

YAN YEAN - WALLABY CREEK

In 1835 when Batman made his famous remark "This is a place for a village" he also noted "the river comes from the East and is good and deep", and in the early days Melbourne's first settlers obtained their water from the Yarra River, mainly above where Queens Bridge now stands, for here was a rock bar or "falls" across the River which stopped all but the highest tides making the water brackish above the "falls". In the later 1830s, some 20 deaths per week from "Colonial Fever" (typhoid) were blamed on the quality of the water.

In 1840, a public meeting was held at the "Lamb Inn" where it was agreed to form a company with a capital of 20,000 pounds for the purpose of establishing a satisfactory water supply. The money was not forthcoming and this was one of the many abortive attempts to provide Melbourne with a sound water supply.

In 1842, Melbourne was incorporated as a Town and the sewerage of Melbourne and provision of a water supply were assigned to the Corporation notwithstanding that the Town Council had limited powers of taxation and no funds or borrowing power to enable it to undertake the work.

In the meantime, Batman's "good stream" was going from bad to worse with slaughterhouses, wool scouring works and fellmongeries all discharging their wastes into the River. Cattle and horses were standing adjacent to the pumps from which the town drew its water.

In 1849, with the population at 15,000, the Father of Melbourne's water supply, James Blackburn, arrived from Tasmania. Blackburn was an English civil engineer and architect sent to Tasmania upon conviction for embezzlement in England. Arriving in Melbourne as a "ticket of leave" man, he was appalled by the lack of water in a town of such size and he persuaded four other men to join with him in forming the Melbourne Water Company which laid pipes from the River to a tank situated at the corner of Elizabeth Street and Flinders Lane, where it was filtered through sand and charcoal and sold at one penny per load. Shortly after this, the position of Town Surveyor became vacant and Blackburn's ability made him the obvious choice for this position. His first job was to report on the methods to provide Melbourne with an assured and wholesome supply of water and he at once busied himself with this problem. The Council voted 300 pounds in 1850 for the carrying out of this comprehensive survey.

In a little over twelve months, he submitted a report covering his investigations of Deep Creek as far as Macedon, the Merri Creek which he followed to its source, the Dandenong Creek and the Plenty River together with an updated scheme to take water from the Yarra River above Dights Falls. Blackburn strongly favoured the Plenty River proposal although it is doubtful if he were greatly concerned with the quality aspect of water supply. He suggested that the River be tapped some miles below the present Yan Yeau Reservoir and the water conveyed by open aqueduct to Melbourne. It was Thomas Oldham, C.E., who proposed substituting a pipeline for the aqueduct. The original concept of a reservoir at Yan Yeau was not only for water supply purposes but also to ensure that enough water would be available for existing flour mills along the Plenty River below the proposed reservoir. "Riparian" rights were a very live issue in Blackburn's day.

With the separation of Victoria from New South Wales in 1851, the change in political structure made approaches to the Government for a grant for water supply easier. The Council, however, declined to adopt Blackburn's scheme and went back to the Dights Falls proposal which was to pump the water to reservoirs located at Eastern Hill and Western Hill (Flagstaff Gardens). The Government had heard something of Blackburn's proposal and appointed a Select Committee to consider the various schemes. In the end, they favoured the Plenty idea and on 20th December, 1853,

Governor La Trobe turned the first sod of the Yan Yean Scheme, the work being under the direction of a Board of Commissioners for Sewers and Water Supply appointed by the Government with power to impose water and sewerage rates. Mr. M.B. Jackson was appointed as Construction Engineer whilst Blackburn accepted the position of Consulting Engineer.

The scheme consisted of storing the water of the Plenty River in an off-river storage (Yan Yean) and conveying it by closed pipeline to Melbourne. The inlet to the reservoir was controlled by flood gates so that dirty water could be excluded. With the construction of the reservoir under way, the work of laying the pipeline designed by Mr. M.B. Jackson, Chief Engineer of the Sewers and Water Supply Commission from 1853-60, between Yan Yean and Melbourne proceeded apace together with the laying of the reticulation mains, and to this day many of these pipes are still in use. In order to supply the City before the arrival of Yan Yean water, a tank was erected at Eastern Hill and fed by pumps at the foot of Spring Street. This tank was dismantled in 1892 and re-erected at the Farm where it still stands.

In March 1854, Blackburn contracted "Colonial Fever" (typhoid) as a result of which he died without seeing the fulfilment of his plan.

Water was turned on in Melbourne on 31st December, 1857 by Major-General McArthur and, in 1872, some 27,000 acres were proclaimed a permanent reservation for water supply.

The years 1876 and 1877 were dry years and in 1879 with the water in Yan Yean at a low level it was decided to investigate the tributaries of the King Parrot Creek with the idea of diverting them into Yan Yean.

In 1881, a Board was appointed to inquire into the condition of the water in Yan Yean as a result of which were taken the first steps to safeguard the purity of Melbourne's water supply. The Bruces Creek drained the township of Whittlesea and entered the Plenty River above the flood gates controlling the entry of water to Yan Yean. A ditch $1\frac{1}{2}$ miles in length was dug to divert this creek so that it entered the Plenty River below the Yan Yean offtake. In the same year, authority was given for the construction of the Wallaby and Silver Creek Channels which were completed in 1883 and 1884 respectively. The channels were constructed on a fall of 3'0" to 1 mile and lined with granite pitchers which were cut in the area as evidenced by a large mound of chippings near the Nimmo Falls where the pipeline to supply the Quarters commences. The Nimmo Falls were apparently named after John Nimmo, M.L.A., Chairman of the Water Supply Board from 1878-1890.

The Wallaby Creek Channel discharges into Jacks Creek, a tributary of the Plenty River, by a series of steps known as "The Cascades". They are 133 feet in height and formed of granite blocks at the foot of which is a basin to form a cushion to break the fall of the water.

In 1885, Toorourrong Reservoir was constructed at the junction of Jack's Creek and the East Branch of the Plenty River to act as a settling basin before the water travelled down the Clear Water Channel to Yan Yean. This channel was laid on a fall of 7'6" to 1 mile and has in its length six drops or waterfalls, up to 15 feet in height, to break the grade.

During the construction of the Wallaby Channel, the present dining room section of the Quarters was built to act as an office and quarters for the administrative engineers. The old portion of the house is built from hand-adzed slabs dropped into slots in the posts. The shingle roof has been covered with iron for the sake of water-tightness and the original timber stumps have been replaced with pipes to save the building from the ravages of white ants. The early sleeping quarters were in a house where the rhododendron garden is now located, and the present open garages are partly constructed from timber recovered from the old stable and fodder shed which stood on the same site.

The sleeping quarters were erected in 1928 at which time the gardens were laid out and in them are several specimen trees of note - the huge chestnut, a blue spruce now largely recovered from an attack of aphid, and a larch which is one of the few deciduous conifers. The large oregon near the weir was planted at the same time. The present kitchen was added in 1930.

In the early days, a visit of inspection to the watersheds entailed at least two days, as the only conveyance from the Whittlesea Station was a horse and gig, hence the need for the retention of the Quarters after the construction work was completed.

When the Board became responsible for the water supply of Melbourne in 1891, it set about a large tree planting programme under the direction of Baron F. von Mueller and established a nursery at Yan Yean to raise pine seedlings which were planted throughout the system. The pines at Yan Yean, now some 70 or more years old, have become susceptible to the Sirex Wasp and, over a period of 10 years, are being cleared from the area and the land is being established with eucalypts.

At Wallaby Creek, large areas of land have been planted with mountain ash, alpine ash, shining gum and manna gum. These planted trees, some of which are now 75 feet high, can be recognised by the straight lines in which they were planted. In all, some 175,000 eucalypts have been planted in these areas totalling 250 acres.

On the slopes of Mt. Disappointment above Toorourrong Reservoir is a stand of over-mature mountain ash, the precise age of which is unknown. Estimates range up to 400 years and for this length of time the area must have been free of killing wild fire which is the mortal enemy of the mountain ash. In other areas, these fires have given rise to natural regrowth forests.

The modern steel fire lookout tower near the head of Strath Creek is the successor to the early lookouts which were wooden "boxes" on the top of a lopped-off trees. At one time, there were three such lookouts in the area but they have all been felled.

In the early years and for some time after World War II, the men engaged in forestry work in the catchment were transported from Whittlesea and camped in the Single Mens' Quarters. Nowadays, most of the men travel daily by private car and fewer men make use of the camp.

The catchment area round the Yan Yean Reservoir in common with all Board Catchments is a sanctuary for native flora and fauna and here is established a large population of the grey kangaroo numbering some hundreds; over the years they have caused the neighbouring farmers to complain that their properties were carrying a greater number of 'roos than cattle, so that now some miles of 6-foot high fencing has been erected on the Board's boundary to keep the kangaroos at home.

Another point of interest at Yan Yean is "Bear's Castle", a two-storey mud hut with shingle roof in which the National Trust has shown an interest and has classified "C". This part of Yan Yean was originally owned by a Mr. Bear whose shepherds supposedly built the structure as an outlook against marauding blacks. Old documents indicate the hut to have been built in approximately 1840 and, in recent times, the Board has repaired the building. The original portion of the present caretaker's house at Yan Yean was built for Mr. C. J. Taylor, the Engineer-in-Charge of the construction of the embankment.

Buffer areas are lands under Board control but outside the catchment - in the case of Wallaby Creek, these are all below the open channels and on the North-West corner of the opposite fall of the hill.

Over very many years they have been useful in absorbing trespass prior to its entry into actual catchment and in most cases they lie between catchment and places of greatest bush fire risk. A good example of this risk is seen in the subdivision on the North-East corner of the Board's property adjacent to Silver Creek.

Being outside actual catchment, a greater freedom of action exists in development of fire protection works including access, roadside clearings, slashed areas adjacent to high risks, static water supplies and full modification by various means over larger areas.

Stringybark forests are extremely flammable and intense wild fire occurs readily. We cannot control the weather. We can reduce but not eliminate fires starting. We can, however, control fuel quantity and type and, with suitably low fuel quantities, fire cannot be intense even in bad conditions.

This control concept is the basis of work being conducted within buffer areas -

- a) Where location, topography, soil type and existing forest crop are suitable, areas are being felled and the forest produce utilised with subsequent development of pasture which, in a well-managed condition, will provide excellent fire protection at minimal cost;
- b) In other areas which, for one reason or another, are unsuitable for pasture conversion, the forest utilisation operation will rid the land of old, poor, dead, stag headed and dangerous trees and, following on intense burn, a young vigorous cull free forest will be established;
- c) In areas unsuitable for either of the previous operations, fuel reduction burning is accepted as the best practical protection measure.

The effect of fire upon water quality will be well understood. However, its effect upon water quantity is complex and may be very significant. The Board believes that from the yield viewpoint the most efficient vegetative cover for its catchment is an old growth forest as opposed to a young vigorously growing forest. Particularly in Ash-type forest, severe fire inevitably leads to a change from old growth to regrowth, hence the effect of fire upon yield. This and other important aspects of the hydrology of forested catchments are being investigated by the Board in a sophisticated programme of applied research being conducted principally in the Healesville area.
