Save Alstonville Aquifer

Submission in response to Initial Report of Independent review of the impacts of the bottled water industry on groundwater resources in the Northern Rivers region of NSW

July 2019

1. INTRODUCTION

Save Alstonville Aquifer

Save Alstonville Aquifer is an unincorporated community organisation formed in 2018 in response to a development application (DA 2018/597) submitted to Ballina Shire Council to extract water for bottling from the Alstonville aquifer. Save Alstonville Aquifer has opposed the development in meetings with Commonwealth and state parliamentarians, in media statements and appearances and in postings on its Facebook page. Save Alstonville Aquifer met with the review team from the Office of Chief Scientist and Engineer when the team visited the Northern Rivers in January 2019.

About this submission

This submission largely confines its remarks to the Alstonville aquifer (referred to in the Interim Report as Alstonville Basalt Plateau Groundwater Source), and in particular to issues associated with DA 2018/597.

Save Alstonville Aquifer notes that the Chief Scientist and Engineer is constrained by its terms of reference for the bottled water review and that matters including road traffic and safety, individual regulatory cases and the use of plastic lie outside its purview. Nevertheless, given the critical importance of these issues to the local community which stands to be affected by DA 2018/597, this submission raises them.

2. STRESSED NATURE OF ALSTONVILLE AQUIFER

Notwithstanding relatively high historic rainfall figures in the Northern Rivers, the Alstonville aquifer is under stress. The Interim Report notes evidence pointing to decline of the aquifer system as far back as the 1990s in the following commentary:

- Data from Bilge (2003) indicate that the total outflow between 1993-2001 from the deep aquifer exceeded inflows.
- Publications from Brodie & Green (2002) and Ballina Shire Council (2004) identified water decline and stress.

Rainfall at Alstonville from November 2018 to May 2019 was 613mm compared to the long-term average of 1329mm. The interim report acknowledges there are insufficient data to reliably forecast groundwater availability into the foreseeable future, which suggests that industrial extraction of groundwater should not proceed while this situation exists. A minimum of 10 years data on a representative number of deep aquifers is required before any rigorous assessment of the state of these aquifers can be made.

Anecdotal evidence from local residents reinforce the decline in aquifer and aquifer-connected creeks and springs. Such decline is particularly evident in prolonged periods of low rainfall. Youngman Creek, adjacent to the proposed works associated with DA 2018/597, has run dry twice in the comparatively recent past – in January 2019 and during the millennium drought.

Adding to potential additional stress on the Alstonville aquifer is a distinct possibility that more macadamia farmers will irrigate their plantations. At the Macadamia Processing Company awards event in December 2018 it was announced that the highest prices for nuts were obtained from irrigated macadamia trees. Macadamias traditionally have not been irrigated and at present few farmers do so. However, last year's revelation is likely to contribute to significant additional demand from the aquifer.

While more long-term data is required on the state of the Alstonville aquifer, Save Alstonville Aquifer contends that declining water reserves in the aquifer should preclude extraction for bottling purposes. It should be noted that the highest concentration of bores already exists on Ellis Road, the site of the proposed extraction in DA 2018/597.

It is also worth noting the predictions of Rous County Council adopted in its 2014 publication Future Water Strategy, which guides long-term water planning in parts of the Northern Rivers, including the area covered by Ballina Shire Council. Citing expected changes to rainfall reliability and increased water consumption from population growth, the report predicts that by around 2024 demand for water will match what current sources can reliably supply and that by 2060 expected demand will exceed reliable supply by 6,500 megalitres per year, or approximately half of current supplies. The report goes on to say that increased use of groundwater will be investigated as the primary new water source for the region.

However, in a significant recent development Rous County Council reportedly advised Ballina Shire Council that following a five-year investigation it has ceased pursuing groundwater as a viable option because of inadequate volume anticipated from the Alstonville aquifer (and in the case of groundwater from the coastal plain, because of brackish water). Rous County Council's abandonment of groundwater from the Alstonville aquifer as a viable option for meeting the region's future water needs serves as yet further evidence that the aquifer is under stress.

3. GROUNDWATER DEPENDENT ECOSYSTEMS

It is pleasing to note that the Review's terms of reference have been expanded and now include investigation of localised environmental consequences of bottled water extraction. Examination of environmental factors was a significant omission in the Initial Report.

As noted in the Initial Report, the NSW Department of Primary Industries has published a Rules Summary Sheet for the Alstonville Basalt Plateau Groundwater Source. The rules state that no water supply work (bores) are to be granted or amended within 200 metres of any high priority groundwater-dependent ecosystem, or a river or stream. It appears that there is no monitoring – hence no enforcement – of this rule. Indeed, it is the observation of landholders that there is little or no monitoring of privately-owned bores on the Alstonville plateau by any regulatory authority.

While the Rules Summary Sheet state that the above regulation applies only to new bores, Save Alstonville Aquifer contends that applications for water extraction for bottling should not be permitted in such close proximity to a river or stream. Apart from the possible effects of water extraction on stream flow, constant heavy vehicle traffic and the additional works required for bottled water extraction would surely threaten riparian ecosystems.

The two existing bores associated with DA 2018/597 are located within 200 metres of Youngman Creek. Koalas and echidnas are regularly sighted within a few km of this site adjacent to Davis Scrub, Rous and the village of Rous Mill. Downstream a kilometer or two, Youngman Creek is home for platypuses, tortoises, the endemic red-spotted rainbow fish, crayfish, many aquatic invertebrates and a variety of water birds. Some of these species are listed as endangered.

4. OPPOSITION OF LOCAL COMMUNITIES TO BOTTLED WATER EXTRACTION

It is hoped that community attitudes to bottled water extraction will be a consideration in policy decisions. In this context, the opposition of residents on the Alstonville plateau and immediate surrounds to bottled water extraction from the Alstonville aquifer cannot be overstated. 881 submissions appear on Ballina Shire Council's website opposing DA 2018/597 – an extraordinary number for a comparatively small rural area.[1] All but a very small handful oppose the development.

Both Ballina Shire Council and Rous Council have identified a shortfall in water supply beyond 2020 and additional sources will be required to meet this shortfall. Groundwater is part of the secure yield and the local community can be expected to strongly oppose the export of water for bottling when domestic supplies are threatened.

It is abundantly clear that the local community on and around the Alstonville Plateau is unequivocally opposed to water mining for bottling purposes. Unlike water extraction for irrigation and livestock, mining for bottling brings no economic or social benefit to local residents. On the contrary, its only socio-economic effects will be negative in the form of damage to roads affected by heavy transport vehicles, additional costs incurred by Ballina Shire Council for road maintenance and loss of amenity for residents affected by heavy transport vehicles. Added to these will be possible decreased water extraction yields experienced by local farmers.

5. RU1 ZONED LAND

The Ballina Local Environmental Plan 2012 shows that land which is the subject of DA 2018/597 is zoned RU1 – Primary Production. The objectives of land zoned RU1 include the following:

1. To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
2. To encourage diversity in primary industry enterprises and systems appropriate for the area.
3. To minimise the fragmentation and alienation of resource lands.
4. To minimise conflict between land uses within this zone and land uses within adjoining zones.
5. To maintain the rural, cultural and landscape character of the locality.
6. To enable development that is compatible with the rural and environmental nature of the land.

[1] It is understood that submissions lodged with Ballina Shire Council opposing the development total more than 1,000; however, because of space limitations not all could be uploaded.

7. To ensure that there are not unreasonable or uneconomic demands for the provision of public infrastructure.

It is difficult to reconcile water mining of the Alstonville aquifer with any of these objectives. In particular:

- Bottled water extraction will only result in degrading the natural resource base by further depletion of the aquifer (objective 1)
- Bottled water extraction is incompatible with maintaining 'the rural, cultural and landscape character of the locality' and with 'the rural and environmental nature of the land' (objectives 5 and 6)
- Approval of DA2018/597 can only lead to unreasonable demands for upgrading and maintenance of Ellis Road because of heavy transport use (objective 7).

In February 2019, the NSW Government confirmed that its default position is a prohibition on bottled water extraction on rural land. The advice was provided in a letter from the then Parliamentary Secretary for Planning to Ballina Shire Council. The letter states that while 'there are no planning policies specifically covering water extraction and bottling in NSW… *such developments are generally prohibited in rural areas*' (emphasis added).

6. CLIMATE CHANGE REQUIRES APPLICATION OF PRECAUTIONARY PRINCIPLE

The Australian Government's Climate Change in Australia website states that average winter and spring rainfall in the southern east coast region of Australia (which includes the Northern Rivers) is projected to decrease with medium confidence and that changes in summer and autumn rainfall are possible but unclear.[2]

What is clear is at least the perception among long-term residents on the Alstonville Plateau that climate is changing. They talk of warmer temperatures throughout the year. Livestock owners say that buffalo flies, once prevalent only in summer, are present now in winter months. Heavy concentrations of mosquitos now appear well into autumn.

The spectre of climate change suggests that regulators should adopt the precautionary principle when assessing new demands on aquifers in the Northern Rivers.[3] Application of the principle would see regulatory or legislative intervention to prohibit water mining for bottling purposes on the Alstonville Plateau. There are eminent global precedents for application of the precautionary principle, including the Montreal Protocol, the Rio Declaration and the Kyoto Protocol.

[2] The Australian Government's prediction, compiled in conjunction with CSIRO and the Bureau of Meteorology, appears somewhat at odds with the Initial Report's assertion on p16 that 'the majority of climate models agree that autumn and spring rainfall in the region will increase in both the near and far future'.

[3] The precautionary principle has been summarised as follows: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." (Wikipedia)

7. EXPANSION OF BOTTLED WATER INDUSTRY IRRESPONSIBLE

Plastic is a massive worldwide pollutant. According to a factsheet from the 2017 UN Oceans Conference, more than 8 million tonnes of plastic enter the oceans each year, equal to dumping a garbage truck of plastic every minute.

The water bottling industry has indicated that there is no alternative to plastic bottles. Expanding an industry with such devastating consequences on the environment is irresponsible – particularly in a country such as Australia where the high quality of our drinking water supplies renders bottled water unnecessary.

8. EFFECT OF HEAVY TRANSPORT ON LOCAL COMMUNITIES

Should DA 2018/597 be approved, heavy transport vehicles will have a major impact on residents on Ellis Road. Ellis Road is a narrow, minor rural road with sharp bends. It is simply not suitable for heavy vehicles. Only a significant and costly upgrade of the road would reduce the danger to local residents.

Heavy water transport vehicles would also have to travel through the village of Alstonville. In doing so they would need to negotiate two small roundabouts and narrow urban roads in the village. Inevitably these vehicles would have a significant detrimental effect on Alstonville's quiet village character.

9. INDIGENOUS AUSTRALIANS' INPUT TO REVIEW

There appears to be no input from indigenous Australians in compilation of the Initial Report. It is hoped that a concerted effort will be made to assess such views before publication of the Final Report. Suggestions for contact are:

- Bundjalung Tribal Society
- NSW Aboriginal Land Council