

No 2 or Bennett's Tank, Coolgardie, 1895



Description

This is a sepia photograph measuring 15 cm x 21 cm showing Bennett's Tank, which was developed by the Western Australian Government on the eastern gold fields as a source of fresh water for transport and people before the Coolgardie Water Supply Scheme was opened. Rain falling on the low hills and slopes in the background drains naturally into it. The sluice through which the water enters the tank is visible at its rear. The sides of the tank are terraced. A depth marker near the middle of the tank shows that the tank was far from full.

Educational value

- This asset is an example of one of the ways the Western Australian Government tried to provide fresh water on the eastern gold fields in the 1890s - following rich gold discoveries, thousands of hopeful prospectors had moved into an area with no permanent sources of fresh water; the Government built tanks (or dams as they might be called today), sank bores and constructed plants to distil saline water, but all these measures proved unsatisfactory; the chronic shortage of water was finally overcome by a scheme, completed in 1903, to pipe water from the better-watered hills nearer the coast; in his report recommending the pipeline, Engineer-in-Chief C Y O'Connor pointed out that all previous methods had failed to provide enough fresh water.
- It is evidence of government recognition of its role in developing water sources on the gold fields - in March 1893 the Western Australian Government established a Water Supply Department to make the lives of the growing population more secure and comfortable and to encourage full development of mines; Superintendent of Water Supply, Fred Renou, was sent into the field with instructions to investigate and report on the water supply question on the road to Coolgardie; as a result, the Government spent large sums of money on establishing a dependable supply of water along the gold fields route; caretakers lived on-site to protect the water supplies in wells and tanks.



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- It is an example of a 'Railway Dam' - these dams were constructed at regular intervals on the line between Southern Cross and Coolgardie to provide water for steam trains; the dams were situated at the base of granite outcrops to catch mineral-free run-off from the impervious rocks for train engines; because these dams proved inadequate, in 1900 the Railway Department started construction on the largest condensing plant in the gold fields, close to the train line at Coolgardie; this 'mammoth' condenser could convert 546,000 L of salt water a day into 455,000 L of fresh water.
- It is one of a range of tanks built in 1895 to meet the growing need for water in the Yilgarn and Coolgardie gold fields - 'tank' was the term used at the time for an excavated reservoir and this one is typical of the thirteen large and two small tanks constructed by the Western Australian Government in 1895 to provide a water supply for the general public as well as for the railways; a similar dam at Bullabulling features in prospector John Aspinall's 1895 diary as unusable because a man had drowned in it, 'not that people in this country are very particular, but the man was suffering from fever'.
- It shows one of the two tanks built in Coolgardie at great expense to solve the 'water question' - at a cost of £2,110 and with a capacity of 5,300,000 L, No 2 was the larger and more expensive of the two; by this time water, fresh and unpolluted, was needed for an estimated 5,000 people in the town and up to 20,000 in the field.
- It is an example of an unsuccessful method of water supply in the gold fields - low rainfall combined with high evaporation rates meant dams were not the answer; Kalgoorlie's annual rainfall is 26 cm and the annual average evaporation is 266.4 cm; the average evaporation rate in January is 1.27 cm per day, but on a hot, windy day evaporation can be more than 2 cm; this photograph was taken on 6 June in 1895, at the beginning of winter when rains were particularly welcome because the lower temperatures meant the water would not evaporate at the same high rate as in summer.
- It provides information on the construction and siting of tanks - the dam is situated at a low point in the landscape and the sides are stepped; the excavation is lined with impervious clay to limit seepage of water into the earth below; upper levels are lined with rocks, to stabilise the banks and limit erosion and the tank is fenced for protection; there may have been a series of tanks to intercept and direct as much of the running water as possible; at first, due to ignorance of climatic factors in this newly inhabited region, tanks were built in poor locations and failed to catch water; suitable holding ground was limited and extremes of temperature caused concrete linings to crack.

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