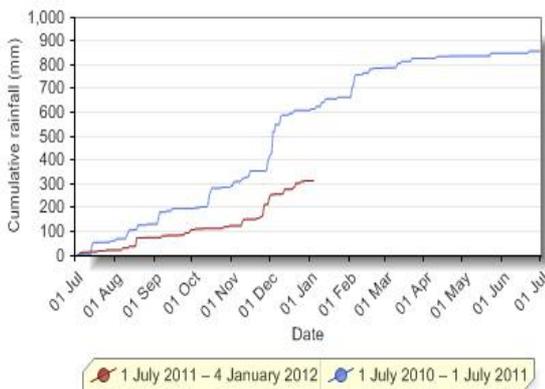


Catchment Update Spring 2011

In General:

Monthly rainfall statistics for Spring 2011 show a real flat spot compared to the deluges we experienced in 2010. This was reflected in most sites recording medium to low water levels for most of spring. Some good falls in November flushed a lot of the catchment but the most significant inflows in our region may have come as a result of releases from Tantangara Dam down the Murrumbidgee in October.



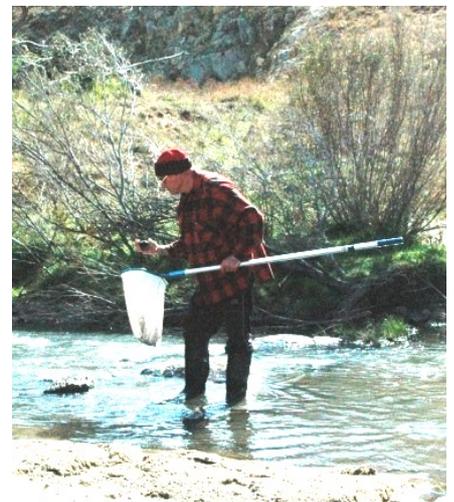
We welcome new volunteers again this season with Miranda Gardner from ActewAGL’s Source Water Protection program taking on new sites in the Paddy’s River sub-catchment (more on these later) and Julia Banks helping POSM out with several of their sites on the Murrumbidgee. (Rainfall statistics courtesy of ActewAGL website)

Spring is also our major water bug catching season and summaries from the sub-catchments are indicated next to the

Golden Shrimp . (The lesser known relative of Ballina’s ‘Big Prawn’.)

I would also like to specially thank **Mick McGhie** who made no less than 4 trips from his home in Goulburn to Canberra to help teams out with their Macro invertebrate surveys this spring.

Photo: Mick on the job in Paddy’s river



Water Temp: Towards the end of spring there was not much difference in water temperatures around the region.

pH: Most readings were within acceptable levels.

E.C: Wanniasa Ck, a storm waterway flowing into Lake Tuggeranong under Drakeford Drive recorded increasingly alarming E.C. levels. Notifications were made to the EPA in Sept and Oct.

Turbidity: There were increasing high readings in the Murrumbidgee over spring as well as ‘spikes’ in the Paddy’s river and Tuggeranong Ck sub-catchments. I suspect that local high rainfall events were the cause.

Dissolved Oxygen: Healthy oxygen levels were recorded at almost all sites.

Phosphates: Most still water sites, except Conder Wetlands and Lanyon Pond, produced high readings this season. This included the lake near Point Hut and Lake Tuggeranong. High plant (including algae) to water ratios may explain the low readings at the Conder sites.

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

Algae: Only a few sites recorded algae levels that were a concern. Conder Wetlands and Lower Tuggeranong Creek being the worst. Most sites recorded ‘Excellent’ to ‘Good’ levels of algae build up this period.



October was also **ACT Frogwatch Census** time.

A number of SACTCG Waterwatch teams took part in the census.

The full round up can be visited at <http://www.ginninderralandcare.org.au>

Lower Murrumbidgee:

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

The Sands and Paddy's river WW groups reported a sense of degradation around Casuarina Sands and the Cotter Campground (still closed to public access). Conversations with Parks and Conservation staff are paving the way for the establishment of a new parkcare group to tackle some of these issues. Marie and Fleur also noted an increase in dying trees at the Cotter Camp ground site. There seems to be no explanation for this.

Eric recorded the effects of high flows in late October at Uriarra crossing and the resulting 'greening' of the reserve afterwards.

Thanks also needs to go to the 'SEQ Green Jobs' Trainees for conducting Riparian Condition Assessments at Casuarina Sands and the Cotter Campground sites on a wet and miserable day in November.



Too hard to carry home. Photo courtesy of Anne l'Ons



Average Signal 2 score= 4.2 with 5 bug types. 'Suggests pollution'. This average is affected by a very low score at Uriarra Crossing which was experiencing high flows at the time of sampling.

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)

From the data I have received for the Murrumbidgee, it looks as if the turbidity levels had been excellent until November when they suddenly shot up to around 50NTU. Identifying the possible source is problematic. Was it a result of the Tantangara Dam release? Other sites in this WMA were much worse during spring. Conder Wetlands scored 155NTUs in November. Where the Gudgenby River joins the Murrumbidgee near Tharwa, the turbidity hit 50NTUs as well. This was definitely not fed by the dam release. McQuoid's Creek, feeding into the Murrumbidgee near Kambah Pool, had 50NTUs at this time too. One easily identifiable mud making source was on Coleman Ridge where cows churning one dam gave clearly contrasting turbidity readings against a nearby dam which was free from stock. 40 vs 9NTUs! In the suburbs, the Lanyon TREK team recorded the lowest oxygen reading anywhere for the season (3mg/L or 30% saturation) at the gross pollution trap near the school. With no flow, low water level and no vegetation in the concrete trap, it's not surprising. Investigations have also begun into the Lanyon High School pond which has a history of becoming quite smelly. It's a credit to the staff and students at the school that the amount of flotsam and jetsam in the pond has actually decreased significantly from a few years ago.



3 of the Lanyon HS TREK members Adam, Gemma, Brandon and teacher Ms McDonald at the school pond site. Note the absence of rubbish in the pond.



Average Signal 2 score= 3.55 with 7 bug types. 'Suggests pollution'. Low scores were recorded at many sites. High flows and turbidity levels kept scores low on the river. Surprisingly the best varieties of bugs were found in the dams on Coleman Ridge. The high nutrient levels meant that sensitive species however were not on the menu.

Tuggeranong:

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

Wanniassa Creek, which runs next to Athlon Drive, had the worst salt (EC) readings I have ever seen in this region. In November they reached over 1400uS (or 960 ppm). In the absence of concerning pH or turbidity readings, the ACT Environment Protection Authority suggested this was most likely the result of saline ground water release into the drainage system.

Else where in Lake Tuggeranong turbidity and phosphates hit extreme levels in late November. The Town Park Beach (near the aquatic centre) recorded a turbidity reading of 200NTU and a phosphate reading of 0.4mg/L.

High inflows in late October would have driven these readings. A wombat may also have been caught unawares by this, as it was found dead at the Village Creek gross pollution trap at the start of November.



Dead wombat. Village Creek (very) gross pollution trap.



Average Signal 2 score= 2.9 with 7 bug types. ‘Suggests pollution’. Look at the photo. Tough bugs only need apply.

Cotter:

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

Construction on the Cotter Enlargement Dam continues with 24 hour pouring of concrete in progress. A stir was caused when the Yurung Dhaura team were conducting their macros survey at Vanity's Crossing. A small fish was caught that looked for all the world like a Redfin perch fingerling. This European fish is very common in our region and a known carrier of the EHN fish virus which is fatal to many native species. The Cotter River upstream of the Cotter dam and its tributaries is believed to be the only sub-catchment in our region free from Redfin and this discovery rang alarm bells at the ACT Dept. Conservation, Planning and Research, who monitor fish populations in the ACT. Fortunately DNA testing revealed the fish to be a juvenile rainbow trout, a species of much less concern.



Fish found at Vanity's crossing. In a very poor state after much examination.



Average Signal 2 score= 4.89 with 4 bug types. 'Suggests Pollution'. This average is deceptive as the score at Vanity's Crossing was 7.18. An extremely low score was recorded at the Cotter Bridge just below the construction site.

Daddy's:

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



My two sites on Gibraltar Creek have now been 'retired' and replaced with two new sites, one at Woods Reserve camp ground and the other at Gibraltar Falls. These are being monitored by Miranda Gardner (pictured). (This gives me one less excuse for not getting these reports out on time.)

Heavy rainfall in late November saw a sharp rise in turbidity along the Paddy's River, 120NTU at the Tidbinbilla Road bridge and 18NTU on Gibraltar Creek at Woods Reserve. Gibraltar creek is normally crystal clear at all sites.

Murray's Corner saw lots of action with vandalism to trees, spreading rubbish and heavy vehicle use in November while Fleur and Marie were trying to conduct their frog monitoring. This spring also saw the return of illegal dumping near the Tidbinbilla Road bridge site. This was quickly resolved by ACT Parks and Conservation Rangers after volunteer reporting.

Both the 'Friends of Tidbinbilla' PC and the Volunteer Interpreter Program Waterwatch teams continued to regularly report on their respective sites with few surprises other than a lot of algae in Ashbrook

Creek in November.



Average Signal 2 score= 6.8 with 7 bug types. 'Suggests toxic pollution or poor habitat'. It's hard to say why the variety of bug types caught was low at the sites sampled. Sampling did not take place in the Tidbinbilla River site this season.

Gudgenby:

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

Work was conducted around the Naas Road bridge in September with removal of flood debris. Martin noted a significant drop in water levels along Bogong and Little Dry creeks and Lower Hospital Creek was very muddy with a recording of 25 NTUs in October.



Average Signal 2 score= 6.8 with 7 bug types. 'Suggests toxic pollution or poor habitat'. Again the low variety is difficult to explain without further sampling. Low water levels may have had an impact at the time in the upland sites.

Naas:

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

Ian's lower sites in the Naas sub-catchment played host to sheep and cows and the water levels dropped in early spring. Not much effect was noted on water quality. Gudgenby Creek continued to be salty in comparison to the streams in Namadgi NP and the Naas River. Bug monitoring was conducted by Ian and Mick in December this year to accommodate uni assessment pressures.



Naas River @ Caloola Farm. Very low water level compared to previous months.



Average Signal 2 score= 5.7 with 7 bug types. 'Suggests toxic pollution or poor habitat'. Gudgenby Creek's slightly high salt and nutrient levels along with a lack of habitat, affect this average.

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

Martin Lind.