Bookmark Creek and the start of Irrigation in Renmark

RENMARK community's vision to restore Bookmark creek is a step closer with the Jane Eliza regulator major works nearing completion.

In the first of two articles, Renmark Irrigation Trust explores Bookmark Creek's central role in the establishment of Renmark as Australia's first irrigation settlement.

From the late 1880s until today, this waterway has witnessed the struggles, successes and innovations that shaped the Renmark community. The creek has its own story to tell.

In 1887, Canadian brothers William and George Chaffey signed an agreement with the South Australian Government to develop 250,000 acres of land for irrigation. They chose land we now know as Renmark, largely because of its natural advantages and its connection to the River Murray. The area was on the traditional lands of the Erawirung. At the heart of the Chaffey Brothers' vision lay an 8km anabranch, a creek that has been known by several names since — Salt Creek, the Billabong, the Reservoir, and now Bookmark Creek.

The creek offered a practical solution for irrigation. Water could be pumped into it with a lift of only 15 feet. This meant that, with an additional pump, the reservoir could be maintained even in years when the river did not flow consistently. As the community expanded, another pump was installed to lift water even higher — around 34 feet — allowing irrigation across a wider area and securing the settlement's survival.

By the mid-1890s, however, a world-wide recession caused the Chaffey brothers' financial model to collapse. To save the scheme, the State Government stepped in. On December 23, 1893, it passed legislation creating the Renmark Irrigation Trust — the first of its kind in South Australia. Although the Trust initially contracted Chaffey Brothers Ltd to supply water, the company went bankrupt in 1895. From then on, the trust took full control of Renmark's irrigation water supply, a responsibility it has held ever since

The backbone of the early settlement was built around Blocks A, B, and C, clustered near Bookmark Creek. Irrigation water initially came from Pump Station 2, located below the Distillery Bridge. From the mid-1890s, Pump Stations 2 and 3, along with Bookmark Creek, formed the heart of the irrigation system until 1972. Pump Station 1, positioned on the riverbank, played a supporting role. Rather than supplying water directly to the blocks, it was used to top up the Bookmark Creek reservoir during low river levels. From this reservoir, water then flowed to Pump Station 3, near Angove's, and was distributed across much of the original settlement. A major shift came in 1972 with the commissioning of the Main Pump Station. For the first time, water was pumped directly from the river into a closed pipe network, making Bookmark Creek unnecessary as a fresh water source for irrigation (see map for location of pump stations).

However, beneath the ground lurked another challenge that impacted the Creek.

Renmark resident Ian Tolley remembered Bookmark Creek in his early childhood as "a paradise", alive with ducks and birdlife along the banks near Olivewood. Shortly after, the picture was starkly different. Salinity had taken hold. Trees were dying, animal life had disappeared, and the water quality was deteriorating. John Tolley, Ian's father and the Trust's chief engineer, measured salinity levels that were alarmingly high. In response, in 1931, an earth channel was dug from Pump station 3 to 2, which meant there was a clear waterway from Pump Station 1, through to Pump Station 2.

From the 1920s onwards, it became clear that sub-surface drainage was vital for irrigation to continue. Initially, tile drains were installed beneath the soil, funnelling excess water into Bookmark and Ral Ral Creeks. The creek that had once been a source of irrigation water gradually became an outlet for managing the challenges of salt and waste.

In the 1960s the Trust commenced a major drainage management program, the Comprehensive Drainage Scheme, to ensure that irrigation water did not unduly impact salinity in the waterways.

In an interview, in 1998, Rod Maddocks recalls the state of the irrigation system when he arrived as RIT's chief engineer, in 1963:

"Drainage water was being pumped from the northern area and Block E to the Block E evaporation basin alongside Ral Ral Creek," he said

"The remainder was collected in pipelines and open channels which went through what is now known as Bookmark Creek. It was then known as Salt Creek.

"Some areas, especially Block A near Bookmark Creek, had no drainage at all. Growers were just unable to drain their properties and properly manage their land.

"There was a considerable number of pumps around the district trying to cope with the drainage water. That is the reason why that area was chosen to be the first area to have the main drain system."

The Comprehensive Drainage Scheme included building pipelines and caissons to collect drainage water, and was a great success. Growers were able to drain their land by gravity into sumps, which then connected to the Trust's pipelines and caissons. The Renmark Area Drainage Scheme (RADDS) then carried the saline water to Disher Creek, along with irrigation drainage water from areas outside the Renmark Irrigation District. Once at Disher Creek, the saline water is piped under the Murray River, to the Noora evaporation area. With the completion of the RADDS by the end of the 1980s, irrigation ground water that would have entered Bookmark Creek was now being intercepted. This was a positive milestone for the Creek.

The industries that grew alongside Bookmark Creek also shaped the area's story. One of these was Angove's Distillery and Winery, which was established in 1910. Angove's (now known as Angove Family Winemakers) relied on the creek's proximity for water. Current chairman John Angove recalled how wastewater management became a priority.

"While the creek was there as a water supply, we needed to protect the quality of that water," Mr Angove said.

"Other methods for our waste disposal, rather than draining into the creek, had to be sorted out. We developed evaporation bays because the land around here was pretty poor quality, just clay.

"We laser levelled them so that there would be a decent, even spread of wastewater. Now wastewater is collected, then treated and oxygenated, and put out onto 100s of trees that we've planted on an 8-hectare woodlot."

Similar woodlots now exist in Renmark. On the banks of Bookmark Creek, the old Renmark Wine Grower's Distillery (now 23rd Street Distillery) built a woodlot. A woodlot was also incorporated into the planning of the Jane Eliza estate, with salt-tolerant native trees planted in 1988. These woodlots have transformed wastewater management into an environmental asset.

By the 1990s, irrigation drainage and waste no longer impacted Bookmark Creek to the extent it had in the past. The creek could begin to regenerate, but the community could see it needed more help. Community organisations, including the still existing Bookmark Creek Action Group, joined together, and began advocating for a better future for Bookmark Creek.

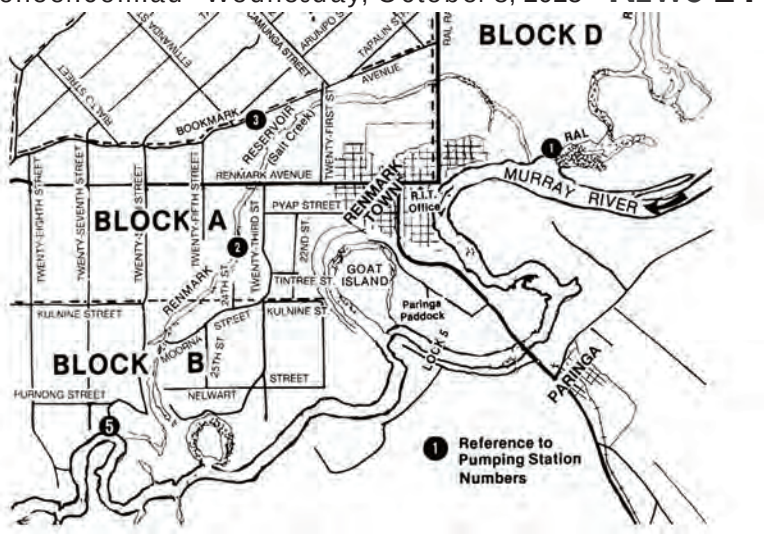
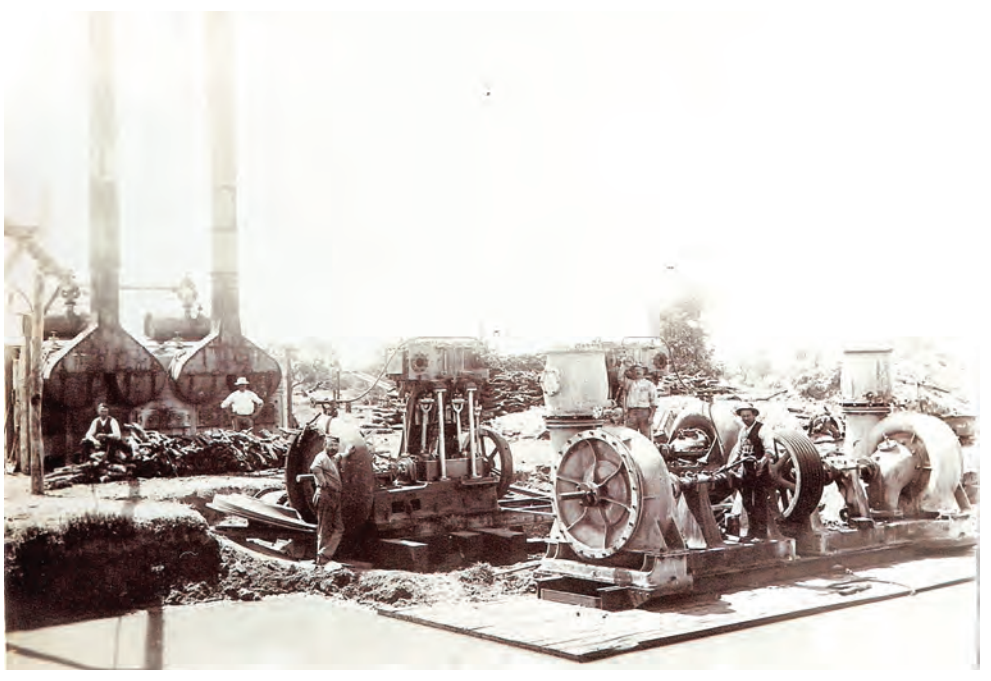


Diagram of RIT's Pump stations 1, 2, 3 and 5. PHOTOS: supplied

A photo of the woodlot at Angove Family winemakers, taken by Geoffrey Bishop in 2010.

A 1968 aerial photo of the feed channel to pump station 3, next to Angoves. PHOTO: Angove Family Winemakers



The No 3 Pumping Station being assembled in 1894. PHOTO: RIT