

Cooma Region Waterwatch Update- Feb 2015

Welcome to Pam our newest volunteer and thankyou to Shlesha

A big welcome to Pam, our newest member of the Waterwatch team. Pam will undertake sampling along the Cooma Back Creek at one of our key sites. We also give a big thankyou to Shlesha, who has moved out of the area and so has had to 'hang up the gumboots' so to speak. Shlesha monitored along the Cooma Creek at the Skate Park between 2012 through to 2016. Shlesha, you will be missed.

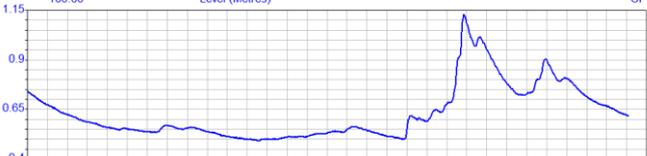


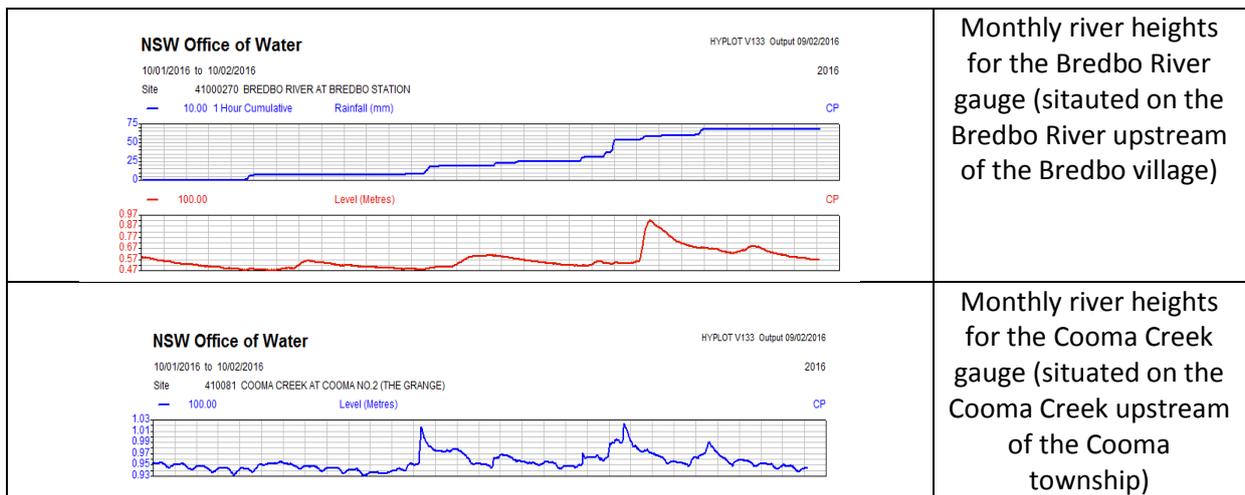
Left: Pam sampling the Cooma Back Creek.
Below: Shlesha at Cooma Creek, Skate Park site.



What did our data show for Jan 2016?

The river heights graphs below show steady medium flows at the start of January and short pulses of increased flows in the second half of January. Flows increased due to localised and heavy summer storms. In some areas these flows were associated with increased turbidity in our waterways as the runoff pulsed through the catchment, including the Numeralla, Murrumbidgee (including upstream of Cooma) and Bredbo Rivers.

<p>NSW Office of Water 10/01/2016 to 10/02/2016 Site 41000260 MURRUMBIDGEE RIVER AT YAOUK NO.2 Level (Metres) HYFLOT V133 Output 09/02/2016 2016 CP</p> 	<p>Monthly river heights for the Yaouk gauge (situated on the Murrumbidgee River north of Adaminaby)</p>
<p>NSW Office of Water 10/01/2016 to 10/02/2016 Site 410033 MURRUMBIDGEE RIVER AT MITTAGANG CROSSING Level (Metres) HYFLOT V133 Output 09/02/2016 2016 CP</p> 	<p>Monthly river heights for the Mittagang Crossing gauge (situated on the Murrumbidgee River north of Cooma)</p>
<p>NSW Office of Water 10/01/2016 to 10/02/2016 Site 410062 NUMERALLA RIVER AT NUMERALLA SCHOOL Level (Metres) HYFLOT V133 Output 09/02/2016 2016 CP</p> 	<p>Monthly river heights for the Numeralla School gauge (situated on the Numeralla River at the Numeralla village)</p>



Water quality monitoring for January showed that water temperatures were between 20 and 24°C, as would be expected at this time of year. This correlated with lower levels of Dissolved Oxygen. Dissolved Oxygen in Cooma Back Creek was particularly low and Total Phosphates were high (rated in the degraded category). Total Phosphorous was good to fair at all other sites. Nitrate levels were low, rating as excellent to good across all our sampled sites.

pH was excellent to good in all our waterways and within ranges normally found at all sites. pH of the was slightly alkaline which is due to natural geological influences and levels were consistent with previous samples. These geological influences also influence levels of Electrical Conductivity (EC), which are higher in the three aforementioned creeks and lower in all our other waterways. These geological influences result in an interesting trend for EC in the Cooma, Cooma Back and Gungoandra Creeks, which is the reverse of trends in our other waterways. This is that when we see groundwater flows feeding these three creeks the EC increases (consistent with mineral rich waters leaching out of the soil profile), while in our other waterways EC usually decreases as catchment/groundwater flows increase and usually increases when levels are low and evaporation is high.

Turbidity was low for most sites sampled, except for the Cowra Creek and Bredbo River which were slightly elevated (rated good/fair). These were sampled just after a flood event. All other sites were sampled when water levels were medium-low.

Cooma's Cloudy tap water is a message in a glass

Residents of Cooma may have been wondering about a slight cloudy appearance in their tap water last week. The cloudiness was due to recent heavy summer storm downpours in the Upper Murrumbidgee River resulting in excessive fine suspended particles in Cooma's drinking source water which are not able to be removed easily. From a water treatment perspective, excessive sediment creates a water source that is very difficult to treat and manage. Residents can rest assured though that although the water contained fine particles of suspended sediment, the water was safe to drink as it was treated and filtered by the Cooma Water Treatment Plant and chlorine disinfectant residuals remained within specified limits.

The cloudiness of our tap water is a reminder that looking after our drinking water sources (such as the upper Murrumbidgee River) so they can provide us with good quality drinking water is vitally important. In the water management world this is known as 'source water protection'. The source water protection concept follows a simple logic- that preventing muck from getting into our water sources in the first place is a more effective and less costly way to ensure that we have good water

for use, as opposed to treating water once it is contaminated. In this sense, the upper Murrumbidgee River, upstream of Cooma is a source water catchment.

Source water protection is not only important for our town water supplies- in rural areas such as ours, where we often utilise river and groundwater without treatment for stock and domestic purposes, it is equally important and beneficial. It is not just mud in water we are talking about either; clean water 'at source' usually also means less pathogens and contaminants. So for everyone concerned, protecting water quality 'at source' is just plain good sense.

What can we do to protect our water quality sources? First and foremost this is about protecting our creeks, rivers and drainage lines with good, thick groundcover and also preventing erosion in our catchments. Protecting/planting deep rooted native vegetation, managing weeds such as willows and blackberry and controlling stock access also will help to protect our water courses. Managing watercourses as special areas of a farm/landscape also has other benefits such as reducing weed spread, providing biodiversity and stock shelter so it is an all-round win-win.

There are various organisations and resources available locally to support land managers to manage erosion and land around waterways. Community groups such as Landcare and Waterwatch are a good first contact point. For any queries relating directly to the Cooma water supply, please contact Cooma-Monaro Shire Council on 64551777.

Oil spill into Cooma Creek

At the start of February, there was an oil spill into the Cooma Creek in the centre of town. The spill was quickly dealt with by the State Emergency Service and successfully cleaned up. Booms remain along the creek downstream to catch any dispersing oil. Absorbent pillows are in place to soak up the oil.

Oil is a major pollutant in our waterways. It is highly dispersible (spreads out) and can persist for a long time. Oil can enter our waterways either directly or by being washed down the stormwater drain. If you see oil or other pollutants enter the creek or the stormwater drains, please call your local council and let them know as soon as possible.



Left: The booms that have been put in place along Cooma Creek to prevent remaining oil washing downstream. The white pillows aims to soak up oil from the water surface.

Upper Murrumbidgee Landcare- part time Landcare Coordinator sought

The Upper Murrumbidgee Landcare Committee (UMLC) has been successful in gaining a South East Local Land Services (SE LLS) Community, Industry and Landcare Fund project "*Supporting the delivery of NRM outcomes in the upper Murrumbidgee*". The funding will allow UMLC to engage a contractor to deliver the work stipulated in the Funding Deed between SE LLS and UMLC. UMLC is seeking

applications from individuals who would be interested in undertaking this work. Please go to www.umlc.org.au for more details. Applications close COB 26th Feb.

Feeling Fishy? Check out Finterest

Finterest has been established to provide inspiration, knowledge and insight for anyone interested in Australian freshwater fish. Finterest is committed to sharing the latest science and practice and there is much to explore on the site. Finterest covers fishy stories from across Australia.



Fee-free chemical application training- 17/18 May at Cooma TAFE

Cooma TAFE is running chemical application ('chemcert' type) training courses in March and May. The March course has been filled, but places are still available in May. Contact Cooma TAFE for more details on 1300 766 123.

Feral Fish Scan now available as a free app

Reporting carp sightings and behaviour in our catchment is one of the best ways which you can help to support the management of carp in our catchments. Carp sightings can be logged by going to www.feralfishscan.org.au/ uppermurrumbidgee or via the Feral Fish Scan App which is now available for apple or android.

Thanks to sightings already logged, the Feral Fish Scan website is already uncovering some interesting info. Did you know that last year, carp started spawning after the hot spell around the October long weekend? Or that in previous years spawning events were reported right through to late November? Have you seen 'carp circles'? These are groups of carp, forming circles at the surface, 'nose' first, and stay there for up to 15 minutes at a time. The Feral Fish Scan website is an initiative of the Invasive Animal CRC in partnership with Upper Murrumbidgee Waterwatch.



Above- the Feral Fish Scan mapping page is easy to use and it takes little time to fill in the details. Picture of a 'carp circle' (DStarrs).

Attention upper Murrumbidgee fishers- tagged carp used for fish research

The Upper Murrumbidgee Demonstration Reach (UMDR) project has tagged 31 carp in the upper Murrumbidgee River (upstream of the ACT) so their movements can be tracked along the river system. Tagged carp have a long yellow tag near their dorsal fin (shown within the circle below).



These fish will lead us to carp breeding and aggregation sites, which are currently unknown for our catchment. This information is being collected so we can better target carp control in the future. Carp removal trials are running in conjunction with this research.

If caught, please RELEASE tagged fish and REPORT to the number on the tag for a REWARD. Take photos if possible. If deceased, please keep the fish.

Save the date

- **Our next Waterwatch weekend (20th/21st Feb)**- If you cannot do your sampling on this weekend, please sample on a day either the week before or the week after 😊
- **Low Cost erosion workshop held by Upper Snowy Landcare (27th Feb)**- Here is your chance to catch this workshop if you missed the one we held earlier this year. See www.uppersnowylandcare.org.au/2015/11/low-cost-erosion-control-workshop/ for more details. Highly recommended!
- **Keep Cooma Creek Clean Day, Cooma (6th March)**- This is Cooma's annual Clean Up Australia Day event. All welcome. Meet at 9:30am at Cooma Creek walking track, Church Road for an emu parade along the Cooma Creek. BBQ, judging and prizes of the Decorate a CUAD frog competition and 'Gilbert the Garbage Truck needs your help' show at 12pm, Norris Park.
- **UMCCC forum-managing your land for the future: resilience and adaptation for climate change (18th/19th March)**- Two day forum with a range of presenters and field trips. Registrations open soon.
- **Bug surveys March/April/May**-Autumn bug surveys will be happening for the Cooma region, volunteers needed. Please contact Antia on 0429778633 if you can spare a day to volunteer on our bug survey program.

ABOUT THE WATERWATCH PROGRAM

What water quality parameters are tested by Waterwatchers in our local waterways?*

Turbidity– measure of 'murkiness', can be an indicator of sediment pollution. Levels above 10 NTU can affect aquatic life if occurring on a regular basis, 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. Slightly alkaline water may occur naturally in some waterways due to geological influences in the catchment.

EC– electrical conductivity is a measure of dissolved solids or 'salts'. EC levels greater than 1000uS/cm are excessive and warrant attention. Lower EC levels are desirable.

DO– dissolved oxygen. Levels below 4mg/L cause stress to/death of aquatic life. Higher levels are desirable. Can be influenced by water temperature (which we also measure).

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

* Waterwatch also carries out riparian assessments (RARC surveys) every two years and water bug (macro-invertebrate) surveys twice yearly at key sites to gain a complete picture of waterway health.

Where can you view the Waterwatch data and annual catchment report?

All of our data is publicly available on the ALA database, which is found at:

<http://root.ala.org.au/bdrs-core/umww/home.htm>

Our Catchment Health Indicator Report for 2014-15 can be viewed at:

www.act.waterwatch.org.au/Files/CHIP/CHIPReport2014_15.pdf

Like us on Facebook

Cooma Waterwatch posts to the ACT Landcare and Waterwatch facebook page. Have a look at what is going on across the region by visiting our facebook page

www.facebook.com/ACT-Landcare-and-Waterwatch-466689643385473/

A big thankyou to our hard working volunteers

Our Waterwatch data is generated by our team of dedicated volunteers. Without them this program would not be possible! Thanks to all volunteers that have contributed to the data this month.

If you would like to find out more or become involved in the Waterwatch program please contact your local Waterwatch Coordinator. Your Cooma Waterwatch contact is Antia 0429778633 (antia@coomawaterwatch.org.au)