



Cooma Region Waterwatch Update September/October 2010



FROGWATCH DATA DUE IN BY 12th NOVEMBER!

We have had some great participation in the Frogwatch census in our area this year. We are lucky to be able to participate in the program, run by Ginninderra Landcare network in the ACT, and facilitated by Frogwatch Coordinator Emma Keightley. Avid Frogwatchers have been surveying frogs locally by taking a two minute recording of calls, between 6-9pm, at various sites around the region during October, including our Waterwatch sites. This data will be compiled into a regional Frogwatch report.

It is now time to upload/send in your calls to Emma and submit your site details (as per the Frogwatch field data sheet). If you have recorded frogs at a site but not registered your site with Emma, please do so by giving her a call on 02) 6278 3309 or emailing frogwatch@ginninderraladcare.org.au and then submitting your data. Data can be submitted via the web once your site is registered.

Your catchment in September/October- What does your data say?

Weather (as at Cooma Visitor's Center for Sept/Oct) Long term av. rainfall: Sept= 35ml, Oct= 46ml
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Total monthly rainfall: Sept= 10ml, Oct= 49ml

Average max temp: 16.2°C (Sept)

Average min temp: 0.9°C (Sept)

Average daily stream flow (ML/day for Sept/Oct)

Source: www.realtimedata.water.nsw.gov.au
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Murrumbidgee R. (at Mittagang Xing): Sept=1390ML, Oct=1170ML
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Murrumbidgee R. (at Billilingra): Sept=1439ML, Oct=1339ML

Numeralla R. (at school): Sept=209ML, Oct=320ML

Thankyou to all our volunteers who have collected data during September and October. Our data shows that water levels remain moderate in most rivers, with higher water levels in the Murrumbidgee River due to recent rain events and environmental flow releases from Tantangra Dam (see <http://www.snowyhydro.com.au/files/Tant30dayRels.pdf>). The releases of fresh water from Tantangra are corresponding with low EC and turbidity levels. The higher water levels in the Murrumbidgee have also meant that macro-invertebrate surveys have not been conducted along the river during October. Once the water levels drop, macro invertebrate populations will readily re-establish themselves.

As expected, the data shows that water temperatures are rising across all monitored sites, corresponding with a slight drop in measured DO levels. At all sites DO levels remain above 6mg/l however. All sites are reporting very low turbidity levels. At some sites a slight drop in water levels is having an effect on EC levels (increasing slightly). Nutrient levels are also low across monitored sites, except for our site on Cooma Creek where elevated phosphate levels are affecting DO levels and instream productivity. EC levels are also elevated at this site.

During October a number of macro invertebrate surveys have been conducted primarily in the Numeralla and Badja Rivers. In general, at the Badja River sites good numbers of pollution sensitive macros such as caddis fly and stonefly nymphs were found, while lesser numbers of these were found along the Numeralla River.

Water quality parameters tested by our Waterwatch volunteers

Turbidity- measure of 'murkiness', can be an indicator of sediment pollution. Levels above 10 NTU can affect aquatic life, especially if regularly occurring, low levels are desirable.

pH- measure of acidity. Levels between 6-8 pH units are suited for aquatic life. Levels near 7 pH units are desirable.

EC- electrical conductivity is a measure of dissolved solids or 'salts'. Levels above 800uS/cm are detrimental to livestock regularly drinking such water. Lower EC levels are desirable.

DO- dissolved oxygen. Levels below 4.5mg/L cause stress to/death of aquatic life. Higher levels are desirable.

Nitrates/nitrites/phosphates- bio-available nutrient levels which will influence algal growth and productivity in stream. Excessive nutrient levels are not desirable.

CONTACT COOMA REGION WATERWATCH:

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More Volunteers Welcome

Your data is useful! Waterwatch data is used to provide a regular overview of the water quality in our streams and rivers and will feed into the development of half yearly catchment health indicator reports. A range of stakeholders also have an interest in our data for a variety of reasons including monitoring water quality, identifying catchment sources of pollution and monitoring change over time as a result of management actions. We have a number of sites which we are interested in getting volunteers to monitor, so if you would like to become involved with Waterwatch or know someone who might be interested, please contact Cooma Region Waterwatch.

Riparian Assessments of Waterwatch Sites

Riparian zone assessments of Waterwatch sites can be conducted at any time of year. Riparian zones are the areas where aquatic (water) and terrestrial (land) ecosystems meet. These areas are important because they act as filters for run-off and provide habitat, food and other resources for both land and water organisms. The condition of riparian zones greatly affect their ability to perform these and other vital ecosystem functions which contribute to the health of our catchments. Riparian areas are also the places where we, as river users and landholders can have the greatest (positive) impact on our local river ecosystems, especially by removing weeds, halting erosion, excluding stock and restoring native vegetation and biodiversity.

Waterwatch uses the Rapid Appraisal of Riparian Condition (RARC) methodology to score riparian habitat and quality, looking at five factors (habitat/cover/native vegetation/debris and presence of key vegetative features). This method allows us to come up with a comparable measure of riparian quality (a score out of 50) and so compare change over time.

Ideally it would be great to have all Waterwatch sites assessed for riparian health at least once a year. November is a good time to look at vegetation and habitat in the riparian areas as a lot of plant species are coming into flower making them more easy to identify. Cooma Waterwatch will be conducting RARC assessments at various sites during November so if you would like to come along to see how it is done or get help to do your site, please contact Antia.

Submit your monthly data online via the Cooma Waterwatch website

You can now submit your Waterwatch data online via the Cooma Waterwatch website by visiting: www.coomawaterwatch.org.au. The Cooma Waterwatch website uses a similar form as the other Waterwatch sites in the region (thanks to Lynton Bond, from the Molonglo Catchment Group).

It is still a good idea to keep a copy of your data for your own records as well. Contact Antia if you need more field data sheets, or have trouble lodging your data online.

Coming Up.....

- ◆ **Next sampling weekend:** 20th & 21st November.
- ◆ **Riparian Assessments:** Carried out anytime in November...or beyond.
- ◆ **Paddock plants field day:** 12th Nov, 10am-1pm, "Bindaree" via Numeralla. Make the most of your farm/small property enterprise by learning how to identify plants and what they tell us about our paddocks/landscapes. No charge, register with Luke Pope, 64523411 or luke.pope@industry.nsw.gov.au.
- ◆ **Upper Murrumbidgee Demonstration Reach Project Launch:** 17th Nov, 10:30-11am, Tharwa Sandwash Reserve, for more information contact Charlie Carruthers on 02) 6298 0802.
- ◆ **Grassland information and ID field day:** 27th Nov, 9:00am-4:30pm, Thistlebrook Park, Bredbo. Come and see some rare, vulnerable and endangered flora and fauna and a range of native grasses. RSVP Sue Connelly on 02) 64544400. See <http://umlc.org.au/node/214> for more info.
- ◆ **Managing horses on small properties field day:** 27th Nov, 9:30am-3pm, Burra. No charge, places are limited, book by contacting the Molonglo Catchment Landcare Coordinator on 02 62992119. See <http://actlandcare.org.au/node/215> for more info.