the River Restoration Centre

Working to restore and enhance our rivers

Delivering River Restoration: Recipes for Success

13TH ANNUAL NETWORK CONFERENCE

Restoring Europe's Rivers

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RIVER RESTORATION STRATEGIES IN WESSEX AND HOW PARTNERSHIP DEVELOPMENT PROMOTES PROJECT DELIVERY

Aly Maxwell
Water Framework Directive Delivery Team
Environment Agency
19th April 2012

EA Wessex River Restoration

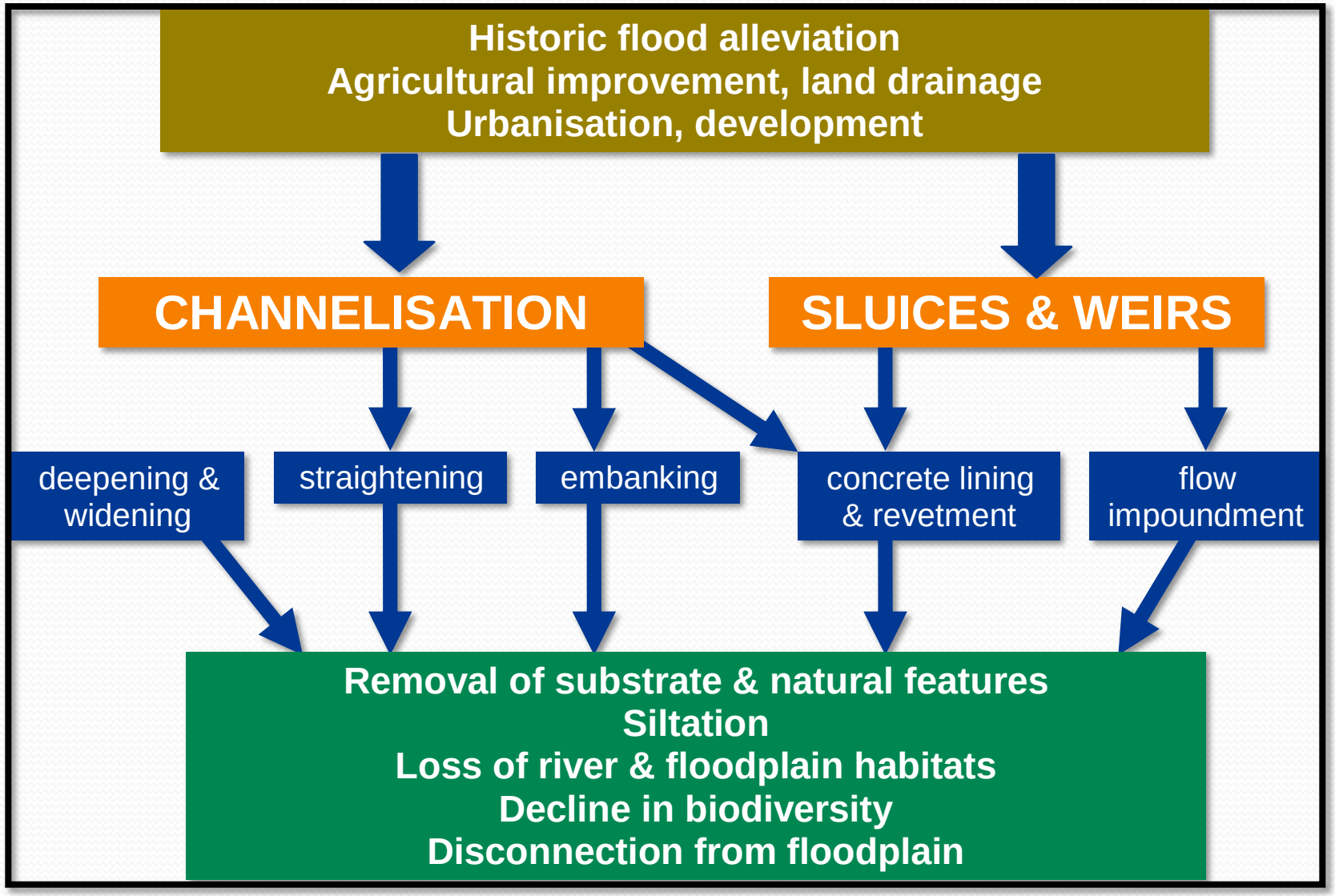
Chalk Rivers in Wessex

- Chalk rivers such as the Avon and the Frome boast crystal clear waters, creating special conditions for some of the most threatened wildlife in Britain

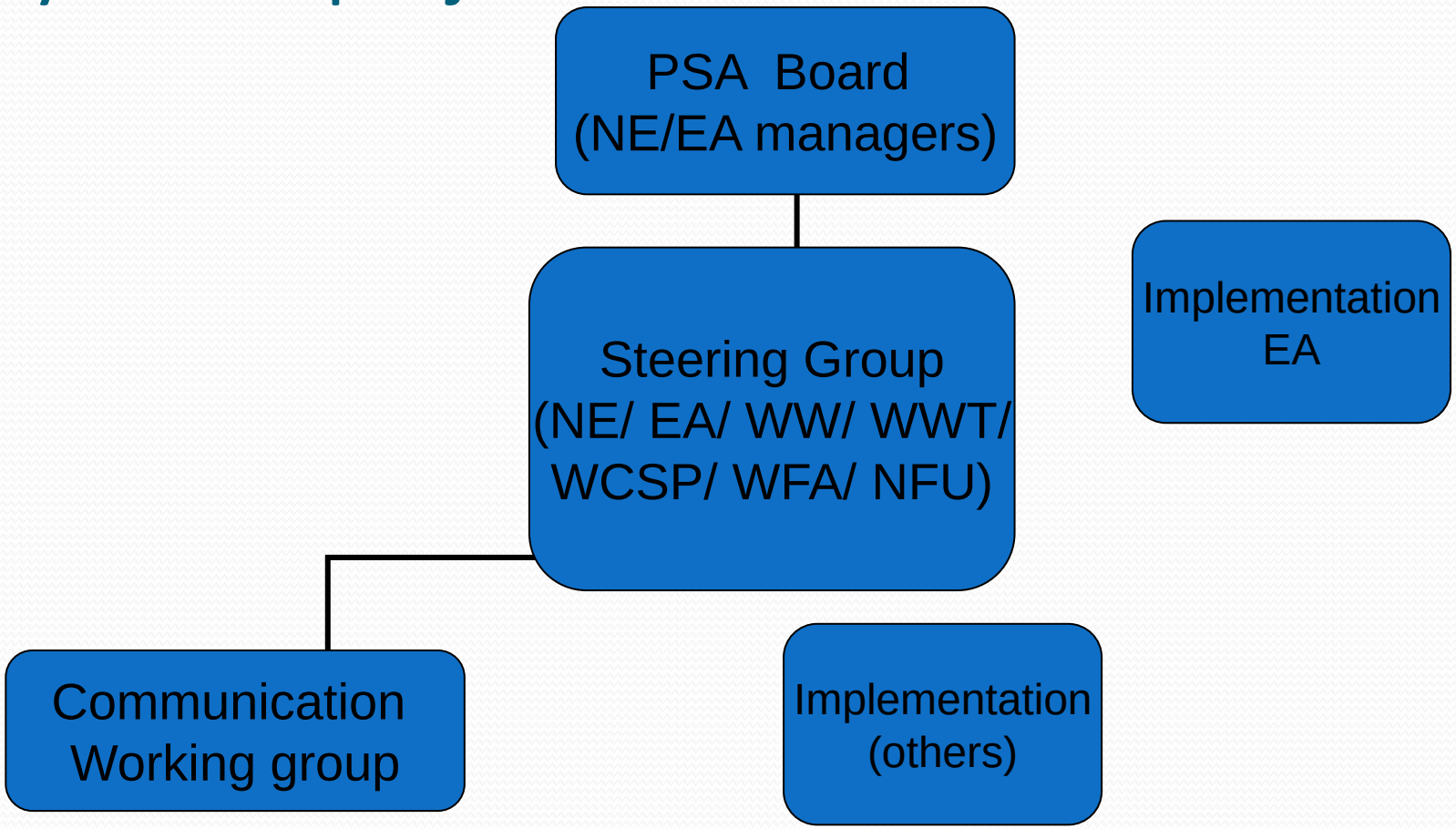
- National importance recognised by designation as Sites of Special Scientific Interest (SSSIs)

- Avon also of European interest, designated as a Special Area of Conservation (SAC).

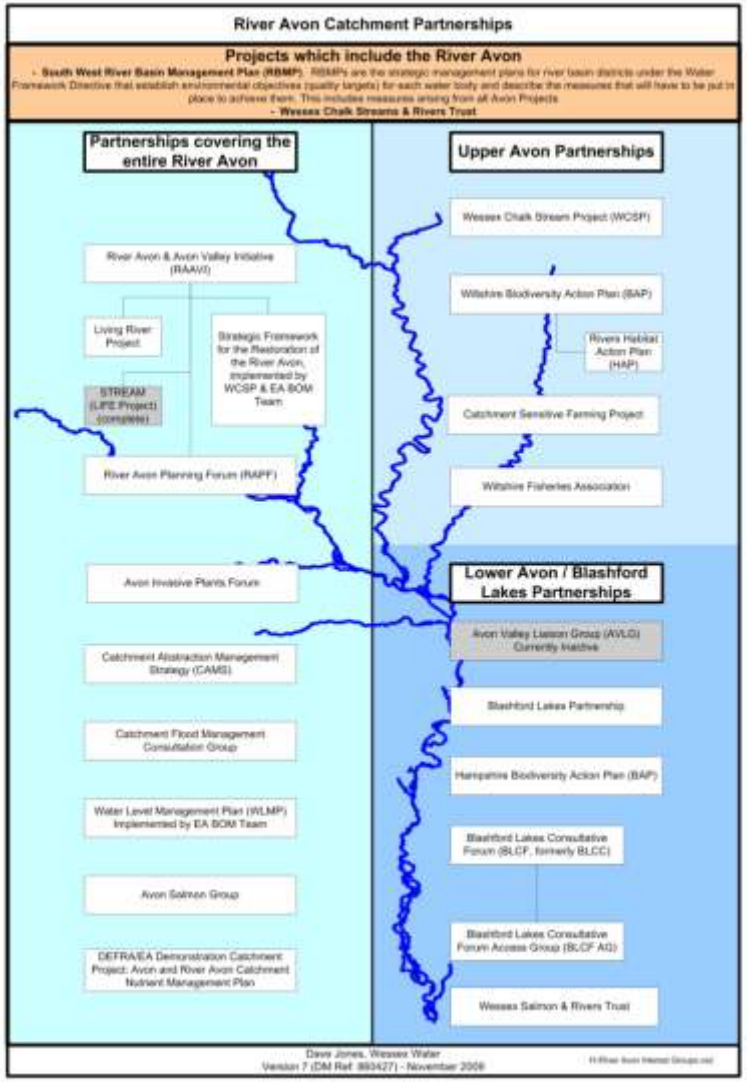
Why do rivers need restoring?



Strategic Restoration of the River Avon System – project structure



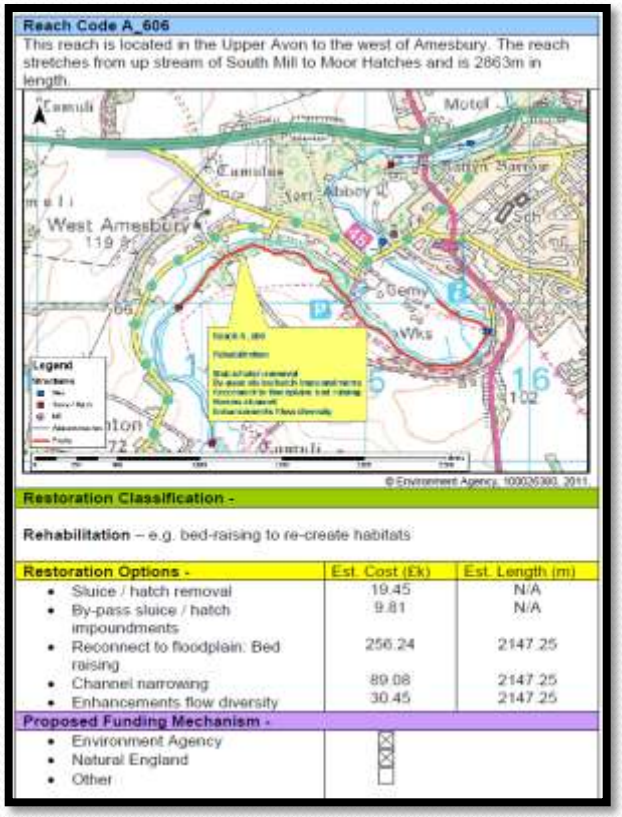
Existing Avon Catchment Partnerships



This diagram is intended to provide an overview of the main initiatives and plans. It is not all-inclusive and as such there may be other plans and projects that are not mentioned.

Directory of Actions

Information Sheets



Reach Code A_606

This reach is located in the Upper Avon to the west of Amesbury. The reach stretches from up stream of South Mill to Moor Hatches and is 2863m in length.

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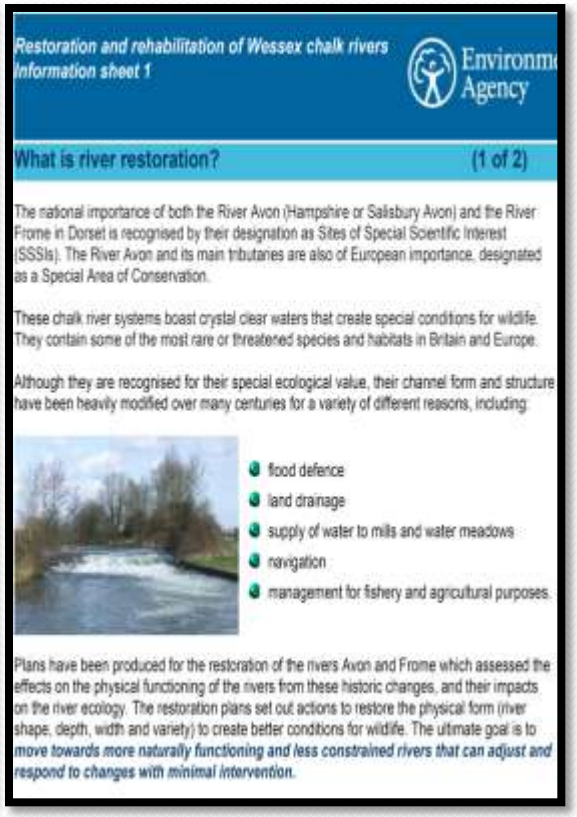
Restoration Classification -

Rehabilitation – e.g. bed-raising to re-create habitats

Restoration Options -	Est. Cost (£k)	Est. Length (m)
• Sluice / hatch removal	19.45	N/A
• By-pass sluice / hatch impoundments	9.81	N/A
• Reconnect to floodplain: Bed raising	256.24	2147.25
• Channel narrowing	89.08	2147.25
• Enhancements flow diversity	30.45	2147.25

Proposed Funding Mechanism -

- Environment Agency
- Natural England
- Other



Restoration and rehabilitation of Wessex chalk rivers
Information sheet 1

Environment Agency

What is river restoration? (1 of 2)

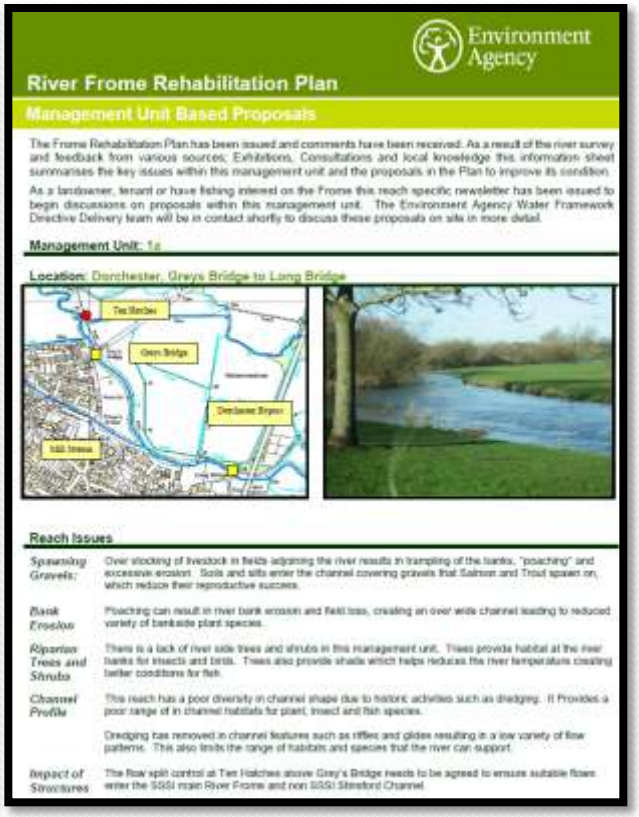
The national importance of both the River Avon (Hampshire or Salisbury Avon) and the River Frome in Dorset is recognised by their designation as Sites of Special Scientific Interest (SSSIs). The River Avon and its main tributaries are also of European importance, designated as a Special Area of Conservation.

These chalk river systems boast crystal clear waters that create special conditions for wildlife. They contain some of the most rare or threatened species and habitats in Britain and Europe.

Although they are recognised for their special ecological value, their channel form and structure have been heavily modified over many centuries for a variety of different reasons, including:

- flood defence
- land drainage
- supply of water to mills and water meadows
- navigation
- management for fishery and agricultural purposes.

Plans have been produced for the restoration of the rivers Avon and Frome which assessed the effects on the physical functioning of the rivers from these historic changes, and their impacts on the river ecology. The restoration plans set out actions to restore the physical form (river shape, depth, width and variety) to create better conditions for wildlife. The ultimate goal is to ***move towards more naturally functioning and less constrained rivers that can adjust and respond to changes with minimal intervention.***



Environment Agency

River Frome Rehabilitation Plan

Management Unit Based Proposals

The Frome Rehabilitation Plan has been issued and comments have been received. As a result of the river survey and feedback from various sources; Exhibitions, Consultations and local knowledge this information sheet summarises the key issues within this management unit and the proposals in the Plan to improve its condition.

As a landowner, tenant or have fishing interest on the Frome this reach specific newsletter has been issued to begin discussions on proposals within this management unit. The Environment Agency Water Framework Directive Delivery team will be in contact shortly to discuss these proposals on site in more detail.

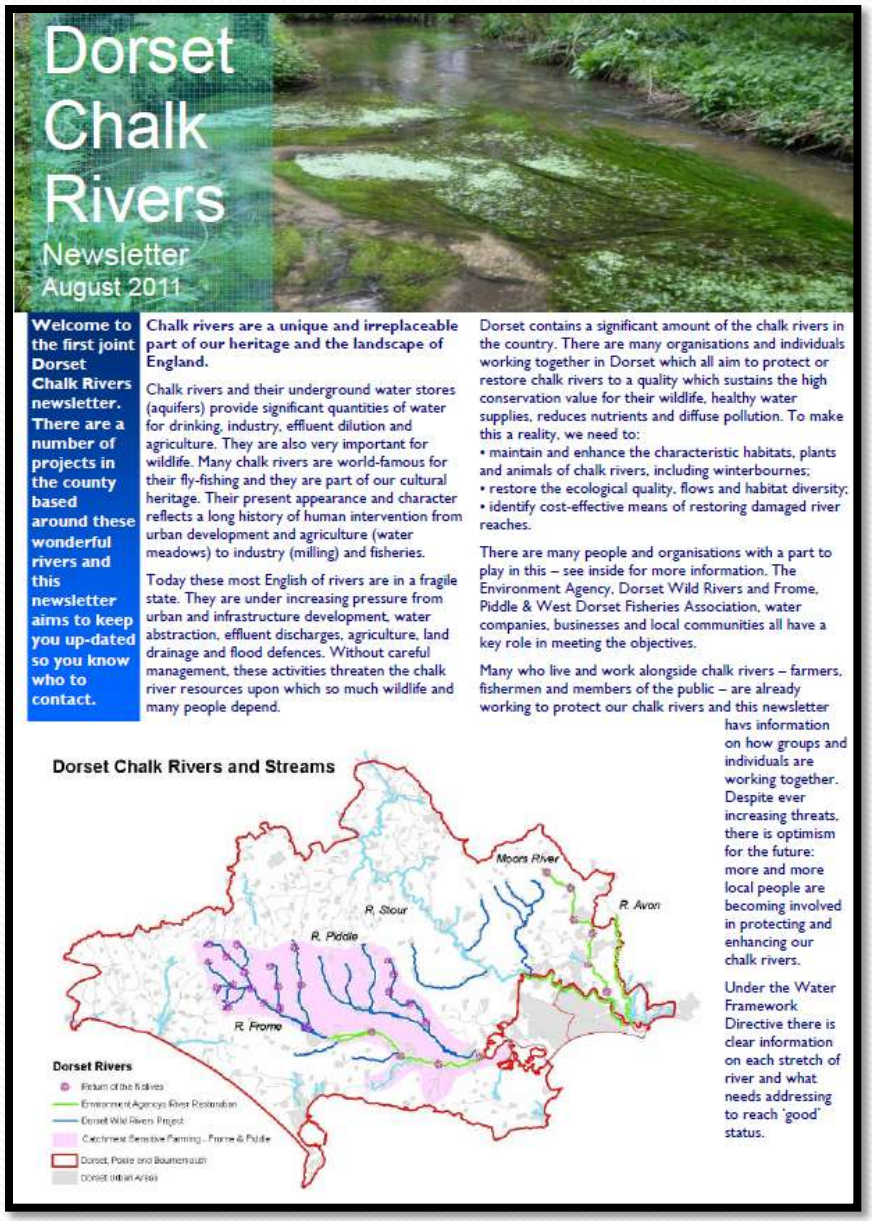
Management Unit: 1a

Location: Dorchester, Greys Bridge to Long Bridge

Reach Issues

Spawning Gravels:	Over stocking of livestock in fields adjoining the river results in trampling of the banks, "poaching" and excessive erosion. Soils and silts enter the channel covering gravels that Salmon and Trout spawn on, which reduce their reproductive success.
Bank Erosion	Poaching can result in river bank erosion and field loss, creating an over wide channel leading to reduced variety of bankside plant species.
Riparian Trees and Shrubs	There is a lack of river side trees and shrubs in this management unit. Trees provide habitat at the river banks for insects and birds. Trees also provide shade which helps reduces the river temperature creating better conditions for fish.
Channel Profile	This reach has a poor diversity in channel shape due to historic activities such as dredging. It Provides a poor range of in channel habitats for plant, insect and fish species. Dredging has removed in channel features such as riffles and glides resulting in a low variety of flow patterns. This also limits the range of habitats and species that the river can support.
Impact of Structures	The Raw split control at Ten Hatches above Grey's Bridge needs to be agreed to ensure suitable flows enter the SSSI main River Frome and non SSSI Stinsford Channel.

Newsletters



Dorset Chalk Rivers

Newsletter

August 2011

Welcome to the first joint Dorset Chalk Rivers newsletter. There are a number of projects in the county based around these wonderful rivers and this newsletter aims to keep you up-dated so you know who to contact.

Chalk rivers are a unique and irreplaceable part of our heritage and the landscape of England.

Chalk rivers and their underground water stores (aquifers) provide significant quantities of water for drinking, industry, effluent dilution and agriculture. They are also very important for wildlife. Many chalk rivers are world-famous for their fly-fishing and they are part of our cultural heritage. Their present appearance and character reflects a long history of human intervention from urban development and agriculture (water meadows) to industry (milling) and fisheries.

Today these most English of rivers are in a fragile state. They are under increasing pressure from urban and infrastructure development, water abstraction, effluent discharges, agriculture, land drainage and flood defences. Without careful management, these activities threaten the chalk river resources upon which so much wildlife and many people depend.

Dorset contains a significant amount of the chalk rivers in the country. There are many organisations and individuals working together in Dorset which all aim to protect or restore chalk rivers to a quality which sustains the high conservation value for their wildlife, healthy water supplies, reduces nutrients and diffuse pollution. To make this a reality, we need to:

- maintain and enhance the characteristic habitats, plants and animals of chalk rivers, including winterbournes;
- restore the ecological quality, flows and habitat diversity;
- identify cost-effective means of restoring damaged river reaches.

There are many people and organisations with a part to play in this – see inside for more information. The Environment Agency, Dorset Wild Rivers and Frome, Piddle & West Dorset Fisheries Association, water companies, businesses and local communities all have a key role in meeting the objectives.

Many who live and work alongside chalk rivers – farmers, fishermen and members of the public – are already working to protect our chalk rivers and this newsletter havs information on how groups and individuals are working together. Despite ever increasing threats, there is optimism for the future: more and more local people are becoming involved in protecting and enhancing our chalk rivers.

Under the Water Framework Directive there is clear information on each stretch of river and what needs addressing to reach 'good' status.

Dorset Chalk Rivers and Streams

Hampshire & Isle of Wight Wildlife Trust · NFU · Natural England · Environment Agency

newsletter

Issue 2, Spring 2011

River Avon Restoration Plan

Channel narrowing at Ham Hatches, Amesbury

Welcome to the second newsletter of the River Avon Restoration Plan – our plan to implement the Strategic Framework for the Restoration of the River Avon (SFfRRA). Since our last newsletter in June 2010, the project has progressed through various phases of funding, appraisal and design.

Funding

The catchment-wide strategy for the River Avon highlighted the amount of restoration needed in order to bring the physical structure of the Site of Special Scientific Interest into favourable condition. We studied the strategy last year to prioritise and identify both the areas most in need of restoration, and/or areas where restoration will lead to the most environmental gain. In November last year the Environment Agency's Water Level Management Plan (WLMP) team at Blandford successfully secured approval to restore the priority reaches. This represents about 30 per cent of the total programme of work. Since the Government Spending Review in December, the Environment Agency has looked carefully at how reduced funding can be allocated across its regions and areas of work. Budgets are being finalised and we hope we will receive the funding needed to deliver the priority works in partnership with landowners and fishing clubs. The remainder of the restoration plan will need to be completed by partners, landowners and tenants, using any grants or community support which becomes available. Work is likely to take more than five years.

Project Team

The Project Board, detailed in the first Newsletter, continues to oversee the restoration work . However, the Environment Agency team will change, as both Roger Shrimpton and Ben Bailey are off to pastures new. The new team has faces familiar to anyone involved in WLMPs: Mike Porter will be the new programme manager and lead on the Avon and Bourne; Aly Maxwell will support delivery and lead on the Nadder and Wylye; Anna Fraser will lead on all environmental work; Sarah Galsworthy will give general support on delivery.

Gravel placement above Ham Hatches, Amesbury

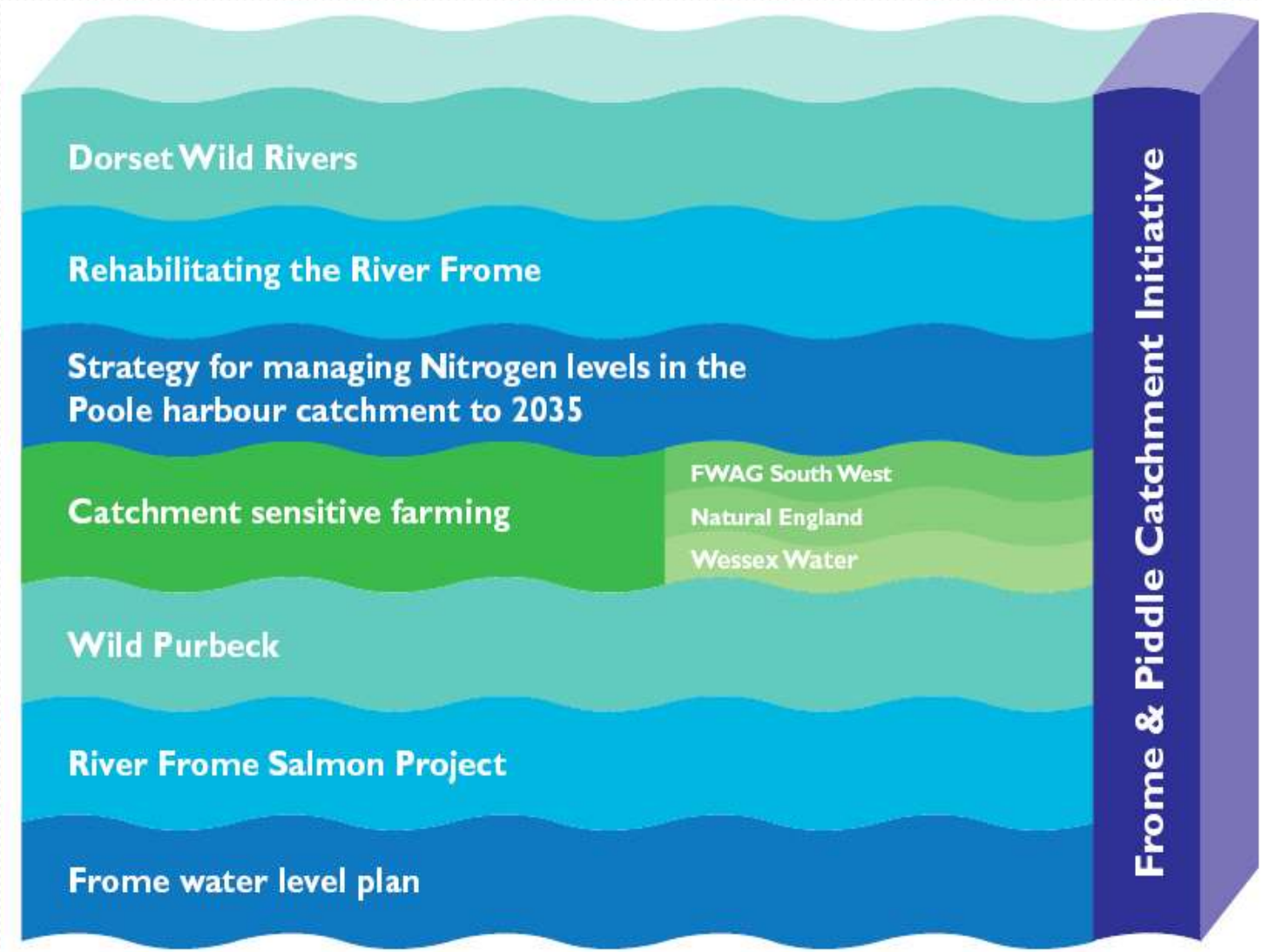
Delivery mechanisms

The Environment Agency team is producing a summary booklet giving the

Moreton 2010

Ham and Moor Hatches 2011

Frome & Piddle Catchment Initiative PARTNERSHIPS & PROJECTS



Overview / Conclusion

- 2 Strategic Catchment Restoration Plans in Wessex completed 1 other being developed
- Partnership is key to delivering river enhancements with available resources
- New and existing tools, techniques and best practice are developed to raise awareness and encourage partnership working
- Good communication is required throughout to develop and maintain effective partnerships

- http://www.environment-agency.gov.uk/hampshireavon
- http://www.environment-agency.gov.uk/frome