

# SCRIVENER DAM



**O**n 20 September 1963, fifty years after the founding of the national capital, Minister for the Interior Gordon Freeth closed the valves on the newly completed Scrivener Dam thus allowing the waters of the Molonglo River to form Lake Burley Griffin—one of Canberra's main recreational and tourist attractions.

The dam is named after Charles Robert Scrivener (1855-1923) who recommended the site for the national capital in 1909. Scrivener's detailed survey of the site was used by entrants in the design competition for Canberra, which was won by the American architect Walter Burley Griffin. As Director of Commonwealth Lands and Surveys, Scrivener recommended that Griffin's idea of three separate but connected lakes be modified to a single lake impounded by a dam. Scrivener's siting for the dam and proposed water level of 556 metres above sea level were ultimately adopted.

Work on the lake and dam began in September 1960 and moved faster than expected, due to a drought. However when the dam was finished, nature took longer than expected to fill the lake. For nearly seven months there was just a trickle of water and a few pools which attracted mosquitoes—as the critics had predicted. A rowing championship scheduled for April 1964 looked doomed. Then the drought broke and the rains came. The lake filled in a few days uniting the two halves of the city to give shape and character to the Central National Area. Canberra was never again described as two villages separated by a floodplain.

Prime Minister Robert Menzies officially commemorated stage one, the filling of the lake, on 17 October 1964. Despite pressure within his own party for the name 'Lake Menzies', the Prime Minister insisted on 'Lake Burley Griffin' as there was no monument to the architect of the national capital, Walter Burley Griffin.

The concrete gravity dam is 33 metres high and 319 metres long with a five bay spillway controlled by 30.5 metre wide, hydraulically operated fish-belly flap gates with a total discharge capacity of 8 500 cubic metres a second. The German designed and built fish-belly gates are rare in Australia and allow for a precise control of water level. This is important in a recreational and ornamental lake because good water-level control eliminates a dead area between high and low water.

It took 55 000 cubic metres of concrete to build the dam. The maximum wall thickness is 19.7 metres. The dam holds back 33 million cubic metres of water with a surface area of 664 hectares (approximately seven square kms). The lake has a shoreline of 40.5 kms (with a recreational walking/cycle track around it) and is 11 kms long and up to 1.2 kms wide. As well as providing a recreation resource, the dam and lake have created important wetland habitats for native fish, birds and wildlife.

The dam provides flood control for the Molonglo-Queanbeyan section of the Murrumbidgee catchment and will be able to accommodate a one in 5 000-year flood. The only time in the dam's history that all five gates were opened was in the flood of 1976.

capital  
facts

Discover Australia's national capital



Australian Government  
National Capital Authority

[www.nationalcapital.gov.au](http://www.nationalcapital.gov.au)

The gates are tested every three months. This is done by lowering a floating barrier 30 metres long and six metres high (the same dimensions as a gate) between the concrete pylons on the lake side of a gate. It then holds back the water while the gate is tested by lowering it to its maximum capacity. The procedure is repeated for each gate.

The dam provides a third road crossing the lake, Lady Denman Drive. The other two, Commonwealth Avenue Bridge (310 metres) and Kings Avenue Bridge (270 metres) were constructed before the lake was filled. The height of the bridges was designed to allow passage of recreation sailing boats with the tallest masts. The lake bed was excavated to just over two metres to accommodate keels and to ensure mosquitoes do not breed.

The dam is a National Engineering Landmark and is on the Register of National Estate, ranked fifth of 25 dams in Australia with heritage listing.

*Scrivener Dam and Lake Burley Griffin is managed and maintained by the National Capital Authority on behalf of the Commonwealth of Australia.*

