



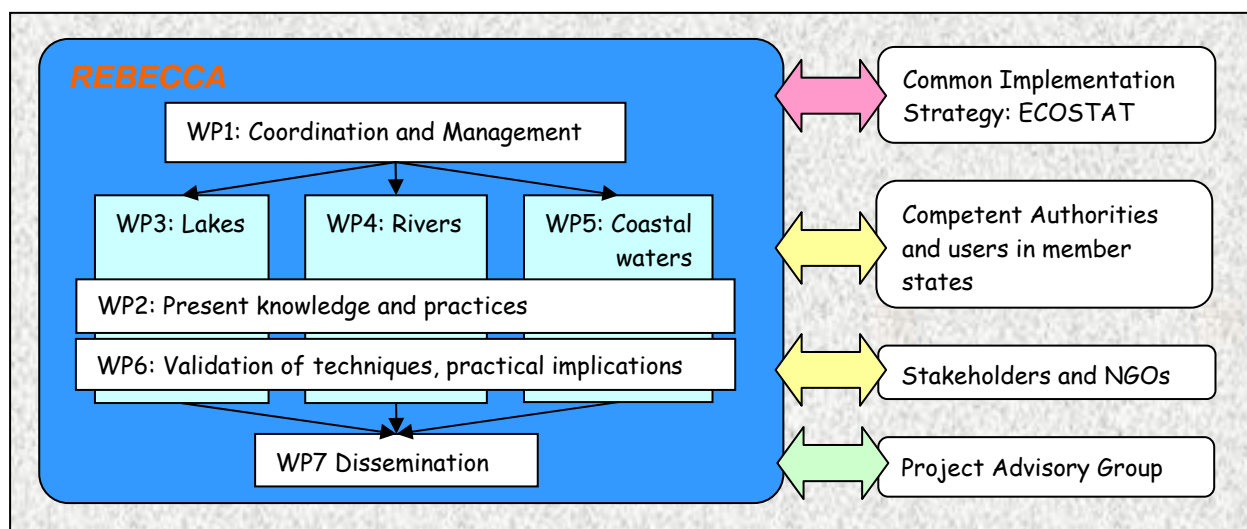
Relationships between ecological and chemical status of surface waters - REBECCA

The objective of REBECCA is to provide underpinning for one of the key scientific principles on which the Water Framework Directive (WFD) is based, i.e. that relationships between the biological state and physical and chemical properties of surface waters are sufficiently well understood to enable the management of catchments and rivers to achieve ecological objectives (see footnote*). Historically, there has been great success in maintaining and improving the quality of surface waters by developing an understanding of the links between anthropogenic pressures (e.g. water abstraction, agriculture, and effluent discharges) and the chemical status of waters, although there remain many challenges in reliably designing and implementing the necessary programmes of measures. Our present understanding of the link between chemical properties and ecological state, while good in some instances, is generally not adequate to support management intervention against ecological objectives.

The specific aims of REBECCA are:

- to describe current knowledge of relationships between ecological status of surface waters and both hydro-morphological and physico-chemical quality elements as modified by pressures from different sources;
- to identify knowledge gaps;
- to develop new relationships based on the integrated analysis of existing data sets at European scale;
- to investigate synergistic or antagonistic effects of combined pressures;
- to present a consistent and integrated scientific understanding of these relationships; and
- to develop and validate tools that member states can use in the process of classification, in the design of their monitoring programs, and in the design of measures in accordance with the requirements of the WFD.

REBECCA runs from late 2003 and has three years to deliver against these challenging objectives. Within the project, activity is divided into seven work packages (WPs), coordinated by a Project Board and assisted by an Advisory Group. To achieve its goals, REBECCA will require close cooperation with other WFD implementation activity, both at the national and European level. Close cooperation will be established with the Working Groups of the European Commission's Common Implementation Strategy (CIS) for the WFD.



* The terms *ecological status* and *chemical status* have specific definitions within the WFD. Chemical status refers to specific pollutants (e.g. priority substances) for which environmental quality standards must be set. Ecological status is based on biological elements, and supported by chemical and physico-chemical elements, as well as hydro-morphological elements. In strict WFD terminology, REBECCA will investigate the relationships between the biological elements and the supporting elements within the definition of ecological status. However, it is recognised within REBECCA that these relationships cannot be considered in isolation of the effects of toxic substances.

The results of the project will be disseminated throughout the project life-time to stakeholders at EU and national levels through a programme of meetings. On-line dissemination via a project web-site will also be established to provide access to project information and a Toolbox containing detailed information describing the methods, tools and models.

To find out more about REBECCA please contact any of the collaborating organizations (n.b. WP1 etc. indicates the leader of the project work packages). Further information about REBECCA will be made available through the project web-site at <http://www.ymparisto.fi/eng/research/euproj/rebecca/homepage.html>. To be placed on a REBECCA mail list send an e-mail to dbb@ceh.ac.uk with the subject 'REBECCA mail list'.

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