

OUR WATER HISTORY



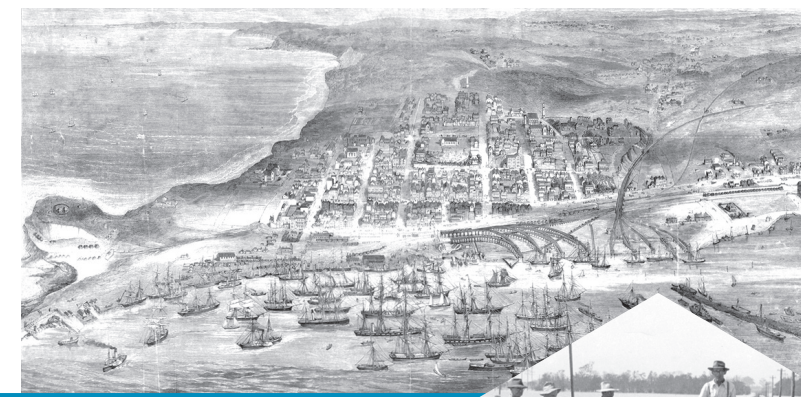
CELEBRATING 125 YEARS OF HUNTER WATER

This year marks Hunter Water's 125th anniversary of serving the Hunter. To mark the milestone, we've collated a timeline of our water history.

For more information visit hunterwater.com.au/125years

Pre European Settlement

For at least 6,500 years Aboriginal people have inhabited the Lower Hunter. The traditional owners included the Awabakal, Worimi, Wonnarua, Geawegal, Birpai and Darkinjung Nations. Evidence shows that in addition to accessing fresh water streams, Aboriginal people dug groundwater reservoirs, created wells, channelled water for filtration and created covers to protect drinking water from contamination.



1797 – 1870s Water supply

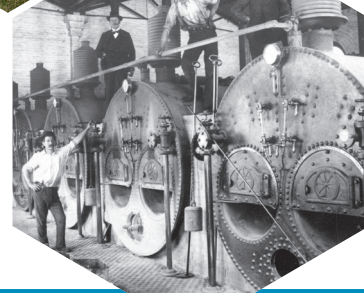
Newcastle was first discovered by Europeans in 1797, with an initial coalmining settlement established in the same year. Newcastle's inhabitants relied on groundwater wells, rainwater tanks and sometimes creek water. As the population grew, the water supply became increasingly contaminated. People became sick from their water supply, with the death rate climbing to 42.5 per 1,000, three times the natural rate.

1877

Approval granted to construct the Walka Water Scheme.



1882 The Hunter's first drinking water reservoir (The Res) constructed



1885

First drinking water supplied from the Hunter River to Newcastle.

1887

Walka Water Scheme completed

This engineering marvel supplied Newcastle, Maitland and surrounding townships with filtered water from the Hunter River, alleviating disease and sickness from contaminated water supplies.

1955 Maitland Floods cause widespread damage

1956

Work starts on Grahamstown Dam

With the Hunter's population and demand for water growing rapidly, work started on our region's largest water source, Grahamstown Dam.

Hunter Water's President, George Schroder, was inspired by 'off river' water storages in Sweden, and enlisted Swedish engineers to design one for the Hunter.

Construction took nine years with a workforce of 560 men to trench a canal from the Williams River to the new dam, clear and level land, and lay water tight clay across the 28 square kilometre site.

1950
Population supplied with drinking water
247,992
Annual water consumption
32,625 million litres



1965 Drought hits the Hunter, emptying Chichester Dam

1970
Population supplied with drinking water
345,897
Annual water consumption
67,817 million litres



1982 'User pays' introduced

Hunter Water introduced Australia's first user pays tariff for water usage to replace a property value based pricing structure. This change caused controversy when it was first introduced, but was soon accepted by residents of the Hunter and proved to be an effective tool for conserving water. User pays is now commonplace across Australia.

1936 Tomago Sandbeds supply drinking water

Investigations into accessing water from Tomago, which means 'sweet water' in local Worimi language, had been ongoing since the turn of the century. It was in 1936 the Tomago Sandbeds Water Supply Scheme was brought into use as the only legitimate backup to Chichester Dam.

1939 – 1945

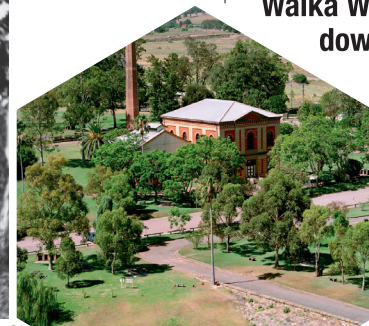
Historical event – World War II



1936 Burwood Wastewater Treatment Works completed

In 1936 the new outfall works at 'Murdering Gully' were successfully tested. Sewage would be screened to separate solids from liquids and then discharged into the ocean via a 20 metre pipeline.

The Board approved the name Burwood Beach for the treatment site, deriving the name from the Burwood Estate, the original name for Merewether.



1986 Work starts on Burwood deep ocean outfall

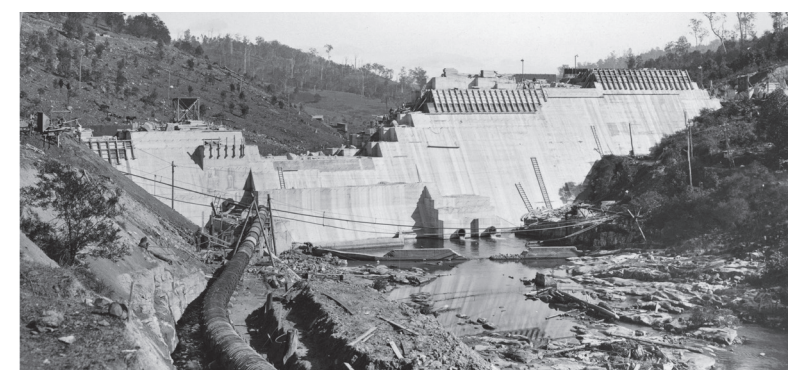
While Newcastle's population grew significantly in the 50 years since Burwood Beach Wastewater Treatment Works was constructed, the treatment facility itself remained unchanged.

Newcastle's beaches had become central to local culture, and work began in 1985 to overhaul the treatment works at Burwood to improve the level of sewage treatment.

In 1986 work began on a 1.8 kilometre long, 26 metre deep ocean outfall. Completed in 1989, this upgrade has led to Hunter beaches being consistently rated as the cleanest in NSW by Beachwatch.

1988 Dungog Water Treatment Plant opens to treat water from Chichester Dam.

1990
Population supplied with drinking water
407,673
Annual water consumption
78,077 million litres



1929 – 1932

Historical event – Australia's Great Depression

1931 Walka Water Works shut down due to economic recession



1992 'The Board' becomes Hunter Water Corporation

In its centenary year, the Board broke with public sector traditions and the organisation became a Corporation under the State Owned Corporations' Act on 1 January 1992.

1999

BHP closes its Newcastle steelworks, the region's largest water user.

2004

Hunter Water sold two million litres of water per day to Wyong as a temporary measure to help the Central Coast in their water shortage.

1927 Work starts on expanding Newcastle's sewerage scheme to outlying suburbs.

With the local population tripling since 1900, the sewerage system became overloaded.

In 1927 work began on a sewerage expansion scheme including a major sewage treatment works at 'Murdering Gully' Merewether.



2006 Grahamstown Dam gets a new spillway and 50% more capacity

A new spillway and embankment were completed in December 2005, increasing the top water level of Grahamstown Dam to 12.8m and its capacity to approximately 190 billion litres.

2007

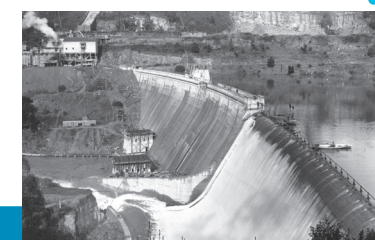
Historical event – 'Pasha Bulker Storms'



1923 First water from Chichester Dam

When the water supply became critical in the summer of 1923 – 1924, strenuous efforts were made to provide an emergency means of supply from Chichester Dam. Work on the tunnel for the Chichester Trunk Gravity Main under the Hunter River was still incomplete and, as an alternative, two pipes were placed in the riverbed as a temporary connection for water to be delivered from the Dam.

1926 Chichester Dam completed



2013

Lower Hunter Water Plan sets out 20 years of water security with new efficiency measures like Water Wise Rules.

2014 Kooragang Recycled Water Scheme completed

In 2014 Hunter Water opened the region's largest recycled water scheme, which saves 2.2 billion litres of drinking water each year. The Kooragang Recycled Water Scheme takes treated wastewater from Shortland, then purifies it to the point where it's free of all salts, minerals and bacteria. The recycled water plant site also includes Hunter Water's Centre for Education, which is open for school tours.

2015

Historical event – April Superstorm



1916 Chichester Dam approved

With the Hunter's population and water demand soaring, the State Government approved the construction of Chichester Dam. A works village was established to accommodate the men employed on the construction of the Dam and their families, with a rent of two shillings, the equivalent of \$10 in today's money, per week. The village included a general store, doctor, and reticulated water supply from the Chichester River.

The water supply scheme included an 85 kilometre watermain running from the Dam to Newcastle. Fourteen kilometres of the original pipeline was made from wood, given there was a shortage of steel due to WWI.

1920
Population supplied with drinking water
124,320
Annual water consumption
7,187 million litres



2015 The Res open for tours by public ballot

2016
Burwood Beach Wastewater Treatment Works fitted with an ultraviolet disinfection system to remove microorganisms from wastewater discharged via the deep ocean outfall, making our beaches even cleaner.

2016
Population supplied with drinking water
563,659
Annual water consumption
68,781 million litres



1917 Original sewage outlet at Merewether's cliffs replaced with underwater discharge pipe.



2017 Hunter Water research partnership with University of Newcastle

With the Hunter's population expected to exceed 860,000 people by 2036, Hunter Water established a research partnership with the University of Newcastle to better understand how tomorrow's communities will want to live, and how social and technological innovation will contribute to a more integrated and sustainable future.



1902 Water restrictions enforced for the first time

In 1902 the Hunter faced a severe drought. When the Hunter River's water level fell rapidly, Hunter Water constructed a small temporary weir about 2 feet (60 centimetres) high in an attempt to capture what little water was flowing in the river. The Hunter's first water restrictions were imposed.

The drought was severe and persisted for several years.

In February 1906, the Hunter River ceased to flow at Oakhampton and the single delivery pipe between Walka and Newcastle failed to supply enough water to meet the growing population's demand.

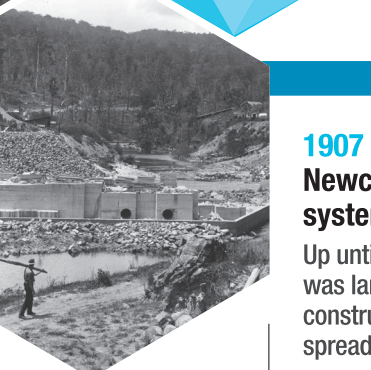
1898

Approval granted for first sewerage scheme.

1901

Historical event – Australia becomes a federation

1903
Population supplied with drinking water
52,610
Annual water consumption
1,846 million litres



1907 Newcastle's first sewerage system completed

Up until 1907, Newcastle's sewage was largely disposed via the newly constructed stormwater system, spreading foul odours through the city. In 1907 Newcastle, Merewether and part of Hamilton connected to the Newcastle Sewerage Scheme, serving 52 properties with 40 kilometres of underground sewer mains.

The sewerage scheme discharged from the cliffs at Merewether Beach.

1910

Newcastle's first sewage pumping station built on the intersection of Brown and Hunter Streets, allowing the scheme to service 650 properties.

1914 – 1918

Historical event – World War I

Beyond 2017

The Hunter is at a crucial and exciting point of growth and development. With a 125 year track record of delivering safe and reliable services to our region, Hunter Water is partnering with other organisations to meet the aspirations of the 2036 Hunter Regional Plan, and listening to the community to ensure the decisions made today allow for a smart, sustainable and vibrant future.