engage the local community and continue the catchment modelling project
- Some tangible outputs of the PCP's awareness-raising programme include:
  - The Advertising Equivalent Value (AEV) of known media coverage of the partnership now amounts to £50,500 AEV
  - Known media coverage has reached over 12 million readers, and since start of the new programme all known media coverage has been positive
  - Nearly 16,000 people have been directly engaged in local partnership events, and public attendance at the River Festival increased from 2,500 in 2003 to 6,000 in 2006
  - Publicity for *The Big Sponge* initiative resulted in positive enquiries from one-third of local schools and the sale of 2,650 water butts across Somerset
- Through the Farming Water Programme over 40 soil management plans were implemented covering some 12,000 acres of vulnerable land in the catchment. Results show that improved soil management practices across the catchment have significantly reduced the incidence of local flooding and highway flooding incidents in the past 12 months – dramatically reducing costs of highway clean-ups
- PCP successfully bridges the gap between different sectors e.g. conservation, farming, tourism, by providing a forum to discuss issues together regularly.

## Next steps

### Somerset Water Management Partnership

Somerset County Council is coordinating this new body to follow up on the PCP work, made up initially of 14 partner organizations. The partnership will tackle impacts of flooding on the communities, landscapes, economies and ecologies of the county's three main river catchments – the Parrett, Axe and Brue. The aims are to manage flood risk and water management in a more sustainable way.

### WAVE Project

The PCP has successfully gained co-funding through the North West Europe Programme for a project addressing climate change and water management - the Water Adaptation is Valuable for Everybody (WAVE) project.

The WAVE project, which runs from 2008-2012, aims to develop more 'climate-resistant' water systems, applying this concept to policy and planning, adaptation measures and public awareness. As a result, it seeks to both reduce the economic and environmental impact of climate change and provide greater clarity for residents.

## Recommendations

- Partnership working is the only way to deal with such complex and geographically wide issues as climate change and flood risk. It helps to avoid duplication and reinventing the wheel. Organisations need to look carefully at how they can gain added value from local partnerships, recognising that they can achieve far more than they could on their own. In PCP, organisations are aware that the more they participate in the partnership the more they get out of it
- It is vital to raise awareness and empower local communities and individuals – assisting them, through e.g. initiatives and grant schemes, to do their bit against flooding and climate change. The Big Sponge campaign (free education pack and grants for school ponds, tree planting and domestic water butts), although low budget, was highly effective
- With the right approach landowners and farmers are very receptive to new ideas
- The more you engage communities and gain their support and involvement the more the media sit up and take notice. Build relations with the local media
- Be realistic but positive in the messages that are communicated e.g. if we all do a little we can help tackle climate change and reduce flood risk
- Make use of the expertise of numerous organisations, interest groups and local people
- Consult the Farming & Wildlife Advisory Group (FWAG) for advice about soil and land management on 01823 355998 or email [somerset@fwag.org.uk](mailto:somerset@fwag.org.uk)
- Contact Somerset County Council Countryside Group on 01823 355281 for information about grants for woodland planting and pond schemes
- Visit the Joint Approach for Managing Flooding (JAF) website [www.jaf.nu/uk](http://www.jaf.nu/uk) to see how the Dutch and Germans (and PCP) tackle flood risk management

### Contact:

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### Relevant links:

[www.parrettcatchment.info](http://www.parrettcatchment.info)

Somerset City Council Website: [www.somerset.gov.uk/somerset/ete/pcp](http://www.somerset.gov.uk/somerset/ete/pcp)