Waterwatch Annual Report 2007-2008

Waterwatch is a national water quality and education program involving schools and community groups with over 50,000 volunteers across Australia. In partnership with government and industry, Waterwatch aims to improve and protect the health of local waterways.

Waterwatch aims to educate participants and stakeholders on appropriate catchment management strategies and enables participants to take an active and responsible role in monitoring the health of their local catchments. Groups carry out regular investigations of catchments - monitoring water quality and surveying the life-forms that inhabit them. The extensive data they collect is then used to highlight priorities for action.

Waterwatch supports the implementation of the NSW Environmental Education Policy for Schools. Interactive education programs include the biannual Water Bug Surveys and Junior Waterwatch. Regular school visits, training workshops and special events such as Catchment Crawls encourage continued participation and commitment to the program.

The Hunter-Central Rivers Waterwatch program encompasses the Hunter, Lake Macquarie and Karuah/Port Stephens regions. From July 2007 to April 2008, the program was managed by Ingrid Berthold from the Hunter-Central Rivers Catchment Management Authority (CMA). Since April 2008, Ingrid has been joined by Amanda Gregory, previously from Manning-Great Lakes Waterwatch.

Key supporters of Hunter-Central Rivers Waterwatch are the Hunter-Central Rivers CMA, Hunter Water Corporation, NSW Department of Education and Training, the Department of Environment and Climate Change (DECC) and Waterwatch Australia (through the Australian Government).

The Central Coast Waterwatch program includes Wyong and Gosford LGAs. It is managed by Waterwatch coordinator Samantha Kneeves through the Community Environment Network at Ourimbah. Samantha’s position is contracted by the CMA and sponsored by the Gosford—Wyong Councils Joint Water Authority.

The Manning-Great Lakes Waterwatch program, which includes the Greater Taree, Gloucester and Great Lakes LGAs, was managed by Waterwatch Coordinator Amanda Gregory until April 2008. Kirsty Hughes began as the new Manning-Great Lakes Waterwatch Coordinator at the end of June 2008. In 2007-08, the program was delivered through MidCoast Water, who is also contracted by the CMA.

This report contains information for all three Waterwatch programs across the Hunter-Central Rivers CMA region.

Facts & Figures for 2007-2008

8745 participants were involved in the Hunter-Central Rivers CMA Waterwatch program

79 training workshops were conducted, involving 2379 participants.
Hunter-Central Rivers Waterwatch activities for 2007-2008

Group Training
Waterwatch groups are trained on water sampling, calibration of testing equipment, water quality testing, macro-invertebrates, habitat surveying, database entry to the NSW Waterwatch website at www.waterwatch.nsw.gov.au. The training of Waterwatch groups ensures that activities are carried out safely and accurately and conducted in a ‘train the trainer’ format so that participants can pass on their knowledge to others in their group.

Outcomes from the training groups have been very pleasing with a noticeable increase in knowledge of water quality and catchment issues and a dramatic improvement in scientific skill levels among participants. Many letters of appreciation and positive reports have been received by the CMA following Waterwatch training workshops, and participant evaluations from the groups have been overwhelmingly positive. Visitors and guests, especially council officers and agency representatives, are encouraged to join in on training days; they have proven to be a great way to network and interact with the Waterwatch community.

Between July 2007 and June 2008 CMA Waterwatch Coordinators conducted 79 water quality training workshops for schools and community groups with a total of 2379 participants. Forty-seven of these workshops were for new groups to the Waterwatch program.

Water Bug Surveys
Conducted in Autumn and Spring each year, the NSW Water Bug Survey is a valuable way of investigating the health of our local waterways.

Freshwater aquatic macro-invertebrates, which we call water bugs, include insects, crustaceans, molluscs and worms, and are important indicators of what is happening in our waterways. Some water bugs are very sensitive to changes in their environment. So keeping an eye on the number and type of bugs found in a particular waterway can reveal a lot about the presence of pollutants and other environmental factors.

Waterwatch Coordinators offer support to Water Bug Survey participants and train new groups in the methods of water bug sampling and identification, so that they are able to conduct water bug surveys independently in local waterways.

In 2007-2008, 31 groups from Hunter-Central Rivers CMA Waterwatch took part in the Water Bug Surveys and uploaded their results to the NSW Water Bug Survey website (www.bugsurvey.nsw.gov.au)

Estuary Monitoring
In the 2007—2008 financial year, Waterwatch expanded its program to include the monitoring of estuarine areas, including seagrass monitoring, seagrass wrack invertebrate surveys, and riparian assessment.

In conjunction with Lake Macquarie City Council and the Community Environment Network’s (CEN) Seagrass Project, Waterwatch coordinators trialled estuary monitoring with schools and community members.

An NSW Estuary Monitoring Manual is currently being developed by NSW Waterwatch. This will enable greater involvement of schools and the community in coastal areas in Waterwatch activities. Waterwatch in Estuaries will be further delivered in the CMA once the manual is published in late 2008.
P Day—Phosphorus Awareness Day

P DAY is an annual event that aims to raise community awareness of the problems associated with excessive nutrient levels in the waterways of the CMA region. Phosphorus occurs naturally as well as in polluted run-off and treated wastewater. When the amount of phosphorus in waterways reaches a certain level it can contribute to the production of dangerous ‘algal blooms’, which release toxins into the water and deprive fish and other aquatic animals of oxygen. This level is called the trigger value.

P DAY is for local community groups such as schools, environmental groups, councils and government agencies to get together and focus their attention on this important issue.

Activities for P Day 2007 occurred over the week of 13-19 November, to encourage the majority of Waterwatch groups to participate in P Day activities. The P Day 2007 report is available on the CMA website at www.hcr.cma.nsw.gov.au.

Seventy-nine groups took part and monitored 136 sites for P Day 2007. Fifty-six percent of results were above the recommended trigger value of 0.06mg/L for soluble phosphorus. P Day 2008 will be held on 19 November 2008.

Catchment Crawls

Five Catchment Crawls were held in 2007-08. These included the Wollombi Brook and Styx to Throsby Creek Catchment Crawls organised by Hunter-Central Rivers Waterwatch, the Landsdowne River Catchment Crawl organised by Manning- Great Lakes Waterwatch, and the Mangrove Creek and Ourimbah Creek Catchment Crawls organised by Central Coast Waterwatch. Of these, the Styx to Throsby Creek, Ourimbah Creek and Mangrove Creek Catchment Crawls were held for residents in these catchments.

A Catchment Crawl is an extremely important event in environmental and catchment education for the community. Information on the health of a particular catchment is given, and also provides a valuable opportunity for strengthening networks between Waterwatch groups, community and government representatives.

To gain a ‘snap-shot’ of conditions in their catchment, participants conduct water quality testing, water bug surveys and site and habitat assessments. In some cases, participants also learn about aboriginal culture and heritage. Participants have the opportunity to interview special guests including local landholders, land managers and representatives from various state agencies and local industry to find out more about each of the sites visited.

A report and Powerpoint presentation are prepared for each Catchment Crawl to document the results collected during the crawl. These are distributed to all participants and sponsors of the crawl. Participating school students are appointed as Ambassadors for their catchment, and are encouraged to present what they have learnt by delivering the Powerpoint presentation to classmates, P&C Committees, local council and to other agencies and industries that have a vested interest in ‘sharing the care for the catchment’ - our Catchment Crawl motto. The Wollombi Brook and Styx Creek Catchment Crawl reports are available on the CMA website at www.hcr.cma.nsw.gov.au.

Presentations and Displays

The CMA Waterwatch Coordinators conducted over 25 presentations and displays where they discussed water quality and catchment issues with the community, and interacted with nearly 2500 individuals across the CMA region.

The presentations and displays included events such as:

- Coastal Volunteers Conference
- Cockrane lagoon Field Day
- Hunter Water Corporation Catchment Day
- The Entrance Water Festival
- Small Footprints Display
- Platypus Day
- Hunter Community Reference Group
- Taree and Great Lakes TAFE Campuses World Water Day Presentation
- Christmas Celebration at Hunter Wetlands Centre Australia
- Great Lakes Scouts Group
- Central Coast Environmental Educators Meeting
- Lakelands Carp Catch Day
- Tocal Field Days
- Displays and presentations at numerous schools across the region, including Waterwatch kit presentations for new groups.
Wollombi Brook Salvinia Monitoring Project

From November 2006 to November 2007, the Hunter-Central Rivers Catchment Management Authority, in conjunction with local schools and community groups, undertook a water quality monitoring project in the Wollombi Brook catchment. The project aimed to investigate the nutrient levels in the Wollombi Brook associated with the growth of Salvinia, a noxious aquatic weed.

The water quality monitoring project focussed on the levels of nitrogen and phosphorus at 18 sites in the catchment. The main finding of this project were:

- Very high levels of phosphorus and nitrogen were predominantly experienced in the upper reaches of the catchment.
- Ellalong Lagoon showed the highest results for both nitrogen and phosphorus during the monitoring period.

In light of the findings from the 12 month monitoring period, continued monitoring of the water quality of Ellalong Lagoon was recommended. Discussions with landholders in the upper reaches of the catchment regarding land use practices and related impacts, and further catchment investigations will commence in 2009.

Data Management

An online database on the Waterwatch website (www.waterwatch.nsw.gov.au) allows the community and stakeholders to view data from Waterwatch water quality monitoring activities and provides groups with a great incentive to complete testing. On the Waterwatch online database the Hunter-Central Rivers CMA Waterwatch program has 255 groups registered, monitoring 561 sites in total since 1998.

In 2007-2008, 149 Hunter-Central Rivers CMA Waterwatch groups uploaded 1767 sample data sets for 293 sites across the region.

Hunter-Central Rivers CMA Waterwatch would like to thank everyone who has been involved in Waterwatch in 2007-2008. We look forward to working with you in 2008-2009 to continue caring for our local waterways and catchments.

Hunter-Central Rivers Waterwatch

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