



# **MEDIA RELEASE**

**EMBARGOED UNTIL 10.30 AM, 19 JUNE 2008**

## **Health check report finds long term ecological degradation in 23 Murray-Darling Basin valleys**

The first Murray-Darling Basin wide river health check – a report card on the ecological health of 23 river valleys - has found evidence of long term environmental and ecological degradation.

The study, which spanned four states and 96,000 kms of rivers and streams, ranks the valleys' river health from best to worst.

The report was released today by Murray-Darling Basin Commission (MDBC) Chief Executive Dr Wendy Craik AM and one of the authors Dr John Harris.

This is the first in a triennial series of reports analysing the trends in the rivers of the Basin, in an on-going collaboration between MDBC and governments of the six Basin jurisdictions.

The assessment used data gathered by the State agencies in 2004–07 on hydrology, fish and macroinvertebrates as indicators of river health.

Dr Craik said data experts, ecologists and fish and macroinvertebrate specialists from MDBC and the State agencies selected the sites, determined protocols and the data to be collected.

“They collated the data, generated the databases and then hand them over to the Independent Sustainable Rivers Audit Group (ISRAG) – a panel of four independent ecologists who interpreted it and wrote the report.”

The panel comprised: Dr Peter Davies (Chairman), Dr John Harris, Dr Terry Hillman, Associate Professor Keith Walker.

The report is the culmination of a three-year systematic assessment of the ecological health of the river ecosystems. The Sustainable Rivers Audit is an ongoing program costing \$2.5 million a year and reporting every three years.

Dr Craik said the study found that valleys in the northern Basin were generally in better health than in the southern part of the Basin.

“Of the 23 river valley ecosystems studied, only the Paroo Valley was in good health. The Border River and Condamine Valleys were judged to be in moderate health. Seven other valleys were in poor health and 13 in very poor health.”

When all valleys were ranked by ecosystem health rating, the Murray Lower and Darling valleys were toward the middle. This indicates that impacts are not simplistically cumulative from headwaters to the mouth of the Murray.

While the numbers and biomass of alien and native fish varied widely among valleys, alien fish rivalled or out-numbered native fish in nine of the 23 Valleys. Twenty-eight of the 38 fish species found were native, but the 10 alien species formed 43% of abundance and weighed 68% of biomass.

Three alien species (common carp, gambusia and goldfish) were found in all rivers; redfin perch and trout species were also widespread. Common carp made up 58% of the total fish biomass.

Most valleys showed reduced macroinvertebrate diversity compared to benchmark conditions. This was especially striking for the Avoca, Lower Murray and Warrego Valleys.

A high proportion of sites identified as being in poor condition for hydrology were on the main channels of the Basin's principal rivers, particularly in the lowland zones.

Dr Craik said that while the drought will have influenced fish and macroinvertebrate results, complex interactions and time lags make it difficult to predict the nature of these effects.

However, the hydrological assessments accounted for the effects of climatic conditions, including wet and dry periods. The results therefore reflected long-term water resource development impacts on the flow regime rather than the recent prevailing drought.

"Thus, even for sites rated as near benchmark condition for hydrology, the ecosystem may still have been under stress from drought," Dr Craik said.

Dr Craik said the report was a landmark in one of the MDBC's most important programs.

"It is one of the largest ecological monitoring programs in the world, easily in the top four in terms of area covered, river and stream length, number of samples collected and jurisdictions covered.

"While we have been aware of the degradation of our river system for some time, this sort of comprehensive study gives us the detailed data we need to plan for the future.

"This is the first basin-wide assessment of ecological health, and gives a comparison of how the rivers look now against how they would have looked if people had not made significant changes to them and their catchments.

"This is an important reconstructed benchmark for comparison but greater significance will come as the assessment is repeated in future years, giving us the ability to track change over time.

"The next report, due in 2011, will be more comprehensive, including assessments of riverine vegetation and physical form.

"A great part of the value of the project is that the process of assessment is transparent and repeatable, and so is able to accommodate new knowledge and address developing questions into the future, Dr Craik said.

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Trim ref: 08/5407