

Submission
No 92

INQUIRY INTO WATER AUGMENTATION

Organisation: Australian Speleological Federation

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Australian Speleological Federation Inc.

Incorporated in the ACT

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Registered as an Environmental Organisation by the Department of Environment, Canberra

ASF Karst Conservation Commission

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To the Director
General Purpose Standing Committee No. 5
Water Augmentation Inquiry
Parliament House/ Macquarie Street/ Sydney 2000

Inquiry into the augmentation of water supply for rural and regional New South Wales

The Australian Speleological Federation Inc. (ASF) is a Federation of caving and speleological clubs and societies in Australia and is now nearly 60 years old. It represents some 29 clubs covering some 800 members. It has active caving clubs in all states of Australia.

The ASF espouses the protection, conservation and better management of Australia's cave and karst resources. In particular, these caves have intrinsic values as well as having contents and biota which are unique but also reveal much about past climatic history.

This inquiry is focussed on issues beyond just infrastructure needs. Water NSW is currently investigating the building of a dam on the Belubula River at Cranky Rock or at the Needles. Such a dam depending on location and size would have the effect of flooding caves broadly known as "The Cliefden Caves". Our member Society the Orange Speleological Society (OSS) has worked by agreement with the landowners for over 60 years to protect and control these caves. We support the OSS submission.

The ASF objects to the building of a further dam on the Belubula River for the following reasons:

- This river already has impoundments which are seldom full
- Further impoundments for agricultural and industrial use will deprive the Lachlan's wetlands including the Booligal Wetlands and Great Cowbung Swamp of water.
- The Cliefden Caves area was listed in the now discontinued Register of the National Estate. The area is currently under investigation by the NSW Department of Environment for inclusion in the State Heritage Register. This registration is very much warranted and will go some way to addressing the recognition that the caves and the associated host rock (Ordovician Limestone) with its suite of fossils first described from the area so deserve. Values such as these are normally in National Parks but they also warrant listing on National Heritage register.
- These caves are on private land. It is a credit that they are in very fine condition having been managed in a cooperative manner by agreement between the owners and the caving fraternity through the Orange Speleological Society.
- The cave values protected are rare blue coloured cave formations, other speleothems such as stalagmites having a record of past climates. The biota includes invertebrates adapted to cave life. Two bat species use the caves. The bent-wing bat uses the caves seasonally and over-winter in the caves. The eastern horseshoe bat is listed as vulnerable in NSW but if disturbed through flooding then this particular breeding colony would be extinguished as they do not interact with other colonies in Eastern Australia.

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- There are numerous other species of bats present in proximity to caves and The riverine corridor along the Belubula River.
- There are aboriginal associations with the caves as well as scars on trees representing where shields or similar were carved off.
- Quite apart from the evaporation losses from a large shallow impoundment the geology is such that we believe the present river leaks into the ground water significantly. Losses of water to the ground water would only be larger from a deeper impoundment. We do not believe such water loss could be ameliorated by grouting.

In more general terms, this inquiry is warranted as there are many small towns and villages in the Central West of NSW which deserve to have a potable water supply. Such work is warranted on equity grounds. The Belubula-Lachlan water system already has adequate water storages which are seldom full. Agriculture, domestic and environmental use accounts for rainfall in the whole catchment.

There is insufficient rainfall in the catchment to fulfil existing domestic, agricultural and environmental uses. No further impoundments should be built.

The Cliefden Caves Karst Area on the Belubula River is too significant to be flooded by the construction of a dam at the Needles or at Cranky Rock on the Belubula River. No such dam should be built.

Yours sincerely

Nicholas White
Chair ASF Conservation Commission

On behalf of the Australian Speleological Federation Inc.
August 2016