

The Kahuterawa Reserve & Fitzherbert West Water Race Scheme



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The Kahuterawa Reserve¹ (the Reserve) was created in 1969 with the addition of 8 ½ acres (3.44 hectares) of land owned by the Satherley family.

Kairanga County Council records show a resolution to pay £120 per acre (\$4,295 per hectare in 2008 dollars²), however there is no record of any payment ever being made. The Satherleys note that the land was donated to Council.

The Reserve contains remnants of the Fitzherbert West Water Race Scheme.

The Reserve was a successful project between the Kairanga County Council (the Council), the Satherleys and the Manawatu Lions Club.

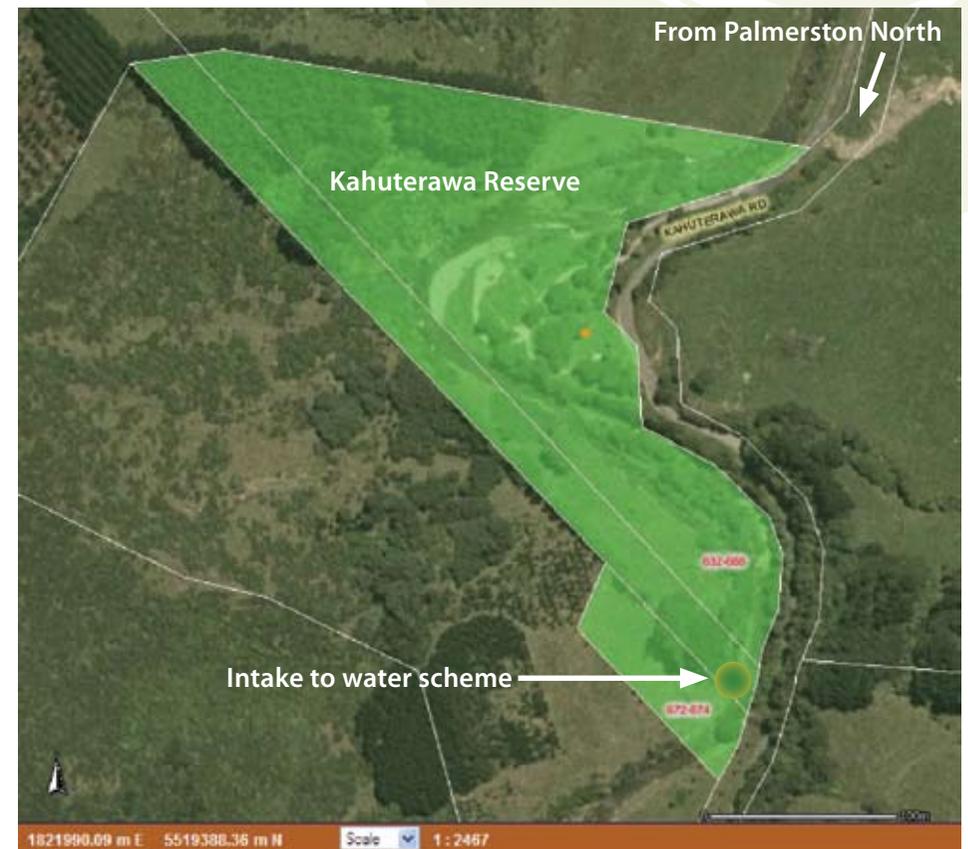
Reserve development was a large project for the Lions Group, over three years. The toilet block was constructed by Lyn Christensen and the Council carted boulders. Over the weekends the Lions plastered and assembled the boulder walls. Trees were planted on the land on the western side of the river by the Council.

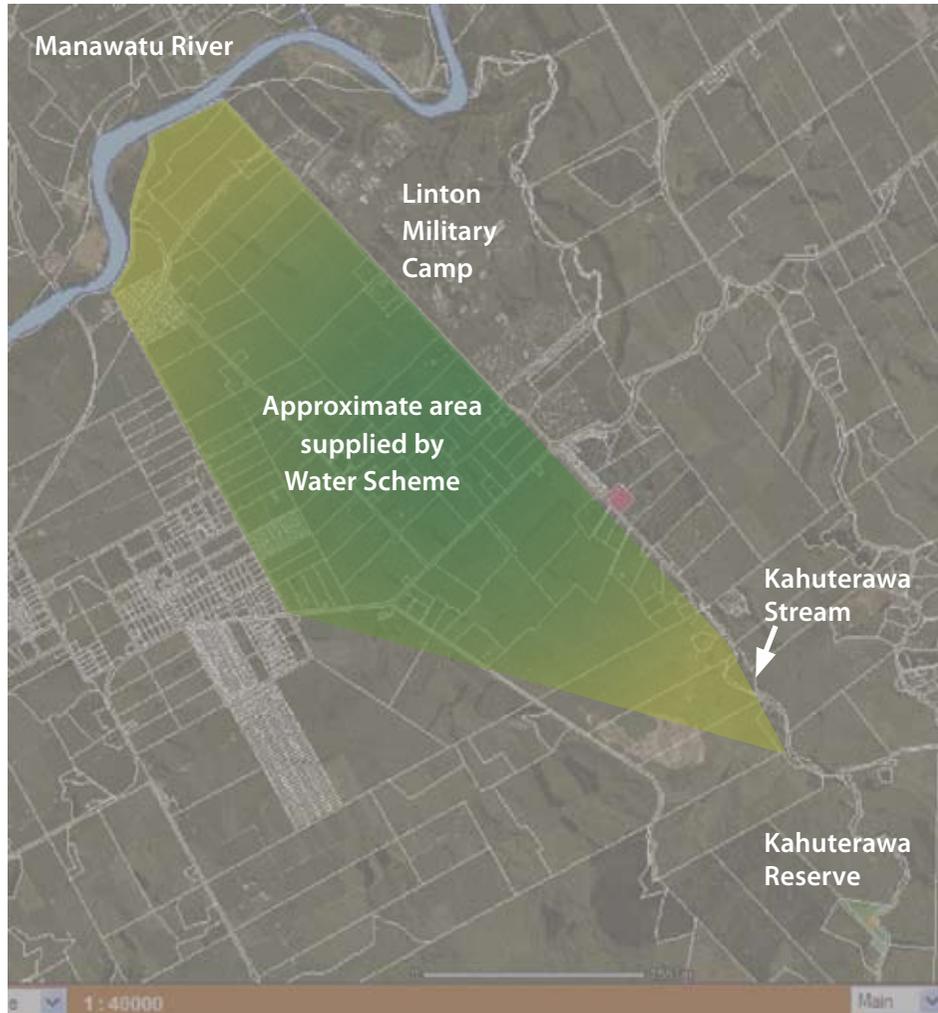
In July 1970 the Council officially called the reserve “Kahuterawa Park”. To many it was called the Lions Park due to the large amount of work the Lions had put into it.

When local government reorganisation took place in 1989 the Palmerston North City Council (PNCC) took over the Reserve. PNCC added 0.39 hectares (Lot 4 DP 80726) in 1997.

1 The Kahuterawa Reserve was originally called the Kahuterawa Park by the Kairanga County Council. Under the Palmerston North City Council's management it is known as the Kahuterawa Reserve.

2 Conversions to 2008 dollars were done using the Reserve Bank online inflation calculator.





After you have completed your picnic or barbecue you may have gone for a walk up the stream and found those old rusty four inch (10cm) pipes laying in the water or on the bank and wondered what they had belonged to. They were part of the original Fitzherbert West Water Race Scheme, planned from 1914, and built in 1917. Several entry pipes took water from the stream to flow down into a settlement box to take out the silt and debris.

From the early 1900s there had been a need for some kind of water supply in the Fitzherbert West area. There were no permanent streams and the shallow creek beds dried up in the summer. When tank water ran out, water for houses and cowsheds had to be carted in milk cans from a reliable source such as the Kahuterawa Stream or Manawatu River.

The 25 feet (7.6 metres) wells in the area had a tendency to fail when they were most needed in the summer or worse still in a drought. In later years reliable water was found at a depth of about 260 feet (79.2 metres), but wells this deep weren't possible in those days.

In dry conditions farmers had to take their stock to the Manawatu River or the Kahuterawa Stream. This job could take 3 to 4 hours out of a working day.

The area needing the water was bounded by Camp Road – Hewitts Road - Whitmore Road - Eyre Road and the Main Road, then down towards the Manawatu River, a total of about 2,500 acres (1,012 hectares).

The Kahuterawa Stream had long been considered for some kind of water scheme. Farmers could see all that water flowing under the main road bridge, all the year round, and wondered if they could bring water down in an open water race. This had worked in many parts of New Zealand, but the Kahuterawa Valley terrain required several aqueducts around bluffs and somehow pumping up into tanks, at a time long before electricity came to the area.

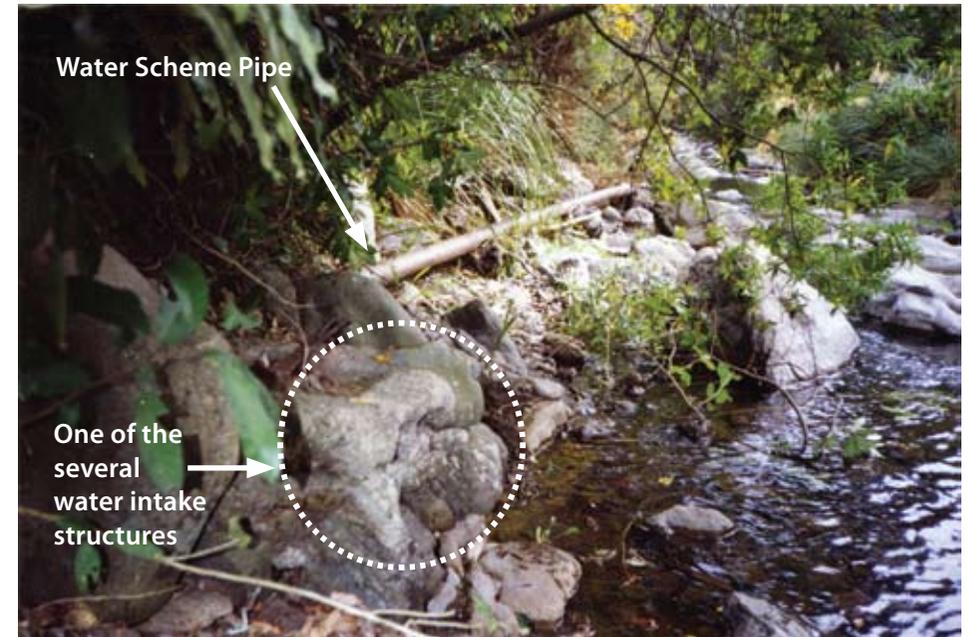
Another idea was to install a hydraulic ram in the Kahuterawa Stream. They operated continuously and the valve would be heard clanking away at a distance on a clear night. They did not require electricity but were inadequate for the amount of water required.

In July 1916 Councillors Craw and Moody led a deputation from Ravenswood (near Whitmore Road) to the Kairanga County Council (the Council) to see if the Water Supply Act 1908 (the Act) could be used to finance a water scheme. It was decided further legal advice was needed.

Another deputation in October 1916 questioned whether a special loan could be obtained. It was decided that an engineer should be engaged to discuss all the options. Mr R Edwards, a Palmerston North engineer, was appointed.

The scheme Mr Edwards developed was gravity feed needing no reservoir. The water would be conveyed from its intake point, on the Boundary of lots 329 and 330 of the Arawaru Survey District (at the Kahuterawa Reserve), by pipes to the farms. Any surplus water was to flow into several dried up water courses. The system would be 4 ½ miles (7 ½ km) long, with a fall in height of 250 feet (80 m). The main pipe line was to be 4 inch (10cm) cast iron and follow the Kahuterawa Stream, crossing three times, then climbing out of the Valley, and cutting diagonally across towards the top of Whitmore Road, supplying some farms on the way.

Mr Loughnan of Loughnan & Jacobs, Solicitors for the Council, advised in November 1916 (with a considerable amount of legal jargon), that the Council would need to declare, by special order, the Fitzherbert West Water Race Scheme a water supply district. It could then apply for a loan under the Act and set up a committee of water rates payers to manage the Water Scheme on behalf of the Council. This would allow the Council the right to levy a rate over the Water Scheme area, to service the debt, and repay the loan. Mr Loughnan stated he was not an engineer but thought that Mr Edwards scheme should be adequate for stock and domestic purposes for the people of the Fitzherbert West.





The photo above, dated November 1921, shows a lot volunteers working on reinstalling two chains (40m) of pipe after a flood.

A deputation led by Mr Arthur Smith in January 1917 supported Mr Edwards scheme.

In August 1917 the Council resolved to apply for a Special Loan from the State Advances Corporation. Mr Sladden was to be the engineer for the Water Scheme, but later in 1918 he was called away on defence duties. World War I was in progress! Mr Edwards was again given the job.

The rate on all the lands using the Water Scheme was 1 $\frac{3}{4}$ pence in the pound on the unimproved value of the property (0.7%). The first loan was for 5,000 pounds (\$560,000 in 2008 terms). Work started in August 1918, another loan for 2,000 pounds (\$224,000 in 2008 dollars) was raised. A final loan in August 1920 of 1,200 pounds (\$134,000 in 2008 dollars) was secured. The total cost, from records, was 8,200 pounds (\$917,000 in 2008 dollars). However this cost excluded most of the major work of clearing a path and digging a drain, which was done by the farmers. We can only imagine what the value of that work would have been today!

The first Fitzherbert West Water Race Committee (the Committee), to report monthly to the Council, was:

- H.J. Lauridsen (Chairman)
- T.H. Gretten,
- I. Croad,
- W.J. Harris, and
- J.J.P. Lynch, and
- Arthur Smith.

The pipe itself was made in Australia and due to its length was hard to handle. Each piece had a collar on one end, with the next piece of pipe having to be fitted in and sealed with lead to stop leaking. The pipe could be smashed with the movement of large boulders in the stream.

Some charges over and above the land rates were made.

Ravenswood Dairy Factory, near Whitmore Road, paid 12 pounds (\$1,342 in 2008 dollars) annually.

The Council paid 25 pounds (\$2,796 in 2008 dollars) for a water trough at Kendells and Main Road corner, and 3 pounds (\$336 in 2008 dollars) annually for water for the drovers moving large mobs of cattle through the district.

In later years the Fitzherbert Lions Club restored the old water trough and the last water pump that had been located at Hewitts Road. Both have become historical sites.

The Committee and volunteers kept the old pipe flowing for 35 years, till 1955, when an electric pump was installed at the top of Hewitts Road. The old pipes weren't trouble free, silting and flooding were always problems. The electric pump removed the most troublesome part of the old pipe leaving only the section through to Whitmore Road. In 1963 the remains of the cast iron pipe to Whitmore Road were replaced with a new fibrolite pipe.

A second larger pump was installed in 1978 and used until the Palmerston North City Council took over. A chlorination unit was installed and the scheme was converted to get its water from the Turitea Dam in 1990. This gave a guaranteed pressure and cost of \$450,000 (\$689,000 in 2008). The old piping was slowly replaced with PVC or polythene to avoid corrosion.

I have researched these few paragraphs to explain the early history of the Fitzherbert West Water Race Scheme and its history in relation to the Kahuterawa Valley. This Water Scheme was a fascinating achievement, planned and implemented in the midst of World War I. I hope this will bring new interest to the Valley as we move on with the development of the Kahuterawa Outdoor Recreational Plan.

Ian H. Arglye

Palmerston North City Council thanks Mr Arglye for his dedicated research and allowing us to use his work in Council publications.



The photo above, shows the Historic Anderson 1700 Water Pump.

