

# Brownhill Creek Water Scheme, 1878-1930: A water supply system in colonial South Australia

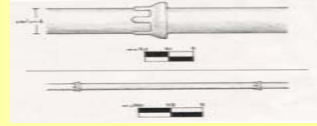
## Background:

The site of Adelaide, the capital of colonial South Australia, was chosen because of the ready availability of good quality water. For the first few years after colonisation in 1836, water was obtained from the River Torrens, from wells, or from rainwater tanks. As the population grew, water carriers carted water from the river, selling it to householders for up to 3s per 50 gallons,

In the 1840s and 1850s a number of water schemes were proposed, including a water works on Brownhill Creek. In 1861 it was decided that a water storage reservoir should be constructed on the River Torrens, enabling a reliable water supply for Adelaide.

The village of Mitcham, six km south west of Adelaide was at a higher level than Adelaide, and could not be supplied by gravity from the reservoirs. A scheme was developed to obtain a water supply from the higher reaches of Brownhill Creek and in 1880 the village of Mitcham was provided with reticulated water. This scheme also supplemented the water supply to Adelaide.

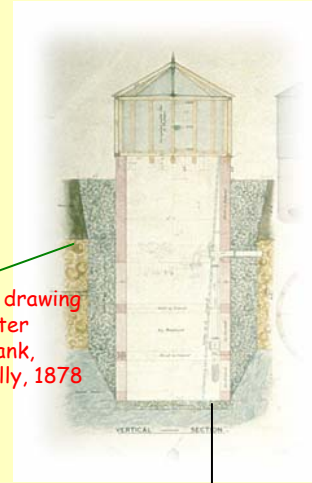
The scheme comprised a 30,000 gallon brick water tank, weir, valve tank and settling pond on Ellison's Creek, a branch of Brownhill Creek, about 2 miles of 6 inch cast iron pipe imported from Scotland and a high-level reservoir above Mitcham. The system was used between 1878 and 1930.



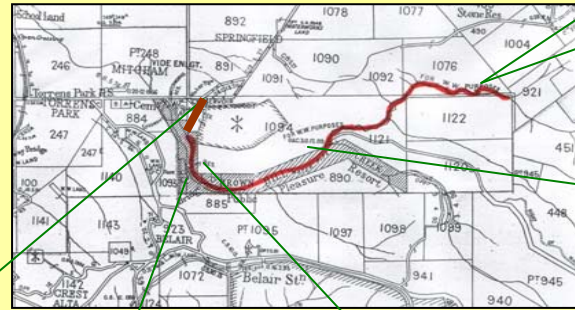
The 6 inch iron water pipe was imported from Scotland and joined in sections



Site environment



Technical drawing of the water storage tank, Ellison Gully, 1878



A 19<sup>th</sup> century map showing the Water Works easement.



Pipe passing under the Chapel foot-bridge, Brownhill Creek



The Ellison Gully water storage tank and valve tank, 2003.



White's bridge, Brownhill Creek



Drinking fountains such as this were located at intervals along the route of the pipeline

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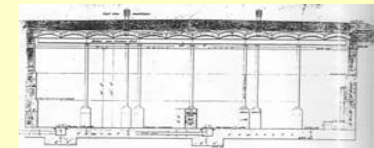
Photographs: Matt Schlitz & Aidan Ash

## The Project:

**Aim:** The aim of this collaborative project was to locate and record the 19<sup>th</sup> century water works and the pipeline route from Ellison Gully to the plains.

**Method:** The analysis of the Brownhill Creek cultural landscape included the identification of a water works easement on a 19<sup>th</sup> century map. Five field trips were undertaken during 2002 and 2003 to locate and record the water works. The identification of the tanks, valve system, weir, settling pond and pipeline and of complex site formation processes were revealed by clearing dense undergrowth, probing with a metal probe, tracing with a metal detector and collecting and testing sediment samples.

**Results:** The water works, weir, settling pond and pipeline were all located and recorded. Sections of the pipeline were visible in the creek bed, whilst other sections were located using a metal detector. The pipeline ended at the Mitcham high-level reservoir, a local feature. The intense sedimentation was shown to be a feature of the Brownhill Creek catchment resulting largely from land clearance and colonial agricultural practices.



Left: Technical drawing of the 1880 Mitcham high-level reservoir. Right: The adjacent brick water storage tank