

Flows in Broken and Boosey Creeks during dry times



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Concerns over the environmental condition of the Broken and Boosey Creek system were addressed when the Goulburn Broken Catchment Management Authority (CMA) clarified some misconceptions that were circulating about the state of the creek system.

In particular, there were concerns expressed regarding the flow in the creek and why the Goulburn Broken CMA hadn't put any water down it.

Firstly, the upper Broken Creek is fed from the Broken River system, and the Victorian Government has no environmental water entitlements in the Broken River system to use in the Broken Creek system.

The only water entering the creek is to supply domestic and stock water and some irrigation between Casey's Weir and Waggarandall Weir. Some of this water spills below Waggarandall Weir and keeps part of the Broken Creek wet.

The lack of flow that was experienced in the Broken Creek is a direct result of drought conditions existing in the catchment. The drier conditions of the past decade have dramatically reduced local catchment runoff. It has also reduced Broken River water allocations to extremely low levels, reducing the water spills over Waggarandall Weir.

Lack of catchment runoff has also affected the Boosey Creek, as with many unregulated streams in the Murray Darling Basin.

However, the summer cease-to-flow conditions experienced in the Boosey Creek are not unexpected and were agreed to as part of the process for developing the Tungamah Pipeline.

Goulburn-Murray Water (G-MW) worked closely with a local Reference Committee and with the Tungamah Water Services Committee to develop the project.

The Boosey Creek, from head waters to Katamatite, as a result of the implementation of the Tungamah pipeline system now experiences a more "natural flow regime". In the past a significant length of the Boosey Creek had been used to assist in delivering stock and domestic water to landholders in the area. This service is now delivered by a far more efficient piped system saving water.

The Goulburn Broken CMA commissioned a study into the Ecological Impacts of the pipeline. The findings from this project will be incorporated into future management decisions for the streams in this area together with knowledge gained from other monitoring projects.

The Goulburn Broken Catchment Management Authority also established a Scientific Panel in 2007 to determine environmental watering requirements for the upper Broken Creek system. The panel recommended the return to a more natural flow regime, recognising the reduction of some permanent water values being replaced by increases in different stream values (particularly box trees).

Furthermore, there had been statements that the Goulburn Broken CMA had done little to safeguard the stream environment. The Goulburn Broken Regional River Health Strategy recognises the Broken Creek as a priority area and significant investment has been allocated to a range of projects.

Over the past five years the Goulburn Broken CMA, with the support of partner agencies and the community has undertaken many projects to protect water quality and river health in the area. Some of these actions included: installation of 64 off-stream watering points, 122 kms of

fencing along priority waterways, 26kms opened to fish migration, 161 hectares of weeds managed, excavation of habitat pools, installation of 400 nesting boxes for terrestrial species protection, support to the Broken Boosey Conservation Management Network, fox control programs and watering of off channel wetlands.

Another point of clarification the Goulburn Broken CMA would like to address is the lack of concern at the build up of small trees in the bed of the Boosey Creek and its potential to cause flooding.

The Goulburn Broken CMA is aware of the opportunistic establishment of River Red Gum seedlings both in the Boosey Creek and many other streams across the region as a result of cease to flow conditions. As flows have decreased and ceased across multiple seasons the damp streambeds leave perfect conditions for River Red Gum establishment. Under wetter conditions experienced in the past, either

naturally or via regulation these seedlings would have been drowned out and died. We are now seeing streambeds that have dried out for a number of years allowing River Red Gums to establish beyond a metre in height, making them less likely to be drowned out when flows return. This is a natural occurrence across hundreds of kilometres of stream within the region, and beyond.

This vegetation response was predicted as part of the ecological flow project to assess the impact of the Tungamah pipeline. We would expect channel constriction, vegetation encroachment in stream, vegetation community shift (eg. reduction in constant inundation specialists, such as Phragmites species, to those tolerant of a wetting/drying regime) and potential scour pool establishment. However, this vegetation will be monitored and action may be taken under certain circumstances, in the coming years.

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