Victorian War Heritage Database Place Details - 30/6/2025

O'Shannassy Weir and Aqueduct

Location:
1025A Warburton Highway Warburton, YARRA RANGES SHIRE

Heritage Inventory (HI) Number:
Listing Authority: HI
Description:
This is very well maintained operational weir (AMG 394800 5828400) constructed of concrete and steel on the O'Shannassy River about 6 kilometres above its confluence with the Yarra. At the northern end of the wall are three gates which control the flow of water into the aqueduct. On the southern side of the weir is the bywash where water can be released to allow the main gates to be repaired. From the weir an aqueduct and pipeline delivers water to the Silvan Reservoir. (Supple 1991).
The aqueduct extends for about 78 km. It is an open channel with a curved floor and sloping sides, constructed of clay earth and lined with concrete, similar to the Maroondah Aqueduct. There are a range of features along its length, and some of these are described below.
Tramway and farm access bridges: Concrete bridges cross the aqueduct at intervals along the "Don section". Most of the bridges are approximately 2.5 metres wide, with concrete edging. At least one of the bridges is only about 1.5 metres wide, with concrete edging. At least one of the bridges is only about 1.5 metres wide. There are no longer any apparent tracks connecting with the bridges on the upper side of the channel. Each of the bridges is signposted, eg "Platt's Mill".
Don Siphon: The hilly terrain through which the aqueduct passes has necessitated a series of siphons to carry the water across valleys, roads and creek crossings. (Open channels are best suited to flat grades where a minimum fall is available. If the flow is too fast, the channel lining will be abraded by suspended particles; it is too slow the particles will be deposited and clog the channel.) At the Don Siphon, the water flows from the aqueduct through a grating into the siphon. Hand winches and sluice gate mechanisms are located at these points.
Caretakers' residences: Caretakers' houses are located along the aqueduct. Until recent administrative changes, the channel was divided into four sections and a caretaker was responsible for maintaining each section. Two have been demolished (Warburton and Don residences), and their sites include exotic plantings and some concrete formwork. Two residences remain along the channel (Dee and Cement Creek residences). The Dee residence is a c. 1950 red brick house located at the junction of Dee Road and the aqueduct maintenance track. The residence is surrounded by Pinus radiata, garden and exotic tree species. The Cement Creek residence is a fibro-cement house with asbestos roof and several outbuildings, located on Cement Creek Road adjacent to plantations of Californian Redwood, Oregon and Pinus radiata. A mature oak tree stands in front of the house, together with other introduced garden plants. Another two older residences and one new house are located near the O'Shannassy Weir. There is a dugout adjacent to the main caretaker's house.
Caretakers' huts: Small caretakers' huts are located at intervals along the aqueduct. They were originally constructed to provide shelter and communications for caretakers patrolling their sections of channel, and used for overnight shelter during storms when the caretakers were required to patrol to remove fallen trees and debris from the channel. The huts also housed the communications system using magnetic telephones (commonly referred to as the "maggie line"). Most of the "maggie" telephones have been removed from the huts, although one was located in the hut at OO Basin. Two "maggie" poles with ceramic insulators can still be found near the Dee residence, and a code sheet indicating the number of rings required for each connection remains in the Cement Creek caretaker's hut.
The huts are typically simple one-roomed huts, measuring about 1.5 x 2.5 metres, constructed of galvanised

iron with a gabled roof. One of the earlier huts, located at the Warburton-Cement creek Sections junction, is a vertical weatherboard structure mounted on a sled, apparently for towing to its position.
Earth movement features: The land along the O'Shannassy system tends to become unstable during wet weather, and steps have been taken to prevent damage to the channel at several points along its length. In the Dee Section, bluestone pitchers have been used to construct a supporting wall along the upper side of the aqueduct. The stones appear to be wedged together rather than mortared. Pine trees have been planted to help stabilise the ground along the upper edge of the aqueduct in the Don Section, from Don Road to Gentle Annie. A top earth drain running parallel to the channel diverts water down concrete drains and underneath the channel at intervals. This helps to stop water from eroding the channel, and also prevents contaminated water from neighbouring farms on the upper side of the channel from entering the system. A track running parallel to and below the maintenance track provides access to enable the caretakers to detect early signs of leakage. The Dee Slip bridge is the only timber trestle bridge on the system. It was built in 1947 following the collapse of the aqueduct. The force of the flow created a large hole in the side of the embankment beneath the aqueduct, and two separate trestle bridges now support the maintenance track and the aqueduct at this point. A section of the aqueduct immediately adjacent to the bridge collapsed again in 1991, the repairs to the channel are visible. The Block Cutting and Marysville Slip are areas prone to slip, where the aqueduct has been replaced by a section of pipe.
Aqueduct mileposts: Wooden mileposts located at intervals along the channel indicate the distance from the beginning of the aqueduct to the weir. Many have been damaged, but several remain including the 46 mile post at the Warburton-Cement Creek junction of the channel, and the 48 and a half mile post at the O'Shannassy Weir.
The "horse paddock": A cleared and relatively level area of land in a bend of the aqueduct, about 30 square metres in size, reputedly the place where workers kept their horses during the construction of the aqueduct.
Tunnel hill: One of three tunnels in the system.
The Cross: The Upper Yarra-O'Shannassy siphon, called the Cross-connection, extends from the O'Shannassy Aqueduct just east of the O'Shannassy Quarters, to Starvation Creek Basin (commonly known as OO Basin) which is located at the junction of the Upper Yarra Aqueduct and the Yarra-Silvan Conduit.
Log roller: A log roller set in a riveted iron frame is located in "The Cowpaddock", just off Road 1. The roller was found in the aqueduct after the 1983 fires, and was apparently used for building or maintaining the aqueduct track. (McCann 1993: 121-123)