name: Water Tower

Address: 47-51 Mill Street HORSHAM

Place Type: Water Tower

Citation Date: 2022



Water Tower, Mill Street corner Gertrude Street Horsham

Recommended Heritage Protection

VHR -

HI -

PS

Yes

Integrity

High integrity to original configuration

### **History and Historical Context**

The 34 metre high concrete water tower was built in 1956. The 5.3 metre high tank has a 778.4 kilolitre capacity. It is Horsham's second water tower constructed to provide the town with a domestic water supply.

The Wimmera Mallee's managing water authority, GWMWater, explains that 'Horsham's water is supplied by gravity via a trunk main from the Mount Zero Water Plant to the water tower in Horsham North'.[1] During periods of high water consumption, the tower is unable to provide an adequate supply; therefore water is pumped from the low level water storage at Morson Pump Station (Old Hamilton Road, Horsham) to meet peak demands. GWM Water further explains the working operation of Horsham's domestic water supply system:

The level in the water tower controls the flow of treated water to Horsham. Pressure reduction valves maintain a high level in the water tower. If the water level drops further, the Morson pumps commence operation, taking water from the low level water storage to replenish the tower. When the low level water storage is drawn down, an inlet valve (top-up-valve) is opened manually to refill the storage.[2]

The first domestic water supply was provided to Horsham residents in 1870. Prior to this, early settlers carried water from the Wimmera River in barrels on wooden sledges, or in yoked barrels that they hung from their shoulders. Other residents built brick wells in their backyards to collect rainwater, though they proved dangerous traps for young children and were later filled in.

In 1870, the Wimmera Shire Council commenced the construction of a pumping station in Horsham at the east end of Baillie Street[3]. Five years later, the Council built a weir in the Wimmera River (below the Botanical Gardens) to provide a pool of water for the pumping station. Rhonda van Veldhuisen explains that 'water diverted from the nearby Wimmera River, passed through filter beds of sand and was then pumped into a tank on a tower built one mile away'.[4] She asserts that 'the filter system was only one of its type in the colony'.[5]

In 1887, a reservoir was created at Wartook in the central Grampians. Soon after, Percy Learmonth, an engineer employed by the Western Wimmera Water Trust, submitted to Council plans for a new water supply scheme, including an estimate of costs for delivering water from Wartook using gravity. Brooke and Finch explain that Learmonth's system 'tapped Burnt Creek at Wonwondah East and bought water to the McLachlan Street water tower through a thirty centimetre Oregon wood-stave pipeline'.[6] The council adopted Learmonth's scheme, which Brooke and Finch explain in further detail:

A steam boiler and two Tangye pumps pushed the water up a wood-staved pipe to a brick tower in McLachlan Street [Horsham]. From the tank on top, water gravitated through smaller mains to the dwellings. The brick water tower was about 15 metres high. A white disc moved up the side to tell engine driver Bill Glenister at the pumping station when water needed pumping. Each night, the turncock, Alex Selkirk, climbed up and fitted a red light to the disc which could be observed from the pump house more than a kilometre away.[7]

Despite its ingenuity, by the late 1920s the scheme could no longer provide an adequate water supply to the growing town, which was in the planning stages of constructing a sewerage system.

The Wimmera water supply scheme was originally designed in the early 1930s by the State Rivers and Water Supply Commission's, Ebenezer Shaw, who had been involved in water supply in the Wimmera since 1902. The scheme diverted water from Lake Wartook reservoir and McKenzie Creek at Zumsteins (also in the Grampians), travelling via a channel to a Mount Zero holding basin where it was then piped to Horsham.[8] The original pipes

were 43 centimetre in diameter and were laid from Horsham to Mount Zero by unemployed men. Brooke and Finch explain that 'a temporary inlet from where the pipe crossed Burnt Creek was used to maintain water to Horsham while the rest of the scheme was constructed'.[9] The turning of the first sod took place on the 3 December 1932 by the Minister for Water, Mr George Gouldie.

The design of the new scheme meant that water from Wonwondah East was cut off and the 24 year old wooden pipes were removed, recoated and installed from Burnt Creek to Mount Zero in duplicate, connecting to the new concrete pipe to Horsham. The joining of the pipe to the town supply took place in May 1933; however, gravity caused immense pressure to the town pipes and they continually burst under the stress. The pressure of the new system resulted in the end of the need for the McLachlan Street tower and it was soon demolished by the local council.

By 1936, a reducing valve had been installed at the town boundary with the aim of reducing pressure on the pipes. Brooke and Finch note that 'Horsham was in a peculiar position of having almost unlimited water pressure but could not use it'.[10] During this period, the wooden mains were gradually replaced with fibrolite pipes at a cost of £8,000; however it was several years before the town could take advantage of the increased pressure from larger stronger pipes, due to factors such as labour and material shortages caused by the Second World War.

In 1950, a ring main project was implemented to further improve an even pressure throughout the town. This involved installing 30 centimetre pipes, which branched off the 43 centimetre main at the Wimmera Bridge - one to the east and one to the west joining in Albert Street, Horsham North. This enabled 10 to 15 centimetre branches to run into the streets adjacent to the pipes for house tappings. Despite these improvements to the supply system, water main breakages continued to occur throughout the 1950s until much of the original wood piping was replaced. Due to the expansion of the town to the west in the mid-1950s, which was set on higher land, water supply and pressure again became an issue. Therefore in 1956, a concrete water tower was constructed on the corner of Mill and Gertrude Streets.

Whilst the erection of the new tower provided a solution to the town's water pressure issues, problems arose during the hot summer months when extreme temperatures prevented the tower from filling on very hot nights. As a result, the Water Trust implemented a ban on watering gardens between 10pm and 6am. The new pumping system required further improvements as the town's growth was getting beyond the capacity of the trunk main from Mount Zero. A second, larger low-level basin was built in the early 1970s, which increased the pumping capacity. Despite continual improvements, Horsham residents were using beyond the capacity of the water system, and water restrictions with harsh penalties were enforced. According to Brooke and Finch, 'during the summer of 1975-76 restrictions on water use were increased and many appeals had to be made by loudspeaker for people to turn off taps in crisis periods'.[11] Such shortages prompted serious discussions with water commission officials about the possibility of introducing water meters, based on the theory that people were likely to cut down their water usage if they were required to pay. The Water Trust eventually agreed, and the instillation of water metres in Horsham was completed in early 1980.

Further trunk main work was completed in 1981 at a cost of \$2 million, however, gravity from water piped from Mt Zero to the Horsham North water tower meant that water main breakages would remain an issue over the following decades. A series of pressure valves have since been installed allowing the current managing authority, GWM Water, to better control water pressure and reduce the instance of burst water mains.

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[1] GWM Water (2012) Fact sheet: Morson Pump Station Low Level Storage. Retrieved from http://www.gwmwater.org.au/index.php/information/publications/fact-sheets/cat\_view/78-fact-sheets [Accessed 19 February 2014].

[2] GWM Water Fact sheet.
[3] By the late 1960s the historic site of Horsham's early pumping station at the east end of Baillie Street, had been handed over by the Crown to Horsham Rural City Council.
[4] van Veldhuisen, R. (2001) <i>Pipe Dreams: A stroll through the history of water supply in the Wimmera-Mallee</i> Horsham: Wimmera Mallee Water, p. 33.
[5] <i>Ibid</i> .
[6] Brooke, B. and A. Finch (1982) A Story of Horsham: A Municipal Century. Horsham: City of Horsham, p. 64
[7] <i>Ibid</i> , p. 63.
[8] <i>Ibid</i> .
[9] <i>Ibid</i> .
[10] <i>Ibid</i> .
[11] <i>Ibid</i> , p. 65.
Description

#### **Physical Description**

Concrete 5.3 metre high cylindrical tank, supported on 12 reinforced concrete piers of 2' x 2' (600mm approx.) The tower is 34 metres high, with a tank diameter of 47'8" (14.5 metres approx.). 4 levels of horizontal concrete beams brace the piers together. A galvanised and mild steel open stair winds upwards within the open space under the tank, and a large 'GWM Water' sign is painted on the side of the tank.

#### **Physical Condition**

The water tank appears to be in good condition and well maintained (no internal access available)

#### **Australian Heritage Commission Criteria**

Relevant HERCON Criteria

*Criterion A:* Importance to the course, or pattern, of Victoria's cultural history. (demonstrates the advancing technology and increasing needs of Horsham in regards to water supply)

*Criterion E:* Importance in exhibiting particular aesthetic characteristics. (local landmark in Horsham, due to its size and prominent due to the flat landscape)

#### **Comparative Analysis**

Note: HERMES entries suggest listed water tower structures are c1920 - 30s or earlier or have a stronger link with themes such as transport (railways)

Water Tower, 89 Splatt Street, Swan Hill, Hermes no. 54952: 1937 water tower (earlier) but represents themes of improving water supply and town development.

# **Statement of Significance**

#### What is significant?

The elements of heritage value of the Horsham Water Tower, 147-151 Gertrude Street, Horsham, include:

. External utilitarian form of the face concrete tower and piers, including concrete beam and pier structure and cylindrical tank.

### How is it significant?

The 1956 Horsham Water Tower is of historical significance to the Horsham Rural City.

#### Why is it significant?

The 1956 Horsham Water Tower is:

- . Of local historic significance, illustrating the importance of providing a secure water supply to the rapidly expanding town of Horsham during its important period of post-WW11 prosperity. It is also a landmark and prominent element in the town. (Criterion A)
- . Of local aesthetic significance due to its landmark qualities in the context of low surrounding buildings on flat topography. (Criterion E)

#### **Recommendations 2022**

<b>External Paint Controls</b>	Yes
Internal Alteration Controls	No
Tree Controls	No
Fences & Outbuildings	No
Prohibited uses may be permitted	No
Incorporated Plan	-
Aboriginal Heritage Place	No

#### References

Literature title: A story of Horsham: a municipal century

Literature type: General Reference

Literature author: Brooke, Brian. & Finch, Alan

Literature publisher: City of Horsham

Literature year: 1982

Literature title: Fact sheet: Morson Pump Station Low Level Storage

Literature type: General Reference Literature author: GWMWater

Literature publisher: Literature year: 2012

Literature title: Pipe Dreams: A stroll through the history of water supply in the Wimmera-Mallee

Literature type: General Reference Literature author: van Veldhuisen, R.

Literature publisher: Horsham: Wimmera Mallee Water

Literature year: 2001

This information is provided for guidance only and does not supersede official documents, particularly the planning scheme. Planning controls should be verified by checking the relevant municipal planning scheme.