

WATER RELATED PROJECTS

Recovery of Threatened Fish in the Cotter Catchment Following the 2003 Bushfires

Following the January 2003 bushfires, populations of the threatened Two-spined Blackfish in the Cotter catchment were sampled between February and April 2003 to examine the impacts of the fires. In order to try and differentiate the impacts of the fires from the impacts of the severe drought being experienced, a number of unburnt sites were also sampled. As reported in last years water report, total numbers of the Two-spined Blackfish were reduced by more than 70% when compared to data collected in 2001, with on average a 54% reduction per site. Numbers of this species at an unburnt reference site (Goobarragandra River) increased by 130% since 2001, indicating that the drought had not played a significant role in the 2003 decline, and that fire was responsible. At one burnt site, the abundance of Two-spined Blackfish dropped by 98%. A further survey was conducted at the same sites in 2004, with blackfish populations recovering strongly from the fire impacts. On average, blackfish numbers at burnt sites had recovered to be 13% higher than their 2001 (pre-fire) levels, although most were small young-of-year fish. Recovery was patchy, with some sites still having blackfish abundance more than 80% below the 2001 levels.

The environmental flow regime in the Cotter River was modified in 2003/2004 to accommodate lower than normal inflows to dams, with a 'drought flow' regime implemented in July 2003. The 'drought flows' in the Cotter (downstream of Bendora Dam) consisted of a baseflow component of 20 ML/day, supplemented by three 'flushes' (100 ML/day for six days) in August and Oct/Nov 2003 and Feb 2004. These flushes were designed to remove sediment and maintain spawning habitats for threatened fish (Macquarie Perch and Two-spined Blackfish). It was obvious from the 2004 blackfish monitoring that this species had been able to successfully reproduce under these reduced environmental flows, but it was unknown whether such low flows would allow Macquarie Perch to breed. Macquarie Perch in the Cotter catchment are largely restricted to Cotter Reservoir and approximately 1 km of river upstream of the reservoir. As this river reach was severely impacted by post-fire sediment accumulation, and as the scouring effect of the flushing flows were expected to have attenuated by the time they reached the lower river, there was concern that Macquarie Perch spawning sites would be smothered by sediment. Sampling of the Macquarie Perch population in Cotter Reservoir in February 2004 revealed that that had been successful breeding, with young-of-year fish forming approximately 25% of the catch. Whilst this proportion is lower than would normally be expected, it demonstrates that at least some individuals successfully spawned. Further monitoring of both Macquarie Perch and Two-spined Blackfish will be conducted in 2005.

ACT Natural Resource Management Plan

The ACT signed a bilateral agreement with the Australian Government on 27 March 2003 for the delivery of the Natural Heritage Trust in the ACT over the next five years. The agreement acknowledges that natural resource outcomes, including those relating to water, are best achieved at the regional scale and that investment needs to be targeted. The agreement further requires that the ACT's regional body, the ACT Natural Resource Management Board (which was formed by expanding the membership of the ACT NRM Advisory Committee) prepare an integrated NRM plan as a basis for guiding future investment, including funding from Australian Government programs. The Plan was accredited by Territory and Australian Government Ministers the basis for future NRM investment in the Territory.

Territory and Australian Government Ministers endorsed eight activity areas for investment of funding from the Natural Heritage Trust to address issues identified in the ACT Natural Resource Management Plan. Approved activity areas relevant to water were:

- protection and enhancement of native vegetation and riparian zones on rural leasehold land; and
- protecting threatened aquatic fauna by managing environmental flows (to continue the project on recovery of threatened native fish described above).

Detailed projects against each of these activity areas are being developed for approval by the Minister.

The Government is continuing to pursue a Bilateral Agreement with the Australian Government for delivery of funding to the ACT under the National Action Plan for Salinity and Water Quality.

Upper Murrumbidgee Catchment Coordinating Committee

The *Upper Murrumbidgee Catchment Coordinating Committee (UMCCC)* is a community based organisation made up of agencies and groups that are responsible for or contribute to natural resource management in the upper Murrumbidgee catchment.

The UMCCC operates as a regional cross border network to promote communication, build awareness and disseminate knowledge between its members. These include agencies and groups in NSW and the Australian Capital Territory. The UMCCC actively participates in community forums and has made submissions on numerous water resource policy initiatives including the National Water Initiative and the ACT's *Think water act water* Strategy.

The UMCCC has also received funding under *Envirofund* to develop fact sheets about wetlands for rural landholders in the upper catchment. Wetlands of the high country and tablelands landscape are not as widely recognised despite high habitat diversity from upland bogs and fens to lowland backwaters or soaks (often ephemeral), chain of ponds systems and farm dams.

The fact sheets are designed to improve understanding of wetland values and benefits and provide practical advice about on-ground conservation and management of wetlands. A workshop has been held with local wetland experts to assist with regionally specific content and a community workshop will be convened to test its suitability and practicality for landholders and landcare groups.

Waterwatch

Waterwatch is a community water quality-monitoring program that aims to equip local communities with the skills and knowledge to become actively involved in the protection and management of their local waterways and catchments.

Waterwatch involves local community groups such as Landcare, Parkcare and Catchment Groups, as well as residents, schools and landowners who regularly monitor the water quality of local creeks, wetlands, lakes, rivers and stormwater drains.

Waterwatch groups have initiated many positive, community based conservation activities such as creek restoration, willow removal, removing litter from waterways eradicating weeds, drain stenciling, development of habitats, reducing the use of pesticides, fertilizers and other pollutants.

Waterwatch CAMPFIRE Program

In January 2003 bushfires scorched over 160,000 hectares or 70% of the ACT and impacted huge areas across the entire Upper Murrumbidgee region. A project that has had real success since these fires is affectionately known as C.A.M.P.F.I.R.E. (Community Assessment Monitoring Program For Fire Impacted River Ecology). CAMPFIRE volunteers collect water quality information from over 20 bushfire affected site across the ACT. Data collected as part of the CAMPFIRE project and the programs first year report can be found on the environment ACT web site at www.environment.act.gov.au/airandwater/waterwatchact.html

Frogwatch

Frogwatch and Waterwatch volunteers undertake a yearly Upper Murrumbidgee Frogwatch Census as part of National Water Week activities. The Frogwatch Census involved an assessment of the types and abundance of frogs living in our environment. Frog species are widely recognised as indicators of environmental health and their presence can indicate the long term health of a catchment. Results of the Community Frogwatch Census are available on the Environment ACT website.

Internet Data Entry

The Southern ACT Catchment Group in collaboration with Waterwatch ACT has developed an on-line water quality Macroinvertebrate data entry system. Volunteers can now enter water quality monitoring results on-line through the SACTGC website. www.sactcg.org and then follow the CAMPFIRE prompts.

Quality Assurance/Quality Control (QA/QC)

Waterwatch provides QA/QC training and monitoring activities aimed at improving the accuracy of community water monitoring. Mystery solution testing is supported through Ecowise ENVIRONMENTAL, which is a NATA registered laboratory.

National Water Week

National Water Week is an annual event held each year across Australia. National Water Week encourages everybody to get involved and help protect and conserve our precious water resources.

Macroinvertebrate (Water Bug Surveys)

Waterwatch Groups collect Macroinvertebrate data during the spring and autumn Water Bug snapshot.

Getting Involved in Waterwatch

If you are interested in improving the health of your local waterway and meeting or forming a group of likeminded individuals you should begin by contacting the Waterwatch Facilitator on 6207 2246.

The Waterwatch web site is located at www.act.waterwatch.org.au and features information on Waterwatch, resources, contact details and a library of relevant publications and fact sheets.

The Waterwatch Information Network (WIN) is a regular information e-mail, which promotes Waterwatch, and water quality issues in the Upper Murrumbidgee Catchment. Membership is free and open to all people with an interest in catchment health. Contact Waterwatch ACT on 6207 2246 for more information on WIN.