

## **Burrinjuck Dam Is the Key**

**Burrinjuck dam is the logical place in which to store more water**

**It was the best site for a dam 100 years ago and it still is today**

**Burrinjuck Dam catchment area is 13000 square kilometres as opposed to 1600 square kilometres for Blowering Dam In fact the catchment area for Burrinjuck Dam is larger than the catchment area for the whole of the Snowy Mountain Scheme Dams**

**Burrinjuck has a very small surface area of 5500 hectares and presently only holds a bit over 1 million mega litres (less than 2 Sydney Harbours)**

**The release of flood water early in 2012 was the equivalent of Burrinjuck Dam's total storage capacity flowing down the Murrumbidgee River every five days**

**It would be possible to quadruple Burrinjuck Dam's storage capacity to 4million megalitres by building a new dam wall downstream from the existing wall**

**This new wall could be designed to always release warm water from the top thus eliminating the chill factor currently experienced with existing dams**

**The new dam could have twenty five per centile air space for flood mitigation and fifty percentile environmental water without affecting irrigators' allocations**

**The raising of water levels in this area would have less impact than any proposed new dams at completely new sites**

**The increase in storage capacity of Burrinjuck would give greater control for flood mitigation, Basin environmental flows and allow the Murrumbidgee ecosystems to be better managed in times of drought**

## **Burrinjuck Storage Reservoir.**

Burrinjuck wall is currently 93 metres high and 361 metres above sea level

The wall is 233 metres long and Burrinjuck dam has a surface area of 5500 hectares and dam capacity is 1028 gig litres

On a topographical map if the 400 metre above sea level contour is used the dam surface area would increase to an estimated 8000 hectares

The 400 metre contour has been chosen as it would not impact on Yass

A new wall would need to be built 133 metres high and could be located 4 kilometres downstream from the existing wall.

Capacity would increase to between 3500 gig litres and 4000 gig litres

At 133 metres high the new wall would be relatively low compared with the world's tallest dam walls which are 300 metres high

Wee Jasper would be inundated (population 80) and several properties, portions of properties, recreational areas, Eco resort and holiday houses would need to be resumed

If Wee Jasper is not to be inundated (379 metres above sea level)

The new wall could be 16 metres higher than the old wall giving a two metre buffer for the village of Wee Jasper (Wee Jasper is the same height above sea level as Blowering Dam at full supply)

This would result in a much smaller dam of 2100 gig litres and a surface area of 6500 hectares

A present Burrinjuck covers an area of 5,500ha. The catchment area of Burrinjuck Dam is 12,953km<sup>2</sup>, which is larger than the catchment area of the whole of the Snowy Mountains

Burrinjuck catchment is 1,2,00,000 hectares (100 mm of runoff per hectare of catchment area totals 1200 gig litres)

The average annual rainfall of the Burrinjuck catchment is 900 mm

In 2012 floods 200,000 Megs per day were spilled from Burrinjuck

NB This all only preliminary research and areas and quantities would need to be verified by mapping authority and surveys

Burrinjuck currently (source State Water)

**Location:** On the Murrumbidgee River, 60km from Yass

**Nearest town:** Yass

**Local Government Area:** Yass Valley

**Year completed:** 1928 original, 1957 enlarged

**Dam type:** Concrete gravity

**Dam height:** 93m

**Length of crest:** 233m

**Water depth:** 61m

**Full supply level:** 361m above sea level

**Storage capacity:** 1,028,000ML

**Surface area:** 5,500ha

**Catchment area:** 12,953km<sup>2</sup>

**Spillway:** Three sector gates plus two side channel spillways

**Spillway capacity:** 250,600ML/day

#### Burrinjuck Future

##### Scenario 1 (Estimates)

**Dam Height** 133 metres

**Length of crest** 750 metres (Google Earth )

**Water Depth** 101 metres

**Full Supply level** 400 metres above sea level

**Surface Area** 8,000 hectares (estimate)

**Storage Capacity** 4,000,000 Megalitres (estimate)

##### Scenario 2 (Estimates)

**Dam Height** 109metres

**Length of crest** 700 metres

**Water Depth** 77 metres

**Full Supply level** 377 metres above sea level

**Surface Area** 6,500 hectares (estimate)

**Storage Capacity** 2,100,000 Megalitres (estimate)