

# Shannon River Basin District

## Characterisation & Analysis

### Summary Report

#### Executive Summary

A Directive establishing a new framework for Community action in the field of water policy (2000/60/EC) was agreed by the European Parliament and Council in September 2000 and came into force on 22nd December 2000. The Directive, known as the **Water Framework Directive (WFD)** rationalises and updates existing water legislations and provides for water management on the basis of **River Basin Districts (RBD's)**. The **WFD** was transposed into Irish law in 2003 (*the European Communities (Water Policy) Regulations 2003, S.I. No. 722 of 2003*). The primary objective of the **WFD** is to maintain the “*high status*” of waters where it exists, prevent deterioration in the existing status of waters and to achieve at least “*good status*” in relation to all waters by 2015.

In Ireland, the **WFD** is being implemented by River Basin Management Projects (**RBMP's**) led by Local Authorities. In the Shannon International River Basin District (**ShIRBD**), the **RBMP** is being coordinated by Limerick County Council. Limerick, Clare and Roscommon County Councils together act as led Authorities on behalf of all 18 Local Authorities in the **ShIRBD**. RPS Consulting Engineers (formerly Kirk McClure Morton) have been appointed by Limerick County Council to develop the **RBMP** for the **ShIRBD**.

Article V of the **WFD** required each **RBD** to carry out an assessment of and report on the characteristics of the RBD, a review of the impacts of human activity on all waters and an economic analysis of water use within the district. The ‘*Characterisation and Analysis of Ireland's River Basin Districts*’ report was completed and submitted to the European Commission on 22nd March 2005. The present report summarises the findings of this assessment for the **ShIRBD**.

All waters have been grouped into types (e.g. different river types on the basis of geology and slope), and also grouped into managements units called water bodies. The **ShIRBD** has 884 river water bodies, 113 lake water bodies, 242 groundwater bodies, 20 transitional water bodies and 11 coastal water bodies. Reference conditions have been established for each surface water type i.e. unimpacted conditions for each type have been surveyed to make an assessment of the composition and abundance of its biological elements, it's physico-chemical status and it's hydromorphology.

An assessment of the impacts of human activity on all waters was undertaken for the **ShIRBD**. Impacts were assessed using both known impact results (e.g. the river Q impact assessment), and predicted impact assessments (i.e. looking at activities that cause pressures on water bodies). A wide range of pressures were assessed e.g. abstractions, morphology (e.g. physical alterations such as dredging of rivers, flood control), point, diffuse pressures and the impacts of alien species (i.e. non native species). All waters were then placed in one of 4 ‘*risk categories*’ on the basis of this assessment: *1a – at risk, 1b – probably at risk, 2a – probably not at risk, and 2b – not at risk*. This assessment was based on the best information currently available, and does not take account of future changes for any pressures assessed.

59.6% of the groundwater bodies, representing 16.8% of groundwater body area, are at risk or probably at risk as identified through the risk assessment process. Diffuse pressures are the predominant influence (15% of GWB area). 77% of the river water bodies, comprising 84% of river water body area, are at risk or probably at risk in the **ShIRBD**. Morphological alterations (mainly historical drainage works) and diffuse pollution are the dominant pressures on ShIRBD rivers. For lakes, 74.4% of water bodies, and 96.4% of lakes water body area, are identified as being at risk or probably at risk. Impact data and abstraction pressures accounted for the highest number of at risk water bodies (13 and 11 respectively), while the dominant pressures on probably at risk water bodies were diffuse source pollution and morphological pressures.

70% of the transitional water bodies, representing 99% of water body area, were found to be at risk or probably at risk. Morphological pressures (55% of water bodies) and point pressures (60% of water bodies) had the most significant influence on overall results for transitional water bodies. Morphological pressures (9% of water bodies) accounted for all at risk and probably at risk coastal water bodies. 9% of the coastal water bodies and 1.3% of water body area was found to be at risk or probably at risk. Overall, compared with other RBD's in Ireland (7 in total), the **ShIRBD** has the fourth highest proportion of water bodies across all water categories at risk or probably at risk. Other assessments included those related to the impact of alien species, fisheries activities, and the quality of our bathing waters.

A baseline economic analysis has been completed with a preliminary assessment of the value and costs associated with water resources in Ireland.

The next phase of the **RBMP** will focus on further characterisation of water bodies to improve the information available and to increase confidence in the risk assessment exercise. This will help validate the results of the risk assessment. A monitoring programme will also be put in place for all waters.

The main aim of the **WFD** as stated is to achieve good status for all waters by 2015. This is an onerous task, and will involve significant effort and resources to deliver on schedule. The completion of this initial characterisation report provides the baseline necessary to begin the next phase of the **RBMP**.

*This Report was prepared by*

**RPS Consulting Engineers**

**Shannon River Basin District Project Office**

**Mulkear House**

**Units 2 and 3**

**Newtown Centre**

**Annacotty**

**Co. Limerick**

**Email:** info@shannonrbd.com

**Web page:** www.shannonrbd.com

**ShIRBD Technical Summary Report:**

<http://83.138.131.106/shannonrbd/pdf/ShIRBD%20Technical%20Summary%20Report.pdf>