ORBOST & DISTRICT HISTORICAL SOCIETY INC.

P.O. BOX 284 ORBOST VIC 3888

NEWSLETTER

FEBRUARY, 2009

Source: CRB NEWS No. 30. MAY, 1975:

New Bridges Across Snowy River

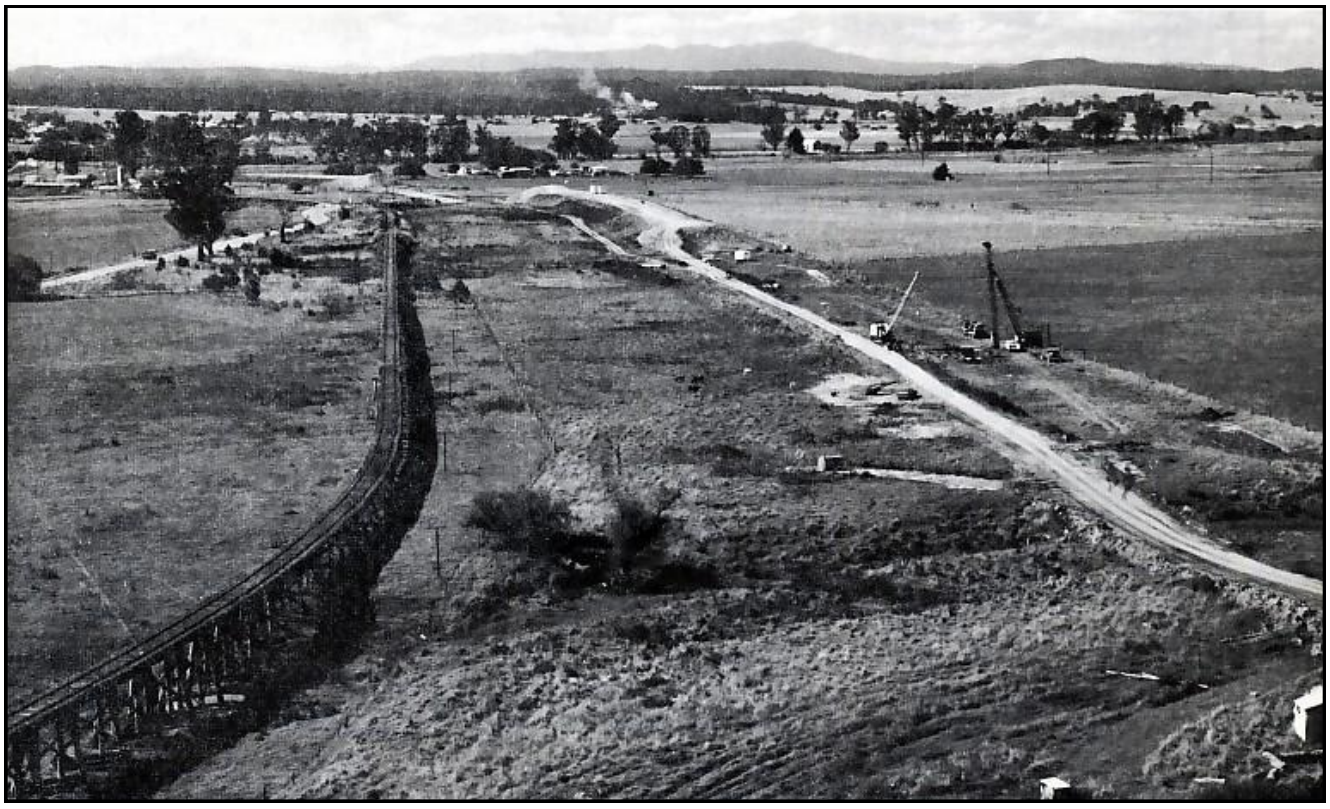
Work has commenced on an all-weather crossing to carry the Princes Highway over the Snowy River and its flood plains at Orbost.

The crossing will comprise three new bridges, linked by earth embankments, on the Princes Highway East approach to the township.

The bridges and embankments are being built on a new alignment of the highway from Newmerella in the west to provide an improved approach to the township of Orbost, and to allow through traffic to by-pass the town to the south.

The Board, which designed the bridges, used modern computer techniques for calculation and analysis of design concepts.

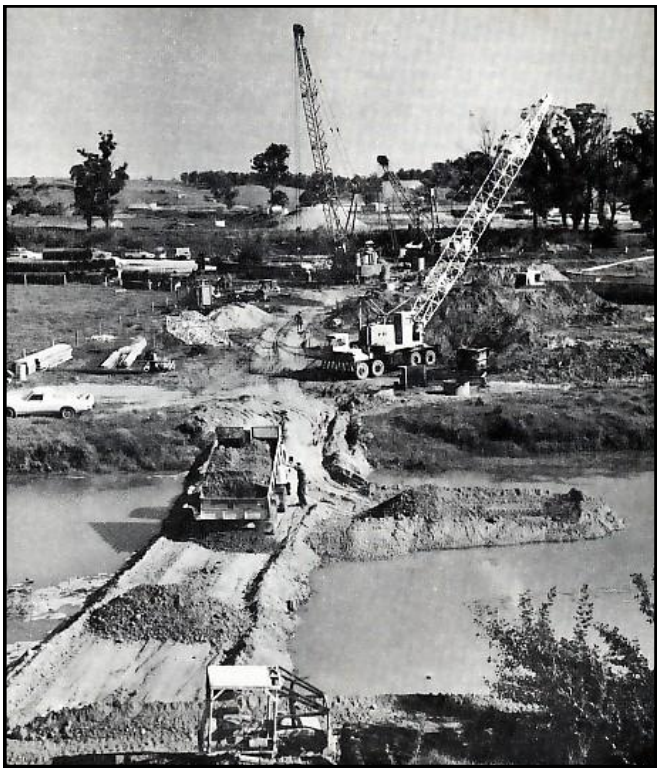
The history of bridges at the site has been eventful. The first bridge over the river, a timber



The Snowy River flood plain at Orbost, showing the railway bridge (left), and the general alignment of the new road bridges under construction.

structure with a central suspended span of about 30 metres (100 ft.), was constructed late in the nineteenth century.

After the end of the first World War the Victorian Railways considered an extension of the railhead across the river at Orbost, and in 1922 a new timber and steel girder structure, a joint Country Roads Board — Victorian Railways venture, was built and completed at a cost of £41,000 (the steel girders came from the Flinders Street viaduct reconstruction). Subsequently it was decided not to take the railway across the river, and the bridge has only been used by road traffic.



Pile driving in progress on the east bank of the Snowy River at Orbost. The water in the foreground is a billabong, which, with the main river channel, will be spanned by a bridge 366 metres long.

The bridge has been severely battered by floods during its life. In 1934 two central spans were swept away and were subsequently replaced by a welded steel truss that is still in place. Extensive repairs to piling at the western end of the welded truss span became necessary in 1952 and the Orbost abutment was washed away in February 1971.

In times of heavy floods the highway on both sides of the river has been cut by floodwater and during the 1971 floods, the highest ever recorded, the river was 1.6 kilometres (1 mile) wide at the crossing. The highway was closed for 11 days.

The highway approaches to the existing bridge are on poor alignments and several serious accidents have occurred at the Orbost end. The new alignment provides a flood plain crossing of 2,024 metres (6,640 ft.) sited just downstream of the existing river bridge and the railway, at the narrowest section of the flood plain.

Commencing at the high ground of the Newmerella bank, the first bridge will be 598 metres (1,960 ft.) long across a depression known locally as Ashby's Gulch. The second bridge will be 214 metres (700 ft.) long across Watts Gulch and the third 366.4 metres (1,240 ft.) long, will span the Snowy River and a lagoon to high ground at the Orbost end.

All three bridges will be 9.7 metres (33ft.) between kerbs. The lengths of the earth embankments between the bridges will be 316.9 metres (1,040 ft.) and 518.2 metres (1,700 ft.), matching the lengths of embankment between the railway viaducts.

The river bridge will have five 30.5 metre (100 ft.) and two 27.4 metre (90 ft.) spans over the permanent channel of the river and eight 21.3 metre (70 ft.) spans across the lagoon. The two bridges across the gulches will have a total of thirty-eight 21.3 metre (70 ft.) spans.

U-shaped beams being used will be the first in Australia made from pretensioned, prestressed concrete. They are being manufactured at the site of the bridge works. The U-shaped beams will be used instead of I-shaped ones to reduce the risk of snagging by debris and to provide sufficient lateral stiffness to resist the impact forces of large trees brought down by flood waters.

The combined waterway to be provided by the three bridges is designed to cater for a flow of 8,500 cubic metres (300,000 cubic ft.) per second which is about 1,100 cubic metres (40,000 cubic feet) per second more than the recorded flow of the 1971 flood.

The underside of the superstructure of the bridges will be 1.83 metres (6 ft.) above the level of the 1971 flood to ensure clearance for the large trees which are washed down by severe floods.

The new road alignment will involve construction over a distance of 8.4 kilometres (5.2 miles) and is estimated to cost $2.8 million, while the estimated cost of the bridgeworks is $5.5 million.

The whole project is expected to be completed late in 1977.

Cann River Work

Construction has begun on a new 121 metre (400 feet) long bridge carrying the Princes Highway across the Cann River in East Gippsland.

The new bridge will replace an older structure which has been damaged by flood waters in recent years.

The new bridge has been designed by the Board and is being built by E. G. Smith Constructions.

The present bridge, which is being demolished, was damaged in February 1971, when heavy flooding of the Cann River eroded foundations, causing the supporting piers to subside. This damage was repaired; but changes in the position of the river's main channel caused further erosion during smaller floods in November 1973, and June 1974, moving the foundation piles again.

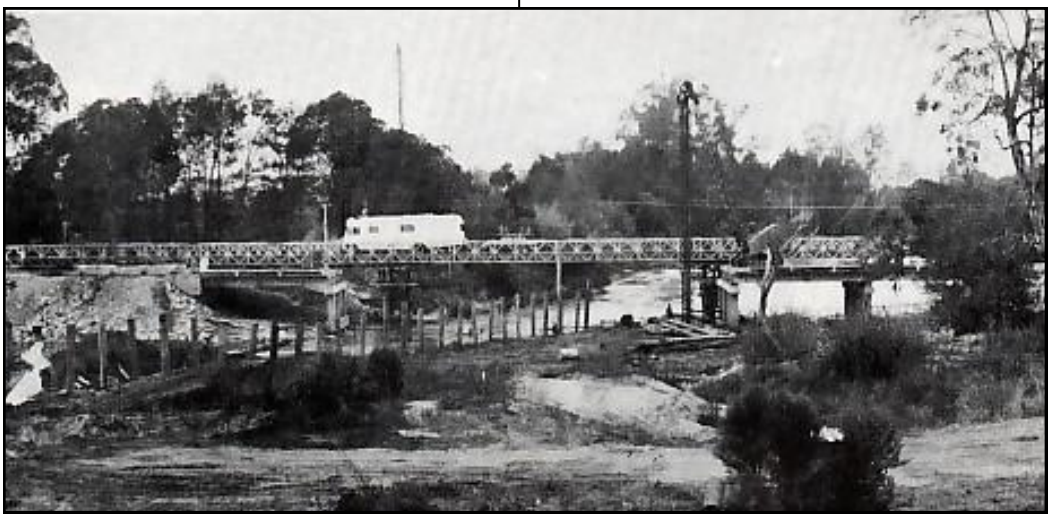
The June flood in 1974 also scoured away 60 metres (200 feet) of the highway embankment on the Cann River township side of the river.

A temporary single lane Bailey bridge downstream of the present bridge is carrying east and west bound traffic.

The new bridge will comprise six 20 metre (66 feet) spans, using prestressed concrete beams with a reinforced concrete roadway decking.

It will be much longer than the present 55 metre (180 feet) bridge to enable it to span the new channel scoured out by the Cann River during the floods.

The new bridge and associated works will cost an estimated $500,000. Work is scheduled for completion during the summer of 1975-76.



The old road bridge over the Cann River at Cann River is being removed to make way for a new bridge. A temporary bailey bridge has been erected to carry traffic using the Princes Highway East.

Source: CRB NEWS No. 33. AUGUST, 1976:

Royal treatment for the Princes...

LEFT: The Cann River bridge across the flood prone river course of the Cann River, 470 kilometers east of Melbourne. The new bridge replaces a structure which had been damaged by flood waters in recent years.

In search of the yellow Gum tree

While taking this photographic survey of major works on the Princes Highway the CRB's intrepid photographic team were told of a remarkable yellow gum tree alongside the highway, past Cann River.

The leaves on this unusual tree, near the 475 kilometre post, evidently turn bright yellow at a particular time of the year. Local CRB personnel and Forest Commission officers can find no reason to explain this change.

Gum trees just don't turn yellow!

Unfortunately the tree changes colour in the Spring and not in Autumn when the photographers arrived.

Or maybe the Melbournians were being had by the locals!

The Princes Highway East is the main highway leading to the east of Victoria.

In addition to commercial and recreational traffic it carries high volumes of commuter traffic within the Latrobe Valley.

To meet this demand the CRB constructed the Moe to Morwell section of the Princes Highway, and has recently begun work on the Drouin to Warragul section.

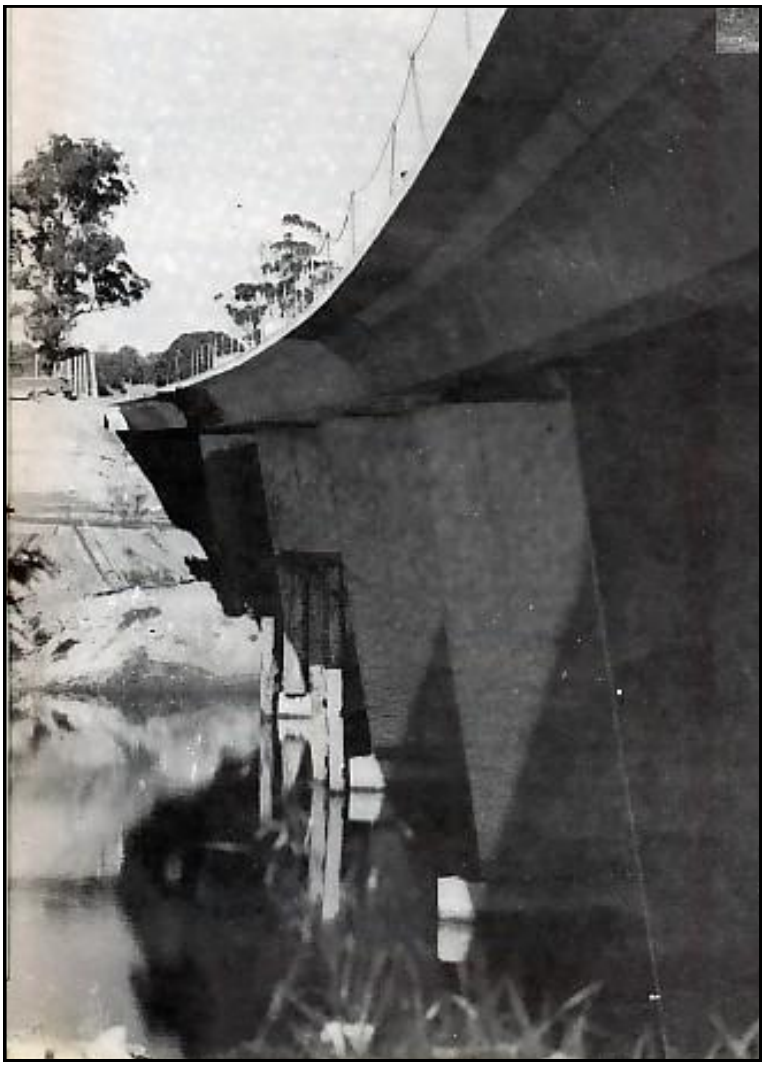
Nearer to Melbourne, design for a freeway bypass of Berwick has commenced. The Princes Highway is currently being duplicated between Beaconsfield and Pakenham.

At the eastern end of the Latrobe Valley the CRB is constructing the second carriageway of a divided highway between Morwell and Traralgon.

In the far east of the State the Princes Highway has regularly been subjected to flooding caused by high rainfall and melting snow in the Alps.

At Orbost the CRB is constructing three bridges and raising the level of the highway where it crosses the Snowy River flood plain. The main bridge across the Snowy River is expected to be opened to traffic in the Spring of 1976.

A new bridge across the Cann River has been recently opened to traffic to replace an old structure which was damaged by flood waters.



New bridges under construction across the flood prone Snowy River flood plain.
LEFT: The almost complete main bridge across the Snowy River.
TOP: Lowering a steel pier form, or cast, in preparation to pouring concrete for a bridge pier on the Ashby's Gulch Bridge on the Snowy flood plain.
BELOW: The back-breaking job of placing reinforcing on the deck of the Snowy River bridge. The existing road bridge can be seen in the background.

Source: CRB NEWS No. 34. DECEMBER, 1976:

Transport Minister opens $2.4m bridge across the Snowy River

A FLOOD BEATER

The official opening of the Snowy River bridge. The Transport Minister, the Hon J A Rafferty cuts the ribbon. Behind him is CRB Chairman, Mr R E V Donaldson.

The first stage of a $9 million CRB freeway bypass project aimed at providing a permanent road access to Orbost during flooding of the Snowy River was opened on 25th November, 1976, by the Minister of Transport, The Hon. J. A. Rafferty.

The first stage opened by Mr. Rafferty was a 366.4 m bridge over the Snowy River — a river made famous by poetry and one of the world's most sophisticated hydro-electric schemes.

The Snowy River bridge is one of four to be built as part of the 8.4 km project spanning the Orbost flood plains. The Snowy River bridge and another over the nearby Ashbys Gulch are among the 10 longest bridges in Victoria, being the eighth and fifth longest respectively.

The new bridge removes through traffic from Orbost township and crosses the Snowy River 45 m downstream of the old bridge.

The new Snowy River bridge is the fourth to provide a crossing to the township of Orbost. The first, in 1891, lasted just two years before it succumbed to flood waters. The existing bridge was built in the 1920s as a road and rail bridge, and was again partly washed away by flood waters in 1934.

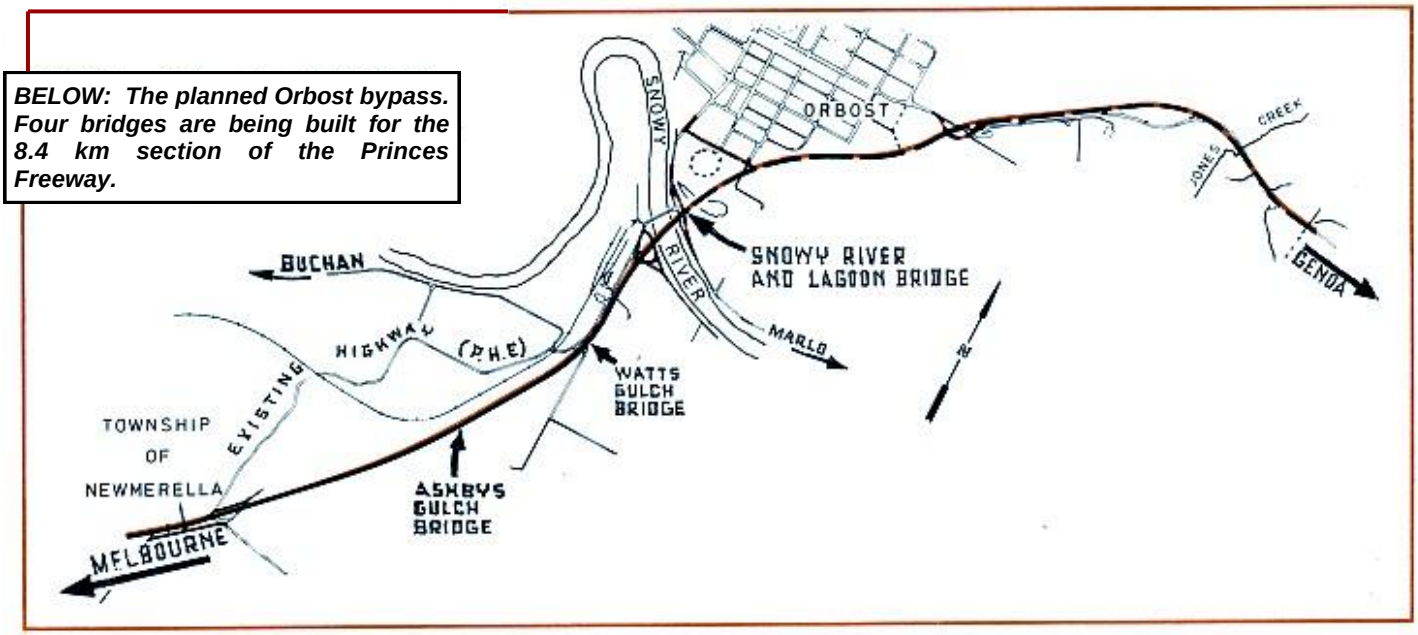
The new bridge, built by the CRB at a cost of $2.4 million, is 1.6 metres above the record flood levels of 1971.

The overall project not only raises the bridges above all previous flood levels but the elevated freeway carriageway from Newmerella across the flood plain to the Princes Highway east of Orbost have been designed and constructed to allow road access to Orbost during all flood conditions.

The project is a milestone for the people of Orbost, road transporters and the many tourists who travel this scenic link between Melbourne and Sydney.

Among the official guests at the opening ceremony was the Federal Minister for Transport, the Hon. P. J. Nixon, a resident of the Orbost area and Federal Member for Gippsland.

BELOW: The planned Orbost bypass. Four bridges are being built for the 8.4 km section of the Princes Freeway.



ABOVE: The new bridge — Orbost's fourth since 1891 — dwarfs the old bridge that provided a river crossing for more than 50 years. The new bridge has been built 1.6 metres above the record flood levels of 1971.

BELOW: After the official opening, it was time for the unofficial closing of Orbost's old bridge. Local farmer Garry Downey, on horseback, led residents, a vintage car and men dressed as bushrangers across the bridge to a small ceremony.