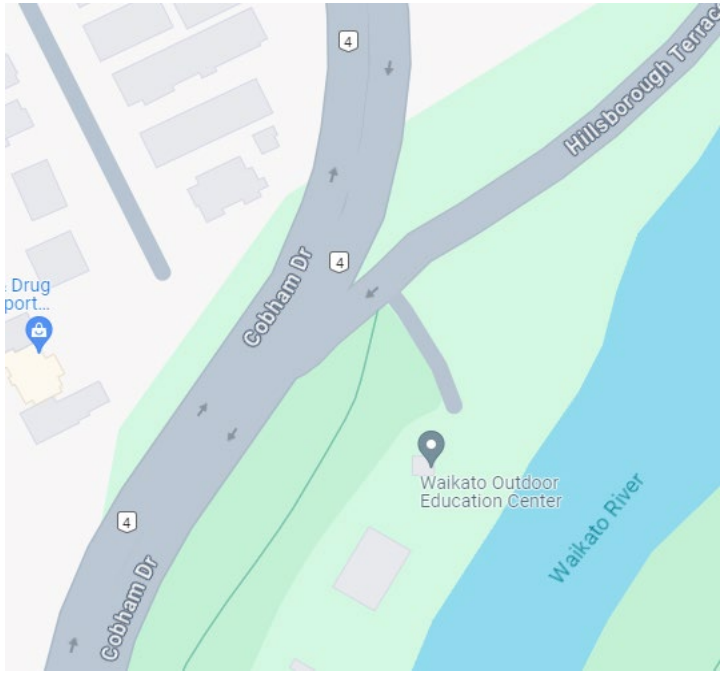
Building/ Site Name: **Former names:**
Hamilton Borough Pumping Station **Hamilton City Waterworks** **Waikato Outdoor Education Centre**
Address:
(100) Hillsborough Terrace/Cobham Drive

The eastern façade has been painted with a historic timeline. 2024.

The western façade. 2024.

Location in city map



The building is the large shaded rectangle south of the grey pin. Google Maps 2024.

District Plan Reference/ category:

Legal Description:

Pt Allotment 67 Hamilton West Town Belt NZGZ 2002 p.148

Zoning:

Listed Heritage New Zealand/ NZAA Site/ Scheduled with HCC

HNZPT - no
NZAA – no but is within the rohe
HCC - no

Date/s of construction

1902-3 Hamilton Borough Council Pumping Station & Works
1956 HCC Waterworks Building
Later additions excluded.

Architect /Designer/ Engineer/Builder:

1902-3 Engineer: Henry H. Metcalfe/Builder: Michael J Keane
1956 Architect Aubrey de Lisle or Errol Care-Cottrell (not confirmed)

Building type/s & Current use

Industrial buildings & infrastructure/ vacant

Visible materials & Heritage fabric if known

Plastered concrete; wooden t&g soffits, steel-framed windows,
Internal: wooden trusses and roof lining, concrete floor
Evidence of outlet pipe

One of the steel-framed windows. 2024

Interior view of roof trusses.

Proposed Extent

Extent as proposed by HCC.

Commented [L1]: Changed as per HCC recommendation

Associated Places

Relevant to:
WHG 085 Reservoir (1921)
WHG 086 Reservoir remnant (1902)
HCC H27 Water Tower Ruakiwi Road; Listed with HNZ #4210

Historical Background

Maori occupation

Te Rapa Pa, situated on the same river terrace 150-200m upstream as the subject building, was occupied in the mid-19th century and perhaps earlier, by hapu identified in different accounts as being Ngati Haua, Ngati Wairere and Ngati Koura. The people had a flour mill in the vicinity and extensive wheat fields. The river terrace would also have been used for cultivating kumara and other crops, similar to those gardens known to be associated with Kirikiriroa Pa. Te Rapa was also on the mail route from Otawhao (Te Awamutu) to Tauranga in the late 1850s-early 60s.[i]

History of water reticulation system in Hamilton:

In the early years after 1864 most residents relied on rainwater collected from roofs into water tanks but there were a few private wells, e.g. one associated with the militia hospital in Bridge Street [ii]; another was marked on DP 28928 in the middle of the block bounded by Ward Street-Worley Place-Victoria Street-Garden Place (Allotment 104). Archaeological excavations in Grantham Street uncovered a brick-lined well that would have related to nearby houses and perhaps Trewheelar's biscuit factory.[iii]

In 1901 Hamilton Borough Council employed an Auckland engineer, Henry Atkinson, to prepare a waterworks scheme and establish the elevations of the lake hill and the hospital hill.[iv] A £5000 loan from the government was granted in May 1902 and engineer Henry H. Metcalfe was engaged to design a scheme.[v] Metcalfe's scheme was a modification of Atkinson's. In September 1902 Henry H Metcalfe advertised for tenders to construct a reservoir and pumping station and the laying of "about 3 miles 6-inch and 4-inch Cast Iron Water Pipes, with Valves, Fittings, etc", drawings and specifications being available at the Borough Offices.[vi]

Michael J. Keane won the contract.[vii] The council constructed a waterworks with a 140,000 gallon reservoir on Ruakiwi Road. This first reservoir was a concrete rectangular structure of 140,000 gallon capacity.[viii] The pumping station was on the river bank on Hamilton Domain land.[ix] Water was pumped up from the river to the reservoir; occupiers on parts of Victoria and Anglesea Streets, and Collingwood, Clarence and Selkirk Streets could access the pipes en route.[x] The water was taken directly from the river and not filtered. A consulting engineer, John Boylan, was called in to make improvements to the pipe intake system that clogged with weed and detritus.[xi]

In January 1903 council accepted an offer from the Hamilton Gas Company to lay a 2 inch pipe to the pumping station, cost estimated at £60.[xii]

By September 1903 "there were eighty water connections on the western side and by 1908 nearly all of the western side had municipal water

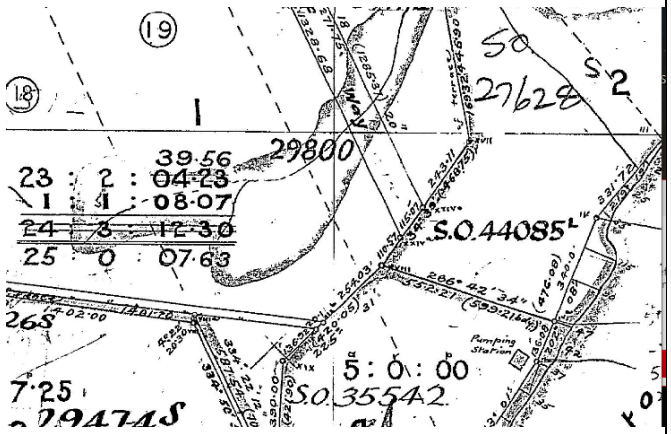
available".[xiii] A turncock was employed to switch on the gas-powered pump and keep the intake clear. Meters were to be installed and wastage would be fined.[xiv] In September 1904 council passed a by-law with a scale of charges based on the size of the property, the number of urinals, baths and water closets; consumers had to supply taps; other charges were for the use of a garden hose; stables were charged per horse. By that date there were over 100 consumers and an additional two miles of pipes had been laid, double the length planned.[xv]

A further £5,000 loan was applied for in 1905 for an extension of the waterworks.[xvi] Provision of water to Hamilton East took longer, but the extension of the water reticulation to Hamilton East was approved by council by February 1910; residents in Cook and Galloway Streets asked council to lay water along their streets in 1912.[xvii] Consumption of water increased by 18% in 1909 over 1908's figure; 45 new connections were made in 1909.[xviii]

A report in 1912 found that two sets of pumps drew water from the river and distributed it via a six-inch main up Victoria Street and also across the bridge to Hamilton East.[xix]

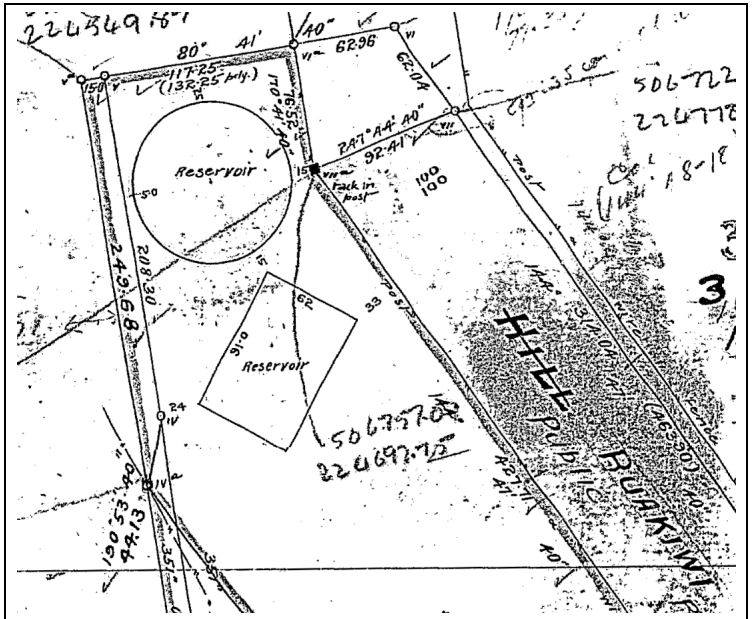
In 1912 Frankton, which was a separate borough, and Waikato Hospital had their own water supplies, independent of the Hamilton system.

A survey plan drawn in October 1916 (SO 19338) shows a small rectangular building "Pumping Station" that seems to be in the location of a building visible in current aerial photos.



Part of SO 19338, 1918, with Pumping Station marked on it.

By 1921 an additional reservoir of capacity 300,000 gallons had been erected adjacent to and on the north side of the original reservoir on Ruakiwi Road. However this extra capacity proved inadequate to cope with Hamilton's increasing population; there were also financial concerns with insurance companies charging high rates because of the low water pressure available for fire fighting.[xx]



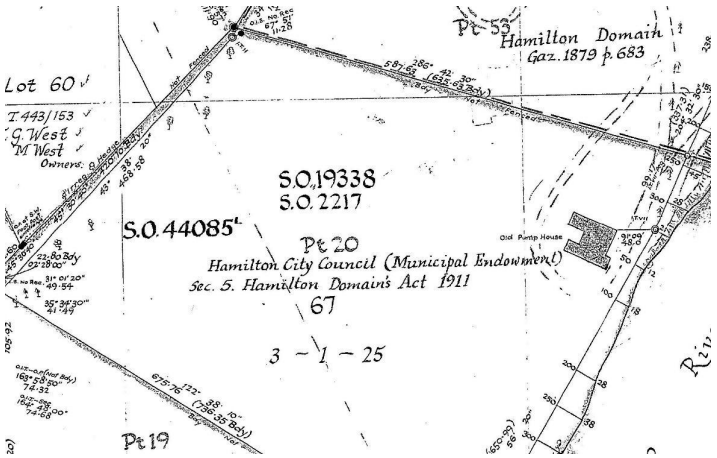
DP 16167 (cropped) shows the relative positions of the first two reservoirs on the lake hill beside Ruakiwi Road. The earlier rectangular reservoir measured 62 x 91 links. Drawn 1921 by S.B. Sims. The circular reservoir remains.

When there was a threat of flooding from the Arapuni dam, the new pumping plant and one of the existing pumps were taken to a place of safety, but these were returned to the waterworks station in June 1930. The first stage in improving the water supply was completed early in 1931 with the opening of a new pumping and filtration station.[xxi]

Borough Engineer Rupert Worley was charged with finding a solution to the inadequate supply, and after considering various options, agreed to a design put forward by the Assistant Engineer, James Baird. Baird devised a solution that received world acclaim: a system of electric arc-welded reinforcing in a thinner concrete shell, plus other innovations.[xxii] The concreting of the foundation of this new reservoir was undertaken in June 1930, partly on the site of the original rectangular reservoir.[xxiii] The reservoir was completed in February 1932.[xxiv] The reservoir cost £24,500, part of a £40,000 water improvements scheme sanctioned in 1930. (The 1932 reservoir is scheduled by HCC ODP and listed by HNZ.)

The reservoirs were filled from the waterworks station at the end of Hillsborough Road (below Cobham Drive) until the new Waiora plant was installed in 1970-71. The pipe work entered the reservoir(s) on Ruakiwi Road and also fed the network from the Ruakiwi Road side.

A survey plan drawn in October 1951 shows a larger building at the same location as that in the 1918 plan. Further research is needed to establish when this building, and the extensions following that, were built; some presumably in 1931. One extant building has 1956 on its parapet.

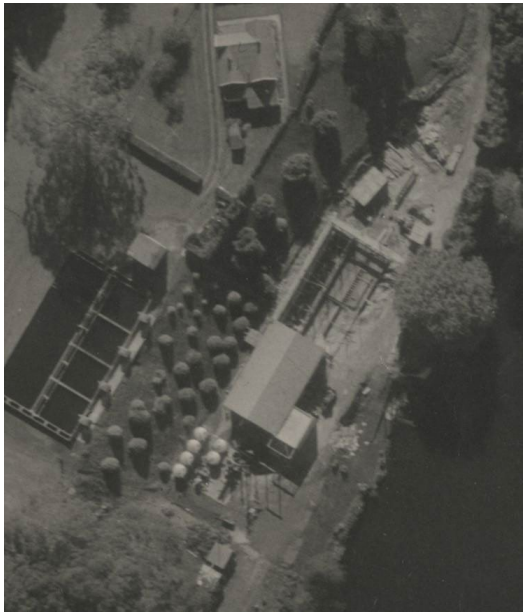


Part of SO 35542 (1951) has "Old Pump House" marked.

Hamilton Libraries holds a series of photos taken during the 1958 flood, when water poured through the works.

This photo taken during the 1958 flood shows two buildings – at right is a Modernist building (this has 'Hamilton City Waterworks 1956' on its parapet) while the one at left shows early 20th century steel joinery with sills. The settling tanks are on the upper terrace. HCL_09312

The 1956 building (above) with "Hamilton City Waterworks 1956" on its parapet, in the 1958 flood. Old 1902 pumphouse is behind. HCL_09310

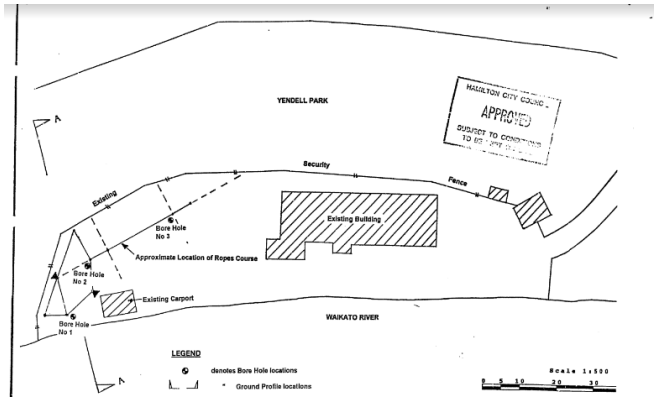


This 1956 aerial shows the component structures and buildings at that time.

An aerial photo taken c.1963 when Cobham Drive was under construction shows the buildings from the west. HCL_07657 (cropped).

A plan drawn for a building consent in 1998 shows a set of buildings on

the site:



The Hillsborough Terrace waterworks continued in operation until new Waiora waterworks were constructed 1970-71.

The Palmerston Street septic tank, one of 15 septic tanks that were part of the reticulated sewerage system for Hamilton Borough/City, discharged into the river just downstream from the water supply pumping station.[xxv] It is not known whether this still exists.

The Hamilton Borough Pumping Station today

The HBC Pumping Station (1902) was a building that provided the housing for the pump system and works required to extract water from the Waikato River and also to pump it up to the reservoirs on Ruakiwi hill. The pipe system from the river to the pumping house may potentially still be there. The piping from the station to the old reservoir on Ruakiwi hill may also likely still be located in the properties along the Palmerston Street block.

Gas fuel provision is noted, which would have been from the Hamilton Gasworks in Collingwood Street.

1960s aerials show the main building (possibly designed by White, de Lisle, Fraser; or Care-Cottrell), as the 1956 northern extension to the earlier main building and the pumping station with steel joinery to the south. Settling tanks existed to the south-west. There are additional forms to the south of the central building form which are undated. There is a two-storey building which in the 2000s was re-utilised for rope building for the tenant, Waikato Outdoor training Centre.

The smaller buildings at the site today include a concrete building (noted as 'garage' in the 1990s) which is located in the northern corner near the security gates. There is also a very old tree located to the immediate north of the garage that could be over approximately 130 years old and can be seen in the c.1963 aerial.

Potential important components:

The historic site is potentially archaeological as it is close to identified archaeological findings and the Te Rapa paa site, pre-1900 use and potentially the 1850s flour mill site. Maori cultivations were noted in the 1860s along the river terraces. It should be seen as archaeological.

As the water pumping system was a system of industrial works the surviving components such as intake and out-take pipes are important and need further identification.

Evident on site in 2024 are the buildings and sheds, but the inground items are not visible and will need a survey to establish if there are inlet and outlet pipes from 1902-1931.

However it is likely that it includes:

- 1902 pumping station
- 1905 improvements
- 1931 pumping station improvements
- early cottage 1890s- 1902 to north of site
- 1956 building
- pipes to river
- pipes to reservoirs
- tree on site (north).

Associated components include:

HBC reservoirs (1902 and 1921) identified by WHG (WHG 086 and 085 respectively) and possible pipe work to and from reservoirs.

ROPOSED HERITAGE ASSESSMENT CRITERIA (Revised November 2023)

8-1.1 Rankings of Significance

Rankings for built heritage places listed in Schedule 8A have been established as follows.

Plan Ranking A: Built heritage places of outstanding heritage significance locally, regionally or nationally.

Plan Ranking B: Built heritage places of high heritage significance locally, regionally or nationally.

The below scale represents the levels of significance against which built heritage places shall be considered for inclusion on Schedule 8A.

- *Outstanding significance.*
- *High significance.*
- *Medium significance.*
- *Low significance.*
- *None/No significance.*
- *Un-assessed significance.*

The heritage significance of built heritage places has been assessed based on evaluation against the following individual heritage criteria. A place must meet one or more of the criteria at the level of "High" significance or above to be eligible for inclusion within Schedule 8A.
While a place only has to meet one of the criteria, in practice it will usually satisfy multiple criteria. The evaluation criteria are not weighted or hierarchical. There is no correct number or combination of values required to determine overall significance.

A comparative analysis has been included, where possible, noting that there is no Waikato Regional Heritage Inventory, and limited recent Heritage New Zealand Listings.

8-1.2 Heritage Assessment Criteria

a. Historic Qualities The place or area is directly associated with, or has a direct relationship to, an important person, group, institution, event or activity, or reflects important aspects of local, regional or national history, including development and settlement patterns, transportation routes and social or economic trends.
The pumping station and waterworks reflect a very important aspect of the development of Hamilton, the supply of reticulated water to households, factories and businesses. The facilities were upgraded as the population grew.
Level of significance High

b. Physical /Aesthetic/Architectural Qualities The place or area is a notable or representative example of: (i) A significant development period or activity; and/or (ii) Distinctive or special attributes of an aesthetic or functional nature; and/or (iii) The work of a notable architect, designer, engineer or builder.
The pumping station building is a notable and unique representation of the development of Hamilton's reticulated water supply, needed when the population boomed in the early decades of the 20th century and again post-WWII. The 1956 building is possibly the work of Aubrey de Lisle (Leigh, de Lisle and Fraser), a notable Hamilton architect who designed HCC facilities

such as the rest rooms.

Level of significance High

c. Context Qualities

The place or area is an important landmark or feature or contributes to or is associated with a wider historical theme, traditional, or cultural context, or physical setting.

The building is situated on the west bank of the Waikato River on a low river terrace; the pumps drew water from the river for direct transport up to the reservoirs on Ruakiwi Road, or in later years indirectly after settling ponds and filtration. Much of the associated structures and fittings have been removed.

Level of significance Medium

d. Technological Qualities

The place or area shows a high degree of creative or technical achievement at a particular time, is directly associated with scientific or technical innovations or achievements or is associated with scientific "break-through". The place uses unique or uncommon building materials, or demonstrates an innovative method of construction, or is an early example of the use of a particular building technique.

Level of significance Medium

e. Archaeological Qualities

The potential of the place or area to define or expand knowledge of earlier human occupation, activities or events through investigation using archaeological methods, or to provide evidence to address archaeological research questions. For example, but not limited to: The place or area is registered by Heritage New Zealand for its archaeological values or is recorded by the New Zealand Archaeological Association Site Recording Scheme, or is an 'archaeological site' as defined by the Heritage New Zealand Pouhere Taonga Act 2014.

The pumping station is within the rohe of Te Rapa Pa S14/34, occupied in the mid-19th century by either Ngati Haua or Ngati Wairere, who also had a flour mill in the vicinity. They most likely had cultivations on the river terrace, and although the pa was destroyed during the construction of Cobham Drive, evidence of cultivations and other associated activities may survive.

The site is likely to provide additional information on infrastructure associated to the 1902 water works.

Level of significance Medium

f. Cultural Qualities
The place or area is important or significant:
(i) As a focus of cultural sentiment; and/or
(ii) As a context for community identity or sense of place, and provides evidence of social, cultural or historical continuity; and/or
(iii) For having symbolic or commemorative significance to people who use or have used it, or to the descendants of such people. The place or area has a high degree of interpretative potential to increase understanding of past lifestyles or events.

Level of significance
Unknown

g. Scientific Qualities
The potential for the place or area to contribute scientific information about how the natural environment has influenced events, phases or activities related to development.

Level of significance Unknown

Comparative Analysis

- There are no similar places scheduled in the HCC district plan but associated structures are specifically the 1931 Water Tower. A comparison is difficult as the two items are very different but part of the same theme.
- There are no other pumping stations identified in the Waikato, but one in Auckland is scheduled by ACC and listed by Heritage New Zealand. In comparison there is a strong similarity, however there are no interior works or chimney, but it is also unclear if the machinery within the 1956 building was installed when reused or there when it closed.

- Others by the same person: There may also be a pumping station designed by the same engineer at Waitakere but there are no details.
- The only other Waikato region pumping station is the former Waihi Pumphouse, used to keep water out of the underground mines at Waihi. This is listed as Category 1 by Heritage New Zealand and scheduled by Hauraki District Council. This pumphouse does not have any interior fittings, and more recently

was relocated a short distance. It is important in connection with gold mining and has similar historic qualities and as a marker of technical change.

- The 1902 pump house is potentially of regional importance but would require further research. There is no other example at Frankton or Hamilton. The 1956 extension building adds to the continuum of the importance of supplying water to the city, and the change from town supply to city supply, which was outdated in scale before it started.

SUMMARY TABLE OF HERITAGE QUALITIES

The place is considered to have heritage significance in relation to the following criteria:

Heritage Criteria	Significance Level
a Historic Qualities	High
b Physical/Aesthetic/ Architectural Qualities	High
c Context Qualities	Medium
d Technological Qualities	Medium
e Archaeological Qualities	Medium
f Cultural Qualities	Unknown
g Scientific Qualities	Unknown

STATEMENT OF SIGNIFICANCE:

The Pumping Station and Waterworks building on the river terrace have a high level of significance as illustrating as aspect of Hamilton's infrastructure and essential services. It is potentially of regional

importance. The place has a strong association with the reservoirs on Ruakiwi Road, and adds to the story and interpretation of those structures.

RECOMMENDATION

The Pumping Station & Waterworks building meets the threshold in the PDP for scheduling as a Rank B built heritage place.

It is recommended that the place is included in Appendix 8A based on the following heritage qualities/values:

a) Historic Qualities, b) Physical/Aesthetic /Architectural Qualities,

Associated items are noted.
Proposed extent (setting) is shown on Extent map

Overall Level of Heritage significance High

Sources for information:

Williams, Lyn "A Thematic Review of the History of Hamilton", a technical report for Hamilton City Council (Draft) 2021

Gibbons, PJ *Astride the River; a History of Hamilton* 1977

https://paperspast.natlib.govt.nz/

HCC building records

References:

Preliminary report by Waikato Heritage Group regarding the historic Pumping Station and Waterworks Buildings, 100 Hillsborough Terrace/Cobham Drive

See End notes

Form prepared: 25/06/2024

Surveyor/ Researcher: Laura Kellaway/Lyn Williams

Reviewer:

Site visits: 1 February 2024 with HCC staff

Notes:

Places have been viewed from the public domain, and using online resources, unless otherwise stated. Where an on-site visit was undertaken, agreed with the owner, it is recorded below.

Viewing of the Interiors have been viewed from the exterior, but not been assessed or condition of buildings.

Records have been retrieved where possible.

[i] Lyn Williams *Thematic History (draft)* p. 29; DP Schedule A16, NZAA site S14/34, S14/64
[ii] Archives NZ, BBAD A717 W-ADO 1094
[iii] Phillips, Caroline Archaeological reports
[iv] *NZ Herald* 14 January 1901
[v] *NZ Herald* 12 May 1902
[vi] *Auckland Star* 6 September 1902 p.2
[vii] *Auckland Star* 2 October 1902
[viii] *Waikato Argus* 21 March 1903. Part of the base of the rectangular reservoir is visible on the north side of the 1932 reservoir.
[ix] SO 19338, SO 35542
[x] Peter Gibbons *Astride the River* p. 129
[xi] *Waikato Argus* 13 June 1903
[xii] *NZ Herald* 16 January 1903
[xiii] Gibbons p.129
[xiv] *Waikato Argus* 19 December 1903
[xv] *Waikato Times* 28 September 1904
[xvi] *Waikato Times* 9 September 1905
[xvii] *Auckland* Star 9 February 1910; Waikato *Times* 2 November 1912
[xviii] *Waikato Argus* 15 January 1910
[xix] *Waikato Argus* 12 January 1912
[xx] Worley, Rupert "Hamilton's outstanding reservoir" Hamilton Libraries MS 0118
[xxi] *NZ Herald* 31 December 1931
[xxii] Ibid.
[xxiii] *Waikato Times* 18 June 1930
[xxiv] Built Heritage Item H27; HNZ List 4210
[xxv] Steven and Fitzmaurice, HCC Municipal Septic Tanks Report 1965