

From the 1920s a series of locks, weirs and barrages were built along the River Murray. Locks and weirs help to keep the river at constant levels - allowing vessels to navigate the river all year round. The barrages at the mouth of the river were designed to keep salt water from entering the lower reaches. All structures are still in operation today - a tribute to our surveying, engineering and construction staff's skills.

THE RIVER MURRAY - LOCKS, WEIRS & BARRAGES

SA WATER - CELEBRATING 150 YEARS



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During the 1920s and 30s, locks and weirs were constructed along the River Murray to provide constant levels of water - ensuring vessels could navigate the river all year round. The Engineering and Water Supply Department (now SA Water) undertook the construction of locks and weirs 1 - 9.

Locks and weirs were constructed to a design using three main parts:

- The lock chamber - where vessels travel from one pool level to the next.
- The fixed weir - concrete piers and stoplogs used to regulate the flow of the river.
- Navigable pass - located between the lock chamber and the fixed weir and designed to let vessels pass during times of flood.



Above - Lock No. 1 Blanchetown. Valves, downstream end of Lock. December 1919.

Above middle - Barrages. Ewe Island, lowering Taintor gates with improvised gear. January 1940.

Above right - Goolwa Barrage, foundation piles for southern sluices. Looking towards Sir Richard's Peninsula. April 1936.

BARRAGES

In 1931 the River Murray Commission recommended barrages be constructed on the channels leading from Lake Alexandrina to the Murray mouth at the Coorong.

The Engineering and Water Supply Department undertook the construction of the barrages from 1935 - 1940.

The barrages were designed to withstand tidal pressure but not to obstruct flood waters. Commonly known as the Goolwa Barrages, there are five barrages that make up the group:

- Goolwa
- Mundroo
- Boundary Creek
- Ewe Island
- Tauwitchere



LOCKS AND WEIRS FACTS

Lock	Name	Distance from Murray mouth	Length of weir (m)	Year Completed
1	Blanchetown	274	169	1922
2	Waikerie	262	138	1928
3	Overland Corner	431	123	1925
4	Bookpurnong	516	125	1929
5	Renmark	562	125	1927
6	Murtho	620	87	1930
7	Rufus River	697	84	1934
8	Wangumma	726	119	1935
9	Kulnine	765	94	1926

Note - Locks 8 & 9 are not in South Australia.

Both the Goolwa and Tauwitchere barrages were built with locks, allowing passage between the Murray mouth and the Coorong. During construction coffer dams were built to keep the areas free of water. Cofferdams are levees built around the construction site.

The construction of the barrages has regulated the flow of the river and keeps salt water out of the lower reaches of the Murray. This made the construction of major pipelines (Mannum - Adelaide and Tailem Bend - Keith) possible - helping to supply South Australia with water.

Today, the River Murray is the lifeblood of South Australia's water supply. The foresight of the engineers involved with these projects coupled with the hard work of thousands of workers created the mainstay of the current water supply system.

