

Construction of Hume Dam, 1919-1936

Part 5: The Victorian Core Wall

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If seeing is believing, the photo above gives only half the picture. The significance of the concrete buttress is immense. Not only does it define the south western extremity of NSW construction, both the up and down stream training or wing walls are attached to it, the spillway locks into it, while the approaching core wall is keyed into the 1.8 metre recess provided on its south western face.



The Victorian core wall in 1930. The concrete wall eventually reached the height of the concrete tower on the left-hand side and 'keyed into' the dark slot. Bethanga Gap at top right.

The structure towers 60 metres above river level and is heavily reinforced (this height equates to two of Albury's CML clock towers and three, if the depth of the foundation is counted). Bedrock was only found 30 metres down, causing considerable consternation in the early days to the extent abandoning the project was considered.

Concrete was brought across on conveyor belts as it was for most NSW pours. A high steel tower was employed to hoist the concrete as the column grew. The flying fox pylon was also lifted by the same means. Today, the roadway across the dam sits at this level.

Height of the core wall is deceptive as many metres of fill are already in place. Well over one kilometre long, the wall took 65,000 cubic metres of concrete to complete, contraction joints are at 10 metre intervals with an inspection and drainage tunnel running along the downstream base of the wall.

Horses, drays, monkey tailed scoops and locos were all utilised to build the embankment. About 500 horses at any one time were on site. Compacting the bank was seen as a very useful by-product of their use.

Upstream, the filling was clay taken from the nearby quarry, the theory being it was impervious to water. Protection of this slope was provided by articulated concrete slabs, 300 mm thick, placed on top of it. Slippage of these slabs necessitated remedial work in 1938/39. Post war, more was done when the dam's capacity was increased. The downstream fill was more porous, much of which was railed in from mines around Chiltern. Vegetation was used to stabilise the downstream slope.

Both States had a rail line across the temporary bridge below the works. Victoria used their 1.05 mm gauge rail to haul overburden and gravel from the excavation cut along the NSW bank, which today forms the island below the spillway. The NSW 900 mm gauge extended from the stone quarry across to the rail siding at Mitta Junction.