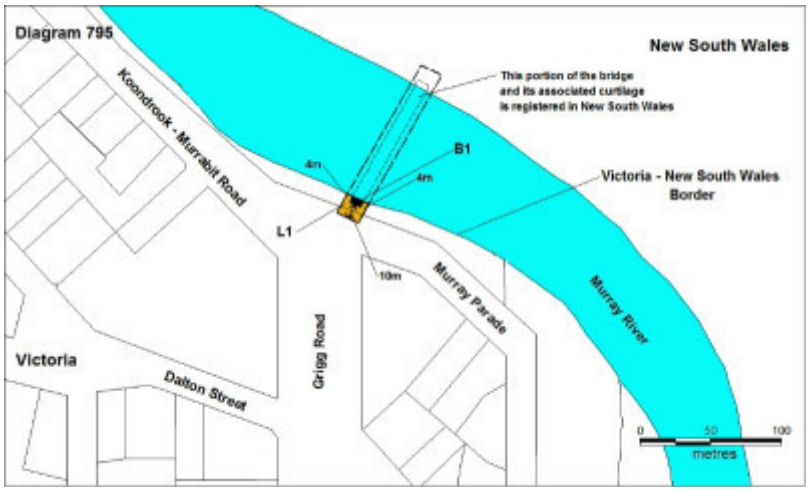
BARHAM KOONDROOK BRIDGE

Barham Koondrook Bridge_Koondrook_Feb 2007_mz_East Elevation

Barham Koondrook Bridge_Koondrook_Feb 2007_mz_Centre Lift Span

Barham Koondrook Bridge_Koondrook_Feb 2007_mz_NSW Approach

Barham Koondrook Bridge_Koondrook_Feb 2007_mz_Truss Connector Detail



Barham Koondrook Bridge_Koondrook_March 2008_mz_Plan

Location

KERANG-KOONDROOK ROAD KOONDROOK, GANNAWARRA SHIRE

Municipality

GANNAWARRA SHIRE

Level of significance

Registered

Victorian Heritage Register (VHR) Number

H0795

Heritage Overlay Numbers

HO25

VHR Registration

July 10, 2008

Heritage Listing

Victorian Heritage Register

Statement of Significance

Last updated on -

What is Significant?
Built in 1904 by Monash and Anderson to a design by New South Wales Public Works Department engineer, Ernest De Burgh, the Barham-Koondrook Bridge is a composite De Burgh truss and steel centre lift-span bridge over the Murray River between the towns of Koondrook in Victoria and Barham in New South Wales.

The bridge comprises of a timber bridge deck supported by two 31.7m metre long De Burgh composite truss spans each side of a 17.8 steel lift-span bridge. The lift-span is supported by four cast iron pillars filled with concrete built into two cofferdams also filled with concrete. The approach spans are 9.1m each and are constructed of round timber girders on round timber trestle piers. The raising and lowering of the bridge deck was designed to allow paddle steamers and to pass through. The cross girders on the top of the structure are unusually curved and decorated with plaques showing the construction date and the names of both New South and Victoria.

The bridge timbers are tallowwood and ironbark from the northern rivers region of New South Wales, although some local river red gum was used for the decking on the minor timber spans. The northern rivers timber was used because of its superior strength and durability. Unlike the local river red gum, which has a tendency to twist and split when sawn into squared timber, ironbark retains its shape and strength.

The Murray around Barham was settled by graziers, mainly from Victoria, in the 1840s. Koondrook developed in the 1870s as a service town to the Murray River paddle steamer trade and the township benefited from adjacent red-gum forests for timber in demand for railway sleepers. Trade was further advanced when a tramway was established in 1888-89 to link Koondrook with the railhead at Kerang and local agriculture was aided by the construction of an irrigation pump in 1890.

Barham was settled more slowly. The connection between the two settlements was serviced by an old punt that had already been used for some time at Echuca. River crossing by punt was protracted and this hampered the ability move stock and produce from the northern bank of the Murray to the railway on the southern bank.

Agitation for the construction of a bridge to replace the punt had been active since the 1890s.

Commercial, pastoral and agricultural interests from on both sides of the Murray combined efforts to lobby for the construction of a bridge. Barham-Koondrook is approximately halfway between the Swan Hill and Echuca bridges and it was argued that that the Moulamein Koondrook droving route was shorter, better watered and better grassed than the routes through Swan Hill or Echuca. In addition land in the Riverina north of the Murray was considered more suited to agriculture than that around Kerang but the lack of a bridge was hindering its development making the connection with the closer Victorian markets difficult.

Initially both Victorian and the New South Wales Governments were lukewarm in their response to requests for the bridge but a deputation of Victorian politicians to New South Wales in 1900 eventually succeeded in obtaining funds from New South Wales. Victoria offered to pay for half the cost of the bridge if New South Wales paid the other half.

Work commenced in April 1903 and was completed 8 October 1904, making the Barham-Koondrook Bridge the twelfth bridge to cross the Murray River.

The bridge directly connected the pastoral and agricultural concerns in the Wakool region of the Riverina with the Victorian railhead at Koondrook and has long been an important link in the north-south stock route connecting Victoria with the New South Wales and Queensland pastoral centres.

How is it Significant?
The Barham-Koondrook Bridge is of historical and technical (scientific) significance to the State of Victoria.

Why is it Significant?
The Barham-Koondrook Bridge is of technical (scientific) significance for the innovations used in its design and construction. The De Burgh Truss was developed by Ernest de Burgh as an improvement on the innovative Allen Truss. The bridge is a rare combination of the Percy Allan designed steel central lift-span with composite De Burg trusses. The only other Murray River bridge to have this configuration is the Cobram Bridge. Only two other were built in New South Wales, over the Paterson River at Hinton and Dunmore, west of Newcastle. No other bridges of this type were built in Victoria.

The Barham-Koondrook Bridge is of historical significance for its associations with John Monash who was one of Australia's most important engineers, and one of the country's most famous soldiers. The Barham-Koondrook Bridge is also of historical significance for its association with the innovative and influential engineer Ernest De Burgh.

The Barham-Koondrook Bridge is of historical significance for its role in facilitating intercolonial trade between New South Wales and Victoria.

Permit Exemptions

General Exemptions:

General exemptions apply to all places and objects included in the Victorian Heritage Register (VHR). General exemptions have been designed to allow everyday activities, maintenance and changes to your property, which don’t harm its cultural heritage significance, to proceed without the need to obtain approvals under the Heritage Act 2017.

Places of worship: In some circumstances, you can alter a place of worship to accommodate religious practices without a permit, but you must notify the Executive Director of Heritage Victoria before you start the works or activities at least 20 business days before the works or activities are to commence.

Subdivision/consolidation: Permit exemptions exist for some subdivisions and consolidations. If the subdivision or consolidation is in accordance with a planning permit granted under Part 4 of the *Planning and Environment Act 1987* and the application for the planning permit was referred to the Executive Director of Heritage Victoria as a determining referral authority, a permit is not required.

Specific exemptions may also apply to your registered place or object. If applicable, these are listed below. Specific exemptions are tailored to the conservation and management needs of an individual registered place or object and set out works and activities that are exempt from the requirements of a permit. Specific exemptions prevail if they conflict with general exemptions.

Find out more about heritage permit exemptions here.

Specific Exemptions:

General Conditions: 1.
All exempted alterations are to be planned and carried out in a manner which prevents damage to the fabric of the registered place or object. **General Conditions: 2.**
Should it become apparent during further inspection or the carrying out of works that original or previously hidden or inaccessible details of the place or object are revealed which relate to the significance of the place or object, then the exemption covering such works shall cease and Heritage Victoria shall be notified as soon as possible. Note: All archaeological places have the potential to contain significant sub-surface artefacts and other remains. In most cases it will be necessary to obtain approval from the Executive Director, Heritage Victoria before the undertaking any works that have a significant sub-surface component. **General Conditions: 3.**
If there is a conservation policy and plan endorsed by the Executive Director, Heritage Victoria , all works shall be in accordance with it. Note: The existence of a Conservation Management Plan or a Heritage Action Plan endorsed by the Executive Director, Heritage Victoria provides guidance for the management of the heritage values associated with the site. It may not be necessary to obtain a heritage permit for certain works specified in the management plan. **General Conditions: 4.**
Nothing in this determination prevents the Executive Director, Heritage Victoria from amending or rescinding all or any of the permit exemptions. **General Conditions: 5.**
Nothing in this determination exempts owners or their agents from the responsibility to seek relevant planning or building permits from the responsible authorities where applicable.

Standard Exemptions:

As per 'Standard Exemptions for Works Requiring Heritage Council Approval' , Heritage Branch, New South Wales Department of Planning as approved the New South Wales Minister of Planning, 25 March 2006.

Construction dates	1903,
Heritage Act Categories	Registered place,
Hermes Number	34555
Property Number	

History

The Murray around Barham was settled by graziers, mainly from Victoria, in the 1840s. The first to occupy the area was Edward Green who in 1843 acquired the lease of 114 656 acres, naming the station 'Barham' after his wife's maiden name. The following year Archibald Campbell settled on 'Gannawarra' station which covered 103 680 acres on the southern side of the Murray between present-day Koondrook and Cohuna.

Following the Selection Acts of the 1860s, Victorian selectors began to occupy land on the southern bank of the Murray, around Koondrook and Murrabit. Koondrook developed in the 1870s as a service town to the Murray River paddle steamer trade and the township benefited from adjacent red-gum forests for timber in demand for railway sleepers. The red gum was also used for the construction of six barges and seven paddleboats at Koondrook between 1881 and 1923 and a wharf which was built in 1882. Arbuthnot Sawmill opened in 1890 Which is still operating. Local agriculture was aided by the construction of an irrigation pump in 1890.

As there was no bridge across to Barham it was settled more slowly. The connection between the two settlements was serviced by an old punt that had already been used fro some time at Echuca. River crossing by punt were protracted and this hampered the ability move stock and produce from the northern bank of the Murray to the railway on the southern bank and agitation for the construction of a bridge to replace the Barham punt crossing had been active since the 1890s.

Commercial interests from the Kerang district joined forces with pastoral and agricultural interests from across the Murray to lobby for the bridge. Barham-Koondrook is approximately halfway between the Swan hill and Echuca bridges and it was argued that that the Moulamein Koondrook droving route was shorter, better watered and better grassed than the routes through Swan Hill or Echuca. In addition land in the Riverina north of the Murray was allegedly more suited to agriculture than land around Kerang but the lack of a bridge was hindering its development by making the connection with the closer markets in Victoria more difficult.

The New South Wales government had recently invested heavily in road bridges between Moulamein and Barham and the local interests contended that the construction of a bridge over the Murray River at Barham was the logical conclusion to this program. With Federation imminent it was argued that intercolonial rivalry should be forgotten and Victoria New South Wales assistance for the Barham bridge project to open up farmland in that state. Unfortunately the construction of the Swan Hill Bridge in 1896 undermined the Barham movement by providing an alternative livestock crossing.

Initially both Victorian and the New South Wales Governments were lukewarm in their response to requests for the bridge but local expectation and enthusiasm was aroused in 1900 when E.M de Burgh, bridge engineer of the New South Wales Public Works Department and Carlo Catani, Chief Engineer of the Public Works Department in Victoria, visited the site. De Burgh and Catani's visit followed a deputation of Victorian politicians to New South Wales headed by public works minister WJ. Taverner, which eventually succeeded in obtaining funds from New South Wales. Victoria offered to pay for half the cost of the bridge if New South Wales paid the other half. In 1902 it was agreed that a bridge with a lift-span should be built.

Tenders for the project were called in April 1902 and was awarded to John Monash's engineering firm, Monash and Anderson. Monash was notified 16 June 1902 that their tender of ?10,345 was successful. However interstate bureaucracy moved slowly and the delays meant that by the time the tender was approved on 27 September 1902 Monash and Anderson had to request an increase in the project cost. The Monash and Anderson tender was based on the ability to work in low water and the belief that approval to commence work would be given shortly after the acceptance of the tender. However the delays in approving the tender meant that as time passed the river was likely rise with spring and flooding during the summer months from thawing snow. Working in high water made the job more expensive and difficult. The first tender was withdrawn and fresh tenders were called. Monash and Anderson again won the contract, but for a sum greater than their first.

The first piles were driven in 1903 and work was completed 8 October 1904, becoming the twelfth bridge to cross the Murray River.

Barham lies in the Wakool Irrigation District, opened in 1935. This was the first such district in the state, with extensive, partial irrigation designed to provide water for the maximum number of graziers to ensure a regular supply of fattened lambs. In 1949 an intensive irrigation area within the district made rice farming feasible, increasing local heavy traffic. there have been particularly severe problems from salination, however, in the last quarter-century.

The bridge directly connects the Wakool irrigation area with the Victorian railhead at Koondrook and has long been an important link in the north-south stock route connecting Victoria with the NSW and QLD pastoral centres.

Plaque Citation

Built in 1904 by Monash and Anderson, this is a composite De Burgh truss and steel centre lift-span bridge. It facilitated the movement of New South Wales goods to Victorian railways and ports.

Extent of Registration

1. The part of the place known as the Barham-Koondrook Bridge over the Murray River at Koondrook located in Victoria, including the bridge and its support structure, the abutments, the roads and embankments marked (B1) on Diagram 795 held by the Executive Director.

2. All of the land marked L1 on Diagram 795 held by the Executive Director.

This place/object may be included in the Victorian Heritage Register pursuant to the Heritage Act 2017. Check the Victorian Heritage Database, selecting 'Heritage Victoria' as the place source.

For further details about Heritage Overlay places, contact the relevant local council or go to Planning Schemes Online http://planningschemes.dpcd.vic.gov.au/