



Catchment Update



In General:

First of all, farewells and hellos. As all WWers are now aware, **Tanya Rucosky-Noakes**, our beloved regional facilitator has had to leave us and return to the US. Her absence has sorely affected the network and she is dearly missed. We wish her all the best in her new adventures back 'home'.



Tanya (and Vivian)

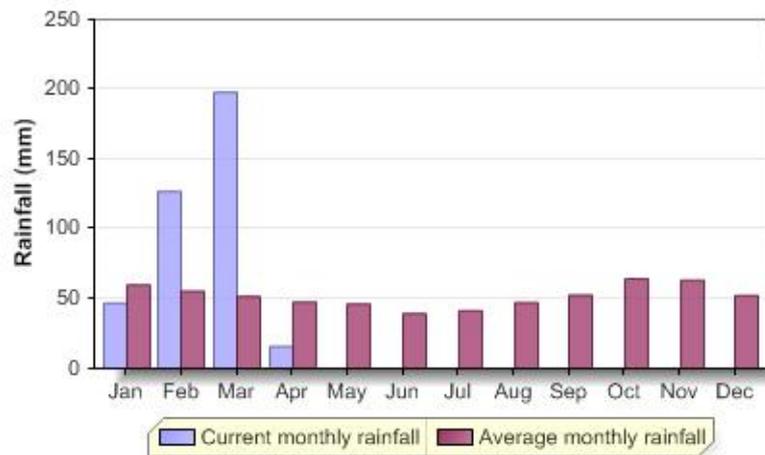
Next a huge welcome to **Outward Bound Australia** who have incorporated water quality monitoring of 4 new sites into their personal development programs. They have 2 sites in the Upper Murrumbidgee sub-catchment and 2 in the Gudgenby sub-catchment. They are no strangers to Waterwatch. Every year they have held macros surveying on the Orroral River as part of a course run for students from the Cranbrook School in Sydney. The change is the ramping up of this to include water testing as an integral component of more courses. This provides monthly data to us and keeps me very happy!

To the region.

Our poor old Murrumbidgee River and Lake Tuggeranong did not have an enjoyable summer this year. The Murrumbidgee recorded the highest turbidity readings seen for years. They were even worse than in 2009 when the UMCCC conducted an enquiry into why the river was in such a state. The difference this year is that we understand why. Talking to Antia, the Cooma/Monaro Waterwatch Coordinator, many of the tributaries in her region had been reduced to carp infested mud holes over January due to low flows in spite of above average rainfall in December. The big flush that put Cooma on flood alert came very late in the season. Sites in the Gudgenby and Naas catchments were flooded by the same storm fronts. Antia also informed me of a significant storm event in the Bredbo region on the 20th Jan that resulted in a 'hot chocolate' affect in the 'bidgee'.

Lake Tuggeranong was a stinky bowl of blue/green algae for most of summer. The smell was palpable as you drove any nearby roads down wind of the lake. A lot of media frenzy was generated along with the algal growth.

Below are the rainfall statistics, courtesy of ActewAGL's website.



Here's the summary of measured parameters.

Water Temp: Even though it was a very mild summer the water temperatures around any slow moving or shallow water were still quite warm. Gudgenby Creek in the Naas Valley got the prize with a reading of 29.4°C in January under a very low flow.

pH: High readings were recorded around Lake Tuggeranong sites in Dec and January but February rain brought all readings in the region back to neutral.

E.C: No readings of concern, however Wanniasa Creek remains our saltiest site by a country mile, (sorry kilometer).

Turbidity: For the first 2 months of summer the upper Murrumbidgee had readings over 100NTUs at all sites. The lake had high readings as a result of suspended b/g algae. In February the heavy rainfall flushed the Murrumbidgee suspended solids down stream to Casuarina Sands and Uriarra Crossing and most other sites copped high sediment loads from storms. Brad caught a massive spike event at Tuggeranong Creek during his Feb monitoring.

Dissolved Oxygen: There were a couple of low readings in two rural creeks but no other concerns.

Phosphates: As usual, there were high readings in all the small farm dams. The concerning results were the high phosphates levels in the Murrumbidgee in February and a massive spike in Tuggeranong Creek after a storm event.

Nitrates and Nitrites: No readings of concern were recorded for this period.

Algae: Massive amounts of B/G algae on the lake. (See photos below.)

Lower Murrumbidgee:

(Includes Uriarra Crossing, Casuarina Sands and the Cotter Camp ground sites.)

High levels of diatom silt was seen at Casuarina Sands and both it and Uriarra Crossing recorded high sediment loads at the end of summer as the high flows from up stream made their way down the river. These high sediment loads brought with them unusually high phosphate loads.

The Cotter campground saw huge fluctuations in water levels as well as large amounts of mud.

Upper Murrumbidgee:

(All Murrumbidgee sites up stream of the Cotter junction. Includes lower Gudgenby River site and all creeks and dams east of the Murrumbidgee not flowing into Lake Tuggeranong)

Lots of reports of flushing and high flows in December at rural and urban sites. As the rain slowed in January the urban sites cleared while the Murrumbidgee itself remained full of silt from its tributaries up stream of the ACT. The February rain then pushed much of this down to the lower sub-catchment.

The rain in late summer also saw the urban sites silt up again as a result of high runoff from gardens and parks.

A different source of high turbidity was recorded by Pat and Arminel in the form of cattle, used for fire fuel control in Canberra nature parks, wallowing in one of their sites.



Kambah Pool in February. Back to brown.

Tuggeranong:

(Tuggeranong Creek and all storm waterways flowing into Lake Tuggeranong.)

Blue/green algae was the word of the day (season) for Lake Tuggeranong. The concentrations were so bad in many places it resembled thick pea soup. Needless to say the lake was closed by ACT Health for the whole of summer. By January the Tuggeranong Community Council had written a front page article on the algal blooms for its newsletter 'The Valley Voice'. Other articles soon followed; in the Canberra Chronicle, the Canberra Times and on local radio. A classic case of being in the right place at the right (wrong?) time was Brad who monitors the upper Tuggeranong Creek near the Monaro Highway. He sent in readings of 500NTUs (right at the bottom of the tube) and 1.00 mg/L (off the scale) for turbidity and phosphates respectively after catching his site right on a flood event in February. The EPA said he was just lucky (!) to encounter a classic spike event. All of this, of course, then flowed down the concrete expressway that is Tuggeranong Creek, straight for the lake.



Tuggeranong Town Park Beach site just after Christmas.



Lake Tuggeranong near the College.

Cotter:

(All sites on the Cotter River upstream of the Cotter Camp Ground.)

Vanity's Crossing, a regular Waterwatch monitoring site of the 'Yurung Dhaura' team, was permanently closed to public vehicle access in December 2011. Some outcry was expressed by fishing interest groups but on the whole I think it is necessary. The roads around Pierces Creek are notorious for abandoned and burnt out vehicles. Quiet back roads are also magnets for slobbs sneaking in to dump rubbish. With Canberra's continued population growth the proportion of residents with a callous attitude to our natural assets will no doubt increase. Unfortunately limiting easy access to sensitive areas is often the only way to protect them (the assets and yes sometimes the slobbs too).

Daddy's:

(Includes Daddy's River, Gibraltar Creek in Corin Forest and all sites in the Tidbinbilla Nature Reserve)



Photo by Miranda Gardner

Miranda was greeted by one of the aforementioned burned out vehicles, complete with police tape and signs of major disturbance in the river bed, upon her December visit to Paddy's River.

High, turbid flows this season made assessing algae difficult or impossible at times in the river, otherwise water quality generally showed good scores as a result of good rainfall and lower than average temperatures this summer.

Gudgenby:

(Includes all creeks and streams flowing into the Gudgenby River. Most sites are in the Namadgi National Park).

Martin Chalk was only able to visit his sites once this summer. The extreme rainfall to our south had Namadgi NP closed to vehicles for all of February (and March). The rain late last year had also done much to reverse some worrying trends seen in the upland bogs. For many seasons Martin noted drying out of marshes and very low oxygen levels (stagnation). The wetlands of Bogong Creek and Hospital Creek are now soggy and healthy. There has even been a recorded reversal in the deoxygenating effect of the bogs, as seen prior to 2010.



Gudgenby River at the Naas Rd Bridge in December. Photo by Ian Long

Naas:

(Includes all creeks and streams flowing into the Naas River).

All of Ian's sites are on bridges or crossings (I just realized that! Handy for parking, eh Ian?). Three are in this sub-catchment. All suffered damage at various times this summer from high flow events, even the diminutive Gudgenby Creek. Cattle are also a reoccurring theme in Ian's waterways increasing the phosphate levels as they churn up the banks. Overall however the Naas Valley benefited from the good rains as much as everywhere else in the mountains.

A huge thank you to all those groups and individuals involved in collecting data for this update. Waterwatch volunteers provide vital and immediate information on the state of our waterways which is being increasingly used by government and corporations locally and nationally. For more information contact the SACTCG Waterwatch Coordinator on 62966400 or at waterwatch@sactcg.org.au

Martin Lind.