SPECIALIST CONSULTANT STUDIESPart 9: Historic Heritage Assessment

AUSTRALIAN ZIRCONIA LIMITED

Dubbo Zirconia Project

Report No. 545/05

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STATEMENT OF HERITAGE IMPACT: DZP-HS3 (HYANDRA RAIL BRIDGE)

The NSW Heritage Manual poses a series of questions that comprise the minimum information to form a 'Statement of Heritage Impact', which is required to properly address proposals on heritage items that would result in modification to them. The current proposal is to be assessed under Division 4.1 of Part 4 of the EP&A Act and *not* the *NSW Heritage Act*, therefore SoHIs are not a requirement. However, following the format used in formulating a SoHI is a useful tool for describing the heritage values of a site and is adopted here for this purpose.

WHAT ASPECTS OF THE PROPOSAL RESPECT OR ENHANCE THE HERITAGE SIGNIFICANCE OF DZP-HS3?

Renewal of railway function

The purpose of the proposed works to the Toongi-Dubbo section of the Dubbo-Molong Rail Line is to again fulfil the function for which it was originally designed. The railway line has been disused for approximately two decades, to the detriment of the functional elements of the line's heritage value. Accordingly, the entire line's functionality, together with the functionality of individual bridges such as the DZP-HS3, is significantly reduced at present. This bridge's historic value lies in its position as a component of the Dubbo-Molong Rail Line. Until its closure in 1991, this line served to improve rail transport throughout the Central West by providing easier grades for freight trains. The bridge, then, derives historic significance from its context as part of the overall Dubbo-Molong Rail Line and its significance is therefore somewhat subordinate to the overall line's heritage value.

The proposed works would enable the line to regain its functional value. Given that the bridge derives a proportion of its historic value from its role as a functional component of the Dubbo-Molong Rail Line, works that restore the line's functionality would in fact enhance the overall value of a feature of the overall local historic landscape (the Dubbo-Molong Rail Line).

WHAT ASPECTS OF THE PROPOSAL COULD DETRIMENTALLY IMPACT ON THE HERITAGE SIGNIFICANCE OF DZP-HS3?

Replacement of item

The proposed works would entail the removal and replacement of the extant DZP-HS3. This visual feature of the Dubbo-Molong Rail Line would therefore disappear from the landscape, altering the aesthetic features of the locale.

The Dubbo-Molong Rail Line would enter a new major phase in its development. As the existing DZP-HS3 can no longer contribute to the railway line's functionality, however, the

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proposed works are considered to have broader benefits that outweigh the heritage benefits that would accrue from retaining the bridge.

HAVE MORE SYMPATHETIC SOLUTIONS BEEN CONSIDERED AND DISCOUNTED? WHY?

Options considered

The Applicant requires a method of transporting Dangerous Goods, including but not limited to hydrochloric acid and sodium hydroxide sourced from Newcastle, New South Wales. Given the current bridges' load carrying capacities, it is not considered feasible to transport Dangerous Goods via the existing rail line with its extant bridges. The Applicant therefore considered two options: road transport and rail transport (incorporating upgrade of the existing line, including bridge replacements).

Of the two, only the road transport option would enable the extant bridges to be preserved intact. As such, it is the option that would ensure no project impacts to DZP-HS3 and would prevent localised harm to a specific heritage item. The Applicant has, however, rejected this option as it would require Dangerous Goods to be transported along existing public road transport routes.

The alternative – rail transport enabled by a rail upgrade that would include the replacement of DZP-HS3 – is preferred because it would enable Dangerous Goods to be transported directly to the DZP Site via transport corridors that are not traversed by the public. From a heritage perspective, returning the overall rail line to use would favour the line's historic function. At present, the line and its bridges stand as disused relics of the past that require maintenance but no longer serve their historic function. In a sense, then, the cumulative heritage benefit to the region's historic railways outweighs the localised heritage damage.

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STATEMENT OF HERITAGE IMPACT: DZP-HS4 (DUNDULLIMAL/MIRIAM TIMBER RAIL BRIDGE)

The NSW Heritage Manual poses a series of questions that comprise the minimum information to form a 'Statement of Heritage Impact', which is required to properly address proposals on heritage items that would result in modification to them. The current proposal is to be assessed under Division 4.1 of Part 4 of the EP&A Act and *not* the *NSW Heritage Act*, therefore SoHIs are not a requirement. However, following the format used in formulating a SoHI is a useful tool for describing the heritage values of a site and is adopted here for this purpose.

WHAT ASPECTS OF THE PROPOSAL RESPECT OR ENHANCE THE HERITAGE SIGNIFICANCE OF DZP-HS4?

Renewal of railway function

The purpose of the proposed works to the Toongi – Dubbo section of the Dubbo-Molong Rail Line is to again fulfil the function for which it was originally designed. The railway line has been disused for approximately two decades, to the detriment of the functional elements of the line's heritage value. Accordingly, the entire line's functionality, together with the functionality of individual bridges such as the DZP-HS4, is significantly reduced at present. This bridge's historic value lies in its position as a component of the Dubbo-Molong Rail Line. Until its closure in 1991, this line served to improve rail transport throughout the Central West by providing easier grades for freight trains. The bridge, then, derives historic significance from its context as part of the overall Dubbo-Molong Rail Line and its significance is therefore somewhat subordinate to the overall line's heritage value.

The proposed works would enable the line to regain its functional value. Given that the bridge derives a proportion of its historic value from its role as a functional component of the Dubbo-Molong Rail Line, works that restore the line's functionality would in fact enhance the overall value of a feature of the overall local historic landscape (the Dubbo-Molong Rail Line).

WHAT ASPECTS OF THE PROPOSAL COULD DETRIMENTALLY IMPACT ON THE HERITAGE SIGNIFICANCE OF DZP-HS4?

Replacement of item

The proposed works would entail the removal and replacement of the extant DZP-HS4. This prominent visual feature of the Dubbo-Molong Rail Line would therefore disappear from the landscape, altering the aesthetic features of the locale. It should also be noted that DZP-HS4 has become a more prominent feature of the local heritage landscape via the addition in 2011 of a cycle way that parallels the rail line.

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The Dubbo-Molong Rail Line would enter a new major phase in its development. As the existing DZP-HS4 can no longer contribute to the railway line's functionality, however, the proposed works are considered to have broader benefits that outweigh the heritage benefits that would accrue from retaining the bridge.

HAVE MORE SYMPATHETIC SOLUTIONS BEEN CONSIDERED AND DISCOUNTED? WHY?

Options considered

The Applicant requires a method of transporting Dangerous Goods, including but not limited to hydrochloric acid and sodium hydroxide sourced from Newcastle, New South Wales. Given the current bridges' load carrying capacities, it is not considered feasible to transport Dangerous Goods via the existing rail line with its extant bridges. The Applicant therefore considered two options: road transport and rail transport (incorporating upgrade of the existing line, including bridge replacements).

Of the two, only the road transport option would enable the extant bridges to be preserved intact. As such, it is the option that would ensure no project impacts to DZP-HS4 and would prevent localised harm to a specific heritage item. The Applicant has, however, rejected this option as it would require Dangerous Goods to be transported along existing public road transport routes.

The alternative – rail transport enabled by a rail upgrade that would include the replacement of DZP-HS4 – is preferred because it would enable Dangerous Goods to be transported directly to the DZP Site via transport corridors that are not traversed by the public. From a heritage perspective, returning the overall rail line to use would favour the line's historic function. At present, the line and its bridges stand as disused relics of the past that require maintenance but no longer serve their historic function. In a sense, then, the cumulative heritage benefit to the region's historic railways outweighs the localised heritage damage.

STATEMENT OF HERITAGE IMPACT: DUNDULLIMAL RAIL BRIDGE

The NSW Heritage Manual poses a series of questions that comprise the minimum information

to form a 'Statement of Heritage Impact', which is required to properly address proposals on

heritage items that would result in modification to them.

WHAT ASPECTS OF THE PROPOSAL RESPECT OR ENHANCE THE HERITAGE

SIGNIFICANCE OF DUNDULLIMAL RAIL BRIDGE?

Renewal of railway function

The purpose of the proposed works is to enable the Dubbo-Molong Rail Line to again fulfil the

function for which it was originally designed. The railway line has been disused for

approximately two decades, to the detriment of the functional elements of the line's heritage

value. Accordingly, the entire line's functionality, together with the functionality of individual

bridges such as the Dundullimal Rail Bridge, is significantly reduced at present. As is pointed

out in OzArk (2010), 'the [Dundullimal rail] bridge's historic value lies in its position as a

component of the Dubbo-Molong Rail Line. Until its closure in 1991, this line served to improve

rail transport throughout the Central West by providing easier grades for freight trains'. The

bridge, then, derives historic significance from its context as part of the overall Dubbo-Molong

Rail Line and its significance is therefore somewhat subordinate to the overall line's heritage

value.

The proposed works would enable the line to regain its functional value. Given that the bridge

derives a proportion of its historic value from its role as a functional component of the Dubbo-

Molong Rail Line, works that restore the line's functionality would in fact enhance the overall

value of a feature of the overall local historic landscape (the Dubbo-Molong Rail Line).

WHAT ASPECTS OF THE PROPOSAL COULD DETRIMENTALLY IMPACT ON THE

HERITAGE SIGNIFICANCE OF DUNDULLIMAL RAIL BRIDGE?

Replacement of item

The proposed works would entail the removal and replacement of the extant Dundullimal Rail

Bridge. This prominent visual feature of the Dubbo-Molong Rail Line would therefore disappear

from the landscape, altering the aesthetic features of the locale. As the Dundullimal Rail Bridge

is a prominent landmark that contributes significantly to the aesthetics in the vicinity, this

impact should be considered detrimental to the locale's aesthetic heritage. It should also be

noted that the Dundullimal Rail Bridge has become a more prominent feature of the local

heritage landscape via the addition in 2011 of a cycle way that parallels the rail line.

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The Dubbo-Molong Rail Line would enter a new major phase in its development as a result of the proposed works. As the existing Dundullimal Rail Bridge can no longer contribute to the railway line's functionality, however, the proposed works are considered to have broader benefits that could be argued to outweigh the heritage benefits that would accrue from retaining the bridge.

HAVE MORE SYMPATHETIC SOLUTIONS BEEN CONSIDERED AND DISCOUNTED? WHY?

Options considered

The Applicant requires a method of transporting Dangerous Goods, including but not limited to hydrochloric acid and sodium hydroxide sourced from Newcastle, New South Wales. Given the current bridges' load carrying capacities (including that of the Dundullimal Rail Bridge), it is not considered feasible to transport Dangerous Goods via the existing rail line given its extant bridges. The Applicant therefore considered two options: road transport and rail transport (incorporating upgrade of the existing line, including bridge replacements).

Of the two, only the road transport option would enable the extant bridges to be preserved intact. As such, it is the option that would ensure no project impacts to Dundullimal Rail Bridge and would prevent localised harm to a specific heritage item. The Applicant has, however, rejected this option as it would require Dangerous Goods to be transported along existing public road transport routes. From a heritage perspective, this option would preserve the historic and aesthetic heritage features of the Dundullimal Rail Bridge site.

The alternative – rail transport enabled by a rail upgrade that would include the replacement of Dundullimal Rail Bridge – is preferred by the Applicant because it would enable Dangerous Goods to be transported directly to the DZP Site via transport corridors that are not traversed by the public. From a heritage perspective, returning the overall rail line to use would favour the line's historic function. At present, the line and its bridges stand as disused relics of the past that require maintenance but no longer serve their historic function. In a sense, then, the cumulative heritage benefit to the region's historic railways outweighs the localised heritage damage.

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Appendix 2	2: U	pdated	Figures
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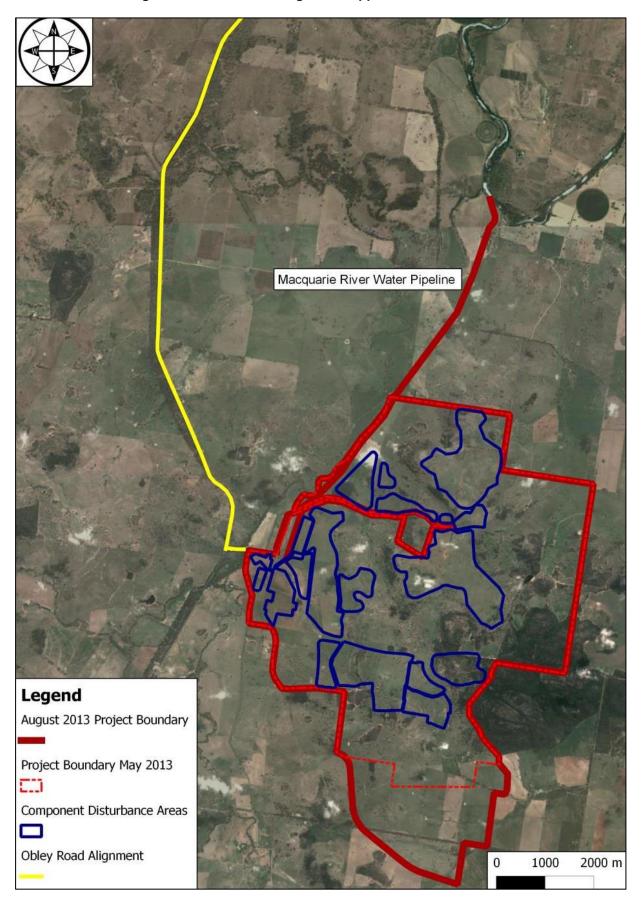
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Figure 16: Extended Mining Lease Application Area 23.08.13.



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Figure 17: Altered Route of the Macquarie River Water Pipeline

