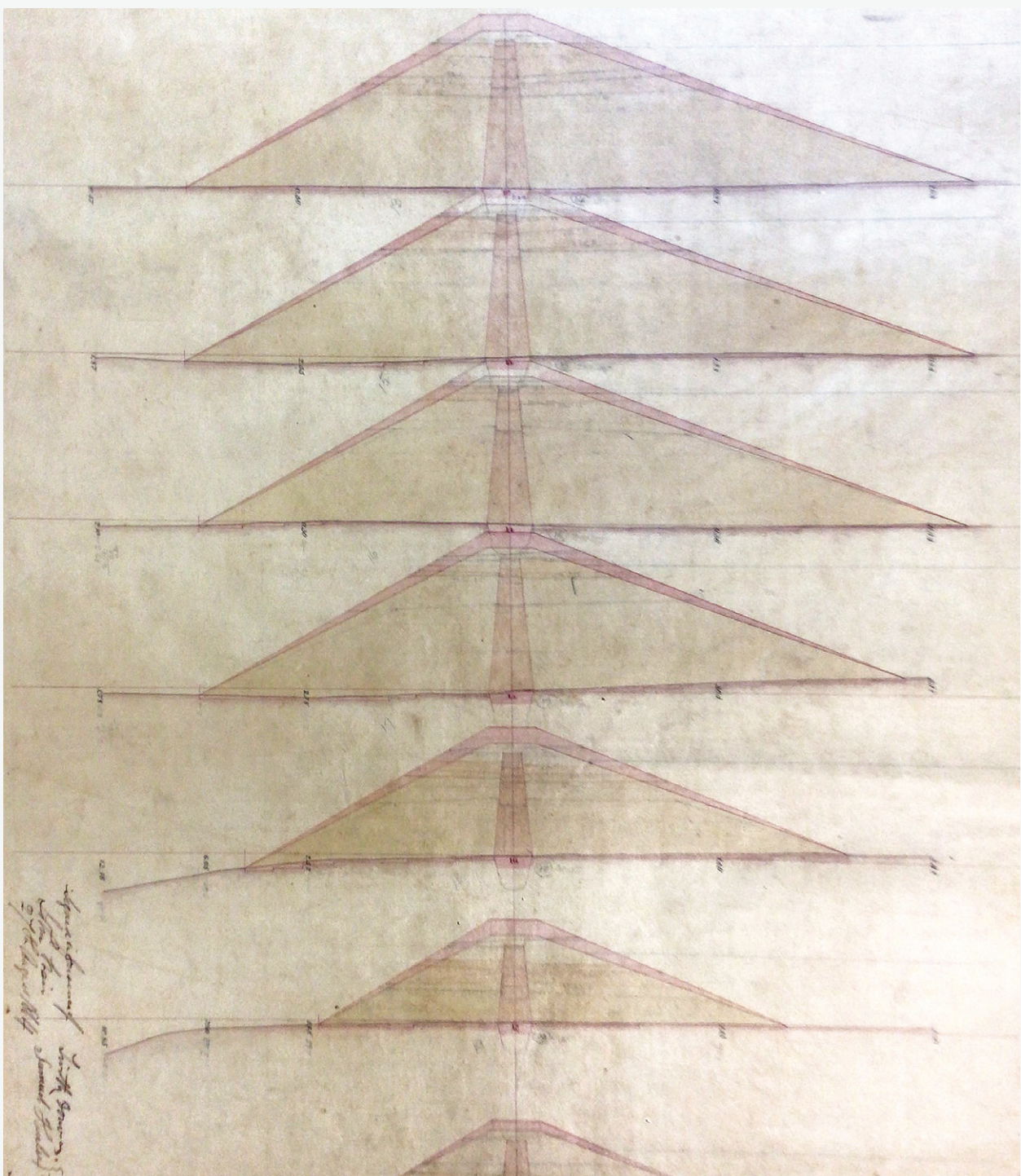


Enoggera Dam and Pipeline

History

1864 Enoggera Dam Construction starts
Designed and built by engineer Joseph Brady on a site proposed by engineer Thomas Oldham. Enoggera Dam is a typical nineteenth-century clay earth-fill dam with a puddled clay watertight core.



Contract Plan: Cross Sections of Dam. Photo: Brisbane City Council Archives

1866 Enoggera Dam completed
Constructed in under two years by contractors Donovan and Hulse—using only hand labour, a remarkable feat at the time.

1876 Heightening and spillway
To reduce flooding, Brisbane City Council raised the dam wall by seven metres using rock fill and sealed the upstream face with concrete. While storage capacity remained the same, a new concrete spillway was added in 1976 with two outlets for low and moderate creek flows. In major floods, water would flow across the 46-metre-wide spillway, situated four metres below the dam's crest.

2011 Decommissioned as Brisbanes water supply
Although no longer Brisbane's main water supply, the dam remains as a key recreation area and emergency water source by Seqwater.

Design and Build: The Dam in Detail

Dam length	Base breadth	Dam height
342 meters	332 meters	4.5 meters
Reservoir capacity	Water main length	Daily supply (original)
3.8 million litres	11.5 kilometers	1.1 million litres

Queensland's First Great Dam

The Enoggera Dam, completed in 1866, was Queensland's first major dam and only the second built in Australia—after Melbourne's Yan Yean Dam (1857). Located 11 kilometres from Brisbane, it was connected to a reservoir on Wickham Terrace near the Windmill Observatory, the city's highest point at the time.

This clay-core earth-fill dam remains significant as a rare, largely intact example of nineteenth-century engineering—built in under two years using only manual labour. It also replaced the polluted masonry weir on Wheat Creek, giving Brisbane its first reliable water supply.

Digging Deeper

To prevent water from undermining the dam by flowing through a hidden gravel layer, engineers extended the puddle clay trench four metres below the surface.



Dam Construction Puddle Trench. Workers constructing the Enoggera Reservoir, Brisbane, ca. 1864. Photo: John Oxley Library, State Library of Queensland



Plan - Enoggera to Brisbane Pipeline. Brisbane City Council Archives, BCA0858

Pipes and Pathways to the City

Three 30-centimetre cast iron pipes were laid in a rock trench along the dam's northern wall—two for city water supply and one to maintain creek flow.

The first main to the city was a cast iron pipe, 20.3 centimetres in diameter for the first 8 kilometres, increasing to 22.9 centimetres over the last 3.6 kilometres. Water first flowed via standpipes in 1868, then to a reservoir on Wickham Terrace in 1871.

Due to steep and rocky terrain, the route required creek crossings and two hand-dug tunnels (171 metres and 337 metres long, 1.5–1.6 metres high by 1.2 metres wide) to fit both pipes and workers. A third tunnel was abandoned and replaced with an open cut. The original pipeline still exists, though collapsed.

A Lasting Legacy

The Enoggera Dam is listed on the Queensland Heritage Register for its demonstration of technical achievement, historical value, and contribution to Brisbane's early water infrastructure. It remains one of the few intact nineteenth-century reservoirs still in existence.



Enoggera dam image. Image credit info

Recognition

