HUNTER WATER
SECTION s170 REGISTER

ITEM NAME:

Ferodale 1A Water Pump Station

Contents:

ITEM DETAILS

Item Name	Ferodale 1A Water Pump Station
Other / Former Names	George Schroder Pump Station, George Schroder Memorial Pumping Station, Grahamstown No. 1 Pumping Station
NSW SHI No.	3630050
Plant No.	HS-FEO-01A-PS1
GID:	419557
Lot and DP	Lot 100 DP 1151828
Address	Finnan Park, Richardson Rd, Ferodale NSW 2318
Curtilage	The curtilage of this asset is defined by its physical configuration and does not correspond to legal allotment boundaries.

External view of the Pump Station

Asset location and curtilage (red boundary) (refer to Figure 1 for additional detail)

HISTORICAL OVERVIEW

Current Use	Water pumping station
Former Use	N/A
Designer / Builder	Vattenbyggnadsbyran - Engineering Contractors
Historical Notes	After the end of World War II, the Board became preoccupied with the adequacy of their water sources. It was in March 1946 that the Board's then President, George Schroder, first raised the possibility of using the Grahamstown Moors as a possible new water source. While investigations in regard to the utilisation of Grahamstown (Balickera) Channel as an auxiliary to the Tomago Water Supply Works were carried out from the late 1940s, and the Board obtained 2,000 acres of the Grahamstown moorlands in 1948, an alternative proposition of constructing a much larger dam at Tillegra was preferred. Following a visit to Europe to attend conferences and inspect waterworks however, and in the face of growing opposition to Tillegra Dam, Schroder was able to persuade the Board to delay the Tillegra Dam and fully exploit both the Tomago sand beds and Grahamstown catchment area. The Board subsequently commissioned the Swedish consulting engineers Vattenbyggnadsbyran to investigate. After visiting the region early in 1953 they delivered their report in September. The scheme proposed by Vattenbyggnadsbyran provided for fresh water to be drawn from the Williams River near Seaham and conveyed by open canals and a tunnel to a storage dam constructed on the moors. The storage was to be formed by constructing an embankment across the natural depression known as the Grahamstown Moors. In February 1955, following review, the Board's Amplification Committee broadly accepted the scheme, with construction of the Dam authorised by the Board on 5th April 1955. Construction of the scheme commenced immediately after the official construction ceremony was performed by the then Premier, Mr J. Cahill, on 30th November 1957. The George Schroder Memorial Pumping Station, named for the Board's President who played such an integral role in the construction of the Grahamstown Water Supply Scheme, was originally referred to as Grahamstown No. 1 Pumping Station. Construction on the George Schroder Water Pumping Station commenced in 1957-58. Constructed as a wet well type of pumping station, it was located within the water storage area approximately 1,000 feet upstream from the left abutment of the Grahamstown embankment. Drawing raw water from the dam through 1,050-millimetre pipes, the Pumping Station then transmitted the water the 6.5 kilometres to the treatment plant at Tomago. After treatment, the water from Grahamstown was carried to Waratah and North Lambton Reservoirs. By 1957-58 the site of the pumping station had been excavated, with the construction of the raft foundation and walls of the pump wells up to sill level completed. Tenders were called, also in 1957-58, for pumps, and the preliminary design for the station was prepared. By the close of 1959-60, only the finishing off details and surrounding earth works remained outstanding. Nearby, a brick switch house had been completed, and transformers installed. In April 1960 two pumps were installed in the pumping station and a trial run carried out, and by December 1960 all finishing details; painting, earth works and the fencing, had been completed. In 1963-64 ornamental gates with plaques were constructed at the entrance to the pumping station, which had been named the George Schroder Memorial Pumping Station. Also, during the year 1965-66 construction began on a second 42-inch delivery pipeline from the George Schroder Memorial Pumping Station. The duplication of this pipeline was necessitated by the completion of the Grahamstown water treatment works, which could process 30 million gallons per day, and was fully completed in 1970-71.

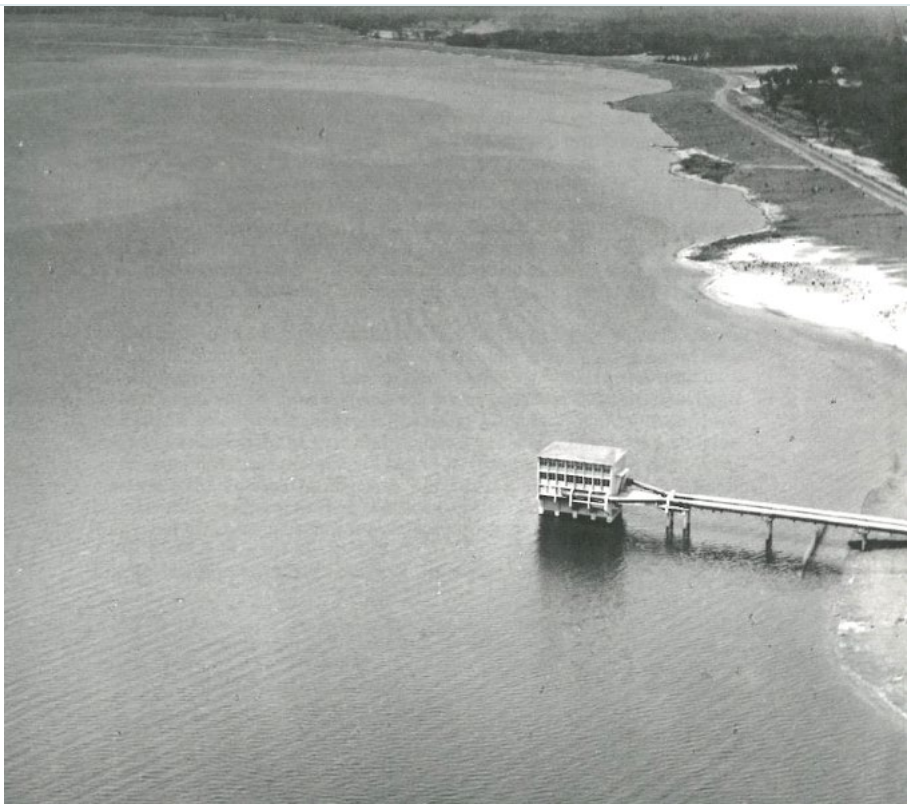


Figure 2: View of the Station (unknown date)

Source: John. W. Armstrong, "Pipelines and People"

HERITAGE SIGNIFICANCE

Level of Significance	Local
Statement of Significance	The Ferodale 1A Water Pump Station is the main pumping station which extracts water from Grahamstown Dam. It is a key operational component of the Grahamstown Scheme and was named after a prominent engineer within the Hunter District Water Board. The building is designed to a modernist aesthetic and sits prominently within the dam storage, near a park. It is aesthetically distinctive and relatively unusual in terms of its design and materiality. Through continual upgrading of the equipment the facility remains in service for its original function. Adjacent to the Pumping Station is a recreational area with memorial gates and several plaques commemorating the establishment of the Grahamstown Scheme.
Significant Elements	• Overall form, scale and design of the building. • Tiles to principal façade. • Articulation and concrete structure of side façades. • Beams to ceiling and piers to internal walls of building. • Supported lintel above roller door to exterior of building.

DESCRIPTION

Setting	The Station is located at the southern end of Grahamstown Dam and is situated within the Dam itself being accessible via a linear walkway that projects out into the Dam.
External Appearance	The Ferodale 1A or George Schroder Water Pump Station features conventionally formed and poured reinforced concrete construction (including footings, slabs, columns, walls, roof beams and roof slab). It has an original flat concrete deck roof and has highly articulated side façades featuring rows of windows separated by projecting concrete. It is 10.6 x 13.5 metres in size, with a height of 6.6 metres. A mild steel overhead crane and runway beam is located within the building and is supported by reinforced concrete column corbels. The access door to the station is a replacement metal roller door which is framed by a decorative concrete lintel supported by angled concrete supports. Two large outlet pipes extend from building to the bank of the Dam, with a metal access walkway proving access to the building installed above the pipes. The building is clad in decorative green tiles with metal louvre and awning windows, and has been identified to have a 'modernist aesthetic'
Internal Appearance	Inside the Pump Station are six pumps, all replacements (non-significant). It features regular piers to the internal walls that support a gantry.
Overall Condition	Good
Moveable Heritage Objects	• None identified.

MANAGEMENT

Priority Conservation Works	• Check over and re-paint failing paint as required. Assess for issues associated with mould and damp. • Assess and repair/replace window screens and windows more generally to ensure building is weatherproof. • Check over external concrete elements (e.g., roof and lintel above roller door) and undertake cleaning and repairs as required. • Check over tiles to external façade and re-fix any loose tiles.

KEY IMAGES

Image 1: View of the Station from the Dam bank showing walkway atop pipes

Image 2: View of highly articulated concrete side façade from Dam bank

Image 3: Principal façade of the building showing tiles and supported lintel over roller door

Image 4: Detail view of lintel showing condition issues

Image 5: Internal view of the side façade showing piers supporting the gantry and multiple rows of windows

Image 6: Internal view showing contemporary equipment

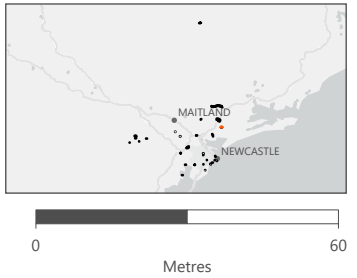
FIGURE 1

S170 Review - Heritage Curtilages

Legend

- Road
- Railway
- Lot Boundary
- Heritage Curtilages

Ferodale 1A Water Pump Station



Scale 1:1,500 at A4
GDA 1994 MGA Zone 56

Image Source: ESRI Basemap (2022) **Data source:** NSW DFSI (2022)