COHUNA HEADWORKS

Location

RIVER TRACK, GUNBOWER, 3566

Municipality

Level of significance

Heritage Inventory Site

Heritage Inventory (HI) Number

H7726-0009

Heritage Listing

Victorian Heritage Inventory

Statement of Significance

Last updated on - January 3, 2023

What is significant?
The site is a complex of water regulation infrastructure constructed circa 1881, including two headworks locations (Old Cohuna Headworks and New Cohuna Headworks), located on the bank of the Murray River and connected to a series of irrigation channels and is related to water management, pastoral and/or agricultural activity in the Gunbower region.
How is it significant?
Cohuna Headworks is of local historical and archaeological significance.
Why is it significant?
Cohuna Headworks played an important role in the supply of water to Gunbower Island and surrounds. The site is significant to the development of water infrastructure in the region and across Victoria. The site demonstrates the importance of water and water management practices to Victorian farming areas in the region during the late 19th and early 20th centuries.
Cohuna Headworks has the potential to yield further information on the irrigation landscape and history of water supply in the Gunbower Region and Victoria. The site (in particular, immediately within and surrounding the New Cohuna Headworks location) is considered of high archaeological potential to reveal further information about the construction through dislodged components, and habitation by those who were associated with the headworks operations which may be buried in the surrounding earth.

Interpretation of Site	The Cohuna Headworks (Old and New) is a complex of water regulation infrastructure constructed circa 1881 on the bank of the Murray River and connected to a series of irrigation channels and is related to water management, pastoral and/or agricultural activity in the Gunbower region. The site may contain buried features related to the construction and operation of the headworks. The site may provide limited information regarding past activity related to water infrastructure and water management. The site's history is directly linked to the development of irrigation in the Gunbower region: Old Cohuna Headworks Located on the bank of the Murray River at the easternmost extent of Old Cohuna Channel on River Track, Old Cohuna Headworks is a large structure built of concrete and metal. The site includes a deep, concrete-lined pump well, an offtake on the Murray River built into a substantial concrete wall, and a concrete-lined vent on the line to the Deep Creek connecting channel. The eastern end of the Old Cohuna Channel is faced with high concrete walls. On the flat, south of the pump position, is archaeological evidence of boiler settings and a large flat ash heap. On 24 July 1888, the Cohuna Irrigation and Water Supply Trust called for tenders for the construction of headworks and engine house at the head of the Cohuna Main Channel on the Murray River. The tender was awarded to J. Jorgensen, and the pumping station was supplied by Thompson and Co. of Castlemaine. The pumping plant at Old Cohuna Headworkswas to be the largest of its kind in the region. However, the coffer dam protecting the works collapsed in June 1889, and the pump foundations were destroyed in the resulting flood. The pumps were finally installed and put into operation four years later. As part of the Deep Creek Scheme, a spur (or connecting) channel was built between Deep Creek and the Old Cohuna Headworks with a 170-foot-long tunnel which connected the spur to the headworks. Water could then be pumped into Deep Creek, which then fed into Gunbower Creek. The concrete wall built in the river had an iron door (5ft wide by 6ft high), which covered an inlet pipe. The door was drawn up during times of flood by a winch which was set in the top of the wall. A vertical shaft, located part way along the tunnel, allowed air to escape, and a brick wall (approximately nine foot in height above the intake) with a bank, protected the tunnel. However, in June 1900, the Murray River flooded high enough to break the bank, and the works collapsed. New Cohuna Headworks The New Cohuna Headworks, which is situated approximately 200 m to the southeast of the Old Cohuna Headworks, consists of a series of sunken concrete chambers which would have housed pumps and equipment. The slab and bolts that would have housed the pump machinery are still in situ. The site is fenced, but accessible via the existing concrete stairs. In 1890, the Trust called for tenders for the construction Main Channel headworks and flume to Gunbower Island. It was commissioned in 1909 by the State Rivers and Water Supply. The New Cohuna Headworks were constructed by 1910, a short distance upstream from the Old Cohuna Headworks. A large boiler power two Steam Turbine Thompson Engines and four Weymouth 30-inch pumps. Additionally, a loop channel was excavated to link the new plant with the Old Cohuna Headwork's downstream. Both plants increased the volume and water flow into the Cohuna Main Channel to provide a reliable supply of water for domestic and farm use across the district. A third boiler was installed in 1915. A small settlement evolved at the Cohuna Headworks, comprising those needed to run the Cohuna Headworks. This included timber cutters, engineers, stokers and boilermakers. Only two houses were built in the settlement, one for the Manager and another for the Engineer, while the workers and their families lived in tents and shanties. The children of the headwork settlement attended Gunbower Island School No. 3503. The exact location of this settlement is unknown, but Kaufman and Ballinger (2014a) identified a mound of bricks and rubble, possibly a house site, is situated along a faint track running northwest/southeast from the New Cohuna Headworks near some peppercorn trees. Peppercorn trees are also found to the southeast of the Old Cohuna Headworks, which may indicate the location of another former house. Both the Old and New Cohuna Headworks operated together until the construction of Torrumburry Weir in 1923, when they were decomissioned. Both plants were demolished, and the machinery was sent to Bendigo by rail for scrap. A number of surface artefacts, including a glass bottle stopper and iron bolts, consistent with those still visible in concrete at the New Cohuna Headworks site were present on the ground surface between the two headworks locations. Interpretive signage and safety fencing have been installed at the site, which is maintained by Parks Victoria. Cohuna Headworks The Cohuna Headworks (Old and New) is a complex of water regulation infrastructure constructed circa 1881 on the bank of the Murray River and connected to a series of irrigation channels and is related to water management, pastoral and/or agricultural activity in the Gunbower region. The site may contain buried features related to the construction and operation of the headworks. Therefore, the Cohuna Headworks site meets Threshold A (archaeology). The site may provide limited information regarding past activity related to water infrastructure and water management. The site's history is directly linked to the development of irrigation in the Gunbower region. The Cohuna Headworks site thus meets the Threshold B

Other Names	Gannawarra Pump, Old Cohuna Headworks, Cohuna Pump, New Cohuna Headworks,
Hermes Number	209337
Property Number	

History

Between 1877 and 1881 there was a severe drought which resulted in the Victorian Government passing the Water Conservation Act 1883, which provided for the establishment of Irrigation Trusts. Between 1883 and 1905 the water supply for Victoria was administered by these Irrigation Trusts. Under the local management of Irrigation Trusts, channel systems were rapidly constructed, however, there was inadequate conservation of water and Trusts had to rely on seasonal flows to meet the landowner's requirements (McCoy 1988, p. 10) By 1882, as part of the Gunbower scheme managed by the Swan Hill Shire Waterworks Trust, Gunbower Creek had been deepened at its outlet from the Murray River, and work had been undertaken to deepen Baggot's Creek at the River. However, by 1884 the intermittent flow of creeks from the Murray River was holding the scheme back. Consequently, in January 1885 Deep Creek was deepened at its offtake from the Murray River. A spur line (channel) runs from Deep Creek Channel to the Cohuna Headworks. However, neither feature is noted in parish mapping dating to 1890, but they do appear in mapping by 1911 and can clearly be seen in 1945 aerial imagery. The earlier of the two structures, Old Cohuna Headworks (Gannawarra Pump) was supplemented by a new pumping station approximately 150 m upstream in 1910 (Cohuna Headworks). A large boiler was transported by barge and paddle steamer from the Echuca railhead to power two Steam Turbine Thompson Engines and four Weymouth 30-inch pumps. Eighty tons of firewood per day, cut into 5 feet lengths, was required to fuel the boiler. In addition, another 24 ton of firewood was cut to keep the old plant working. A small settlement evolved with timber cutters, engineers, stokers and boilermakers. Two houses were built for the Manager and Engineer, but the workers and families lived in tents and shanties (Kaufman and Ballinger 2014b). The steam driven pumps did not work as efficiently as hoped. The boilers burnt 24 ton of wood fuel in 24 hrs and the heavy cogs on the massive wheels made a lot of noise, but despite this the constant supply of water ensured better crops. Works at both the Cohuna and newer Gannawarra pump sites were made redundant in 1923 when water became more easily supplied from Torrumbarry Weir.