

**TAMBORINE MOUNTAIN PROGRESS ASSOCIATION  
INCORPORATED**

28<sup>th</sup> August 2002

The Standing Committee on Agriculture, Fisheries and Forestry  
House of Representatives  
Parliament House  
CANBERRA ACT 2600

Secretary: *af...*

**RECEIVED**

29 AUG 2002

HOUSE OF REPRESENTATIVES  
STANDING COMMITTEE ON  
AGRICULTURE, FISHERIES  
AND FORESTRY

Dear Sir/Madam,

**Re: Inquiry into future water supplies for  
Australia's rural industries and communities.**

Please find attached this Association's submission to the Commonwealth Government's "Inquiry into future water supplies for Australia's rural industries and communities".

This submission addresses the following terms of reference:

- Commonwealth policies and programs, in rural and regional Australia, that could underpin storage and supply of water for domestic consumption and other purposes.
- Commonwealth policies and programs that could address and balance the competing demands on water resources.

It deals with the unusual but important situation where a community is locally self-sufficient in water supply (using principally rain water tanks and bore water). Our overarching message is that Commonwealth policies and programs should support such communities in meeting local needs in a sustainable way.

We would be pleased to provide more information as required.

Yours faithfully,

Jennifer Peat  
Honorary Secretary  
(on behalf of Tamborine Mountain Progress Association Inc.)

Tamborine Mountain Progress Association Inc.  
PO Box 106, NORTH TAMBORINE 4272

# **Inquiry into future water supplies for Australia's rural industries and communities.**

Submission from: **Tamborine Mountain Progress Association Inc.**

## Summary

Tamborine Mountain is probably one of the larger communities in Australia with no reticulated water supply. Water is obtained from household rainwater tanks supplemented, as necessary, by ground water pumped from local bores. This local self-sufficiency leads to a range of economic and environmental advantages. However, as the demands on the water supply continue to increase, there are signs that the system may no longer be sustainable or equitable. In the absence of any research or monitoring of ground water supplies, this is difficult to assess. There is currently no regulation of ground water usage on Tamborine Mountain, as the resource is not considered "significant" under State legislation. There is a need for measures to be put in place to assess, monitor and more effectively manage ground water supplies, and to support conservation of water supplies in general. We recommend that the Commonwealth provide support for these measures by producing national guidelines regarding the sustainable management of water supplies in communities such as ours that are striving to remain locally self-sufficient and by liaison with other levels of government to support development of measures to support sustainability. We further suggest that Tamborine Mountain is suitable for a case study to further the development of locally self-sufficient, sustainable water supplies in communities where this is appropriate.

## **1. Background Information on Tamborine Mountain and its water supply**

### **1.1 Description of Area**

Tamborine Mountain is a gently undulating plateau situated approximately 70km south of Brisbane, with an elevation of about 500m and an area of about 2,000 hectares. Soils are mainly krasnozems derived from basalt. The plateau is surrounded by a larger area of steeper slopes, with scarps and terraces and timbered with natural forest. Part of this area is set aside as National Park and other conservation areas, and the escarpment as a whole is considered to be of high conservation value.

The resident population is about 6,000 and increasing. There is also a significant and increasing tourist population. The resident population is mainly concentrated in village areas and low-density residential estates. There is also some rural residential and hobby-farm land use and a small area is devoted to tourist businesses. The balance of the area is devoted to open space, and rural pursuits including about 130 hectares to horticulture, mainly avocado growing.

## **1.2 Sources of water**

The type of water supply on Tamborine Mountain and similar schemes elsewhere are referred to herein as locally self-sufficient.

There is no reticulated water supply on Tamborine Mountain and no sewerage system. The main sources of water are rainwater tanks, supplemented especially in dry times by ground water from bores. Streams are only a minor source.

Usable ground water is dispersed across the plateau. To our knowledge, no scientific assessment has been made of the nature and extent of the supply. There are probably several hundred equipped bores on the Mountain, although no statistics are available (or can be calculated) based on government records. Bores range in depth from about 10 metres ("shallow bores") to over 30 metres ("deep bores"), but again there are no records of the number of bores of varying depths. Water supply at any particular site is not readily predictable: a bore at one site may be dry and a satisfactory supply obtained from a nearby site.

The rate of supply available from many bores is small, but no quantitative data are available, and bores are not metered. However, commercial irrigators and suppliers of water for road haulage can and do use bores of greater supply. The natural level in shallow bores responds rapidly to rainfall. It is not known how long deep bores take to replenish following rainfall, but there are indications that this may take many years.

## **1.3 Uses of water**

No quantitative information is available regarding the uses of water on the Mountain. Water from household rainwater tanks is used for household purposes and for minor use on gardens. The major use of ground water is believed to be for small-scale commercial irrigation, followed by supplementation of household supplies (particularly during dry times). The latter is obtained partly from household bores and partly from bores equipped for the loading of tanker trucks. There are several bores of this latter type. Some households have had a sufficient tank supply without supplement for many years whereas others need topping up after a short rain free period. Many existing houses will continue to need significant top-up supply into the indefinite future. Road haulage off the Mountain for supply to breweries, as bottled water etc., is a small but increasing use, and is of potential concern given the priority we believe should be given to meeting local water needs.

## **1.4 Regulation of ground water usage**

Subject to some Shire Council requirements on siting of bores, ground water that can be extracted on a property is freely available for exploitation by the relevant landholder. Although Queensland State legislation provides for the control of groundwater, Tamborine Mountain is not a declared area for this

purpose, as the resource is not considered to be "significant". This assessment appears to be based on the size of the resource rather than its importance to the local community.

### **1.5 Conservation of Water Supplies**

There are very few measures in place to encourage or require residents to effectively manage and conserve their water supplies. However Beaudesert Shire Council currently requires a minimum capacity of 32,000 litres for new housing. This Association has long held the view that a larger capacity is desirable, good value for money, conserves ground water and should be mandatory.

### **2. Advantages of a water supply which is locally self-sufficient.**

This Association believes that the current system of local self-sufficiency has a number of major advantages:

- a reduced need for additional dam sites - in south-east Queensland available suitable extra dam sites are limited,
- less valuable land is lost to inundation,
- more water is available for irrigators in dry times,
- containment of costs – the supply of potable water from surface storages needs expensive treatment and costs can be expected to rise as land use in catchments becomes more polluting. Brisbane City Council is subsidising expenditure on household water tanks,
- prudent use of water is promoted because the free supply is limited and top-up supply is costly.
- encouraging development of an ethic of sustainable use of resources by community members.

This maintenance of a locally self-sufficient system has been strongly supported by the local community in the past. This support is believed to continue to apply.

However, in order to maintain this system, it is important that measures to support sustainable and equitable use are developed.

### **3. Sustainability and equitability issues that need to be addressed**

- (i) Usage of bore water increases with increasing population and tourist visitation and deliveries off the Mountain are increasing.
- (ii) There are few measures in place to support efficient storage and use of water.
- (iii) There are indications that the current rate of usage of ground water may not be sustainable:
  - the progressive failure of bores, particularly shallow ones,
  - the apparent long-term reduction of stream flow,

- the incidence of visible water-stress in rainforest trees and the drying up of palm tree swamps in the National Parks on the fringes of the plateau.
- (iv) If the supply from Mountain bores becomes inadequate in quantity or unsuitable in quality, water hauled from alternative sources would necessarily be a great deal more costly.
  - (v) There is no regulation of the use of ground water. Although it is believed this should be seen as a common resource of value to all residents, there is the potential for some users to deplete the resource for others. In particular, individuals may sell water for commercial gain to users off the Mountain.
  - (vi) There is very little information available on the ground water resource and its use.

#### **4. Conclusions and Recommendations**

Water is a vital resource for Tamborine Mountain residents, and is apparently becoming increasingly scarce given increasing demands. The current system of local self-sufficiency however confers major benefits and should, if possible, be maintained. To ensure that such a system is sustainable and equitable into the future, we recommend that the following measures be undertaken:

- (i) a scientific assessment of the ground water resource and requirements for its sustainable use,
- (ii) monitoring of water supplies and their use (particularly of ground water),
- (iii) an education program and investigation into suitable incentives and disincentives for conservation of water by residents,
- (iv) reconsideration of the criteria for assessment of ground water supplies as "significant" by the State, such that importance to the local community is included in assessment,
- (v) development of an appropriate system for regulation of use of ground water, in consultation with the local community. First priority should be for consumption by local residents, followed by local use for agriculture and gardens. Commercial use for sale off the Mountain should be allowed only if it can be demonstrated that this will not deplete supplies for residents.

We further believe that similar measures would be appropriate for all communities that are striving to maintain local self-sufficiency in water supply, where ground water is a significant part of that supply.

We recognise that much of the above is outside the jurisdiction of the Commonwealth. However we believe that such measures require cooperation of all levels of Government and the local community. We suggest the following particular measures to be adopted by the Commonwealth:

- (i) Development of national guidelines for the sustainable use of water resources for rural communities, that include specific coverage of the issues listed above.
- (I) Liaison with State and local government, to facilitate their involvement in the above measures.
- (II) Support for research (through direct involvement or funding) to
  - Assess ground water resources that while small, are critical to local communities
  - Use Tamborine Mountain as a case study to explore measures to be adopted to ensure sustainability for communities striving for self-sufficiency in water supply.

The importance to this community of maintaining a self-sufficient and sustainable water supply is almost immeasurable and the consequences of losing self-sufficiency and sustainability could be devastating to the environment. It is to be hoped that recognition can be given to the value and place of the above recommendations in the overall understanding of future water supplies for Australia's rural industries and communities.