

Healthy Catchments - managing water for Flood Risk & the Water Framework Directive

Project Summary SC120019

Introduction

The Water Framework Directive (WFD) is a European directive which aims to protect and improve the water environment. Flood and Coastal Erosion Risk Management (FCERM) activities can have a big impact (both positive and negative) on the water environment.

The WFD defines a list of mitigation measures (referred to as <u>environmental improvements</u>) which need to be implemented by a set deadlines (2015 0r 2027) to improve the water environment.

Healthy Catchments is a <u>web-based</u> resource which provides you with a selection of case studies to give you ideas of how to implement environmental improvements when you undertake FCERM activities.

It shows you that implementing the WFD need not be complicated. We can achieve exciting integrated solutions to improve the environment for communities and wildlife. Whilst this webpage focuses on FCERM it will also be of use to others involved in the management of rivers, drainage channels, estuaries and coasts.

To help those who are not office based we have summarised the content of the webpage below and appended the case studies in one PDF.

The webpage and associated case studies can be accessed here:

- <u>Healthy Catchments Flood Risk and the WFD</u>
- Healthy Catchments Case Studies

How does FCERM affect the WFD?

In FCERM your work mainly falls in artificial or heavily modified water bodies (AWB/HMWB). These are water bodies which have been altered through human activity (for example by FCERM, urbanisation and land drainage). AWB/HMWBs need to achieve Good Ecological Potential (GEP) by a set deadline. GEP is the best ecology that can be achieved in a water body whilst still enabling FCERM works to be undertaken to protect people and property from flooding. FCERM works can affect the shape of a watercourse and the natural processes that occur within it, such as:

- flow patterns;
- width and depth;
- features such as pools and riffles;
- sediment availability/transport; and
- interaction between the watercourse and its floodplain.

When FCERM works have an adverse impact on these natural features and processes they can damage important habitats which support plants and animals. This can cause a water body's¹ ecology to deteriorate and prevent environmental improvements from being undertaken. FCERM works can also be beneficial. They can be designed to help achieve environmental improvements included in your <u>River Basin</u> Management Plan (RBMP), enhancing the water environment for plants, animals and people.

When you do FCERM works you should:

- ensure you do not make things worse and cause a water body's ecology to deteriorate;
- ensure you do not not prevent the environmental improvements identified in your RBMP being undertaken; and
- seek opportunities to undertake environmental improvements to achieve Good Ecological Potential.

So... how do I implement the WFD?

RBMPs describe how the WFD will be achieved in your region. They also tell you, at a local level, which environmental improvements you need to implement to achieve the objectives of the WFD.

RBMPs can be found on the <u>Environment Agency</u> <u>webpage</u>. Annex B includes one page summaries for each water body, explaining what environmental

¹ WFD divides the water environment into water bodies: lakes, reservoirs, streams, rivers (including drainage channels), canals, groundwaters, estuaries & coastal waters.

Flood and Coastal Erosion Risk Management R&D Programme

improvements need to be undertaken to achieve GEP. Your RBMP sets out:

- ecological objectives for each water body; and
- deadlines by when these objectives must be met.

Implementing environmental improvements

Prior to implementing an FCERM activity you can find out which environmental improvements are relevant to your site by going to the Environment Agency's <u>'What's in your backyard?</u>' website. Find your site on the map and lick it to find the following key information:

- Name of the water body and its identification number.
- Which RBMP your site fall sin.
- Whether the water body is Artificial or Heavily Modified.
- Description of the condition of the water body, and the targets that have been set.

Once you have the water body identification number, go to <u>Annex B of the RBMP</u> and look-up this number, you will find a list of the environmental improvements which need to be implemented.

What do environmental improvements look like?

Once you know which environmental improvements relate to your site, refer to the case studies to get ideas of how you could implement your FCERM activity and meet the requirements of the WFD at the same time.

Environmental improvements can be achieved in many ways such as using green engineering techniques instead of concrete and sheet piling:



Or altering the way you do channel maintenance:



that aquatic and marginal vegetation is only managed in key locations and one bank is left uncut

WFD screening, assessments and flood defence consents

You should screen your activities to see if you need to undertake a WFD assessment. The Environment Agency can advise you on this for Main Rivers. On Ordinary Watercourses/drainage channels you will need to contact the relevant Lead Local Flood Authorities or Internal Drainage Boards for advice. WFD assessment guidance will be available on the Environment Agency webpages early in 2014.

When doing works which affect a water body you may be required to apply for flood defence consent from the Environment Agency on Main Rivers and Internal Drainage Boards or Lead Local Flood Authorities for Ordinary Watercourses. For more information see:

- Environment Agency How Do I Apply for a Flood Defence Consent
- Environment Agency Riverside Property Owners: Know Your Rights and Responsibilities

The Environment Agency's National Customer Contact Centre will be able to advise you if other licenses are needed and put you in contact with relevant staff: 03708 506 506* (Mon-Fri, 8am - 6pm).

This summary relates to information from project SC120019, reported in detail in the following output(s): Webpage: Healthy Catchments – managing water for Flood Risk and the WFD

September, 2013

Project manager: <u>Lydia Burgess-Gamble</u>, Evidence Directorate.

Research Contractor: <u>Phil Williamson</u>, Royal Haskoning DHV

Research Collaborator: see logos below.

This project was commissioned by the Environment Agency's Evidence Directorate, as part of the joint Environment Agency/Defra Flood and Coastal Erosion Risk Management R&D Programme.

Email: <u>fcerm.evidence@environment-agency.gov.uk</u> © Environment Agency.



Flood and Coastal Erosion Risk Management R&D Programme