

River basin planning in Forth sub-basin district

Guide to using catchment profiles

Introduction

The production of river basin management plans is a requirement of the European Water Framework Directive (WFD). In Scotland we have produced two river basin management plans (RBMPs) - one for the Scotland river basin district and one for the cross border Solway Tweed river basin district.

The RBMPs are supplemented by a suite of ten area management plans, one of which covers the Forth. These plans will help to deliver the two key Water Framework Directive objectives: preventing the water environment from deterioration and improving all water bodies to good ecological status by 2015, or, if not feasible by 2015 by extended timescales up to 2027, and preventing any deterioration. The directive allows us to set less stringent objectives if there are other reasons such as technical infeasibility or disproportionate cost which would prevent water bodies reaching good ecological status.

The overall aim is for 96% of the Forth water bodies within the Forth area to be in a good condition by 2027. Currently 22% are in a good or better condition.

Further information is available at: www.sepa.org.uk/water/river_basin_planning.aspx

The [Forth area management plan](#) has two key components and is available on the SEPA website.

The three key components are:

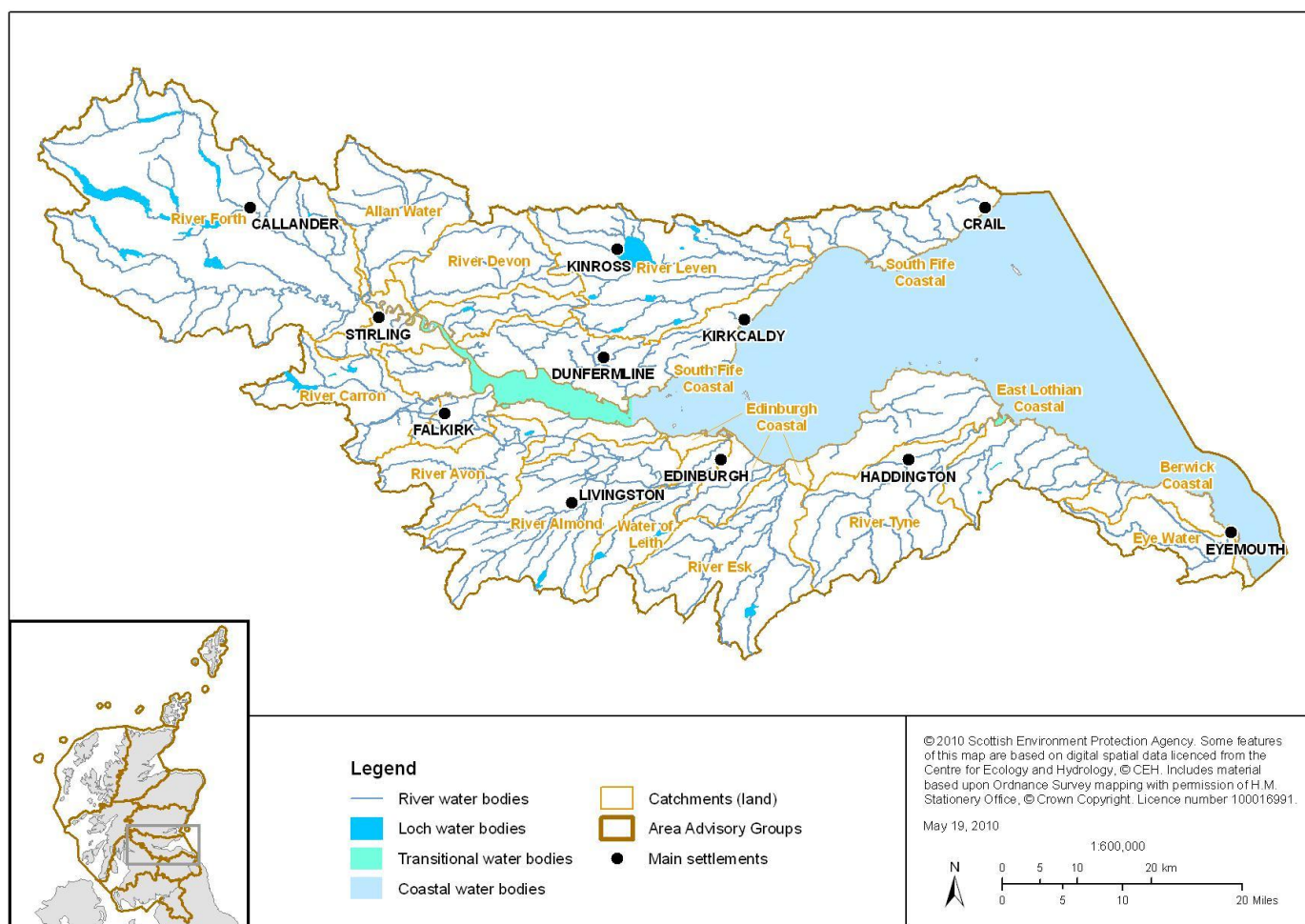
1. **Area management plan summary** - presents an overview of the Forth advisory group area including classification, pressures, objectives and key measures.
2. **Catchment profiles** – these provide information on classification, pressures, measures and objectives for each catchment and their neighbouring coastal and transitional water bodies. They will be kept as live documents during this first river basin planning cycle **and contain the key actions required to be delivered at the catchment or water body scale.**

Using catchment profiles

These are live documents reflecting the condition of the catchment at the publication date (noted on each). They will be updated to reflect any changes throughout the first river basin planning cycle as required. This means that only the versions on the web are controlled and that printed versions may become out of date.

Catchment profiles will be produced for catchments shown in Map 1 below.

Map 1: Forth advisory group area showing main catchments



Each catchment profile follows the same structure:

- **Introduction** - Short overview of the catchment including area covered, location, land and water use, number of water bodies, including any which are heavily modified or artificial, and number of neighbouring coastal or transitional water bodies.
- **Map** – Shows the area covered by the catchment.
- **Water dependent protected areas** – information associated protected areas and whether or not they are meeting their protected area objectives.
- **Catchment summary table** – details the classification, pressures and objectives for each water body.
- **Pressures, measures and objectives summary** – Section details the reasons why water bodies are currently at less than good ecological status (or ecological potential in the case of heavily modified water bodies), what the pressures are, the measures which are expected to alleviate the pressures and the date by which good ecological status (or ecological potential) may be reached. For water bodies currently at good ecological status or potential the objectives are noted as no deterioration by 2015. For protected areas not meeting the required standards the reasons, measures and objectives for improvement are also summarised.
- **Areas for action table** – this table lists the key actions required to either protect the water bodies within the catchment from deterioration or work that needs to be delivered to restore it to good ecological status/potential.

Useful definitions

Catchment – The area from which surface run-off drains into a water body/water bodies.

Water body – A defined section of the water environment. This could be a river, loch, stretch of river, groundwater or part of a coastal or transitional area. SEPA has divided the water environment into these units defined by their characteristics.

Water body category – The Water Framework Directive requires consideration of five broad categories of water body – rivers, lochs/lakes, transitional, coastal and groundwaters.

Water body identification number (WB ID) – SEPA and the Environment Agency have unique codes for every water body to enable consistent reporting of our results.

Heavily modified water body (HMWB) - Water bodies which have been significantly altered for human uses, eg for hydropower generation, navigation, water supply, flood protection, urban development or other sustainable land management activities e.g. land drainage.

Artificial water body (AWB) – A constructed water body eg a canal or lade.

Ecological status (ES) - For surface water bodies, ecological status is divided into five classes: high, good, moderate, poor and bad. This encompasses a spectrum ranging from water bodies in a near natural condition which are at high ecological status, to those whose ecological quality has been severely damaged and which are at bad ecological status. Groundwaters are divided into two classes – good or poor ecological status.

Good ecological status (GES) - The aim of the Water Framework Directive for all water bodies to reach.

Ecological potential (EP) – Heavily modified water bodies are classified according to a similar spectrum of five classes: maximum, good, moderate, poor and bad, but by ecological **potential** instead of status. This is a measure of the extent to which the water bodies' ecological quality has been maximised given the limits imposed by the physical modifications (eg a dam) necessary for the water bodies' use. The same assessment applies to artificial water bodies such as canals. For more information on heavily modified and artificial water bodies see [Chapter 4 of the Scotland river basin district plan](#).

Good ecological potential (GEP) – The aim of the Water Framework Directive for all heavily modified and artificial water bodies to reach.

Pressure – An impact on a water body. SEPA has identified five main pressure types: point source, diffuse source, abstraction (changing the amount of water in the water body eg by using for irrigation), flow regulation (changing the flow of a water body eg by installing a dam), morphological (changing the physical structure of a water body eg by building flood walls) and invasive non-native species.

Measure - An action taken to improve or maintain the condition of a water body.

Objective - Targets set for the improvement in classification status of our water bodies towards good ecological status (or good ecological potential for heavily modified and artificial water bodies).

Derogation – A derogation is the process of agreeing an exemption from the requirement to meet the WFD objectives of preventing of deterioration of the ecological status, or potential, of water bodies. It also describes the process of agreeing an exemption from the requirement to achieve of an improvement objective such as reaching good status or potential by a given date i.e. setting a lesser objective.

Protected areas – Water bodies identified as requiring special protection because of their sensitivity to pollution or their particular economic, social or environmental importance. They could be because they support economically important shellfish or freshwater fish stocks, have been designated as bathing waters, provide water for human consumption or support species or habitats identified as requiring special protection under European legislation eg Natura 2000 sites.

The objectives for these water bodies include any additional protection needed to achieve the purposes for which the protected area was established as well as achieving good ecological status or potential. Additional information on protected areas can be found in [Chapter 5 of the Scotland river basin district plan](#).

Condition of Natura 2000 sites – Information is given in the catchment profiles on Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) that have water dependant features. Those SACs or SPAs that are unfavourable due to a water related pressure are detailed. Sometimes water dependent features are in an unfavourable condition due to a non water-related pressure. These are not discussed further in the catchment profiles. There may also be SACs or SPAs in each catchment with non-water dependent features. These are also not discussed further in the catchment profiles.

Included within sites in “favourable condition” are sites that are “unfavourable recovering”. This is because some features will take a long time to recover even when all appropriate measures are in place. When a feature is reported as “unfavourable recovering”, everything has been done to allow a feature to recover, but more time is needed before it could be reported as being in favourable condition. The target for Natura 2000 sites is therefore to reach “favourable” or “unfavourable recovering” condition.