

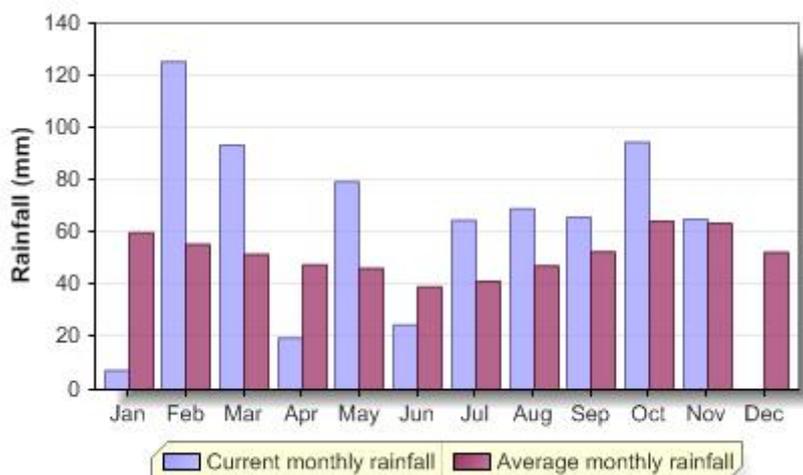


## Catchment Update Winter 2010



It's almost Christmas, and I am starting to see a bit of a pattern forming with these updates. Can anyone still remember winter? And yes I will be writing the spring update almost as soon as I finish this one and receive the last of November's data. (hint hint)

### In General:



Above is a rainfall graph I 'borrowed' from the Actew website. We have been lucky to have the rainfall pick up after the start of winter and show no signs of slowing yet (light purple bars on graph). Lots of comments followed the data submissions about how the water levels were the highest ever seen in many locations.

Here is how the season treated our waterways:

**Water Temp:** There were no anomalies. The highlight for me was digging through snow to get water samples up in Gibraltar Ck for the first time!

**pH:** The continued rain drew most sites closer to a neutral pH this season, especially along the Murrumbidgee and in the urban sites. The Gudgenby, again, recorded low pH levels, that are a concern.

**E.C:** Salinity readings were all well below 1000uS (level of concern) around the whole region.

**Turbidity:** The turbidity readings were pristine along all the Murrumbidgee sites in June. In fact almost all the sub-catchment sites had less than 10 NTU's. This lasted about a month before mud returned to the Murrumbidgee in July.

**Dissolved Oxygen:** Oxygen loves cold water, and this winter saw no exceptions in the region. All readings showed health levels of saturation.

**Phosphates, Nitrates and Nitrites:** The only readings of concern were around Lake Tuggeranong and its storm water ways. Casuarina Sands gave the consistently highest phosphate readings for our natural water ways, around 0.1mg/L.

**RARC and Signal 2 Score:** Not required or conducted by any groups this season.

**Algae:** The resulting measurements have been quite varied around the sub-catchments. Groups are now doing a fantastic job of recording this valuable information. An algae work shop was held at Tidbinbilla Nature Reserve and hosted by the 'Friends of Tidbinbilla' Parkcare group.



Dr Skinner elucidating at the algae workshop at Tidbinbilla NR.

### **Lower Molonglo: (Coppins Crossing)**

The Coppins Crossing site showed no particular concerns this season. All readings are well within acceptable levels although the algae scores were moderate to poor. Suburban development in the region is well underway.

For more details on issues relating to the Molonglo River and surrounds see the Molonglo Catchment Group at [www.molonglocatchment.com.au](http://www.molonglocatchment.com.au) or phone 6299 2119.

### **Lower Murrumbidgee:**

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

This High flows have given this region a good flush, however, nutrient levels at Casuarina Sands and Uriarra Crossing were notably high. Construction work at the Cotter Dam enlargement continued to increase in intensity over winter.



The Murrumbidgee River at Casuarina Sands in August.

## **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)***

June saw the lowest turbidity readings 'in years' for the Murrumbidgee River. The river was giving the healthiest readings, across the entire suite of tests that we have seen for some time. We received additional data provided from one off sites, as well, courtesy of Tanya Noakes and Mark Jakobsons. These showed the healthy state of water conditions continued well south of the ACT. By mid July the sediment levels had returned driven by heavy local falls. There was marked scouring recorded at Point Hut Crossing with a turbidity reading of 40 NTUs. The Gudgenby River had a major scouring as well with 50 NTU's recorded after heavy rains in mid July.

Conder wetlands suffered the same spike in sediments that plagued many of our other urban storm waterways at this time.

The turbidity readings dropped back down to around 20 in August.

I would like to welcome the Lanyon High School 'TREK' students who have joined us as a regular Waterwatch team. They have taken on monitoring the dam at 'Lions Youth Haven' as well as their own school pond. They began submitting data online as of August.

## **Tuggeranong:**

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

Wanniassa Creek was a source of high turbidity and high nutrient levels into Lake Tuggeranong this winter. It's interesting to note that 'just around the corner', at the point where Village Creek meets the lake, the story can be very different. The water there was nearly pristine on the same day that Wanniassa Creek gave a reading of 40 NTUs. This highlights again the high variability of our urban storm water ways. The lake showed its ability to absorb much of this sediment. The Town Park Beach gave a reading of <10 NTUs the day after the above high reading was recorded at Wanniassa Creek. The beach is just over 1 km downstream of Wanniassa Creek.

The top site on Tuggeranong Creek suffered at the hands of power line construction work in August, which sent a turbidity surge of 60 NTU's downstream. The water there is usually crystal clear (if a bit salty).

Again, I am happy to announce another volunteer to this sub-catchment. At the ripe age of 14, Josh Bond joins us as our youngest Waterwatcher. With assistance, he has taken on the site at the lower end of Tuggeranong Creek, providing valuable information about the water leaving Lake Tuggeranong and heading to the Murrumbidgee.

## **Cotter:**

***(Intermittent WW data collected. This catchment is also heavily monitored by ActewAGL.)***

No data was submitted for winter.



## **Daddy's:**

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

The Paddy's River sub-catchment enjoyed another season of good flows and healthy readings. The algae scores fluctuated from month to month, but were mostly very low (Excellent-Good). This was the first time in 3 years that I had seen snow in the upper parts of Corin Forest. The whole region above Billy Billy Creek was blanked in snow and really looked quite magical.



**Winter wonderland, Gibraltar Creek**

Damon Cusak(Ginninderra CG Waterwatch) and I were fortunate to join CSIRO's Mark Jakobsons on a 'hunt' to determine the presence or absence of small spiny crayfish (*Euastacus crassus*) in the Tidbinbilla Nature Reserve. Against predictions of not finding any due to the cold, we did catch one healthy female who was 'in berry' (carrying eggs).



Small spiny crayfish, Mountain Creek, Tidbinbilla NR

## **Gudgenby:**

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

Records are taken for June and August . All 7 sites recorded low (acidic) pH readings in both months. In June it is suspected that much of the precipitation fell as snow, as generally low flows were seen in spite of good local rains in the region. By August the creeks were all flowing well and historical ‘swamps’ had turned into real swamps! Bogong and Hospital Creeks had water with a light grey colour. Martin Chalk says this is not unusual.

## **Naas:**

No sites are currently being monitored in this sub-catchment.

**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 [Waterwatch@sactcg.org.au](mailto:Waterwatch@sactcg.org.au)**

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