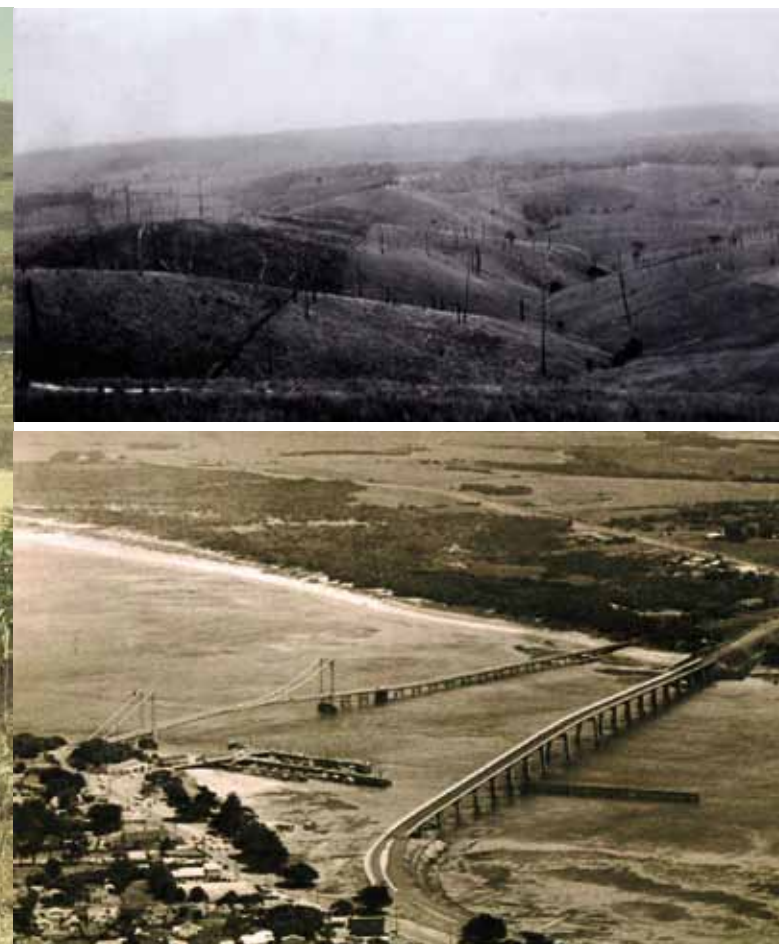


# Water Supply Retrospective



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## From Bass Hills to your tap, we explore a water supply evolution...

Water supply in the Westernport region came to life in the early sixties with the construction of the Candowie Reservoir located at the base of the Bass Hills in Almurta.

Commissioned in 1964, the reservoir's original capacity was raised in 1978 and again in 1982 to achieve a capacity of 2264 ML.

Measuring approximately 1,700 hectares with an estimated 25km of waterline, Candowie's main tributary is Tennent Creek. Before European settlement, the Candowie sub-catchment was made up of swamp scrub, damp and lowland forest. This vegetation was cleared predominantly for cattle grazing. Today, Candowie's catchment area is made up of mainly privately owned farmland and is part of the Bass catchment.

Originally, water was pumped from Candowie Reservoir to nearby Almurta Basin and gravity fed to the Wimbledon Heights Storage Basin. These open water basins were two main components of the water distribution system of the day and supplied the area from 1964 to 1989.

San Remo Basin was built in 1961 and came into service when Candowie was connected in 1964 to service Phillip Island and surrounding communities with drinking water. Phillip Island and San Remo received mains drinking water from November 1964. The original water supply to Phillip Island was delivered via a 10 inch cast iron main which was connected under the old swing bridge. Supply was upgraded when the current bridge was built and opened in November 1969, with the upgrade of the supply main to a 350mm pipe.

Kilcunda, Dalyston and Archies Creek started receiving drinking water after the drought of 1967. The coastal hamlets of Coronet Bay, Corinella, Grantville and Pioneer Bay tapped into mains water in the early eighties. Outlying areas of Phillip Island did not receive drinking water until the start of the nineties.

Water distribution was different to that of today. Westernport Water's current Treatment Plant Manager Brett Beaumont explains: "In the 70's and 80's we had two operations - winter and summer. During winter we used to gravity feed all the way from the Almurta Basin to the Cowes storage basin bypassing the San Remo Basin. In summer the demand was much greater so we had to give the water a boost and pump it into the San Remo Basin to ensure we had enough storage to cope with demand."

Water quality was the main driver to build a Water Purification Plant at Candowie in 1988. The water was treated using a technique known as Dissolved Air Flotation and was named in memory of a former engineer and manager Ian Bartlett, who undertook much of the concept design which still exists today.

In March 1991, Westernport Water awarded a contract to implement major water supply extension and sewer works to Phillip Island and Westernport communities.

In 1997 Westernport Water committed itself to further improving its water quality and identified San Remo Basin as a key solution to the water quality equation. It was first thought that the process of using heavy machinery to enlarge the basin would be fairly straight forward, but no one was aware of the volcanic rock that was to be uncovered in the embankments and floor.

The basin was taken out of service for a period of twelve weeks. For a cost of \$640,000 the basin was increased to 30ML capacity compared to its original 22ML providing a secure storage for the high quality water that is delivered from the Water Purification Plant. The water supply system is somewhat unique in that this basin is positioned midway on a single source supply main which delivers water from Candowie Reservoir in the north east via the Ian Bartlett Water Purification Plant to all areas stretching from The Gurdies to Archies Creek and includes San Remo and Phillip Island. When the basin came online in 1999 the Almurta and Wimbledon Heights storage basins were decommissioned.

Brett Beaumont explains "San Remo Basin is a vital link in the transfer of water from the Ian Bartlett Water Purification Plant to customers' properties. Water from the plant is now pumped to an enclosed and lined San Remo Basin from where it gravity feeds to all customers."

Security of water supply became an issue during the 2006/07 drought and it became necessary to secure alternative water to bolster storage supplies. It was decided to source additional water allocation from Bass River and tap into the Corinella borefields which had been used during the drought. Four ML per day of bore water was sourced from Grantville during the drought and a total of 276ML was extracted. The Corinella borefield was commissioned in 2009 with a bulk entitlement of 490ML. An additional 3000ML per annum from the Bass River was approved by the minister for water in 2009.

Increasing reliability of water supply infrastructure to Phillip Island was identified as a priority considering the age of existing water mains that are suspended from the bridge connecting Phillip Island to the mainland. In December 2010 it was announced that Westernport Water would construct an independent under-channel pipeline, under the San Remo Channel using horizontal directional drilling. Works for this project commenced in April.

Updated forecasts from the Sustainable Water Strategy Central Region Action 2055, predict a population increase of 58% by 2030 and 166% by 2055. This highlights Westernport Water's need to develop alternative solutions to meet the future water supply needs of the region.

From January, the total bulk entitlement of water available to Westernport Water is 7400ML per annum. Tennent Creek (2,910ML), Bass River (3,000ML), Corinella borefield (490ML) and Wonthaggi Desalination Plant (1000ML).

The connection to the desalination plant provides Westernport Water with the capability of taking drinking water from the Wonthaggi/Melbourne pipeline under any circumstances where it is needed. The new desal pipeline to Melbourne due for commissioning in June 2012 can reverse flow and return Melbourne water by valves located at Candowie Reservoir.

Another avenue Westernport Water is investigating is further increasing Candowie Reservoir by raising the dam wall 3 metres to increase storage capacity from 2264ML to 4463ML. A decision is expected to be made in June... [\[link\]](#)

### Who has managed our water through the decades:

- The Westernport Waterworks Trust constituted in 1947
- Cowes Sewerage Authority constituted in 1971
- Westernport Water Board constituted in 1984
- Westernport Region Water Authority constituted in 1994
- Westernport Region Water Corporation constituted in 2007