

TIMARU DISTRICT COUNCIL
HISTORIC HERITAGE ITEM RECORD FORM

HERITAGE ITEM NAME Timaru Water Supply Tunnel [Russell's Tunnel?]

ADDRESS 335 Adair Road, Adair

PHOTOGRAPH



(HNZPT)

FORMER DISTRICT PLAN ITEM NO. No. 98 **HNZ LIST NO. & CATEGORY** 2009 / 2
(at time of assessment)

LEGAL DESCRIPTION Pt RES 740; adjacent to Pt RS 15796

VALUATION NUMBER 2486005000

DATE OF CONSTRUCTION 1875 or 1881

**ARCHITECT/DESIGNER/
BUILDER** James Fraser or Edward Dobson & Son, engineers;
Messrs Fraser & Nichols, contractors [?]

STYLE Industrial vernacular

PHYSICAL DESCRIPTION

Coursed stone portals with narrow arched openings at either end of a concrete-lined tunnel.

MATERIALS/STRUCTURE

Bluestone, concrete.

ADDITIONS/ALTERATIONS

None known.

SETTING

The tunnel passes under farmland that is bounded by Adair Road to the north and George Ward Road to the west. The extent of setting is limited to the immediate environs of the tunnel and its portals.

HISTORY

The fire that destroyed a large part of Timaru's CBD in December 1868 highlighted the inadequacies of the town's water supply and prompted renewed discussion about its improvement. In the early 1870s steps were taken by the borough council to create a town water supply sourced from the Pareora River via a water race. In 1873 the council accepted James Fraser's offer to build a 39 kilometre race from the river. The race was completed within a couple of years but it was a failure; no water reached the town. It was not until 1880 that a loan to pay for building a new intake and to shorten and improve the original race was authorised. At the same time JT Thompson surveyed the water race reserve and the land was taken by the borough council. The reservoir of the new scheme was opened on 16 December 1881. This system, designed by Christchurch engineers Edward Dobson & Son 'on scientific lines', provided the townsfolk with 'an abundant supply of water for domestic purposes' and also ensured the town's volunteer fire brigade had sufficient water to fight fires. The scheme included at least three tunnels, one of which at Adair may have been called Russell's tunnel after the Otipua farmer over whose land the race was laid. (Alternatively the tunnel may have been built in 1875 as part of the earlier scheme). For many years after the system was built the £60,000 water works loan was the borough council's only major liability. By 1903 improvements had doubled the supply and there was surplus water which was used as a source of motive power, to drive pelton wheels and turbines, and for steam engines which contributed to the development of industry in Timaru. In 1910-12 the reservoir that had been built as part of Fraser's original scheme was enlarged and a second reservoir built. Later improvements included a new intake dam in the upper Pareora gorge and the replacement of the open race by a pipeline in 1939, after which time the Adair tunnel became redundant.

HISTORICAL AND SOCIAL SIGNIFICANCE

The Timaru water supply tunnel at Adair has historical significance as a component part of one of the most notable engineering achievements of the district's early years. The tunnel is associated with the growth and development of Timaru in the later 19th century and the men who built and then maintained the water supply system.

CULTURAL AND SPIRITUAL SIGNIFICANCE

The Timaru water supply tunnel at Adair has cultural value as a demonstration of the way of life of Timaru residents brought about by a plentiful and secure water supply system.

ARCHITECTURAL AND AESTHETIC SIGNIFICANCE

The Timaru water supply tunnel at Adair has aesthetic value for its stone portals that were designed to be fit for purpose.

TECHNOLOGICAL AND CRAFTSMANSHIP SIGNIFICANCE

The Timaru water supply tunnel at Adair has technological significance for the evidence it provides of Victorian water race technology and its successful completion by Edward Dobson & Son, the Timaru Borough Council's consultant waterworks engineers. Sir Arthur Dudley Dobson (1841-1934) 'discovered' Arthur's Pass in 1864 and held provincial engineering and surveyor roles in Nelson and the West Coast. In the late 1870s he formed a partnership in Christchurch with his father Edward and formed the Midland Railway Company in 1884. The company's line through the Southern Alps opened in 1923. After a period of working in Australia, Arthur Dobson returned to New Zealand in 1898 and was appointed Christchurch's city engineer in 1901. He was knighted in 1931 and died in Christchurch three years later. The Fraser/Dobson water supply system was a gravitation scheme, with a combination of water races, flumes, pipes, culverts and tunnels ensuring the fall of water from the Pareora River to reservoirs on the outskirts of Timaru. It is contemporary with the Wellington water supply scheme, which has been assessed as having outstanding heritage significance and is listed on the IPENZ Engineering Heritage Register.

CONTEXTUAL SIGNIFICANCE

The Timaru water supply tunnel at Adair has contextual value as local historic feature that is closely related to the reservoirs in Brookfield Road, Timaru (heritage item # 100) and also connected, more generally, with the numerous bluestone bridges and culverts built around the district in the 1870s and 1880s.

ARCHAEOLOGICAL AND SCIENTIFIC SIGNIFICANCE

As the water race tunnel pre-dates 1900 its path has potential archaeological significance relating to the development of the district's water supply infrastructure and the technology involved in its construction.

SUMMARY OF HERITAGE SIGNIFICANCE

The Timaru water supply tunnel at Adair has overall heritage significance to Adair and to Timaru district as a whole. The structure has historical significance as evidence of one of the district's most notable early infrastructure developments and cultural value as a demonstration of the way of life of those Timaru residents who benefitted from the water supply network. The Timaru water supply tunnel at Adair has aesthetic value owing to the appearance of its stone portals and technological significance for its part in a notable colonial infrastructure project. The Timaru water supply tunnel at Adair has contextual value as a local historic feature and potential archaeological significance in view of the date of the tunnel's construction.

HERITAGE CATEGORY

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REFERENCES

- *Lyttelton Times* 13 February 1879, p. 7; 13 December 1881, p. 5.
- *Timaru Herald* 16 June 1866, p. 6; 24 February 1869, p. 2; 12 April 1875, p. 4; 2 February 1877, p. 3; 29 September 1880, p. 3; 26 October 1880, pp. 2 & 4; 5 March 1881, p. 3; 24 March 1881, p. 8; 10 May 1881, p. 3; 28 July 1896, p. 3; 24 February 1903, p. 3.
- *Press* 14 January 1909, p. 8.
- *South Canterbury Times* 23 December 1880, p. 2; 1 November 1881, p. 2; 7 May 1883, p. 2; 9 June 1884, p. 3; 12 November 1889, p. 3; 6 March 1890, p. 3.
- *Star* 15 January 1889, p. 3.
- *Cyclopedia of New Zealand - Canterbury Provincial District* Christchurch, 1903 (available online).
- <https://www.youtube.com/watch?v=LNi7QnIEcWU>
- <http://www.heritage.org.nz/the-list/details/2009>
- <http://ipenz.org.nz/heritage/itemdetail.cfm?itemid=2385>
- <http://ipenz.org.nz/heritage/itemdetail.cfm?itemid=104>
- <http://ipenz.org.nz/heritage/itemdetail.cfm?itemid=2360>
- <https://teara.govt.nz/en/biographies/1d14/dobson-arthur-dudley>



Extent of setting, subject to confirmation, Timaru water supply tunnel, 335 Adair Road, Adair.



Land parcel as a whole, with tunnel location marked by star.