

# Fish Kill Report

On Saturday January 11<sup>th</sup> I was advised that there was a massive fish kill on the Macleay at Bellbrook bridge. Down at the river there were hundreds of fish; bass, mullet, Bull routs, even eels gasping on the riverbank and dying. The river was up around 2 metres from the day before.



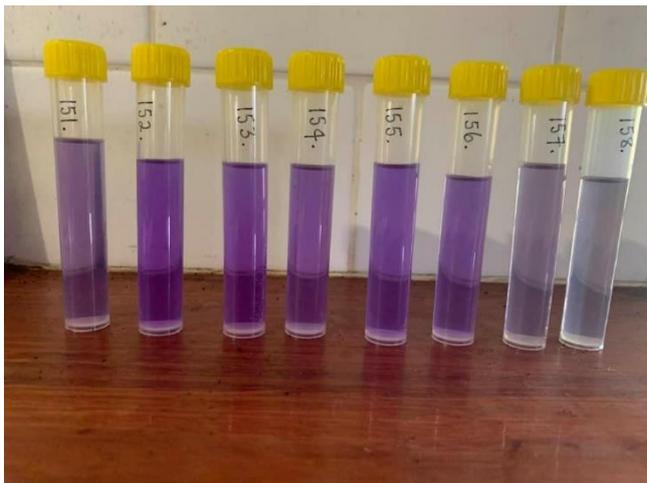
*Dead fish on Jan 11<sup>th</sup> (Arthur Bain)*



*Pump oxygenating the water (Arthur Bain)*

A few locals had set up a pump from the RFS and were oxygenating the water, they'd heard through the grapevine that this is what is done on stretches of the Murray Darling. Where the spray was hitting the water, it was thick with fish and eels seeking respite from the oxygen depleted water.

A couple of days before, higher in the catchment, around Yarrawitch, there was a "gully raker" storm. Around 80 mm of rain fell overnight, washing ash



*Daily samples showing pH from Sat 11<sup>th</sup> on the left to Sat 18<sup>th</sup> on the right (Arthur Bain)*

and sediment into the river. This, combined with algae in stagnant pools, caused oxygen depletion, with water samples showing significantly raised alkalinity, hence a major fish kill.

Professor Johnson from Southern Cross University said that it would be accurate to say that the fish behaviour (gassing) and elevated

pH (confirmed through testing) would be consistent with the impact of ash and fire debris.

Subsequent discussions with landholders along the river indicated the impact stretched from Georges Junction to just west of Toorooka, around 60 kilometres of river.

Over the next few days the river level fell, leaving black mud and rotting fish on the banks until more general rain fell on the 15th January. The river rose, pH fell and although there is still significant sediment and debris in the river, fish and other wildlife are recovering.

This was predictable, fish kills often happen after bushfires, the difference this time was the unprecedented scale, of the fires and the impact on the river. Indigenous elders and farming families that have lived here for generations have never seen anything like this.



*Riverside Park Kempsey 31<sup>st</sup> Jan (Christa Schwoebel)*

Subsequently fish further down the system have been impacted. Dead fish and the black debris could be seen all along the river in Kempsey. This will also be replicated in other catchments impacted by fire and isolated heavy rainfalls.

What are the solutions – in my opinion we need to treat our waterways with more respect – developing riparian buffer zones; we need to manage fires more effectively by burning in the cooler months and learning from indigenous knowledge. We need to address the underlying cause: accelerated climate change driven by global warming, which, as scientists warned, has led to more frequent extreme weather events such as heat waves, droughts, fires and floods.

More immediately, accurate information on the fluctuating health of the river would be a step forward. Since early 2019 SOMR have applied in vain through several channels to access funding for a water testing kit which can be used flexibly, even in more remote areas and give immediate results about pollution from arsenic and other contaminants. \$1300 is needed for a water testing kit. If you would like to contribute, please deposit funds in:

**Account Name: Save Our Macleay River BSB 704-189 Account Number 00047244 and put Water Testing Kit in the reference section.**