



CATCHMENT MANAGEMENT PLANNING IN THE NATIONAL RIVERS AUTHORITY

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ABSTRACT

The National Rivers Authority of England and Wales is a non-departmental governmental regulatory body with a range of responsibilities for the water environment. These include pollution control, water quality improvement, flood defence, water resource management, fisheries management, conservation of the natural water environment, promotion of water based recreation and also navigation in some locations. Arising from the multiple use of river systems, their interactions and use requirements, the concept of Catchment Management Planning has been developed. Each river use should have an assigned objective and standard determined in respect of water quality, water quantity and river topography. Catchment Management Plans are prepared in consultation with interested parties. A review of some European river management suggests the size of some rivers and the responsibilities of relevant organisations exacerbates comprehensive and integrated river management.

KEYWORDS

National Rivers Authority, Catchment Management Planning.

INTRODUCTION

The National Rivers Authority (NRA) has determined that the future management of rivers within its jurisdiction will be undertaken through the process of catchment management planning. Final plans are likely to be completed for all river catchments before the year 2000.

The Water Act of 1989 established in England & Wales the NRA and the ten Water Supply and Sewerage Undertakers. As a result the previous responsibilities of the ten Regional Water Authorities for river management on the one hand and the supply of potable water and treatment of effluents on the other hand, were separated. The purpose of this change was firstly to transfer responsibility for potable water supply and effluent treatment from the public to the private sector and secondly to provide for independent regulation of the water environment and river management by a governmental regulatory body.

The NRA has responsibility for a wide range of functions:

- pollution control & water quality improvement of rivers, groundwater and coastal waters,
- flood defence and flood warning,
- water resource management
- fisheries management,
- conservation of the natural water environment
- promotion of water based recreation
- promotion of navigation in some locations.

These responsibilities make the NRA, as **Guardians of the Water Environment**, one of the most significant environmental protection agencies in Europe.

THE CONCEPT OF CATCHMENT MANAGEMENT PLANNING

River systems are being increasingly utilized for a variety of agricultural, industrial and recreational uses as well as supporting intrinsically important ecosystems.

The requirements, interaction and reconciliation of these uses and values must be addressed. This is most logically approached on a river catchment basis and formalised by the production of a "Catchment Management Plan" (CMP). A catchment is defined as a discrete geographical area with boundaries derived primarily from surface water drainage patterns, but taking account of groundwater catchment boundaries where these differ from those of the surface catchment. The varying size of river catchments may require them to be either amalgamated with others or split into sub-catchments for the purpose of producing a CMP.

Catchment Management Planning aims to produce a **plan for action** providing an agreed strategy for realising the environmental potential of a catchment within prevailing economic and political constraints. CMP's arise from a multi-functional and multi-use appraisal of a catchment which:-

- provides for the implementation of functional strategies
- identifies present and future uses
- sets objectives and standards for each use
- identifies interaction and potential conflicts between uses
- sets out an action plan to achieve the agreed uses
- allocate responsibility for achieving actions together with an investment framework.

Catchment Management Planning is a **consultative process** and aims to produce a consensual vision of a catchment, which may not be achieved for some years but once stated explicitly, stands a strong chance of influencing the future.

The development of CMP's depends upon the identification of uses and the associated objectives and standards required to achieve them. The latter are expressed in terms of:

- water quality
- water resources
- physical features

In terms of water quality standards, catchment uses can be split into two groups. In England and Wales the first group will be subject to **statutory water quality objectives** (SWQO's) and the second group to non-statutory water quality objectives. The concept of SWQO's arise out of the Water Resources Act 1991 which enables central government to establish a system to classify river and coastal waters and through this system to set SWQO's for such waters. At present, statutory objectives are only set though the introduction of EC Directives which are location and context specific, whereas a more general scheme allowing SWQO's to be introduced to all defined river and coastal waters is required. The government has proposed a scheme which is based on Use Classes and EC Directives, and is designed to protect the use

to which the water is put. The following uses have been proposed and are the first groups described above:

Fishery Ecosystem
 Abstraction for Drinking Water Supply
 Agricultural Abstraction
 Industrial Abstraction
 Special Ecosystem
 Watersport Activity

Other catchment uses include the following and will be subject to non-statutory objectives:

Basic amenity	Urban development
Landscape	Infrastructure development
Angling	Agricultural activity
Boating	Wet fencing
Recreation	Water power
Water transfer	Archaeology and heritage
Mineral working	Flood defences
Solid waste disposal	Flood water storage
Industrial effluent disposal	Navigation
Sewage effluent disposal	

Catchment Management Planning and the setting of statutory Water Quality Objectives have much in common. Both involve setting use-related objectives for specified waters through a process of public consultation and agreement.

THE CATCHMENT PLAN PROCESS

As presently conceived the preparation of CMP's involves nine sequential steps, with an annual monitoring and periodic review thereafter. The process is shown diagrammatically in figure 1.

The process commences with the establishment of a multi - functional group headed by a project manager (Step I). The next step is the identification of all current and likely future uses. These are relegated to one of two groups as set out in the previous section (Step II). The identification of the required conditions to meet the uses is the next step, supported by environmental standards where appropriate for water quality, water quantity and physical features (Step III). This exercise is followed by identifying the current status of the catchment and comparing it with the use requirements. This will identify environmental shortfalls (Step IV). These shortfalls together with public and general concerns over the water environment and long term changes will identify catchment issues and the potential options required to address them (Step V). The process now requires the production of the Consultation Report, a draft document based on the actions taken in Steps II to V. The next two steps, VII and VIII, require consultation on the draft report. The external consultation is fundamental to the process in terms of obtaining agreement on the catchment uses, the environmental objectives and standards, and comment on the issues and options. Following consultation a Final Plan (Step IX) is produced which will include a policy framework (vision and strategies) and action plans. These will identify the way in which issues are to be addressed and by whom. There will be an associated target programme and cost. The process is concluded by Step X with the Plan's promoters annually monitoring progress by themselves and other organisations and reviewing the plan, normally every 5 years.

CATCHMENT MANAGEMENT PLANNING IN EUROPE

The NRA commissioned a report on Catchment Management Planning in Europe from the Water Research Centre in England. The situation in four countries was

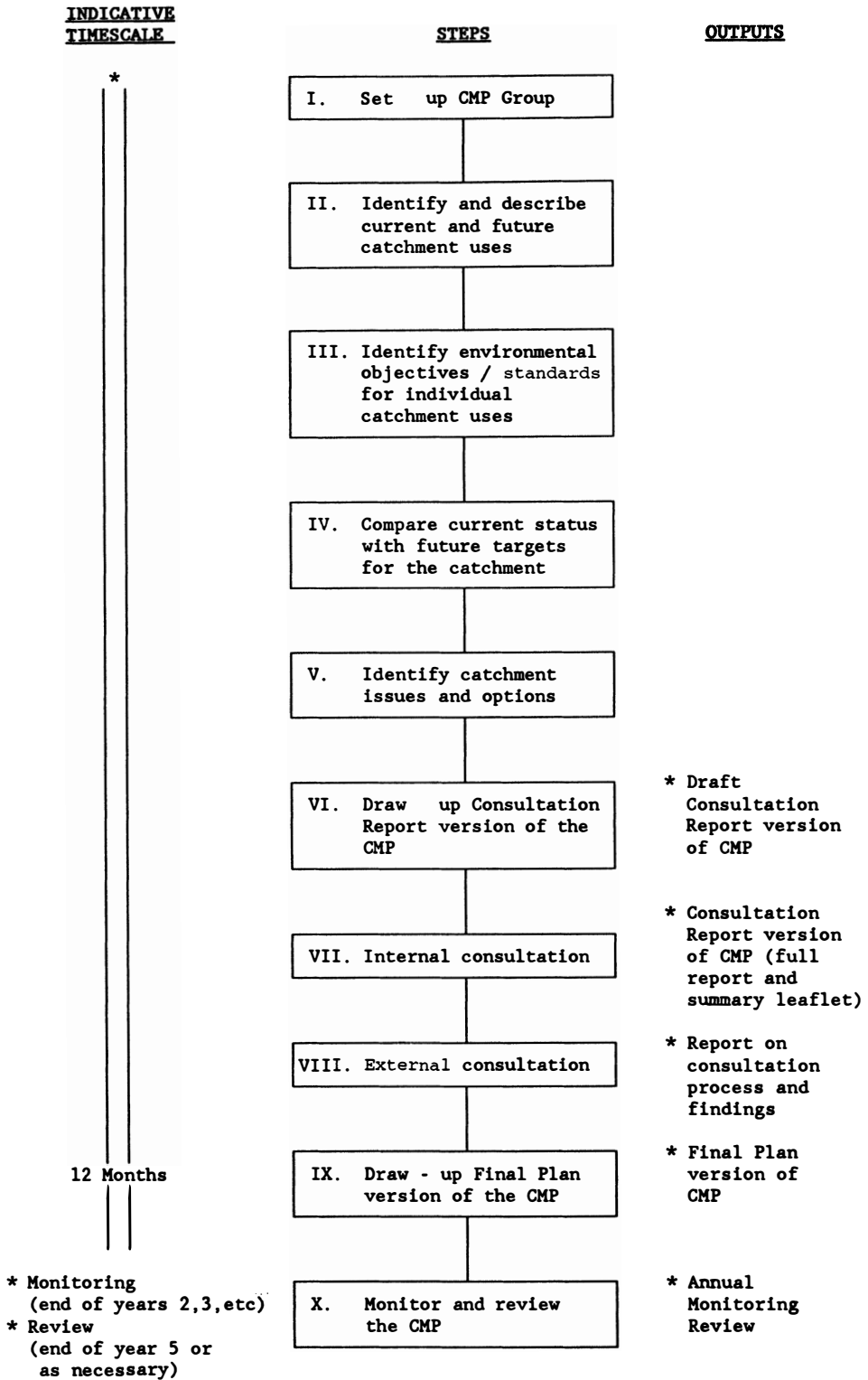


Figure 1. The CMP Process

examined, France, West Germany, The Netherlands and Italy. It was concluded that catchment management planning is difficult to apply because major European rivers flow through several countries and are not therefore under the control of a single country. International Commissions have been set up to co-ordinate management of some international rivers, but these are mainly concerned with water quality.

This consideration together with the present organisational management structures in each country suggests the NRA is in a unique and advantageous position in Europe to develop multifunctional management plans.

ACKNOWLEDGEMENTS

The author thanks the NRA for permission to submit this poster paper which is an abridgement of a number of internal NRA working documents. Any opinions expressed in the paper are those of the author and do not reflect NRA policy.

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