

Third Edition

SPRING 2005

Catchment Matters

Farming Edition

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FARMING WATER UPDATE



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Anthony Gibson, PCP Chair and NFU Regional Director



The newsletter from the Parrett Catchment Project

Welcome

Welcome to the *Catchment Matters: Farming edition* from the Parrett Catchment Project - the bulletin for farmers, landowners and everyone who wants to hear about the work underway in the Parrett catchment to reduce flood risk and bring water levels under control.

Foreword from the PCP Chairman, Anthony Gibson

Farming readers will not be surprised to learn that it was climate change, rather than the problems of agriculture, that drew Mrs. Beckett to the South West in early Spring, for what was only her second foray into the region since she became Defra Secretary of State almost four years ago.

But, for all that, the visit was not without its value. It gave us in the NFU the chance to explain to Mrs Beckett the role which farmers could potentially be playing in mitigating the increase in greenhouse gases, by growing bio-fuels for transport and biomass for heat and power. And it helped raise the profile of an issue that, more than any other, threatens the long-term future of the Somerset Levels and Moors.

Mrs. Beckett herself, in her presentation to the Climate Change conference, spoke of the way in which "coastal wetlands are threatened by sea-level rise" and of the need to "prepare for the risks" of inevitable climate change in terms of flood defence and other policies.

But it was the Environment Agency's acting Regional Director, Martin Booth, who really brought the potential risks of climate change home to his audience, when he revealed the EA's latest forecasts of sea-level rise and storm surges.

All around the South West's coastline, high tides will be peaking at around 2 metres higher by the middle of the century than

they do now, and if you add in storm surge conditions, that could mean at worst a 15 metre tide along the Somerset coast. What are now regarded as one in 200 year risks – such as the flooding of Bridgwater – could be occurring every 30 years.

As the sea level rises and the risk of severe winter storms increases, so does the strength of the case for the Parrett Sluice. It isn't so much a case of 'can we afford to build the sluice' as 'can we afford not to'!

But with winter rainfall set to rise by between 5 and 10%, climate change is also increasing the risk of inland flooding as well. If the scientists are to be believed, the rate of change is accelerating and that ought to be giving the entire Parrett Catchment Project a new priority and sense of urgency.



The River Parrett from Dunball Wharf, looking south towards Bridgwater. The site for the Parrett tidal sluice?

The Water Framework Directive in the Parrett catchment



David Cliffe



Jo Oborn

For a **free** visit to discuss soil management planning, ELS, HLS and Cross Compliance, contact **Jo Oborn** or **David Cliffe**, FWAG's specialist advisors:

☎ 01823 355427

January saw the introduction of the Single Payment replacing the direct payments linked to agricultural production. This spring sees the roll out of the new Environment Stewardship that replaces the existing Countryside Stewardship and Environmentally Sensitive Areas schemes. These new 'green' schemes will aim to reward good environmental and farming practices above that required by cross compliance.

CAP Reform has perhaps overshadowed another EU Directive introduced in December 2000 - The Water Framework Directive. This is the next big challenge facing the agricultural industry after CAP Reform. This EU Directive aims to reduce the impact of pollution and flooding in waterways and wetlands throughout Europe. The Directive requires all inland and coastal waters to reach 'good ecological and chemical status' by 2015.

Covering over 76% of the land area in England and Wales, agricultural sources account for 70% of the Nitrogen, 40-50% of Phosphorous and the majority of silt entering water bodies. Many ground waters and rivers are also suffering from high pesticide levels. The cost of removing this contamination is currently in the region of £250 million per year.

Industry and water authorities are already heavily regulated under existing legislation. However diffuse pollution from agriculture, mainly land run-off, is more difficult to regulate as it is more dispersed and difficult to trace.

The extent to which agricultural practices pose a risk to water depends on many factors such as rainfall, soil type and slope, but the risk will also vary with each farming enterprise. For example, an arable farm may pose a risk of soil erosion or pesticide contamination, whereas a livestock farm may have issues with manure and microbial pathogens.

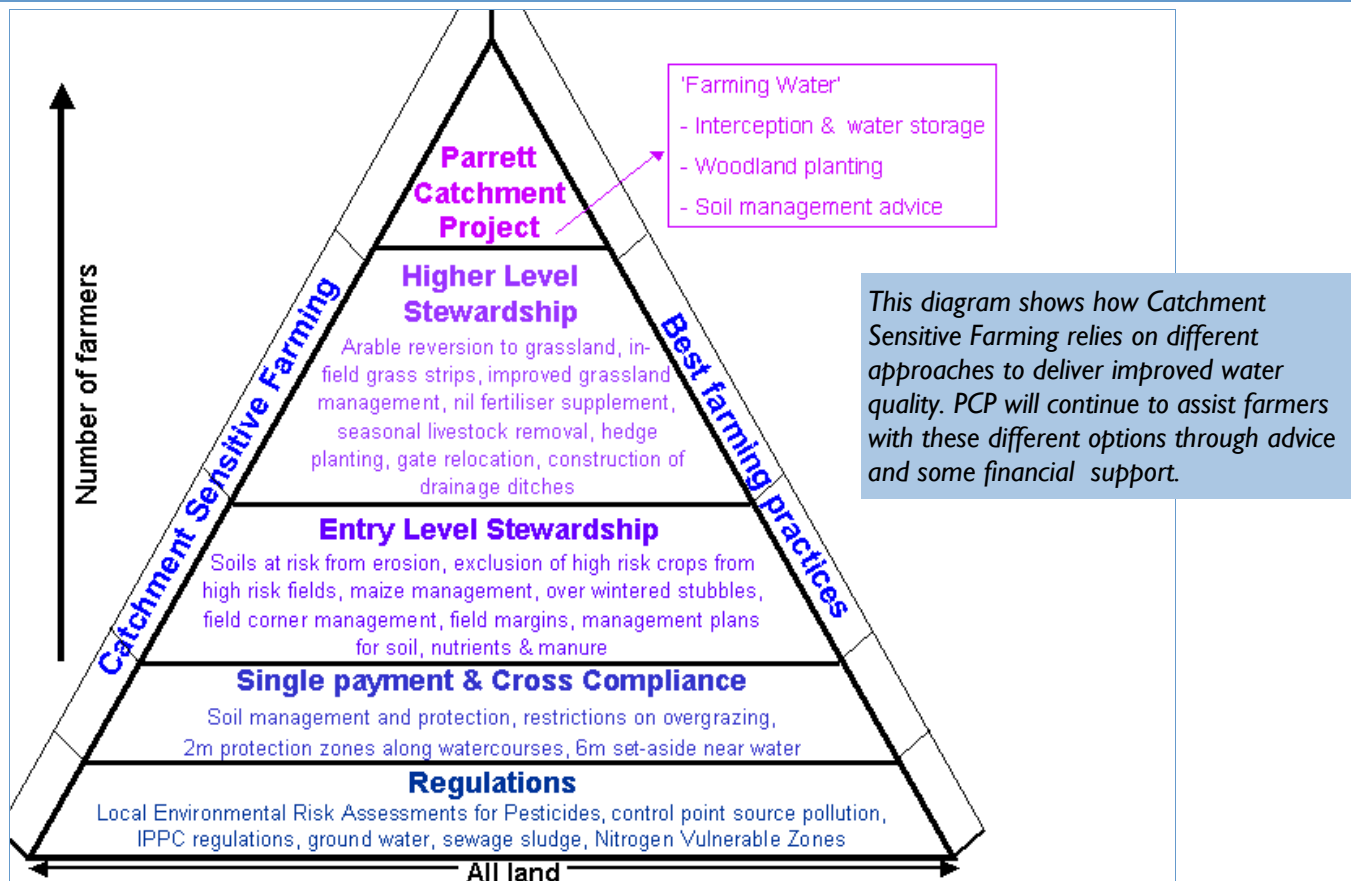
Defra has introduced Catchment Sensitive Farming as an integrated approach to reduce diffuse pollution from agriculture and improve water quality as required by the Water Framework Directive. This will require a greater understanding amongst farmers and their advisers of the pollution risk associated with farming operations and how to reduce these risks.

This will include:

- ☁ Improved soil management
- ☁ Improved and timely use of manure, fertilisers and agrochemicals
- ☁ Investment in farm infrastructure such as dirty-water storage, tracks or fencing watercourses to exclude livestock.



Picture of a farm in the River Tone catchment showing how a combination of approaches is reducing erosion and run-off on light soils and steep slopes. Fields have been split with new hedges, grass strips and wild bird cover, steepest slopes grassed out, trees planted along the stream as buffer strips and careful siting of high risk crops and timing of cultivations.



How are we progressing with Farming Water?

To date, four of our flood retention schemes are now underway and two are practically complete. Sadly, for operational reasons we have cancelled the 5th scheme, which was to be our largest project, sited in the Isle Valley.

At Bower Hinton Farm all construction and final remedial work has been completed. Ten hectares of new woodland has also been planted, through the Farming Water programme, on the west side of the river. The flood scheme, with the woodland planting and contour subsoiling practiced by the farmer, demonstrates a comprehensive approach to farm flood management.

The scheme at Creedy Bridge is now 95% complete. All that remains is fencing and water pipe diversion work which will go to tender in the next few weeks.

At Vokers Bridge construction is now 50% complete. This scheme will include a remote control device, the design of which has been aided by our Dutch and German partners.

The small scheme at Balham Hill Farm has also been delayed while the contractor finishes at Creedy Bridge. Since it's a small project the earthworks are anticipated to take only a few days.

For all schemes the aquatic planting will take place in May and hedge planting in November. These works will be let out to a single contractor.

Future operations and maintenance are to be agreed with all farmers involved to ensure the schemes operate well and that relevant data is collated for future modelling and monitoring purposes.



Bower Hinton Scheme - Sept 2004



Bower Hinton scheme - March 2005

Wildlife benefits from flood management

"As we move into a time when climate change is going to change the rainfall patterns prevalent in the UK, we need to look for more sustainable solutions to flood control and aquifer protection. We believe that woodland, especially native woodland can help to provide such solutions."

The Woodland Trust



GOOD NEWS



woodland grant available

PCP has been able to access further EU funding from the *Joint Approach for Managing Flooding (JAF)* project to continue our woodland development work. We are now able to offer grants to landowners, farmers and community groups for new woodland projects. In particular we are seeking sites on the flood plains of the River Parrett, Tone, Cary, Isle or Yeo.

This initiative is supported by the Somerset Wildlife Trust (SWT) and Farming and Wildlife Advisory Group (FWAG) who are keen to see more floodplain woodland created in the County.

Ben Thorne from FWAG welcomes PCP's initiative saying *"As well as encouraging areas of floodplain farmland to be managed more extensively there is also real opportunity to manage land more positively for wildlife. PCP is demonstrating that flood management can reap biodiversity and wildlife benefits."*

Do you have land that you feel would be suitable for a new woodland planting scheme? Would you be interested in receiving a grant for this work ?

Contact us

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Research into the potential role of woodland in the floodplain to alleviate flood risk is well underway in the UK. Latest findings from studies at Portbren in Wales (Centre for Ecology and Hydrology) have shown that water infiltration capacity of an area planted with trees is 60 times greater than in adjacent agricultural land.

Such findings lend even greater credibility to the woodland planting work that PCP carried out in the catchment last year. These woodlands will assist in the battle to reduce flooding by stabilising high-risk soils, increasing infiltration rates and slowing the flow of runoff onto the floodplain. To support our planting work we are also conducting our own local monitoring and research in association with Forest Research.



Photo: Despite their small size the saplings planted at one farm have already illustrated real flood management value by trapping flood debris against their trunks. This function serves to further slow down flood-water flows.

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!Get tree planting for wildlife & floods!