



1920s - 1940s
First Cooperation

City councillors and Water Works staff inspect a main being mortar lined in Newtown.

HANSON ST MARCH 1936

Wellington City and Suburban Water Supply Board

By the time the Orongorongo scheme was finished in 1926, the seven authorities of the region saw some advantage in cooperation with Wellington over water. Wellington's Mayor, Sir John Luke, joked about the silliness of each little borough having distinct watersheds, saying that Onslow's catchment was in Johnsonville district and Johnsonville's in Onslow.¹³⁹ Indeed Hutt County was in conflict with Upper Hutt Borough, with the latter withdrawing its offer of water for Heretaunga.¹⁴⁰ There was talk of an "extended metropolitan area" in relation to water, and New Zealand's four cities even compared water charges.¹⁴¹

Engineers calculated that Wellington's daily water needs were 34 million litres, but the supply in dry weather was only 20 million litres and the storage dams (though good for 66 days' supply) were silting up.¹⁴² A new supply would be needed if other boroughs were to be supplied as well. The result was the Wellington City & Suburban Water Supply Act 1927.¹⁴³ The Act vested in WCC the watersheds of the Akatarawa, Whakatikei, Hutt and Pakuratahi rivers (around 27,200 hectares). This land was to be used for water supply, forestry and recreational purposes to benefit the member authorities. A board of control was established, with membership

by the mayors of Wellington City, Lower Hutt, Upper Hutt and Petone boroughs, four Wellington City councillors, and one councillor each from Hutt County and Eastbourne.¹⁴⁴ Wellington's Mayor Troup was the first chairman, with Bob Semple (a Labour city councillor) a member.¹⁴⁵

The Water Supply Board marked a tentative beginning to regional cooperation over water – it became involved with most of the supply schemes over the next 45 years. The board's affairs were managed by the WCC town clerk, the city engineer and the forestry officer. With the region's rapid population growth and subsequent changes in administrative boundaries, it was later to include representatives from Makara County and Johnsonville Town Board (1947), Tawa Flat Town District (1952) and Porirua Borough (1962).

The board's first meeting early in 1928 thanked the Government for the catchment gift, and initiated a comprehensive investigation of streams under its control.¹⁴⁶ Wellington's new City Engineer, GA Hart, submitted a report the following July. Stating that Wainuiomata had no scope (and Orongorongo little) for further development, he recommended a Hutt River scheme with a small development of the Whakatikei. This would provide "10 million gallons (45 million litres) per day, estimated to meet all requirements of the City of Wellington and the Suburban Areas for not less than 15, and possibly 20

years".¹⁴⁷ The DSIR's Geological Survey Branch assessed potential dam sites in the upper river reaches.¹⁴⁸ The estimated cost was £566,000, to be divided pro rata, and the report was adopted by the board.¹⁴⁹

Lower Hutt and Petone, however, were both unwilling to pay this sort of money. After half a century of seeing Wellington's water passing under their noses on the foreshore, without benefiting from it, they were not about to buy in now. Petone wavered first, and Lower Hutt supported it on the assurance of its borough engineer, AG Bush, that the Hutt aquifer could economically be expanded to meet all their needs.¹⁵⁰ (The Director of Health, Dr Watt, had by then quelled fears that aquifer water caused goitre.¹⁵¹) So, on 18 August 1930, Petone and Lower Hutt withdrew from the Water Supply Board (despite the Hutt representative saying that his council should "stay on and carry its share of the burden".)¹⁵²

Petone started renewing its water mains in September 1929 and the following year sank more wells beside the Tennyson Street pumping station.¹⁵³ In 1932 it extended its scheme to the district of Korokoro.¹⁵⁴ Growing demand in Lower Hutt had seen the borough add many new wells and pumps in 1926. But after leaving the Water Supply Board, Lower Hutt was required to extend its supply to Eastbourne Borough. Eastbourne had turned to Lower Hutt for its supply after



'Day' labourers excavating the site for the Eastbourne reservoir, located at Point Howard (circa 1930). (Alexander Turnbull Library, Wellington, NZ. Reference F-162468-1/2)



the Health Department demanded action in 1928 over poor water quality. Water from Lower Hutt artesian bores was piped to a storage tank built at Point Howard.¹⁵⁵ In 1937 Lower Hutt built a pumping station at Birch Street and sank two new wells. More wells and pumps were added during the war.¹⁵⁶ In a large programme of works in 1946–1947, a well field and pumping station was commissioned at Elizabeth Street, Hutt Park, along with 525-millimetre mains and a 4.5-million-litre reservoir above Naenae.¹⁵⁷

Elsewhere, Upper Hutt built the Akatarawa dam (Birchville) in 1930–1931, and this supply was later augmented by wells at the end of Miro Street, Trentham camp and the racecourse grounds.¹⁵⁸ In many areas of Hutt County no public water supplies had been provided. Paekakariki had started local reticulated supply in 1922 and Paraparaumu in 1929, but otherwise, roof tanks and wells were still the only source.¹⁵⁹ In Paremata and Plimmerton, water was delivered by tanker until the 1950s.¹⁶⁰ Unable to expand its supply from Morton Dam, Wainuiomata Riding tapped two streams by Hair Street in the 1940s. From 1955, Skerrits Creek was used. When Hutt County took over Wainuiomata's supply in 1957, it was linked to the dam.¹⁶¹

"In recent years, in one form or another," the city engineer said in 1938, "overtures have reached either the City Corporation

or the [Water Supply] Board to consider supply of water to: Paraparaumu, Paekakariki, Plimmerton, Titahi Bay, Porirua, Tawa Flat, Johnsonville, Upper Hutt, Hutt County, and Eastbourne." The Board's consideration of the watersheds and trunk routes needed to supply these widely dispersed areas was to prove useful practice for the future.¹⁶²

With the withdrawal of Petone and Lower Hutt from the Water Supply Board, Wellington faced huge costs for the proposed Hutt River scheme.¹⁶³ It still owed £874,383 on waterworks loans going back 49 years, and was installing a chlorination plant at Karori, having finally accepted claims long made by users that its water occasionally tasted and smelled 'off'.¹⁶⁴ Two new pump stations, at Onslow and Karori, were also being installed to make up for the head loss in the O-K main. Wellington's share of votes on the board rose (even if the mayor had trouble getting his two councillors, who were also MPs, to attend), but so did its ratio of cost (based on population), from 77 to 93 percent.¹⁶⁵ With the loss of contributions from Petone



The concrete arch Birchville dam served Upper Hutt for 23 years from 1931, until superseded by the Kaitoke scheme. (Photo Jessica Dewsnap)

and Lower Hutt, the city engineer reviewed his proposals.¹⁶⁶ Hart's report of 13 July 1930, after again considering another dam in Wainuiomata, recommended artesian water sources in the lower Hutt Valley as "a temporary expedient. Recourse to the conservation areas of the Hutt River and some of its tributaries is sooner or later inevitable."¹⁶⁷

Gear Island supply

Not everyone favoured Wellington's use of the Hutt aquifer. "In Wellington the opposition took the form of condemning the proposal on the score that the water was polluted, uncertain in quantity and definitely goitre producing. In the Hutt Valley citizens became alarmed at what they conceived to be a raid upon their local supplies, and their objections crystallized finally into an appeal to Parliament. One by one the objections both internal and external were voted out..."¹⁶⁸ The scheme was approved as a supplementary supply for Wellington City in times of drought or emergency.

Wellington drilled preliminary bores on a strip of Hutt River Board land at Gear Island, Petone, in October 1931. After dry periods in 1932–1933, the land was taken under the Public Works Act.¹⁶⁹ In the meantime Wellington wrangled with the Petone and Lower Hutt borough councils and the Hutt River Board over its rights to this water source. Only after three years was an agreement reached, which allowed Wellington a maximum draw-off of 22.5 million litres per day, to be reviewed after 10 years. They could extend the drilled area if less than 22.5 million litres per day was obtained.

Drilling the production wells and building a low-pressure pumping station started in February 1935. This pumped the water

into the Wainui mains to Thorndon. A break-pressure tank was constructed in the hills along the Hutt Road to avoid over-pressuring the mains, and a second pumping station built on Thorndon Quay (below Tinakori Road) to boost the water into the city reticulation. The original cost of the scheme was £18,510. The supply was first substantially used on 3 March 1939, after a three-month dry spell.¹⁷⁰ A high-pressure pump was added to Gear Island in 1946 to pump into the O-K main and in 1953 the station was extended and two further high-pressure pumps installed. This increased the draw-off to 22.5 million litres per day.¹⁷¹ The Gear Island supply was only utilised on a few occasions and, for the most part, for short periods.¹⁷²

In 1935 the lower Karori dam was linked directly into the city's distribution system by a 450-millimetre steel auxiliary main, after an automatic break-pressure tank was built behind the old distribution basin on Raroa Road. This basin, the first major water supply work built in Wellington, was taken out of service (and filled in by 1964).¹⁷³ As well as serving "the high-value business areas of the city", the auxiliary main allowed Wainuiomata water to be shut off briefly for maintenance without interrupting supply.¹⁷⁴ A construction programme increased the capacity of service reservoirs around Wellington; by 1938 there were 19.¹⁷⁵



An exploratory bore at Gear Island. Artesian water had long been used in Petone when Wellington City tapped this source in the 1930s.

These water supplies soon proved inadequate in the face of intense urbanisation. Wellington was again forced to augment its supply. The South Karori Stream had long been considered, and in 1944 a temporary scheme to tap it was started. An upper tributary in Long Gully (called Silver Stream),



With a hint of stripped classical and deco simplicity, the architectural Gear Island pumping station was built in 1935. It is still in use, albeit with the windows filled in.

with a 490-hectare catchment, flowed only 590 metres from the upper Kaiwharawhara Stream. A 125-metre-high saddle separated them, so the simple solution was to pump the water over the saddle into the Karori catchment. It was possible only because a power supply was available nearby, having

been extended in 1942 to Wright's Hill for the 9.2-inch (234-millimetre) counter-bombardment battery. Once the pipeline had been snaked over the saddle, pumping was started on 17 September 1945.¹⁷⁶ The Long Gully water supply was dismantled in April 1957 when Kaitoke came on stream.