

EXECUTIVE SUMMARY

Environment and Recreation manages a water monitoring and assessment program for the ACT that includes water quality, streamflow, and biological monitoring. This program is part of maintaining up to date information on the water resources of the ACT, a statutory requirement of the *Water Resource Act 1998*. Additionally this information is used to assist in determining whether management strategies used to achieve or maintain the aquatic values set for ACT waters are appropriate.

The report is intended to provide the community with information regarding the state of water resource management in the ACT, including quality and quantity. The assessment approach adopted is designed to move towards a more holistic ecosystem health monitoring system as advocated by the Murray-Darling Basin Commission's Sustainable Rivers Audit. It uses biological data to ascertain ecosystem diversity, and water quality data to determine trends that may be present, and compares these results with the designated environmental and use values and standards set in the Territory Plan and the *Environment Protection Act 1997* and its regulations. Streamflow monitoring provides contextual information and is used to gauge the impact of removing water from the environment for other uses.

Water quality is monitored in the major urban lakes (with the exception of Lake Burley Griffin, a Commonwealth responsibility) and Burrinjuck Reservoir, which is immediately downstream of the ACT. The major rivers and some urban streams are also monitored. River flow is measured at a number of sites throughout the ACT.

The report uses the biological information to report the biodiversity in the rivers and streams. The individual data points and mean values of water quality parameters for the year are considered with reference made to the standards set out in the Territory Plan and *Environment Protection Act 1997*.

Results for the 12-month reporting period (July 2005–June 2006) showed that rainfall in the urban area was similar to the long-term average, an increase from last year's low total. However, rainfall in the water supply catchments and stream flow was below the long-term average. Environmental conditions in urban waterways remain at the degraded condition of previous years and have not recovered from the added stresses brought on by drought and fire impacts. Environmental conditions in non-urban waterways reflect the ongoing impacts of the bushfires, with elevated sediment and turbidity levels in response to rain events. However, in general these waterways have showed greater improvement since the bushfires than urban streams.

Lake Ginninderra and Lake Tuggeranong have fair water quality with an overall improvement in water quality conditions throughout both lakes. There has been a reduction in turbidity level within Lake Tuggeranong during this reporting period and generally suspended sediment continues to remain below the guideline value. The lower turbidity level and other factors characteristic of ACT lakes (eg high nutrient loads and little through flow) contributed to the high levels of algae in Lake Tuggeranong over the summer period which in turn resulted in several closures of the lake. Point Hut Pond and Gungahlin Pond continue to have relatively poor water quality when compared to other ACT lakes, most probably a result of more recent and ongoing residential development.

The *Water Resources Act 1998* came into full effect in December 1999 and required assessment of river flows, and licensing of water abstractions. Since that time and particularly since the recent drought, the demand for surface and groundwater has risen considerably. Consequently the water abstracted in many subcatchments has reached the sustainable limit. Licenced water use was previously given on a first in first served basis, however, given the limitations of the resource and demand across the community, a moratorium (effective 1 September 2005) on further access to water has been instigated. Options for an alternative approach that would ensure water realises the highest public benefit outcomes are being investigated.

Research into the properties of groundwater aquifers in high demand areas has been initiated whilst research continues on catchment processes and threatened fishes. Water related community programs, such as Waterwatch (including the award winning *Campfire program*) and Frogwatch, continue to attract a high level of interest and support from the community.