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Blueberry threat to significant wetlands

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Some three and a half years ago the Clarence Environment Centre was called on to assess the potential impacts of a proposed blueberry farm on a large property at Halfway Creek. Our investigations were focussed on the wetland complex stretching along Halfway and Dundoo Creeks, and provided us with an insight into the high levels of biodiversity that exist in those ecosystems, and their significance in terms of wildlife habitat.

That development has not yet occurred, and we'd like to think that the Clarence Environment Centre's lobbying may have alerted authorities to the potential negative impacts of that particular proposal. However, more and more land has since been acquired by the blueberry industry all along the Lower Orara River valley from Glenreagh through Kremnos, Halfway Creek, Kungala, Dundoo, Lanitza and Qwyarigo, all the way downstream to Southampton and Bawdens Bridge.



Billabongs under threat

Water is an essential commodity for blueberry growing, a crop that is essentially grown hydroponically, with fertiliser and some pesticides delivered directly to the plants through the irrigation system. The Department of Primary Industry's fact sheet explains blueberries require up to 3 megalitres of water per hectare annually

First and second order streams can be legally dammed to store property owners' harvestable rights (allowable collection of 10% of run-off from the property), However, the problems here are twofold; firstly no approval is required to build these dams, so nobody ever checks to see if the capacity exceeds the legal limit unless some private citizen complains, and then there is no feasible way of accurately measuring the capacity of those dams once they are filled.

Secondly, because there are no regulations in place to determine how much water is pumped out of those dams, it allows irrigators to empty and refill them continuously while ever water continues to flow into them, potentially allowing the extraction of a great deal more water than legally allowed.

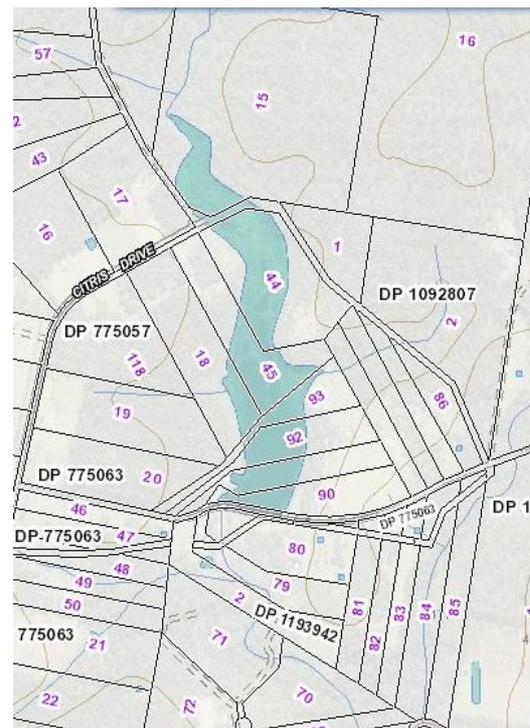
It seems the industry's insatiable demands on water cannot be met by harvestable rights alone, and pumping licences on higher order streams and rivers are limited, and as a result, waterholes and billabongs are all being targeted as potential water sources. Already the building of large dams on every available 1st and 2nd order stream, seeing 3rd order streams ceasing to flow except in flood times. This ongoing water diversion in turn reducing flows along major rivers like the Orara, which has seen flows reduced to a trickle for much of the time.

The extensive wetland systems associated with Halfway and Dundoo Creeks, and the adjoining Qwyarigo Creek, ultimately feed into the Orara River, and extends some 6 km from Qwyarigo south to the Dirty Creek Range. These wetland communities were assessed by the then NSW Department of Environment and Climate Change in 2008 for a Federal Government funded evaluation of the conservation values of wetlands across the north coast.

The resultant study saw the publication of the ***“Conservation Assessment of Wetlands in the Clarence Lowlands IBRA Subregion”***, which describes the complex as consisting of : ***“Freshwater wetland depressions that typically fill during significant rainfall events, with limited drainage, although rural residential development and roads have created some barriers to flow.*** (see attachment for comments)

One of those barriers, a large dam, was constructed some 35 years ago by Johnson Farm Management as part of their mismanaged investment scheme involving stone-fruit orchards across a large stretch of land from Qwyarigo to Hayards Crossing.

That dam, which is situated immediately north of Parker Road, is some 1.2km long, supposedly holding 100Ml of water (a NSW Water guesstimate), and was originally constructed to provide water to the neighbouring orchardists.



Erosion undermining fences at Florida Prince Rd

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However, the collapse of the stone-fruit scheme some thirty years ago means that no irrigation has occurred for a very long time.

The catchment also contains some of the most erodible soils in the Clarence Valley. The evidence of that is everywhere, and it would be inconceivable to think that over the course of the past 30 years that the dam has not silted up considerably. The fact that some 80% of the dam's surface is now covered by reed beds and fields of water lilies is evidence of this siltation.



This image clearly shows more than half the dam's surface covered by reed beds and other aquatic plants which indicates shallow water. These ecosystems likely support threatened species like Comb-crested Jacana, Australian and Black Bitterns, Bush Hen, Magpie Goose, Painted Snipe, and Black-necked Stork, along with a range of other birds and animals

This evolutionary process has now seen the dam transformed into a highly biodiverse wetland allowing it to become an integral part of the greater wetland complex in the area which likely support a wide range threatened species like Comb-crested Jacana, Australian and Black Bitterns, Bush Hen, Magpie Goose, Painted Snipe, and Black-necked Stork, along with a range of other birds, animals and aquatic species.

Enter more Blueberry growers with an application to pump from the dam. As always, the blueberries are planted, and the inevitable plastic covered igloos and netting already erected, even before the application to pump water is approved.

Our concern is that the unregulated nature of the industry will result in its continued expansion across the valley, placing higher demands on our limited water resources, with no requirement to undertake environmental impact assessments. This expansion also add pressure on the relevant agencies to allow more and more water to be extracted, under the threat of job losses and economic downturns if the demands are not met.

Regarding the Qwyarigo system, this does not see a high water flow at any time other than during flood events, so the concern is that should growers be allowed to pump excessive amounts from the dam, no water will flow past the dam for most of the year, resulting in serious negative impacts on downstream ecosystems.

We also believe that because of the silted up, shallow nature a major proportion of the dam, lowering of the water levels through pumping for irrigation would see a large proportion of the dam without water during dry times. This would have serious implications for the established reed beds, and the bird and animal life that now depend on them.



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Extensive reed beds, and fields of water lilies, which indicate shallow water, are now clearly visible only 200m upstream of the weir, suggesting shallow water, barely more than 1m in depth.

The area's wetlands are significant, and this is not the first time the Clarence Environment Centre has been called upon to protect them from inappropriate treatment. Some years ago, another blueberry grower expressed interest in pumping water from billabongs for irrigating blueberries near Halfway Creek. I attach that report as a case study.

Compiled by John Edwards

Clarence Environment Centre (July 2017)