

July in our Catchment

First of all a big heartfelt **thank you** to the people who kept their reporting up to date through the last six months and the others who sent in back results last time, so that Mr Bond and I have a very good set of data on which to complete our six monthly M-CHiP.

Algae at your Site:

This month many people mentioned the algae in their waterways. The presence of filamentous algae on the rocks and snags, covering the aquatic plants or floating on the top of the water can mean many different things, and not all of them bad!

Does your algae look like this:



This image of algal scum was sent in by the Hodgman family from near Captains Flat. It shows what scientists call metaphyton floating on the surface at the end of the growing season. There are numerous different organisms in the floating mass, and most are producing spores, so it has the weird rose madder colour. It is actually healthy, as the spores will either dry on the banks, then become dust and get blown far and wide or they will be washed down stream as the pontoon rots and breaks up.

Or like this:



These bright green tufts are clumps of the green alga *Stigeoclonium* and the plant precursor *Klebsormidium* growing together on some sunny cobbles in a riffle in the Queanbeyan River. They are important in winter and spring as they add oxygen to the water and are also the food for several kinds of macroinvertebrates, especially in cold weather. The presence of healthy tufts of these and some related algae can be used to demonstrate that the system is healthy, but that more riparian shrubbery may be needed

on the surrounding banks.

Or like this!



With a flush of nutrients from the catchment after rain the pools in most of our ‘base flow’ creeks, like Stony Creek that flows into the Murrumbidgee near Jews Harp Bend, will rapidly fill with a bloom of filamentous algae. If this is one of the silkweeds it will last a few weeks and go away...nuisance but no problem. If it is one of the blanket weeds it will persist and eventually choke the waterway. The common names describe what the filaments feel like, so they are usually easy to

distinguish. Blanket weed can be a real problem in areas of improved pasture or near crop paddocks.

Reporting your algae is often important. We hope soon to be able to give you a simple field kit for reporting them.

Catchment Report:

This month we had data sent in from across the catchment. There were no sites with unseasonal temperatures. pH readings above 9 came from Sullivan’s Ck at ANU, Weston Ck in the drain-line and in the Queanbeyan River near Lloyd’s. While the two urban waterways have plenty of hard surfaces to run off, and so pick up metals and lime, the elevation in the river is unusual, and may reflect a drought effect. The acceptable range for electrical conductivity is 30–250 $\mu\text{S}/\text{cm}$: only 3 sites outside the Queanbeyan catchment above Googong Dam managed to be in standard this month. With our limey catchment and urbanised areas this is no surprise in a prolonged drought! Turbidity was fine in most places, except those where road-works are on-going. With the major nutrients, Oxygen levels are good, Phosphates are fine except in Sullivans Ck and there was a show of colour on the Nitrate sticks in a few places, while the Molonglo below Queanbeyan Water Treatment Plant was the only one to give a reading above 10 ppm. All in all the catchment is behaving as you would expect.

Stephen Skinner

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