Queensland Government
Environmental Protection Agency/Queensland Parks and Wildlife Service

Tramway Lift Bridge over Maroochy River

Place ID	602527
Status	Permanent Entry
Address	Store Road
Town/Suburb	NAMBOUR
LGA	MAROOCHY SHIRE COUNCIL
Theme	Developing primary production
Theme	Moving goods and people

Significance
The Moreton Central Sugar Mill operated between 1897 and December 2003. During the 20th century, sugar growing was the most important primary industry in the Maroochy district. It was a key factor in the development of Nambour and the Maroochy Shire and important in the growth of the sugar industry in Queensland. The cane tramway, which brought cane from many farms to the mill for crushing, was an essential part of the operation of the mill. The line between Nambour and Coolum was also used for passengers in the 1920s and 30s and was instrumental in the development of the tourist industry in the area, by linking the QR station next to the Nambour mill with resort areas at Coolum and Maroochydore

The timber lift bridge that carries the tramway across the Maroochy River is rare and may be the only surviving bridge of its type in Queensland.

The bridge, though small in scale, demonstrates the principle and working of a lift bridge well, having a moveable span set between two towers and pulleys and counterweights which raise the span to allow river traffic to pass underneath.

History
The Moreton Central Sugar Mill opened for crushing in 1897. The lift bridge was part of the tramway network that connected the mill with cane farms, which developed over many years and was in use until late 2003. It was a key factor in the success of the mill and the development of Nambour.

Sugar cane was first brought to Australia in 1788 but subsequent plantings at Sydney, Port Macquarie and Norfolk Island failed to be commercially viable. Captain Louis Hope grew a cane crop successfully in Queensland in 1862. By 1864 the first commercial sugar mill in Australia had been established by him at Ormiston and interest in growing sugar cane spread rapidly, encouraged by the Queensland government. By 1867 an estimated 2000 acres were under cane in the Brisbane area and by the end of the decade, cane had also been successfully established further north at Maryborough, Mackay and Bundaberg, where the warmer climate proved more suitable.

William Clark had experimented with sugar cane growing at Bli Bli in the 1860s, but in 1869 a group of Quakers took up land near the junction of the Mooloolah River and Sippy Creek, planted sugar cane and erected a crushing mill. This project was abandoned after severe flooding in the 1870s, but cane was grown successfully in other parts of the district including Buderim, where in 1876 Joseph Dixon, one of the Mooloolah growers, established a mill in order to process his own cane and that of neighbouring farms.

In 1881 the Buderim Mountain Sugar Mill was established and also served many small farms, but both mills had failed by the end of the decade. In 1893 the Sugar Works Guarantee Act was passed. This provided capital for the erection of central sugar mills in districts with many small farms by offering loans to incorporated companies, so that growers could develop their own mills. The Moreton Central Sugar Mill Company was formed in December 1894. Land bounded by the North Coast railway on the west and Gympie Road on the east was purchased for a mill site at the small settlement of Nambour and the erection of a mill by Caskie and Thompson began in late 1895.

In order for the mill to be successful, it was essential to establish an efficient means for bringing the cane harvest in from surrounding farms to be crushed. Tramway networks carrying wagons drawn by steam locomotives had been used effectively in other Queensland sugar districts since the 1880s, so possible routes for a tramway network were surveyed as part of the planning for the Moreton Mill. A two-foot (610mm) gauge was chosen for the sake of economy, speed not being an important factor in the running of the tramway, though the wagons were at first pulled by horses. In 1897 the first tramlines were constructed and the first harvest was crushed at the mill.

Extending the tramway network proved expensive due the nature of the terrain and there were consequent difficulties with the supply of cane to the mill, though by 1905, when the first locomotive, a Krauss 0-6-0 tank locomotive, was purchased, there were 26 miles of permanent tramline in use. In 1911 a branch line was constructed to the Maroochy River and although the eastern section of the tramway network continued to be extended, lines on the western side were sold to Maroochy Shire in 1914.

Two short sections of line on the north side were laid, but a shortage of steel and labour during and after WWI delayed further work. Much of the line was temporary, being laid down for the crushing season. In 1917 a lift up bridge was constructed over Petrie's Creek. In 1920, the mill board sought permission from the state government to bridge the Maroochy River and this was granted on 10 May 1920. The new bridge was also a lift bridge and was completed by August 1921.

The lift mechanism was necessary as the bridge carried tramline, which had to be level with the land on either side of the river. This made the bridge too low to allow boats to use the waterway. This problem had been addressed since the early nineteenth century by providing bridges with a moveable section. Moveable bridges fall into three types; the bascule bridge, in which two sections hinge upwards, the swing bridge in which a span rotates away from the river, and the lift bridge. In this type, the moveable span is located between two towers and can be raised vertically by means of a system of cable, pulleys and counterweights. The span remains horizontal when lifted, so that river traffic can pass beneath. In larger bridges, engines control the span's movement, though the Maroochy bridge is hand operated. Lift bridges generally are now an uncommon type and this is believed to be the only remaining example of a tramway bridge with a lift span in Queensland.

The moveable span on the Maroochy bridge lifts to a height of 26 feet (7.92 metres) providing a space 17 feet six inches (5.33 metres) above the high water mark for boats to pass through. This bridge linked the northern cane growing areas to the tramway system. It was extended to connect with an isolated line built in 1922 between Coolum Creek and Coolum Beach. This line officially opened in 1923, though it had been in use for some time before this and was also used for the transport of passengers.

Although there had been a wharf there since 1911, the road to Coolum was poor and often boggy, making the place hard to access. The tramway terminus at the mill in Nambour was close to the train station and passengers from Brisbane could use the tramway to either link with the launch to Maroochydore or to travel to Coolum. The mill fitted up the cane wagons with back-to-back seats and timed the movement of trams to fit in with train timetables. This service was very popular and played an important role in the development of Coolum as a seaside resort. The first sale of allotments at Coolum took place in December 1922 and over the Christmas-New Year holidays that year over 1000 people travelled by tram between Nambour and Coolum. Holidaymakers, day-trippers from Nambour and from Brisbane and Coolum residents wishing to shop in Nambour used this service. In 1927 the Main Roads Department built a more serviceable road and the tramway passenger service continued to run to Deepwater until 1927 and to Coolum until 1935 when a bus service was provided.

Work on the mill and the tramway system continued through the 1930s, though during World War II operations at the mill fell because shipping was disrupted and there were labour shortages. In 1951-2 an extensive program of repairs and line relaying was carried out. In 1956 land at the River Bridge depot was purchased from the Maroochy Co-Operative Society Limited and the store buildings on it sold for removal. A metal shed and annexe were later constructed near the bridge at an unknown date. In 1961 diesel locomotives were purchased which necessitated strengthening bridges and laying heavier rail along the tramways.

In 1976 the mill was taken over by Howard Smith Limited, but in 1987, the firm decided to return to its core business and the mill was sold to Bundaberg Sugar, who was expanding by buying more mills. In 1989 the rail line to CSR in Brisbane closed at the Brisbane end and so road transport to the refinery was used. However, the trams continued to transport cane from farms to the mill.

The name of the company was changed to the Moreton Sugar Company Limited in 1991 and. the British company of Tate and Lyle acquired the mill as a wholly owned subsidiary when it took over Bundaberg Sugar in 1991. The plant and tramways were overhauled in 1997. Bundaberg Sugar, including seven mills, was sold to the Belgian company Finasucre in 2000.

Between 1980 and 2003 more than 1000 hectares of cane land in Maroochy Shire were lost to urban development and other uses. This meant that some cane was being brought to the mill from 60 or 70 kilometres away. As it is very important that cane is crushed soon after harvesting to maintain its sugar content, this had an adverse effect on the functioning of the mill. The price of sugar also fell and a crisis was reached in 2002. It was decided that Moreton Mill would close and its last crush took place on 3 December 2003. The cane tramway network was dismantled and most of the line removed as part of an agreement with landowners.

The lift up bridge over Petrie Creek no longer exists and the Maroochy River bridge is now a very rare example of its type in Queensland and may be the only example surviving.

Description
The tramway lift bridge is a low-level timber bridge that spans the Maroochy River between the former depot near River Store Road on the south bank and Store Road on the north bank. It runs between the banks of the river within formal abutments, though the bank beneath has been reinforced with stones.

The bridge is supported on timber piers sheathed in concrete. A span near the southern bank is moveable and is situated between two timber lift towers. The lift span can be raised by hand using a chain harness and a system of cables and pulleys located on the timber lift towers and balanced by concrete counter weights. It carries metal tramway lines of 2-foot (610mm) gauge laid over timber sleepers. Two metal ladders with metal handrails provide access to the top of the lift towers where there is a tubular metal guardrail.

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