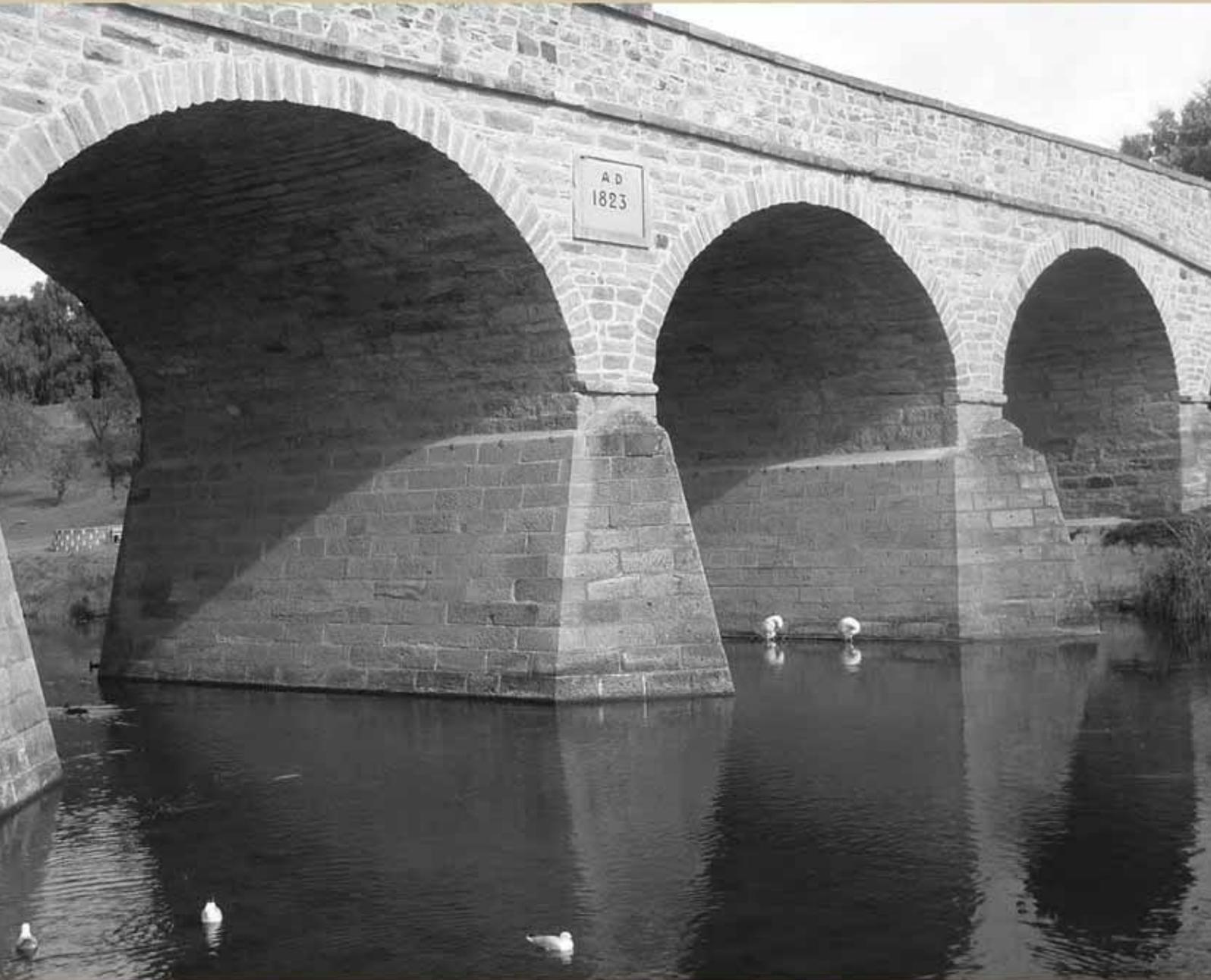




Australian Government



Tasmanian  
Government



# Richmond Bridge Conservation Management Plan

Department of State Growth

15 December 2017

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# EXECUTIVE SUMMARY

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## Introduction

Richmond Bridge is Australia's oldest bridge that continues to serve its transport role. The bridge is significant to the people of Australia, Tasmania and the Richmond community.

With the recognition of heritage values comes the responsibility to conserve those values. This responsibility is shared by the owners, managers, heritage and planning authorities and users of the place.

The Conservation Management Plan is a way to analyse the values of the place, and develop appropriate policies for ongoing conservation. This is the third Conservation Management Plan that has been prepared for the bridge and its setting, with previous plans produced in 1997 and 2010.<sup>1</sup>

Conservation Management Plans are not static documents. It is appropriate that they are regularly reviewed to ensure they remain applicable to current management approaches, conservation challenges and statutory heritage management requirements. The Department of State Growth (State Growth) with financial assistance from the Australian Government Department of the Environment and Energy has commissioned Austral Tasmania Pty Ltd to review and revise the previous version and prepare this current Conservation Management Plan.

## The Heritage Values of the Place & What Has Changed Since 2010

The heritage values of the bridge and surrounds have been retained since the preparation of the 2010 Plan. One of the key achievements of the of the previous Plan was the installation of a vibration meter on the bridge, as the structure is vulnerable to vibration from excessive traffic loads and speed. The meter provides an early warning of a potential problem resulting from excessive vibrations. It is understood that this is the first time that a vibration meter has been used as a conservation tool on an historic structure. The importance of this work was recognised in 2013 with State Growth winning Engineers Australia's premier award for excellence in engineering heritage projects. The meter is currently not working and should be fixed as a priority. Given its value as a management tool, the use of vibration meters on other historic bridge structures should be considered.

The meter has demonstrated the risk that vibration poses to the bridge. The existing 25 tonne load limit has been found to be acceptable, but should continually be monitored and revised if needed. Speeding above the 30 km p/hr limit has been shown to be a key cause of excessive vibration. Changing driver behaviour through enforcement of the speed limit is likely to be the only way that this issue can be addressed if the bridge is to continue to be used for vehicle traffic.

Additional bridge conservation works have also been carried out which will assist in ongoing preservation. Substantial works have been carried out to improve the stonework, mortar joints and drainage at the eastern arch. However, further work addressing drainage issues is still required.

The setting and vegetation of the place form an important aspect of its significance. Clarence City Council commissioned a Vegetation Management Plan for the place in 2015.<sup>2</sup> The Plan provides a program for the maintenance and renewal of vegetation at the place. It is based on a thorough site analysis, weed and arboricultural assessments. Council has kindly provided permission to reproduce the Vegetation Management Plan in this Conservation Management Plan.

Investigative works into the place also continue. The geological conditions of the place appear to be a key issue for the structural distortions to the bridge, and it is currently unknown what, if any effect the rising and falling water levels within the river are having on the structure. Geotechnical drilling was carried out in early 2017 at seven sites between the arches of the bridge, and hydrological investigations are currently being carried out. The resulting hydrological assessment will determine what, if any, action is needed at the bridge.

Another recent change has been the simplification of ownership and management responsibilities. State Growth has retained ownership and management of the bridge, and all publicly accessible riverbank land is now owned and managed by Clarence City Council. The consolidation of ownership will assist with consistent decision making and management of the riverbanks.

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<sup>1</sup> Nigel Lewis Richard Aitken Pty Ltd, Corney, G, Nichols, G, *Richmond Bridge, Tasmania. Conservation Plan*, Department of Transport, 1997; GHD Pty Ltd, *Richmond Bridge. Conservation Management Plan*, Department of Infrastructure, Energy and Resources, January 2010

<sup>2</sup> Landscape Impressions, *Richmond Bridge Vegetation Management Plan*, Final, 6 November 2015

## **The Content of this Conservation Management Plan**

A Conservation Management Plan must be a practically focussed document that assists owners and managers with caring for the place. The review of the previous 2010 Plan finds that it is a sound management tool. This is demonstrated by the review of the 103 policies included in the 2010 Plan. The review highlights that many of these policies are implemented as ongoing management or maintenance tasks, whilst some specific items have been completed.

Opportunities to refine, simplify and improve the usability of the Plan have been pursued where possible. The number of policies has been reduced to 91 by simplifying some, or removing those actions or tasks that have been completed.

A number of policies and actions are yet to be addressed. Within available resources, it is appropriate that the highest priority has been given to implementing those tasks which will assist in the essential conservation of the bridge. Nonetheless, this Plan considers that other assessments or tasks should be completed in the future within available resources. Areas where work is required include traffic management, flood management, interpretation and visitor management, Aboriginal heritage and archaeological assessments. It would be highly desirable for some of these tasks to be completed by the time of the next review of this Conservation Management Plan.

The 2010 Plan provided a sound and usable structure which has been adopted for this current Plan. Conservation Policies have been grouped into broad subject areas, each with a policy statement, followed by explanation, implementation, identification of responsibilities and priority. The following summarises the key findings.

### **General Policies**

The general conservation policies provide the overarching framework for managing the heritage significance of the bridge and setting. It begins with recognition of the exceptional significance of the place. From this recognition, the general and detailed policies are developed. The bridge and setting are comprised of multiple elements. These elements range in their levels of significance. Assessing the levels of cultural significance allows for an understanding of the relative values of the elements that form the place and appropriate management practices. Minor changes have been made to this section.

### **Management System**

Considerable changes have occurred with the ownership and therefore management of the place. State Growth owns and manages the bridge, Clarence City Council now owns and manages the public riverbanks.

The 2010 Plan recommended the formation of a management committee to assist with coordination between the different stakeholders and approval bodies and to provide a forum for community involvement. This policy recommendation was not adopted.

Since the simplification of ownership, the need for a separate committee is perhaps less useful at this time. Regular engagement and referral to the existing Richmond Advisory Committee (a committee of Council), may provide a more practical means of community engagement. Implementation of the Tasmanian Planning Scheme State Planning Provisions will also require Council to address its role in heritage management of the place. A review of available mechanisms of the Local Provisions Schedules is recommended.

### **Use of the Richmond Bridge and Setting**

The bridge is currently used for both vehicular and pedestrian use. The continuing use of the bridge since 1825 is part of the cultural significance of the place. This Plan recommends the continuation of this use. However, it is crucial that these uses do not jeopardise the structural integrity of the bridge. Fixing and maintaining the vibration meter is a high priority.

Continued uses of the place and setting for recreational purposes is appropriate, however care is needed to ensure that such uses do not compromise the heritage values. The preparation of Visitor Management and Interpretation Plan is recommended, and would complement Council's work in the Vegetation Management Plan.

Two new areas are addressed in the policies related to use. Firstly, a recommendation has been made regarding commercial uses of the place to ensure they do not impact on the significance of the place. Secondly, hydrological assessments are currently being carried out and will determine what, if any, action is needed.

## **Managing the Fabric of the Richmond Bridge**

This vibration meter has proven to be a valuable tool in providing real time data on the structure of the bridge and excessive vibrations which may cause damage. The meter should be repaired and maintained.

Improvements have been made to the fabric of the bridge since 2010. Most notably in the extensive conservation works carried out in the eastern arch to address drainage issues. Whilst substantially improving the appearance and repairing damaged stonework and mortar joints, drainage remains an ongoing issue that needs further investigations. Hydrological assessments resulting from the geotechnical work may also have a bearing on the management of the bridge fabric.

## **Management of Public Riverbank Land and Infrastructure**

The public riverbank land forms a crucial part of the significance of the place. It also provides important tourism and passive recreation areas for relaxation, picnics and appreciating the bridge and surrounds. Conservative policies have been recommended based on the significance, the physical nature of the place, and the limited compatible uses available.

Modifications have been made to these policies. The Vegetation Management Plan recommends the preparation of a landscape masterplan to coordinate things such as seating, rubbish bins, paths and so on. This has been included as a policy in this Conservation Management Plan. New areas requiring attention include rehabilitating the land on the north east abutment of the bridge, and managing the historic boiler located on the south east riverbank which is now publicly accessible.

## **Vegetation Management**

Policies for vegetation management have been taken from the Vegetation Management Plan which has also been included in this Conservation Management Plan as an appendix. Vegetation forms an important part of the place and defining its character. A few historic plantings do exist within the place, however, most of the oldest plantings have declined and what exists today are largely naturalised exotic and native specimens. Much of the character of the place comes from this naturalised vegetation. The Vegetation Management Plans adopts the approach that it is appropriate to let the plantings landscape continue to evolve with a similar character to what currently exists.

## **River Management**

After the bridge, the Coal River is the dominant element of the place. It has important historical and aesthetic values. Enhancing the health of the Coal River brings both environmental and cultural benefits. The 2010 Plan recommended the preparation of a flood management plan, and this policy is repeated in this current Plan. The hydrological investigations currently being carried out may also provide recommendations for the management of water flow at the bridge.

## **Traffic and Road Management**

As discussed above, the vibration meter has shown the existing 25 tonne load limit to be acceptable. This should however be continually monitored. Excessive speed creates unacceptable levels of vibration for the bridge. Enforcement of the speed limit is crucial if the bridge is to continue to be used for vehicle traffic. The 2010 Plan recommended the installation of a permanent speed camera. This has not occurred. This 2017 Plan again encourages State Growth and the Tasmanian Police to look at enforcement of the speed limit. If a permanent speed camera cannot be installed, mobile speed cameras should be used regularly at the crossing to alter driver behaviour.

## **Interpretation**

Interpretation refers to all the ways of presenting the significance of the place. Since 2010, some additional interpretation has been provided through the installation of a plaque acknowledging the national heritage values of the place. New technologies through smart phone applications provides for a myriad of interpretation opportunities. However, it remains crucial that careful consideration be given to introducing any further on-site interpretation structures that could potentially compromise the values and character of the place. A coordinated approach to visitor management is desirable. The preparation of an interpretation plan remains a policy.

### **Further Assessment Work**

This Conservation Management Plan continues to recommend that Aboriginal heritage and historical archaeological assessments be prepared for the place. These policies were included in the 2010 Plan. In the absence of an Aboriginal heritage assessment, the Unanticipated Discovery Plan included as an appendix in this report should be applied. Heritage Tasmania, DPIPW E should advise on the management of historical archaeology in the interim.

### **Review and Reporting**

Only minor wording changes have been made to review and reporting policies. This Conservation Management Plan should be reviewed regularly; be made publicly available; and works carried out by State Growth and Council be documented and disseminated.

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## Introduction

# 1.0 INTRODUCTION

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## 1.1 Background

The Richmond Bridge is a place of exceptional significance. People have long appreciated the bridge, both locals and visitors alike. It is an iconic heritage place, forming an integral part of Richmond, and providing a special sense of identity to the local community.

The heritage significance of the bridge has also long been recognised by formal statutory means at all levels of Government. The Richmond Bridge was entered in the Register of the National Estate in 1978, and the Tasmanian Heritage Register in 1999. This formal recognition culminated in 2005 with the inclusion of the Richmond Bridge on the National Heritage List.

The National Heritage List recognises that the Richmond Bridge is of extraordinary significance to Australia. It joins a select group of places such as the Sydney Opera House and Harbour Bridge, Old Parliament House and the National War Memorial. In Tasmania, the Richmond Bridge is one of nine historic heritage places to be currently included on the National Heritage List.

On identifying the heritage values of a place comes the responsibility to ensure that those values are protected and retained for future generations. The Conservation Management Plan (CMP) is the widely accepted means of firstly establishing the significance of the place, and then developing appropriate policies for the management of that significance.

### 1.1.1 Previous Conservation Management Plans and Objectives of this Current 2017 Review

This document is the third detailed investigation of conservation requirements for the bridge and setting.

The first Conservation Plan (CP) was completed in 1997.<sup>3</sup> The 1997 CP provided a detailed and thorough assessment of the significance of the place and the development of broad and encompassing policies.

A major review of the 1997 plan was subsequently carried out, resulting in the 2010 *Richmond Bridge Conservation Plan* (2010 CMP). The 2010 CMP was prepared by GHD Pty Ltd and drew on the 1997 Plan as well as new investigations of the place, its values and conservation requirements. It proposed 103 conservation policies and actions.<sup>4</sup>

The 2010 CMP is detailed in its assessment and analysis and the current review considers that it fundamentally remains a sound management tool. However, CMPs are not static documents. Places can change over time in their values, conservation requirements, uses, owner expectations and statutory requirements. Maintenance or conservation works may also have been carried out and should be reflected in revised documentation. The 2010 CMP also included a policy that the document should be regularly reviewed, at least once every five years. This 2017 CMP represents the results of this review and has been prepared by Austral Tasmania Pty Ltd.

Because of the breadth and detail of the 2010 CMP, information from that document is reproduced in this current document as relevant. However, opportunities to improve the usability of the document for day-to-day managers and statutory authorities have been pursued.

This 2017 CMP has four broad objectives:

1. To assess how the heritage values of the bridge (and surrounds) have been retained (or diminished) since 2010;
2. To assess how practical (or otherwise) the 2010 CMP has been as a management tool for State Growth and other key parties with management responsibilities and make changes as necessary;
3. To update the CMP to reflect works or other assessment projects that have subsequently been carried out (e.g., the results of the vibration monitoring, vegetation management etc.);
4. To review and revise as necessary the conservation policies/actions for the place, and document those actions that have been completed (or not). This includes the actions recommended in both the 1997 and 2010 CMPs.

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<sup>3</sup> Nigel Lewis *et. al.*, *op. cit*

<sup>4</sup> GHD, *op. cit.*

The National Heritage listing of the Richmond Bridge encourages a cooperative approach between the Australian and Tasmanian Governments to ensure the preparation and implementation of a management plan that is consistent with the National Heritage Management Principles. On this basis, the Department of State Growth with financial assistance from the Australian Government Department of Environment and Energy has commissioned Austral Tasmania Pty Ltd to review the 2010 CMP.

## 1.2 Understanding the Place

The following provides a brief snapshot overview of the place - the bridge, its setting and the broader landscape.

### 1.2.1 The Richmond Bridge

The Richmond Bridge crosses the Coal River in the small country town of Richmond, approximately 26 kilometres to the east of Hobart. Richmond is significant historic town. It is located in the Coal River Valley, an area of undulating cleared plains, fringed by low, sandstone hills with light vegetation cover.

The town centre is located on a rise on the west bank of the Coal River. The bridge crosses the river at a low point between the east and west escarpments. It was constructed from 1823 to 1825 and is an arched road bridge constructed from locally sourced brown sandstone (Figure 1). It is 41 m long and 7.2 m wide between the parapets.

The bridge has six spans of 4.3, 8.1, 8.3, 8.5 and 4.1 m respectively with four main semi-circular arches founded in the river bed, with two smaller arches founded on the east and west banks. It has been suggested that a cross section through the bridge would show longitudinal walls built 600mm apart providing the structure with robust stiffness.<sup>5</sup> The fill of the bridge is basalt and sandstone gravel of loose to medium density with sandy clay fines. The footings which support the bridge piers, are thought to be about 1.5 metres deep. In turn, the foundations are the natural subsurface materials which support the footings. Changes in subsurface conditions resulted in movement, providing the bridge with its asymmetrical and undulating outline.

The bridge is faced with random coursed rough ashlar, with a darker stone chosen for the stringcourse. Above the stringcourse are the parapets, constructed from random coursed sandstone with coping stones. The parapets were raised in 1835. In 1884, the piers were encased and the riverbed paved in sandstone to improve water flow. The piers have sloping fins with angular leading edges to direct the water flow and are constructed from smooth faced ashlar sandstone.

The bridge operates for vehicle and pedestrian uses with a current load limit of 25 tonnes. It has two traffic road lanes with a bitumen surface and gravelled footpaths on either side. Circular bollards are located at each corner of parapets.

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<sup>5</sup> Spratt in Nigel Lewis *et. al, op. cit*, Appendix Four – Structural Analysis



Figure 1: North face of the Richmond Bridge, looking south west (2015)

### 1.2.2 The Study Area for the 2017 CMP

The study area for the 2017 CMP is shown in Figure 2 below. It adopts the same study as defined by the 1997 CP and 2010 CMP. The 1997 CP did not include a plan to define the physical extent of the place. Rather, it adopted a written description of the study area that included the bridge and extending from the bluff adjacent to the St John's Cemetery in the north to the Gatty Dam in the south and the river valley contained by the escarpment. It also included other areas visible from the bridge, or from which the bridge is visible.

The 2010 CMP translated this description into a plan by reference to cadastre boundaries, which is used for this 2017 CMP. The place contains the areas of land included in the National Heritage List, Tasmanian Heritage Register and Clarence Interim Planning Scheme 2015 Heritage Code definitions. It should be noted however that each authority has adopted different definitions of the boundary of the place, resulting in different jurisdictions under each statutory mechanism.

For the purposes of this 2017 CMP, the physical area of the defined study area includes the following components:

- The Richmond Bridge, crossing the Coal River and connecting Bridge and Wellington streets. The study area has been extended slightly to both the east and west to incorporate the immediate road approaches;
- The Coal River, commencing at a point in the north, adjacent to the bluff of St John's Church Cemetery at approximate MGA (Zone 55) coordinates 536106E/5269060N, and continuing to the Gatty Dam in the south at approximate Australian Map Grid coordinates 536181E/5268287N;
- The land on the north east river bank owned by Clarence City Council (CCC) and known as 64 St Johns Circle and defined by Certificate of Title 104610/1 (PID 5888635);
- The four parcels of land on the south east river bank owned by CCC and defined by Certificates of Title 44025/3 (PID 3003450), 10089/3 (PID 3003450), 44025/2 (PID 3003450) and 10089/4 (PID 3003450);

- The area of public land located on the south east river bank adjacent to the Gatty Dam between approximate MGA (Zone 55) coordinates 536136E/5268372N in the north and coordinates 536191E/5268303N in the south. The tenure of the land is shown as a 'road casement', and presumably the responsibility of CCC, along with other local roads;
- The three parcels of land on the north west bank river bank owned by CCC and defined by Certificates of Title 66866/1-3 (no PID); and
- The three parcels of land on the south west bank of the river. This includes the land known as 68 Bridge Street inclusive of Certificates of Title 165030/1 (PID 2892815) and 146274/1 (PID (2892815), and the land known as 70 Bridge Street and defined by Certificate of Title 153169/1 (PID 2068367).

One parcel of land appears to have been omitted by error from the 2010 CMP study area plan. This is the lot known as 66 Bridge Street and defined by CT 161603/1 (PID 3120286). It is owned and managed by CCC as part of the public riverbanks. It is located on the south western riverbank, and forms part of the western approach to the bridge. It is vegetated open space and accessible by the public. It forms part of the immediate setting of the bridge and is subject to the same Zone and Code provisions under the Interim Planning Scheme. It would be desirable for this additional lot to be considered as part of the Richmond Bridge place for the purposes of future management.

In addition to providing a defined area for management as the Richmond Bridge and its setting, the 1997 CP and 2010 CMP identified the visual importance of the place to Richmond. Significant views to and from the place are identified in this CMP.

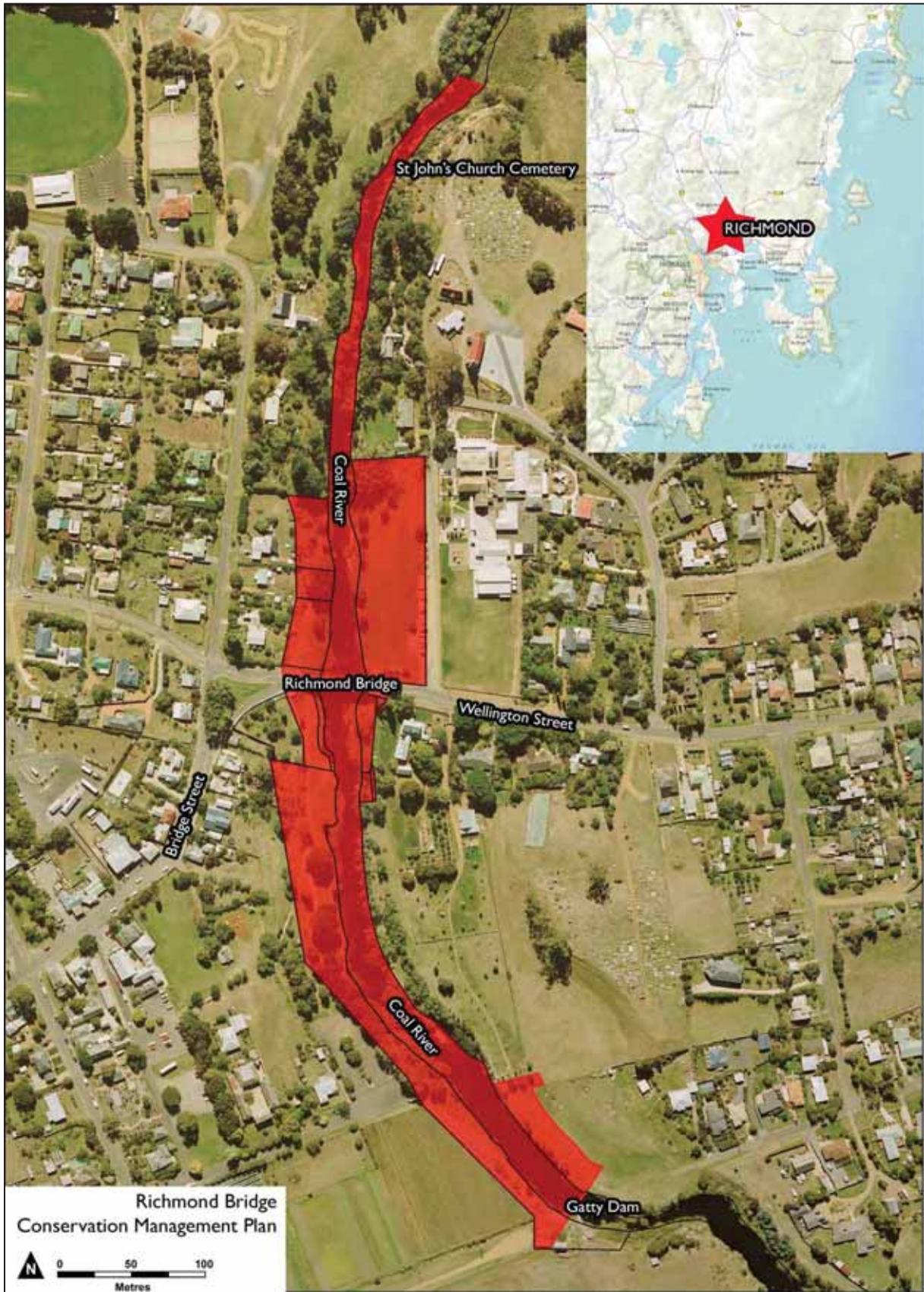


Figure 2: Study Area shown by solid red shading (2012 aerial photograph. Base image by TASMAP ([www.tasmap.tas.gov.au](http://www.tasmap.tas.gov.au)), © State of Tasmania)

### 1.3 Approach to Preparing this Conservation Management Plan

This 2017 CMP has been prepared for the Department of State Growth by Justin McCarthy and James Puustinen, Austral Tasmania Pty Ltd. It has been prepared as a review and revision of the previous 2010 CMP, which in turn, was a major review and revision of the initial 1997 Conservation Plan. This CMP has been prepared in accordance with the National Heritage Management Principles, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance, 2013* which provides a best practice standard for managing cultural heritage places in Australia, and key Tasmanian legislative and policy guidelines for the management of heritage places, principally the *Historic Cultural Heritage Act 1995* and its associated documents of *Assessing Historic Heritage Significance for application with the Historic Cultural Heritage Act 1995* (Version 5, October 2011) and *Works Guidelines for Historic Heritage Places* (November 2015).

The following tasks have been carried out as part of this project:

Stage 1: Initial Review and Consultation. The 1997 and 2010 conservation plans were reviewed at project inception to identify strengths and weaknesses of the existing documentation and areas requiring revision. Works and projects which have been carried out post-2010 were also reviewed as part of this process. Principally this includes the results of vibration monitoring of the bridge and the preparation of a Vegetation Management Plan for the broader setting. Preliminary consultation with key stakeholders was carried out at the beginning to seek their input into the review process. The key stakeholders are the Department of State Growth; Clarence City Council; Heritage Tasmania (DPIPWE), Aboriginal Heritage Tasmania (DPIPWE); and Tasmanian Irrigation.

Stage 2: Physical Analysis. The bridge and its setting have been inspected to document the key features of the place. Written and photographic records of the place were made sufficient to illustrate the key characteristics of the place and the series of Site Inventory datasheets has been updated.

Stage 3: Review and Revision. The 2010 CMP is considered to be a sound document and has been reviewed and revised as necessary to form this 2017 CMP. Key revisions include updating the CMP to reflect works or other assessment projects which have been carried out since 2010; updating the management framework to reflect the extensive legislative changes which have occurred at State and local levels; and, revision of the conservation policies to reflect current requirements.

Stage 4: Consultation. The draft CMP has been made available to key stakeholder groups. Written submissions were sought on the adequacy of the draft CMP and these submissions were considered in preparing the final version.

### 1.4 Structure of this Conservation Management Plan

The 2010 CMP provides a sound and thorough source for much of the historical, landscape and significance assessments, and the broader conservation policies. It also provides a logical structure which has been repeated in this CMP. The CMP been structured in the following manner:

- An historical summary outlining the evolution of the Richmond Bridge and its setting to 2017;
- An analysis of the setting of the Richmond Bridge. This has included an assessment of the cultural landscape values of the study area and the identification of significant views to and from the study area;
- An assessment of the significance of the study area. The significance includes assessment at National, State and Local levels, considering the values against the criteria in the *Historic Cultural Heritage Act 1995*;
- An overview of the management system for the Richmond Bridge and its setting at National, State and local levels;
- Conservation Policies to assist in ensuring that the significance is maintained for present and future generations; and
- Appendices that include the Site Inventory sheets and other supporting documentation.

## 1.5 Limitations and Constraints

This report has been commissioned as a review of the existing 2010 CMP. The advice, representations and recommended actions contained in this CMP are aimed at conserving the cultural heritage values of the Richmond Bridge and study area. The responsibility for assessing risks (real and/or perceived) arising from implementation of the report or aspects thereof rest solely with the owners and managers of the place.

No legal liability whatsoever is accepted by Austral Tasmania Pty Ltd for any direct or consequential loss, damage or injury (including without limitation any costs incurred in connection with proceedings either legal or arbitration) suffered by any person or entity which arises as a result of implementation of heritage conservation related advice at or about the place.

This report includes information summarised from previous investigations. Full and direct reference to the original source material is recommended.

This CMP is principally limited to consideration of historic heritage values. An Aboriginal heritage assessment has not been undertaken as part of this work, although preliminary enquiries were made to Aboriginal Heritage Tasmania, DPIPWE and the results incorporated into the recommendations made in this report.

Whilst every effort has been made to gain insight to the historic heritage profile of the subject study area, Austral Tasmania Pty Ltd cannot be held accountable for errors or omissions arising from such constraining factors.

## 1.6 Acknowledgements

The assistance of the following people and organisations is gratefully acknowledged:

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- Mr Pete Smith, Heritage Tasmania, DPIPWE;
- Mr Ian Boersma, Heritage Tasmania, DPIPWE;
- Mr John Stephenson, Heritage Tasmania, DPIPWE;
- Mr Adam Marshall, Aboriginal Heritage Tasmania, DPIPWE;
- Mr Hugh Christie, Tasmania Irrigation;
- Mr Peter Rand, Tasmanian Irrigation; and
- Mr Perry Foster, Crown Land Services, DPIPWE.



## Historical Summary

## 2.0 HISTORICAL SUMMARY

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### 2.1 Chronology of the Richmond Bridge

1803	European exploration of the Coal River Valley.
1815	1,000 acre land grant issued to George William Evans, part of which now forms the north west portion of the Richmond township.
1819	Land grant of 710 acres to Lieutenant-Governor Sorell 'commencing at the crossing place on the Coal River in the District of Ulva', part of which now forms Richmond township.
18??	Land located to CW Murray, and subsequently granted to him, part of which now forms the north east portion of Richmond township.
1817	100 acre land grant to David Lord (with an additional 700 acres grant in 1819), part of which now forms the eastern portion of Richmond township.
By 1820	Road construction to Richmond commenced.
1820	Visit by John Thomas Bigge during his Commission of enquiry, recommending the erection of a bridge over the Coal River.
1823	first stone of bridge laid (11 December 1823).
1824	Transfer of 90 acres by David Lord to the Government for the use as a township site, and officially named Richmond by Lieutenant-Governor Sorell on 27 February 1824.
1824	Central part of township laid out.
1825	Bridge opens to traffic (1 January 1825).
1826	Report by Major Tobias Kirkwood on movement of piers. Water from the mill dam may have caused the damage.
1829-31	Windmill erected by Buscombe on the south west riverbank.
1834	New road constructed from Hobart across Grass Tree Hill to Richmond, the bridge was considered as the 'best and most substantial in the colony'.
1834	The foundation stone of St Luke's Church laid, and church consecrated 19 May 1838.
1835	The parapets of bridge raised at western end.
1836	Tenders were called for the erection of St John's church. The church opened 1837.
1843	Artist Thomas Chapman prepares a watercolour sketch showing the bridge, the earliest known depiction. Two sketches from a similar period show the bridge and river.
1846	Possible flood damage to the bridge.
1849	Correspondence and plan for 'proposed causeway across Pittwater'.
By 1856	George Burn erected mill on south east riverbank.
Post 1856	Photograph taken of bridge from north, the earliest known photograph of bridge.
1859	The bridge was considered dilapidated and unsafe. A report by Director of Public Works, WR Falconer recommended underpinning and the use of concrete.
1861	Richmond declared a municipality.
1872	Sorell causeway opened and railway extended to Campania.
1884	Cut water edges added to the piers. Spratt concludes that the river paving dates from this time.
1908	Buscombe's Windmill dismantled.
1920	Eldershaw acquired and renovated Burns' mill.
1923	Centenary celebrations of bridge (11 December). Construction dates are added to the bridge and a commemorative stone is installed on the inside of the northern parapet.

- 1925 Narrow strip of land acquired by Richmond Municipality along west bank of river, downstream from the bridge.
- 1927-28 Repairs carried out to the bridge.
- 1935 Gatty Dam constructed downstream with consequent rise in water level.
- 1964 The Royal Australian Institute of Architecture called a meeting in July to consider the future of Richmond. An exhibition was held in February 1965, and a public meeting in March of that year. The Local Government Act was amended for preservation orders, and a public meeting was held in July 1967.
- 1969 Pembroke Street reservation of almost one acre was sold. This land once led to the eastern bank of the Coal River.
- 1969 Elizabeth Jones published 'A Guide to the History of Richmond, Tasmania', in the Papers and Proceedings of the Tasmanian Historical Research Association (vol. 16, no. 4, May 1969)
- 1973 Public acquisition of land on west bank of the river, up and downstream of the bridge.  
Recutting and 'darkening' of the inscription stones. The method to darken the inscription is unknown.
- 1977 30 km/hr speed restriction introduced.
- 1978 The Richmond Bridge was entered in the Register of the National Estate (21 March 1978).
- 1985 25 tonne limit on the bridge.
- 1987 Car accident on the bridge caused a 1.5 metre hole in the downstream parapet wall and some loosening in the stone work. Some 75% of the stone was able to be recovered for reconstruction, and new stones were sought locally.
- 1988 A vehicle accident dislodged some six metres of the south east parapet wall.<sup>6</sup>
- 1989 The Richmond Council constructs the viewing platform and staircase to the south west.
- 1993 Richmond Interim Order gazetted (March). The Richmond Municipality was absorbed within the city of Clarence (April).<sup>7</sup>
- 1997 *Historic Cultural Heritage Act 1995* (Tas) proclaimed.
- 1999 The Richmond Bridge was permanently entered in the Tasmanian Heritage Register (22 September).
- 2005 The Richmond Bridge was entered on the National Heritage List (25 November).
- 2007 Vehicular accident on the bridge (July) damaged the south western parapet wall above the first arch. Speeding was attributed as the cause of the accident.
- 2009 Initial testing carried out using a vibration meter to provide real time data on potential problems resulting from excessive vibrations. Testing work shown to be successful.
- 2010 Following the success of the 2009 testing, a permanent vibration meter linked to a camera was attached to the bridge.
- 2013 Department of State Growth awarded the Colin Crisp Award in recognition of the vibration monitoring work. The award is Engineers Australia's premier recognition of excellence in engineering heritage projects.
- 2017 State Growth conducted geotechnical investigations of the foundations and riverbed at the Richmond Bridge.

<sup>6</sup> Snowden, D, *Richmond Cultural Resource Management Plan. Volume 3, A thematic history of the cultural resources of the township of Richmond*, Clarence City Council and Australian Heritage Commission, 2000, p.71

<sup>7</sup> Nigel Lewis *et al*, *op. cit.*, pp.8-10

## 2.2 Aboriginal History and Interaction with European Settlers

The Coal River Valley is part of the country of the Oyster Bay people of Tasmania. Located on the east coast of Tasmania, their lands covered some 7,800 square kilometres, including 515 kilometres of coastline. Their country extended from St Patricks Head in the north, to the east bank of the Derwent estuary. Inland, it reached St Peters Pass in the Midlands, before following the Eastern Tiers to the Break O'Day River, where it returned to the coast at St Patricks Head.

Prior to European settlement, Ryan proposes that ten bands formed part of the Oyster Bay nation with a population of between 700-800 people, the largest group in Tasmania. The Risdon and Pittwater areas were the home of the Moomairremener band. The Moomairremener band enjoyed a diet of shellfish from estuarine areas, possums and kangaroo from their hunting grounds of the open forests and plains, and a variety of vegetable foods.

The band moved seasonally to take advantage of available foods, spending winters on the coast where shellfish, coastal birds and vegetables were found, before moving inland around October when the warmer weather allowed them to hunt larger game. As the summers progressed, the group moved further west, hunting and firing the bush to flush out game. Using well defined routes, the Moomairremener band's route inland was west up to the Derwent River to New Norfolk, and then on to the Clyde and Ouse Rivers.<sup>8</sup>

The use of the land shaped the Tasmanian landscape over many thousands of years. Traditional management practices such as firing the land for hunting and gathering purposes, cleared the forests and the grass plains. These practices predisposed the area to the suitability for early land grants and settlement by Europeans.

In September 1803, Lieutenant John Bowen and a party of 49 convicts and military personnel established the first permanent European settlement in Tasmania. The chosen site was Risdon Cove, part of the Moomairremener country. The land had been subject to constant firing practices to flush out game. Bowen described the country as 'more like a nobleman's park in England than an uncultivated country'.<sup>9</sup> The Risdon settlement was also on one of the well established routes to the shellfish and lagoon areas of the Coal River and Pittwater and the hunting grounds on the eastern shore of the Derwent. Initial contact between the British and Aboriginal people was uneasy. However, conflict soon escalated over land and food.

European settlement and the acquisition of land was done at great cost to the Aboriginal people of the district. Violence ensued, and the resulting reports are written by the settlers, not from the Aborigines perspective. As early as 1806, the hunting of kangaroos around Pittwater led to conflict and violence between the Tasmanians and Europeans. Conflicts increased with the growth of European population and the rapid expansion of land clearing, fencing and competition for land. In June 1814, Lieutenant-Governor Davey issued a proclamation regarding the 'very marked and decided hostility ... lately ... evinced by the natives in the neighbourhood of the Coal River'. On enquiry, Davey learned that the violence had been caused by the abduction of Aboriginal children. The new Lieutenant-Governor, William Sorell inherited this situation. On his appointment in May 1817, he acknowledged how some Europeans would:

... pursue the women, for the purpose of compelling them to abandon their children. This last outrage is perhaps the most certain of all to excite in the sufferers a strong thirst for revenge against all white men ... With a view to prevent the continuance of the cruelty before-mentioned, of depriving the natives of their children; it is hereby ordered that the resident magistrates at the districts of Pitt Water and Coal River, and the District Constables in all other Districts, do forthwith take an account of all the native youths and children which are resident with any of the settlers or stock-keepers, stating from whom, and in what manner they were obtained.<sup>10</sup>

During the 1820s, the European population of the colony boomed. Large land grants encouraged the development of the pastoral industry. In turn, this led to violence between the Aboriginal people and European settlers over land and food supplies. By 1824, the violence had escalated to a state of guerrilla warfare. Field police and the military were sent to fight the Aboriginal resistance. In November 1826, fourteen members of the Oyster Bay Tribe were killed by the military, and a further ten were captured soon after. No Europeans were charged with the murder of the Aborigines.

This conflict culminated in Lieutenant-Governor Arthur's declaration of martial law in 1828. Arthur set up roving parties to capture Aborigines in the areas settled by Europeans. The most prominent party was headed

<sup>8</sup> Ryan, L, *The Aboriginal Tasmanians*, Allen & Unwin: St Leonards, 1996, pp.15-17, 19

<sup>9</sup> Morgan, S, *Land Settlement in Early Tasmania. Creating an Antipodean England*, Cambridge: Cambridge University Press, 1992, pp.43-44

<sup>10</sup> Boyce, J, *Van Diemen's Land*, Melbourne: Black Inc., 2008, p.88

by the Richmond Chief District Constable, Gilbert Robertson. In November 1828, Robertson captured the chiefs Eumarrah and Jemie, a young warrior,<sup>11</sup> a lame man and a wife of a chief from the Stoney Creek group. Some of the captured Aborigines were imprisoned at the Richmond Gaol.<sup>12</sup>

George Augustus Robinson visited the Aborigines held at the Richmond gaol in October 1829, returning again in January 1830. On his return to Hobart, he was accompanied by 'eight captive natives', three women, two infants, a man and two boys.

In September 1830, Major Douglas devised the 'Black Line' as a human chain of military, police, settlers and convicts that swept across the settled districts of the island in the aim of forcing the Aborigines onto the Tasman Peninsula. The 'Black Line' failed in its purpose, capturing only two people.<sup>13</sup>

Attempts at using force to remove Aboriginal people from the areas settled by Europeans failed. More success was had by George Augustus Robinson who led a series of expeditions aimed at enticing and coercing the remaining Aboriginal people to leave their country. In January 1832, Robinson arrived in Hobart Town in the company of 26 surviving members of the Big River Tribe. They were sent to establishments in the Furneaux Islands ten days later.<sup>14</sup>

In 1847, the 47 remaining Aboriginal people at the mission on Flinders Island were transported to the former convict station at Oyster Cove, south of Hobart. Back on the Tasmanian mainland, the people would often leave Oyster Cove for weeks at a time to hunt, camp and collect traditional foods, with occasional trips to Hobart.<sup>15</sup>

### 2.3 European Settlement

European settlement of Tasmania commenced with Lieutenant John Bowen's arrival at Risdon Cove in September 1803. Shortly after the arrival of the British at Risdon Cove, settlers crossed the hills to east and into the valley where Richmond is situated. The settlers were in search of game: kangaroo and the Tasmanian Emu. Coal was discovered along the riverbanks, and the district was named Coal River.<sup>16</sup>

In the first years of European settlement, food shortage reached famine proportions. As a result, rations were supplemented by hunting game: kangaroos and emus in the Coal River vicinity.

Whishaw writes that no attempts at European settlement were made in the Coal River district until the relocation of Norfolk Islanders to Van Diemen's Land in 1807-1808. These settlers were given grants throughout the colony, including in the Pittwater and Coal River areas. The land holdings of these early settlers were small, usually less than 50 acres, and housing was primitive – daub and split timber cottages.<sup>17</sup>

As Snowden writes, early European settlement in the Richmond area was closely linked to the acquisition of land and the establishment of pastoralism and agriculture. However, she also notes that it was the convicts who provided the cheap labour required for successful settlement. This social distinction between convicts and masters strongly influenced Richmond's cultural history, and social stratification with division based on both religion and wealth. The acquisition and settlement of land was determined by British regulations. In the early years of British settlement, the approval of the Governor of New South Wales (and Van Diemen's Land) was required for a settler to be granted land. In time, the size of the land grant became proportional to the amount of capital the settler could bring to the colony.<sup>18</sup>

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<sup>11</sup> Plomley notes that this 'young chief' was probably Cowerterminna or 'Jack', from Little Swanport, not Stoney Creek: Plomley, *op. cit.*, p.107, f.n 65

<sup>12</sup> Ryan, *op. cit.*, pp. 7, 73, 75, 101

<sup>13</sup> Snowden *op. cit.*, pp.52-54

<sup>14</sup> Ryan, *op. cit.*, pp.157-158; Bonwick, J, *The Last of the Tasmanians: or, the Black War of Van Diemen's Land*, Sampson Low, Son & Marston: London, 1870, pp.228-229; *The Tasmanian Mail*, 22 August 1896, p.17

<sup>15</sup> Gough, J, 'Oyster Cove', in Alexander, A, (ed.), *The Companion to Tasmanian History*, Centre for Tasmanian Historical Studies, University of Tasmania: Hobart, 2005, pp.261-262; *The Mercury*, Friday 20 December 1861, p.2; *The Mercury*, Friday 25 May 1866, p.4; *The Mercury*, Friday 18 February 1870, p.2

<sup>16</sup> Flinn, E, 'John Bowen (1780-1827)', in *Australian Dictionary of Biography, Volume 1: 1788-1850*, Melbourne University Press, 1966, pp.136-137, in Nigel Lewis *et al*, *op. cit.*, p.17; Snowden, *op. cit.*, p.17

<sup>17</sup> Whishaw, MK, *History of Richmond and Recollections from 1898-1920*, Hobart: National Trust of Australia (Tas.), 1973., p.48

<sup>18</sup> Snowden, *op. cit.*, p.18

Few land grants were made until 1813, when Governor Macquarie issued 356 grants, many to the former Norfolk Islanders, resettled to Van Diemen's Land. In the Coal River district, Macquarie granted 1,000 acres to George William Evans. Evans later sold this land to Simeon Lord.<sup>19</sup>

Grants were issued annually over the following years. In 1819, William Sorell, then Lieutenant-Governor was granted land in the district. In February 1819, he was provided 710 acres of land 'commencing at the crossing place on the Coal River in the district of Ulva' (Figure 3). His grant did not come with the usual restrictive clauses. A further 1,000 acres on the Coal River was later granted to Sorell in 1821. His holdings totalled 3,000 acres, going on to receive a further 3,200 in 1821.<sup>20</sup>

In 1820, over 60 grants were issued, mainly of smaller holdings to emancipated convicts and their children. Land grants reached their peak in 1823, when 1,027 grants were issued. This was the first time that the European population exceeded 10,000. It also marked the spread of settlement out from the centres of Hobart and Launceston, including into the Coal River Valley. The land granting system ended in 1832. Shortly before this, it was discovered that the previous grants were flawed. Legitimate grants were required to be made in the name of the King. In Van Diemen's Land, they had been made in the name of the Governor, rendering them void. As a result, the colonial administration had to investigate each grant individually, creating uncertainty for several years.<sup>21</sup>



**Figure 3: Detail from c.1820s map showing early layout of Richmond township, and Sorell's original 710 acres on the west, and David Lord's 710 acres on the east. North to top of Figure (TAHO, AF396/1/246, Map - Monmouth 38A - parishes of Ulva and Staffa. Reproduced with permission).**

<sup>19</sup> *Ibid*

<sup>20</sup> Jones, E.B, 'A Guide to the History of Richmond, Tasmania', *Tasmanian Historical Research Association Papers and Proceedings*, Vol. 16, No. 4, May 1969, pp.154, 157

<sup>21</sup> Snowden, *op. cit.*, pp.17-18

The provision of cheap convict labour was crucial for successful settlement and economic development. Early land grants came with free convict labour for six months. Later, the settlers were required to provide for their convict labourers. Snowden's research has found that a high proportion of convicts in the Coal River district accompanied the spread of settlement.<sup>22</sup>

In 1821, 105 male, and five female convicts were recorded in the Coal River. The free population of the district in 1823 was only 127, of whom; 86 were born free or arrived free. In 1831, the population of the Richmond district was 2,800, comprising 1,700 free settlers and 1,100 convicts.

Some emancipists took up land in the Richmond area. However the size of their grants was often too small to make a success from farming. At least one-fifth, but more likely more than half of those granted land before 1824 were emancipated convicts. Some though were very successful, including James Lord who amassed a large fortune through both farming, and illegal dealing in spirits.

Although not part of the township of Richmond, these early rural land grants are closely tied with its history. The first stage of the development of the economy was the establishment of the large estates. Land was cleared for pastoralism and agriculture, and later sold, subdivided and traded. The large landholders became the dominant figures in colonial society: its economy, political life, and the social structure. Land along the Coal River was some of the earliest to be explored and acquired by the British. Many of the rural grants predate the township of Richmond, and were established as self sufficient communities. When Richmond was established, the large estates continued to play an important role in the development of the economy. Richmond provided the market facilities for these estates. Town residents were also employed on the estates as labourers, shepherds, blacksmiths, carpenters, servants and gardeners.<sup>23</sup>

## 2.4 Establishment of Richmond

Richmond was established in 1824, prompted by the construction of the bridge which began the previous year. The town was identified as a link to the south east region including a transit stop between Hobart, the east coast and the Tasman Peninsula. The area was also agriculturally productive, providing Richmond with a future role as a supply and service centre. The establishment of the town was closely related to the construction of the bridge.<sup>24</sup>

The establishment of the township of Richmond has its origins in the early large rural grants. The Land Commissioners recorded that Lieutenant-Governor Sorell sold his Richmond land to John Butcher and Dr Barnes. In settling a debt of £100, Butcher then sold 100 acres of land to David Lord, who appeared to already be aware that the land would be required for a township. Almost immediately, Lord exchanged the 90 acres for the township for a 1,400 acre grant at York Plains, near Oatlands. This 90 acre piece of land formed the basis of Richmond. Of this land, 40 acres were on the west bank of the Coal River, the remaining 50 were from Lord's Richmond Park estate on the eastern side of the river.<sup>25</sup>

It appears that the Crown's purchase of Lord's land was highly irregular and representative of the misuse of land grants during the early nineteenth century. Lord's biographer records this transaction as 'one of his more notable land deals'.<sup>26</sup> Even by the standards of the day, this transaction received comment. Crown Solicitor Alfred Stephen wrote in 1823: 'The transaction of purchase appears the most extraordinary I ever heard of in such a matter but, so far as my duty is concerned which is merely to get a proper conveyance and title, the case is not complicated.'<sup>27</sup> The Land Commissioners reported on this sale:

20 May 1826: Mr Butcher paid us a visit about a piece of land adjoining his, which we conceived both from the extent of Butchers land and the Chart to belong to Government, consequently we valued it as such. Mr Butcher said he had given Col. Sorell two thousand acres and five hundred pounds for this land, and he was assured that the whole Peninsular was his, and that his Grant mentioned it. Of course we referred him to the Surveyor General. Major de Gillern mentioned that immediately after the sale of this Grant to Mr Butcher, it was found necessary, to buy one hundred acres from him for the Township of Richmond, but it might not look well on the part of the Government buying it directly from Butcher,

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<sup>22</sup> *Ibid.*, p.20

<sup>23</sup> *Ibid. op. cit.*, pp.21, 30-31

<sup>24</sup> Michael Shield & Associates in association with Don Goldworthy & Associates, *Richmond Cultural Resource Management Plan: a plan for managing the cultural resources of the township of Richmond, Tasmania*, Clarence Council, 2001, p.5

<sup>25</sup> Snowden, *op. cit.*, p.31-32

<sup>26</sup> Allen, S, 'Lord, David (1785 - 1847)', *Australian Dictionary of Biography Volume 2, 1788-1850*, Melbourne University Press, 1967, pp.126-127

<sup>27</sup> TAHO, CSO 1/979/1283, in Jones, 'A Guide to the History of Richmond, Tasmania', p.155

a third person was employed, Mr David Lord bought it from Mr Butcher for one pound an acre, and it was shortly after disposed [of] to Government for two thousand acres.<sup>28</sup>

The Land Commissioners made further mention of the Richmond purchase in respect to Lord's York Plains holdings:

The Way in which Mr D. Lord has acquired his Property in this Quarter is so explanatory of the System that had heretofore acted on, that we beg to represent it. When at Richmond Township we informed his Excellency on the manner in which Mr D. Lord had possessed himself of fourteen hundred acres. Mr Butcher owed D. Lord, about one hundred acres, Mr Lord had been given to understand that one hundred acres of land were required for Richmond Township, Mr Butcher not having money to pay Mr Lord, sold him the land. Lord immediately exchanged it for four fourteen hundred acres which he located in York Plains.<sup>29</sup>

The township was named Richmond in 1824, when Lieutenant-Governor Sorell visited Pittwater and the Coal River and was present at the laying out of the township and its naming. The *Hobart Town Gazette* reported that 'The Township is advantageously situated on the bank of the river and the Coal River Bridge leads directly towards it'.<sup>30</sup> The township land was originally part of two areas of private land, David Lord to the east of the river, and Lieutenant-Governor Sorell to the west (Figure 4). The township was named Richmond on 27 February 1824, generally assumed to be after Lord's Richmond Park property.<sup>31</sup>



**Figure 4: Early Plan of Richmond with the bridge indicated by a rough pencil notation. North to top of Figure (TAHO, AF721/1/564, Map - R/16 - Richmond, various property boundaries, surveyor T Scott. Reproduced with Permission).**

Scott's plan above shows the grid layout of the town blocks on both sides of the river, and pencil notations for the bridge still under construction. Large portions of land below the bridge were left unallocated, later to

<sup>28</sup>Nigel Lewis *et al*, *op. cit.*, p.26

<sup>29</sup>*Ibid*

<sup>30</sup>Snowden, *op. cit.*, p.32

<sup>31</sup>*Ibid*; Nigel Lewis *et al*, *op. cit.*, p.28

become River Place, or Street. This reserve continues to exist to a limited extent on the west bank, but not the east.

Initial settlement and growth was largely due to geographical position and links between Port Arthur and Hobart. Construction of the bridge provided impetus for expansion into the surrounding districts for agriculture whilst also stimulating town development as a service centre.<sup>32</sup>

## 2.5 Construction of the Richmond Bridge

Prior to the construction of the bridge, the Coal River was crossed via fords. Nigel Lewis *et. al.* write that the location of these fords was indicated by several early road alignments leading towards the water's edge. These crossing points may have existed upstream of the bridge, reached via the right of way. Another crossing point may have been at the end of Pembroke Street, on the east bank of the river, and slightly downstream from the bridge where the fresh and salt water met in the Coal River. The third ford may have been near the present weir of the Gatty Dam, accessed from the west by Torrens Street.<sup>33</sup>

However, these fords were not permanent crossing points of the river, and regular floods and high tides often held up traffic. The *Hobart Town Gazette* wrote in 1816 that a bullock drawn cart drifted down stream whilst crossing the river. The cart was lost but the bullocks were able to swim ashore.<sup>34</sup>

The need for a permanent crossing point of the river was identified by the Royal Commissioner, John Thomas Bigge, during his visit to Van Diemen's Land in 1820 as part of the Commission of Inquiry on the State of Agriculture and Trade. Indeed, in its early days, the bridge was known as 'Bigge's Bridge'. Commissioner Bigge visited the Richmond area in 1820. His report of 1823 noted that:

It is on the tract of land called Clarence's Plains, and more especially in the district of Pitt Water and the Coal River, that the pre-eminent fertility of the soil of Van Diemen's Land is exhibited. The surface of these tracts is sufficiently varied and open to prevent the stagnation of the water, but not to impede cultivation. The soil consists of sandy loam, and in Pitt Water of a rich and reddish loam of some depth and tenacity. The timber hardly exceeds the proportion that would be requisite for ornament, and at present is insufficient for the construction of buildings and fences. The farms here are of a larger extent than in the other districts of Van Diemen's Land, and the appearance of five or six farm-houses indicated attention to domestic comfort and agricultural improvement. ... The cultivated lands of each farm are entirely open, and except upon an estate of Colonel Davey and one of Mr Lord, I did not observe a single fence ... The cultivation of the other parts of the county of Buckinghamshire is extended to the banks of the Coal River, a small stream that falls into an arm of the sea at Pitt Water, on which there are some very fine and beautiful tracts of land, equally calculated for the purposes of grazing or tillage. In some portions of these tracts the effects of inundation are visible; but not more encumbered with wood that its wants will be found to require.<sup>35</sup>

In choosing the location for the bridge, Von Stieglitz writes that there was 'heated discussion' as property owners adjoining the river made claims for the crossing to be on their land, although the ford was obviously the best location.<sup>36</sup>

John Turnbull was appointed to the role of Superintendent of the Bridge Building, and the Superintendent of Stonemasons was William Wilson. The *Hobart Town Gazette and Van Diemen's Land Advertiser* recorded on 13 December 1823 that works on the construction of the bridge had commenced. It published that:

The first stone of the bridge over the Coal River was laid on the 11<sup>th</sup> instant, there being present James Gordon, Esq. and G.W. Gunning Esq., Magistrates of the Pitt Water and Coal River Districts and a number of the respectable Settlers of the vicinity – This bridge secures a passage at all seasons to the fertile district on the farther side of the Coal River, Pitt Water and the township of Sorell, over a stream which is very generally flooded in the winter and spring. It received the name of Bigge's Bridge, in compliment to his Majesty's late Commissioner to these Colonies.<sup>37</sup>

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<sup>32</sup> Michael Shield & Associates, *op. cit.*, p.6

<sup>33</sup> Nigel Lewis *et al.*, *op. cit.*, pp.49, 76-77, 80

<sup>34</sup> Whishaw, *op. cit.*, p.49; Jones, E.B, *Richmond – Tasmania: a Crossing Place*, Hobart: Richmond Preservation and Development Trust, 1973, p.22

<sup>35</sup> Bigge, JT, *Report of the Commissioner of Inquiry on the State of Agriculture and Trade in the Colony of New South Wales*, ordered by the House of Commons to be printed, 13 March 1823, p.25 in Nigel Lewis *et al.*, *op. cit.*, p.25

<sup>36</sup> Von Stieglitz, KR, *Richmond: the story of its people and its places*, Launceston, 1953, p.15 in Nigel Lewis *et al.*, *op. cit.*, p.24

<sup>37</sup> *Hobart Town Gazette and Van Diemen's Land Advertiser*, Saturday 13 December 1823, p.2

The construction of the bridge and development of the town were closely connected. Indeed, the commencement of construction in 1823 was soon followed by the gazettal of Richmond as a town. With works on the bridge underway, town development began, south west of the bridge location. In 1824, Captain Sydney Cotton, Acting Engineer of the 3<sup>rd</sup> Regiment wrote to Lieutenant-Governor Sorell asking that tenders be called for the supply of eight bullocks and two carts for bringing stone from the quarry at Butchers Hill to the bridge site. Progress on construction was being delayed by the lack of reliable transport of stone. The carts were provided.<sup>38</sup>

Lieutenant-Governor Sorell encouraged the development of the Pittwater area. In his briefing to incoming Lieutenant-Governor Arthur, Sorell wrote:

Upon the commencement of the Emigration, I directed my attention to opening communications to the Districts first in order of settlement; a road to New Norfolk thence upwards on both sides of the Derwent; from Hobart town to Coal River and Pittwater, a stone bridge in progress over the Coal River; from Hobart Town to Launceston with good ferries and bridges.<sup>39</sup>

Progress was made, and within twelve months under Lieutenant-Governor Arthur's appointment, the bridge was nearing completion. On 18 June 1824, Colonial Architect, David Lambe reported to Arthur that:

According to your Honour's instructions I have surveyed the bridge now building at the Coal River under the directions of the Acting Engineer, and beg to state it is my opinion, that the work is being carried on in a good and substantial manner.

I took the liberty of suggesting to the Acting Engineer two distinct alterations – the first was that the centering of the arch, the stonework of which was completed, should remain until the third arch might be begun, that the new additional centering should be made.

The next was, that instead of forming the extrados of the arches with loose stone rubbish, that the longitudinal walls should be built up about two feet part [*i.e.*, approx. 60 cm], and the spaces filled up with loam – this, with submission to your Honour, would be a great saving of expense in the carting of material, and would have a more equal bearing on the arches than loose angular stones. With these alterations and under the direction of the same overseer Mr. Turnbull, I trust that this bridge, on the largest scale ever undertaken in this colony, may in the ensuing spring, be finished to the satisfaction of your Honour.<sup>40</sup>

The *Return of Buildings erected and finished by the Convicts employed in the Engineer department of Van Diemen's Land from January 1824, to December 1826* noted:

A Stone Bridge of Six Arches over the Coal River: This work was Commenced in Novr. 1823 and Completed of Sept. 1824.<sup>41</sup>

However, others have given different dates for the completion of the bridge. Scripps writes that it was completed on 1 January 1825, Von Stieglitz considers 1 April 1825 to be the date, while Reed cites 4 April 1825. Jones also states that the bridge opened to traffic of 1 April 1825, completed for a total cost of £2,000. The completed bridge had a different appearance to what currently exists, with straight piers and lower parapets (Figure 5).

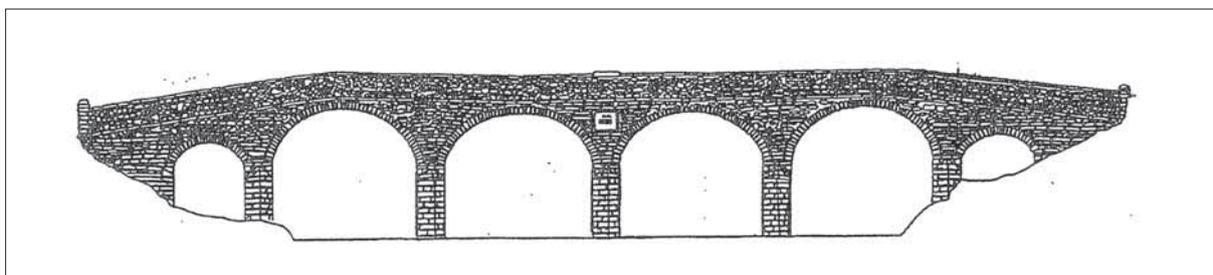


Figure 5: Richmond Bridge from Upstream, 1825-1836 (Nigel Lewis *et al*, *op. cit.*, p.29)

<sup>38</sup> Nigel Lewis *et al*, *op. cit.*, p.23

<sup>39</sup> HRA III, IV: 147 in Nigel Lewis *et al*, *op. cit.*, p.24

<sup>40</sup> Snowden, D, 'The Richmond Bridge 1823-1998', in *Coal River Valley Historical Society Inc. Journal*, No.1, 1999, p.4

<sup>41</sup> HRA III, IV: 374 in Nigel Lewis *et al*, *op. cit.*, p.24

The result of its construction was that heavy traffic could proceed without delay between Hobart and the east coast and Tasman Peninsula when the Coal River was in flood. Despite its construction, passenger ferries continued to operate at Pittwater.<sup>42</sup>

### 2.5.1 The Design and Builders of the Bridge

Who was responsible for the design of the bridge remains a question of debate. Major Thomas Bell, David Lambe, and William Wilson have all been credited as the designers.

At the time of construction, public works were the responsibility of the Engineers Department, comprised of engineers and soldiers of the Royal Engineers. Bell was a military officer and engineer, who arrived in Van Diemen's Land in 1818 to take control of the military garrison at Hobart Town. In the colony, Bell was appointed a justice of the peace, and acted as both engineer and inspector of public works. Under Lieutenant-Governor Sorell he was responsible for public buildings in Hobart, and roads at Macquarie Plains, and Constitution and Spring Hills in the Midlands. He was also given charge to complete the Wellington Bridge, Hobart, construct the sandstone causeway to Hunter Island and a build a new brick bridge across the Hobart Rivulet in Argyle Street. Thompson considers that his major accomplishment was the formation of the 'Bell's Line of Road', later to become the main road to the north of the colony. Smith writes that it was Bell who was responsible for the Richmond Bridge. Bell was later criticised for his lack of technical skill and delegation of duties.<sup>43</sup>

David Lambe was an architect and farmer, born in London in 1803. He arrived in Van Diemen's Land in May 1824, where he was soon appointed Colonial Architect. His role was to 'draw out plans and specifications of all buildings proposed to be erected by the Crown, to inspect the progress of the work'. Lambe filled this position for over three years. Von Stieglitz writes that Lambe forwarded the plans for the bridge from England.

As noted in the 1997 Conservation Plan, it seems highly unlikely that Lambe was responsible for the design of the bridge. At the time he arrived in Van Diemen's Land he was only 21 years old. As Lewis *et al.* propose, it is improbable for Lambe to have designed the bridge from England, site unseen and prior to his appointment as Colonial Architect.

There is little evidence to assess Lambe's skills as an architect. He did inspect and report upon works under construction, which included the nave of St John's Church at Launceston, St Matthew's Church at New Norfolk, and the church and parsonage at Sorell. As Smith writes, Lambe's role with the Richmond Bridge was most likely that of inspection and reporting.<sup>44</sup>

More recent research has suggested that the designer of the bridge was William Wilson. Wilson arrived in Van Diemen's Land in 1820. It is unclear if he was appointed to the position of Superintendent of Stonemasons before his arrival in the colony. At the time of his arrival, the colonial administration did not have the services of a suitably qualified architect. Although untrained, Wilson was a highly skilled stonemason and he became in effect the *de facto* Colonial Architect. Wilson is known to have been involved in the construction of early buildings in the colony including the original Scots Church in Bathurst Street, a brewery in Davey Street, and the original court house.<sup>45</sup>

More is known about those in charge of the construction of the bridge, than the convicts who actually built it. This lack of knowledge has given the bridge its own local legend and folklore.

As Acting Engineer and Inspector of Public Works, Bell was responsible for choosing men fit for public works, and allocating the prisoners to their respective work gangs. The Gaol Gang was considered the harshest, where the prisoners were required to dig gravel and worked in the streets. Rations were allocated weekly. A convict in employment of the Crown received seven pounds of meat and seven pounds of flour a week. Each morning, the convicts were mustered and assigned to their different work gangs. The working day commenced at 5.00 a.m. and concluded at sunset, with breaks at breakfast and at lunch to avoid the heat of the midday sun. Bell was concerned with the lack of adequate supervision of the work gangs, as most overseers were convicts.

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<sup>42</sup> Austral Archaeology Pty Ltd, Spratt, P, Scripps, L, *Tasmanian Historic Bridges Heritage Surveys. Commission No C14-93*, 1994, p.19; Reed, TT, *Historic Churches of Australia*, MacMillan, South Melbourne, 1978, p.46; Von Stieglitz, *op. cit.*, p.15; Jones, 'A Guide to the History of Richmond, Tasmania', p.162; Snowden, *op. cit.*, pp.69-70

<sup>43</sup>Smith, R, *Early Tasmanian Bridges*, Launceston: Foot and Playsted, 1969, p.84; Smith, R, 'Lambe, David (1803-1843)', *Australian Dictionary of Biography, Volume 2, 1788-1850*, Melbourne University Press, 1967, pp.73-34; Newitt, L, *Convicts and Carriageways. Tasmanian Road Development until 1880*, Historical Committee of the Department of Main Roads, Tasmania, 1988, p.31

<sup>44</sup> Von Stieglitz, *op. cit.*, p.15; Nigel Lewis *et al.*, *op. cit.*, p.25; Smith, R, 'Lambe, David (1803-1843)', *op. cit.*, pp.73-74

<sup>45</sup> Wilson, L, 'Of Chapels and Bridges', in *Coal River Valley Historical Society Inc. Journal*, No.1, 1999, pp. 11, 15

He recommended that Members of the Royal Engineers should be sent out to the colony to supervise public works.<sup>46</sup>

The stone for the Richmond Bridge was quarried from the nearby Butcher's Hill, and Jones wrote of the local legend of the bridge being haunted by the ghost of a murdered overseer. In quarrying the stone, the convicts were required to haul it by hand cart, two pulling and one pushing. It is said that a particularly brutal overseer would ride on top of the cart being moved by the convicts. The convicts later attacked him and threw his body onto the rocks below the bridge.<sup>47</sup>

One incident, which does have confirmation, was the murder of George Grover. Grover, was transported to Van Diemen's Land in 1825 for housebreaking. By 1829, he was in Richmond, employed as the Government flagellator, the most despised position amongst convicts. At the time of his death in 1832, Grover had visited the servants of Gilbert Robertson, where he proceeded to get drunk. An argument broke out with the servants and on his way home, Grover reportedly fell asleep on the bridge. From here, he was thrown over the parapet. The inquest heard that Grover was still alive after being thrown off the bridge. Before he died, he claimed that four men had committed the crime, although he was only willing to name two of them. The verdict of the inquest was 'wilful murder committed by James Coleman and other persons unknown'.<sup>48</sup>

This event was included in the *Weekly Courier* as part of the centenary celebrations in 1923. The newspaper reported:

The bridge has also been the scene of tragedies. Shortly after the construction had been completed a number of ticket-of-leave men, who had been indulging freely in liquor, caused a quarrel with one of the flagellators named Groover [*sic*] and the fracas culminated in the man being thrown from the bridge into the shallow waters below. The injuries received by Groover caused his death and no doubt the culprits all had a morning appointment with the executioner.<sup>49</sup>

## 2.6 Early Repairs to the Richmond Bridge

On its completion, Colonial Architect David Lambe reported on the bridge that: 'The work stands very well and is found very convenient'. This however was a premature judgement. Structural problems began to occur almost as soon as it was completed. In February 1826, Acting Engineer Major Tobias Kirkwood wrote:

With regard to the bridge, I am sorry to say the report brought in on Monday was too true, the second and third piers from the opposite bank have settled in the foundation very considerably broken in as much as the stonework in both is considerably broken. I am much astonished that the arch has not been injured, the plan that occurs to me at the moment is to support the arch by upright pillars – while the piers are pulled down and re-built upon a better foundation, and by this process I am by no means confident of success.<sup>50</sup>

Lieutenant-Governor Arthur provided the Colonial Secretary, Earl Bathurst with further information on 22 April 1826:

I have the honour to bring under the consideration of Your Lordship the urgent necessity that exists for inducing a Gentleman of talent and respectability to proceed to this Colony to undertake the duties of Civil engineer and Mineralogist ... A striking instance of the total absence of this description of Ability has been sadly ascertained in the construction of a Stone Bridge over the Coal River, which was commenced by my Predecessor, and was so far advanced that I was compelled to proceed with it. But it had scarcely been completed when a report was made of the necessity of immediate steps being taken to secure it from falling, the Piers having considerably sunk. The expense of Public Money on a fair Estimate of the Labour upon this bridge could not have been less than £2,000, and the importance of commencing other important operations of the same nature without some additional imported knowledge would involve me in much responsibility.<sup>51</sup>

Lambe and the Superintendent of Convict Stonemasons, JE Addison inspected the bridge. Their investigation showed that all of the piers, except for the north eastern one had settled. The cause of the problem was diagnosed as water undermining the piers. The source of this water was thought to be from the mill dam,

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<sup>46</sup> Newitt, *op. cit.*, 1988, pp.31-32

<sup>47</sup> TAHO, CSO 1/705/2535, 21 February 1826 in Jones, *Richmond – Tasmania: a Crossing Place*, pp.22-23

<sup>48</sup> McFie, P, 'Murder on the Bridge', in *Coal River Valley Historical Society Inc. Journal*, No.1, 1999, pp. 19-20

<sup>49</sup> *Weekly Courier*, 13 December 1923, p.41; *Colonial Times*, Tuesday 19 June 1832, p.2

<sup>50</sup> Jones, *Richmond – Tasmania: a Crossing Place*, *op. cit.*, p.23

<sup>51</sup> HRA, III, V: 192 in Nigel Lewis *et al*, *op. cit.*, p.29

located 50 feet (i.e., approx. 15.2 m) upstream from the bridge. In analysing the damage caused by the mill and dam, Lambe recommended in March 1826 that the bed of the river from the bridge site as far up as Walker's mill-dam should be paved with large and heavy blocks of stone.<sup>52</sup>

The Spring flood of 1828 worsened the problem. One local reported that the damage was so bad that the bridge would not survive another flood. Extensive repair works took place from April-June 1829.<sup>53</sup> Two of the piers were virtually rebuilt. The mill dam had also been damaged by the previous Spring flood. Colonial Architect, John Lee Archer insisted that it should not be rebuilt.

In 1834, the Van Diemen's Land Annual reported that the bridge was 'considered to be the best and most substantial in the colony',<sup>54</sup> but further repairs were required in 1835. Although built as a symmetrical structure, the approaches from either side of the riverbank were different in height: the town side end of the bridge being about one metre higher than the eastern side. It was originally constructed with a parapet. However, because of the differences in heights, the parapet at the town end was having little effect in preventing falls over the edge.<sup>55</sup>

As a consequence, in 1835 Overseer of Convicts Thomas De Little carried out works to raise the parapet on the western end of the bridge. The works took one mason a fortnight to finish, and the terminating columns at that end of the bridge were also extended. De Little informed John Lee Archer that:

His Excellency, having approved the repair of the parapet walls of the Richmond Bridge in order to ensure the safety of the public – I beg leave to suggest this very necessary work be commenced immediately (say tomorrow) if it be possible, as the delay even a day under the circumstances of dark nights and the approach of winter renders it one of absolute necessity.<sup>56</sup>

Depictions of the modified bridge are included in the following Figures. Figure 6 is taken from the 1997 Conservation Plan and depicts the bridge with the raised parapet. A very early photograph captured the bridge at this stage. Figure 7 is one of the few photographs of the bridge prior to the encasing of the piers. It also shows the two flour mills, Buscombe's windmill on the western bank, and Burns' steam mill on the east. A path appears to lead down from the north west parapet towards the river bank. This may be the right of way indicated in the 1840s Plan of Richmond.<sup>57</sup>

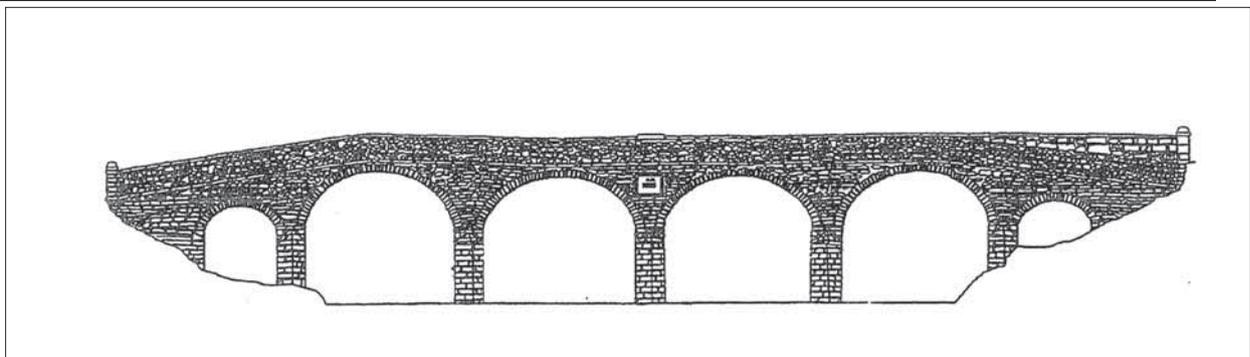


Figure 6: Richmond Bridge from Upstream, 1836-1884 (Nigel Lewis *et al*, *op. cit.*, p.30)

<sup>52</sup>Smith, *Early Tasmanian Bridges*, *op. cit.*, 1969, pp.14-16; Jones, *Richmond – Tasmania: a Crossing Place*, *op. cit.*, pp.24, 53; HRA, III, V: 192 in Nigel Lewis *et al*, *op. cit.*, p.30

<sup>53</sup> *The Hobart Town Courier*, Saturday 4 April 1829, p.2

<sup>54</sup> *Hobart Town Almanack and VDL Annual*, 1834, p.13 in Nigel Lewis *et al*, *op. cit.*, p.30

<sup>55</sup> Nigel Lewis *et al*, *op. cit.*, p.30

<sup>56</sup> TAHO, CSO 1/105/2535 in Jones, *Richmond – Tasmania: a Crossing Place*, *op. cit.*, p.24

<sup>57</sup> See CPO Richmond R/12

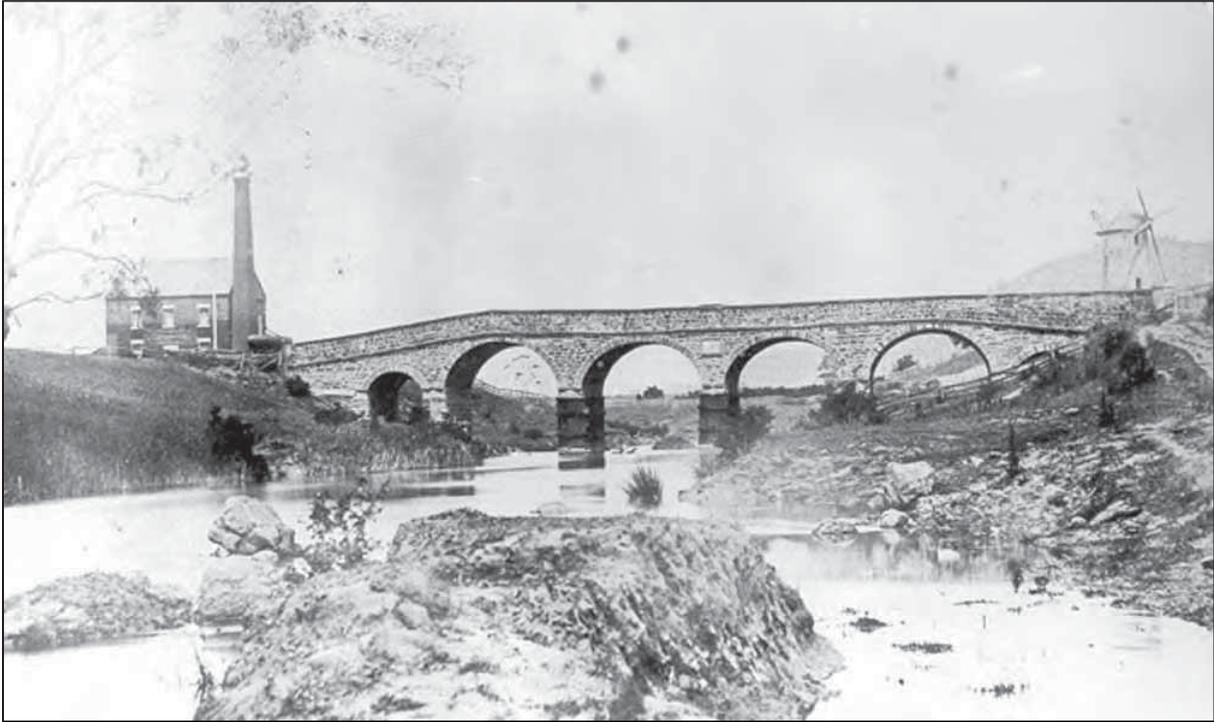


Figure 7: Richmond Bridge, looking south, Buscombe's windmill on right, Burn's steam mill on left (TAHO, PH3/1/8948, Photograph - Richmond - view of Bridge, Windmill and Mill. Reproduced with permission)

## 2.7 Development of Richmond and the Coal Valley

In the 1820s, Richmond became one of Lieutenant-Governor Arthur's police district resulting in the construction of the gaol, court house, barracks and a watch house. The early and continued growth of Richmond relied on its importance as a convict station and a military post.

The town was described in 1827 by the Land Commissioners, writing 'there is a large stone bridge over the coal river; a Brick court house, stables and stone jail recently built'. Other than this, the settlement was little more than an outstation, relying on Hobart for the supply of meat and flour.

Snowden's analysis is that the township growth and decline and the accompanying development of the broader agricultural settlement was slow, but steady. This growth ceased with the opening of the Sorell Causeway in 1872 which diverted through traffic away from Richmond. The role of the town refocused as a service centre for the surrounding rural district.<sup>58</sup>

Early township plans show the town laid out in a grid pattern on both sides of the Coal River. Initially, development was centred on the road to Kangaroo Point (i.e., Bellerive) on the western bank of the Coal River, and downstream of the bridge. From Kangaroo Point, a ferry connected the settlement with Hobart.

The first buildings to be constructed were the civic infrastructure required for the police and penal systems: the courthouse, gaol, gaoler's quarters and residence for the Police Magistrate. Soon after, private residences began to appear. Within ten years of establishment, two inns were in operation.<sup>59</sup>

The *Van Diemen's Land Anniversary and Hobart Town Almanack for the year 1831* noted:

The town of Richmond is situated on the river, near the point, where the salt water ceases to flow. The Court-house, (connected with which, is the residence of Mr. Gordon the Police Magistrate of the district) is a handsome building, and with the gaol, two large and commodious inns, a neat stone bridge of several arches, and the lofty stone tower of the windmill, situated conspicuously in the centre, already give the appearance of a thriving English village.<sup>60</sup>

<sup>58</sup> Snowden, *op. cit.*, pp.78-79

<sup>59</sup> Nigel Lewis *et al*, *op. cit.*, p.28

<sup>60</sup> Ross, in Snowden, *op. cit.*, p.9

This 'lofty stone tower' was James Kestall Buscombe's windmill, located on the escarpment on the western bank of the Coal River.<sup>61</sup>

Richmond became a convenient overnight resting place for both travellers and convicts on their way to the east coast and Tasman Peninsula during the 1830s. By the 1830s, several roads led into and out of the town, and town services expanded with businesses including blacksmiths, wheelwrights, saddlers, stockyards, tanneries, a market place, a pound, brick and lime kilns, as well as general stores. Richmond became a prominent settlement in Tasmania, and in 1835 was Tasmania's third largest town.

This rapid development was noted by the Quaker traveller James Backhouse. In 1832, Backhouse visited Richmond commenting that the town consisted of a Court house, the gaol, a windmill and about thirty dwelling houses, of which three were inns. Within two years when Backhouse returned, the town had almost doubled in size.

The first commercial buildings to be constructed were inns. On Bridge Street, Buscombe's Lennox Arms opened in 1827, the Bridge Hotel in c.1830, and the Star and Garter c.1830. The Richmond Hotel was erected c.1830 on the corner of Henry and Bathurst Streets. Also in 1830, Gaby's General Store was erected in 1830. Service industries were focussed on the main street, including the administrative centre of government. Most industry was related to primary production, a role that continued until the 1970s, when tourism began to have a major impact.<sup>62</sup>

Residential buildings also began to appear during this time. Richmond includes a fine collection of residences built between the 1830s-1850s. These places are characterised by a uniformity of scale and simplicity in design, although more prominent and detailed examples were also built. The first residence was Mayfield, which was set well back from Bridge Street. It was erected, c.1820 and preceded the establishment of Richmond. Other early housing including the 'Colonial Cottage' c.1830, Montacute's House c.1830s, Red Coats Cottage (built in 1825 to house army officers), the District Magistrate James Gordon's house 1831, the Police Barracks 1833, Emerald Cottage 1837, and Belmont 1837.<sup>63</sup>

Melville provided an early description of the town in his 1834 annual:

Richmond, the head-quarters of the police district of the same name, is pleasantly situated on the banks of the Coal River, about four miles [*i.e.*, *approx.* 6.4 km] from the coast, and distant fourteen miles [*i.e.*, *approx.* 22.5 km] from Hobart Town. It has a bridge built of stone, considered the best and most substantial in the Colony. Richmond has a gaol, court-house, where also divine service is performed every Sunday by a clergyman of the established church – two inns, and in the immediate neighbourhood are several well-built dwelling houses. The country around is well settled, and affords excellent tillage and pasturage.<sup>64</sup>

By 1835, Richmond had the largest district population in Van Diemen's Land (Figure 8).<sup>65</sup>

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<sup>61</sup> McFie, P, *The Miller's Cottage (Milton Cottage) (1837) and Tower Windmill, Richmond (1831-32)*, Coal River National Trust Group, 1986, in Nigel Lewis *et al*, *op. cit.*, p.33

<sup>62</sup> Snowden, *op. cit.*, pp.8-9, 80-81

<sup>63</sup> Granny Jones, *Gossip and Facts about Richmond*, Regal Publications: Launceston, 1992 in Nigel Lewis *et al*, *op. cit.*, p.37

<sup>64</sup> Melville, H, *The Van Diemen's Land Annual for the year 1834*, p.13, in Snowden, *op. cit.*, p.10

<sup>65</sup> Snowden, *op. cit.*, p.78



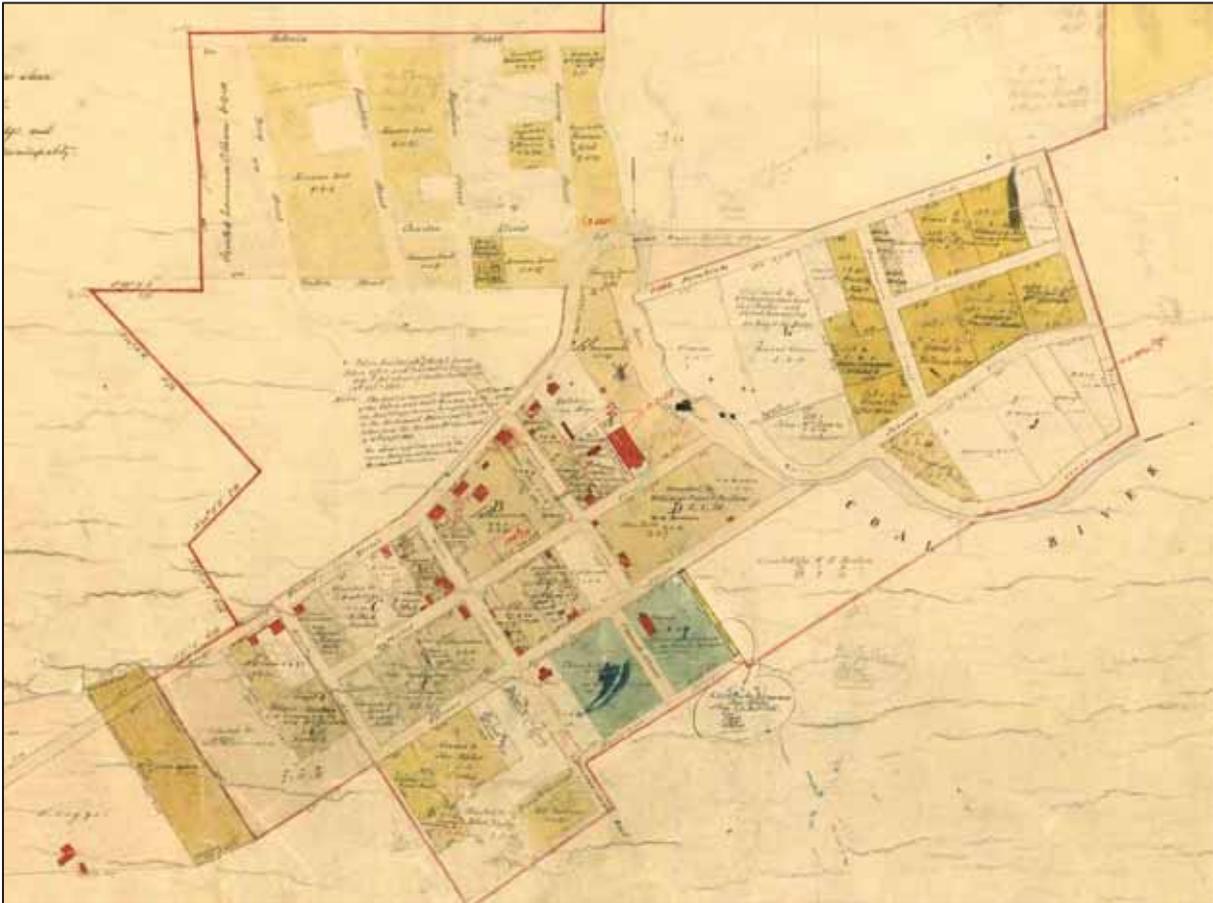
**Figure 8: Richmond, c.1835, viewed from the north west this early watercolour shows the town surrounded by cleared fields, evenly divided. St Luke's Church can be seen on the left, the windmill in the centre, and the line of the Coal River delineated by vegetation** (National Library of Australia, (1835). Richmond, Van Diemen's Land, 14 miles from Hobart Town Retrieved May 10, 2017, from <http://nla.gov.au/nla.obj-135192563>. Reproduced with permission)

A subdivision plan of Richmond was prepared in 1837 by W Malcolm to allow for allotments to be sold, and by October that year, Simeon Lord was selling land. The boundaries of the town were published in the *Hobart Town Gazette* in February 1839 and Victoria and Montagu Streets were its northern and western extent.<sup>66</sup>

On the northern side of Bridge Street was Simeon Lord's 1000 acre land grant. Part of this land was surveyed in 1842 and subdivided into small plots. Township blocks were formed by Gunning, Napoleon, Franklin, Percy, Gordon and Victoria streets. One of the survey plans of Lord's grant shows some of the earliest evidence of the curved alignment of Bridge Street as it leads down to the western abutment of the bridge (Figure 9).

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<sup>66</sup> *Ibid.*, pp.78-79



**Figure 9: 1842 Plan of Richmond. The subdivision on the north west to form Gunning, Napoleon, Franklin, Percy, Gordon and Victoria Streets. Buscombe's mill is depicted, as are numerous buildings. The river bank reservation on the east bank has been privately acquired by this time (CPO, Map of Richmond R/13, 1842, Reproduced with the permission of the Department of Primary Industries, Parks, Water and Environment, Land Tasmania © State of Tasmania).**

Religious buildings also appeared early in the development of Richmond. The Anglican and Roman Catholic Churches formed the major landmarks at the southern and northern ends of the town. Planning for religious buildings commenced soon after the establishment of the town. Archdeacon Scott wrote to Lieutenant-Governor Arthur on 7 March 1826:

I have consulted with the Surveyor-General, as to the best mode of pointing out proper places for Burial Grounds, and I beg to recommend to your Excellency that he be directed to mark off that quantity [*i.e.* 20 acres for church and associated facilities] in the following Places, of which, half an Acre may be fenced in immediately for that purpose [*i.e.* burial ground].<sup>67</sup>

However, further actions on the establishment of Churches or burial grounds did not occur for some time. It was not until 1834 that planning commenced when John Hunt Butcher exchanged eight acre of land for St Luke's Church of England in return for 640 acres of bush. The site of the Anglican cemetery on the eastern side of the Coal River was suggested by Archdeacon Scott to Lieutenant-Governor Arthur and set aside for burial purposes. Whishaw writes that the cemetery site was originally intended as the location for the church, on the western side of the river. This choice was later changed as it was felt that it would be too much of a climb for the old and feeble. Lieutenant Governor Arthur laid the foundation stone for St Luke's on 3 February 1834 and Bishop Broughton consecrated the Church on 19 May 1838.<sup>68</sup>

Development of the Roman Catholic Church took longer. John Cassidy donated land for the Church to the east of the river, on an elevated position. Bishop Polding from Sydney visited Van Diemen's Land in 1835 and recommended the construction of a Church. Local subscriptions raised £700 and the government provided £500. In September 1835 a meeting was held to discuss its erection. Tenders were called for its construction

<sup>67</sup> HRA, III, V: 175 in Nigel Lewis *et al*, *op. cit.*, p.33

<sup>68</sup> Whishaw, *op. cit.*, p.50; Jones, *A Guide to the History of Richmond, Tasmania*; *op. cit.*, p.163; National Heritage List Nomination, St John the Evangelists Church, St Johns Ccl, Richmond, TAS, Australia, place ID 106031

on 16 January 1836, and in September it was reported that works on the foundation had commenced. The nave was completed first and the Church was opened on 31 December 1837. The Church was extended in 1859 with the construction of a spire, chancel and sacristy designed by Frederick Thomas who had also designed the Catholic Church at Colebrook. By 1893 the original spire had decayed to a point that it required renewal. The Launceston architect Alexander North designed a new shorter spire. The current spire was erected in 1972, its design based on the original 1859 design. Attached to the Church was the Catholic School, established by the Presentation Sisters (Figures 10-11).<sup>69</sup>



**Figure 10: St John's Roman Catholic Church** (TAHO, Richmond: collection of postcards, State Library of Tasmania, Tasmaniana Library, AUTAS001612544861. Reproduced with permission)



**Figure 11: St Luke's Anglican Church** (TAHO, St Lukes Church, Richmond, 19--?, Allport Library and Museum of Fine Arts, AUTAS001126254473. Reproduced with permission)

The Anglican and Roman Catholic burial grounds are both prominent elements within the Coal River setting of the bridge. The burial ground for the Roman Catholic Church is situated to the rear of the Church. It is located in a dramatic position on a steep escarpment over the eastern bank of the Coal River.

The Anglican cemetery is located on an internal block, downstream from the bridge, and again in a prominent position overlooking the river from the east. The site may have been used for burials as early as the 1820s or 30s. However, it first appeared on plans in March 1847 and in March 1871, three parishioners requested that the site be surveyed.<sup>70</sup>

In 1852, John West described Richmond:

[A] town at the mouth of the Coal River, in the parish of Ulva and county of Monmouth, 15 miles [*i.e.*, approx. 25.1 km] from Hobart, and 100 from Launceston. It contains an Episcopal and a catholic church, a congregational chapel, a police office, post station, a gaol and court house, and several inns. It has a resident police magistrate, and the population of the town and district, which consists of farms, is 3,144 and the number of houses 545, nearly half of which are of stone or brick. The Coal River, which here falls into the bay of Pitt Water, is crossed at the town by an excellent stone bridge of six arches. Richmond is an electoral district, for which T.G. Gregson, Esq., is the first member.<sup>71</sup>

In 1878 the *Hobart Town Gazette* published the town boundaries which had been progressively modified by land transactions. The north western angle continued to be bounded by Victoria Street and the western boundary of Laurence Cotham's land, formerly known as Montagu Street. The township expanded into the surrounding countryside and in 1878, the extensions were officially gazetted.<sup>72</sup>

Beyond the township, the surrounding countryside came under early development. The 1831 *Almanack* described the district as follows:

This district contains about 1050 square miles, or 672,000 acres. The country along the eastern side consists of a broad ridge of lofty, unproductive, but heavily timbered hills extending from the Prosser's river on the north to Tasman's Peninsula on the south. The side next to the Derwent although also hilly is interspersed with numerous fertile vales, of which the principal are the fine agricultural and comparatively level track of Pitt Water, and the vales of the Coal river, Bagdad and Clarence Plains.

<sup>69</sup> Reed, *op. cit.*, pp.46, 48 in Nigel Lewis *et al. op. cit.*, p.33; Jones, 'A Guide to the History of Richmond, Tasmania', *op. cit.*, p.164-165

<sup>70</sup> Nigel Lewis *et al. op. cit.*, p.37

<sup>71</sup> *Ibid*

<sup>72</sup> Snowden, *op. cit.*, pp.78-79

Of this district, some 140,000 acres had been granted to settlers, being cultivated for pasture, or left wooded. Some 12,000 acres was being used for agriculture. The main crops were wheat, barley and oats. The area supported some 420 horses, 14,200 horned cattle and 95,000 sheep.<sup>73</sup>

By the 1840s, the Coal River Valley was notable for its advanced state of agriculture and associated dwellings and infrastructure. In 1848 Syme wrote:

A few miles to the eastward of Hobart Town are the populous and extensive districts of Gloucester and Sussex, commonly called Pitt Water. This is perhaps the richest settlement in the island, the soil both upon the hills and the low grounds being of the best quality and producing superior crops of grain. An extensive bay affords the inhabitants an opportunity of shipping their produce almost from their own doors, which is generally conveyed by steam or small craft to Hobart Town, though vessels of two hundred tons and even upwards have loaded there ... To the north-west of Pitt Water lies the district of the Coal River, including Cambridge, Ulva, and Caedon of the new nomenclature. This tract is perhaps better watered than Pitt Water, but wants the advantage of a spacious navigable waterway. In other respects, it is very little inferior, and many of its farms, which are about a hundred in number, are exceedingly well cultivated. The greatest part of it has not been so long settled as the other district; and the majority of its settlers are respectable free settlers, with large grants of land.<sup>74</sup>

The original land grants in the area had also changed hands several times. When Lieutenant-Governor Davey returned to England in 1821, his 3,000 acre property, Carrington was transferred to his successors Sorell and later Arthur. Ultimately, the Carrington property was granted to William Thomas Parramore, Arthur's private secretary. Parramore accepted the less demanding position of Police Magistrate of Richmond in 1832. He lived at the nearby property of Anglewood, originally granted to Thomas Birch in 1813. Because of his connections with Arthur, Parramore's appointment was met with public criticism, and he was replaced as Police Magistrate. Instead, he took on the role of management of Arthur's Richmond properties. In 1836, Carrington was acquired by teacher, editor and publisher of the *Hobart Town Gazette* and other journals, James Ross. Ross lived at Carrington until his death in 1838. His widow later operated a school at the property until it was sold in 1842 to Esh Lovell for £2,750.

Other estates were also well developed by this time. At Richmond Park, David Lord erected a residence in 1827, and at Lowlands, John Hunt Butcher built a house between 1828-32. Benjamin Guy purchased land from Butcher to the east of the main road in 1832-33, and here he erected his residence Belmont. To the west of the main road, Buscombe had built Prospect House in the 1830s.<sup>75</sup>

### 2.7.1 Accessing the River

Access to the Coal River for water supplies was an important issue for the early development of Richmond. John McPhail owned the land on the eastern end of the bridge. In October 1839, WJ Aislabie wrote to the Surveyor General that McPhail had erected a barrier on the north west side of his land and was collecting tolls from those who wanted to go to the river bank to collect water. Aislabie suggested as a solution that:

Victoria St. to which we are driven by the sale of rights of way to water at Richmond Bridge is not the most convenient watering place it is situate 1 ½ furlongs to the left of this side the Bridge and higher up the River – but a question may be made whether Government has not a right of way to water, if one can [be] made ... The Bridge, I think does not occupy more that 40 ft at the utmost, 26 ft in that case remain for Road in the River. Now if the Govt. would mark out a fence the Road it would be seen what was the public right of way, [and] what [was] private property.<sup>76</sup>

In his response, the Surveyor General wrote that an area of 70 feet (i.e., approx. 21.2 m) was available for the use of the road and bridge. He suggested that the land on the south should be fenced to prevent further private property owners appropriating the riverbanks. This solution was apparently not acceptable, as Aislabie wrote again that the descent to the river of the south side was steep, and that it was on the northern side where the easiest access was available and which McPhail had fenced off (Figure 12). McPhail did ultimately remove his fence and stopped collecting tolls to access the river. A plan of c.1840 shows dotted lines heading

<sup>73</sup> Ross, *Ibid.*, in Snowden, *op. cit.*, p.9

<sup>74</sup> J Syme, *Nine Years in Van Diemen's Land, comprising an account of its discovery, possession, settlement, progress, population, value of land, herds flocks etc . . . .*, Dundee, 1848, in Snowden, *op. cit.*, pp.10-11

<sup>75</sup> Levy, MCI, 'William Thomas Parramore' in *Australian Dictionary of Biography*, Vol 2, Melbourne University Press, 1967, pp.314-315; 'James Ross', in *Australian Dictionary of Biography*, Vol 2, Melbourne University Press, 1967, pp. 396-397; Nigel Lewis *et al*, *op. cit.*, pp. 37-38

<sup>76</sup> TAHO, LSD 1/23/87 in Nigel Lewis *et al*, *op. cit.*, p.31

down from the north west abutment of the bridge to the river. This route was later formalised as a right of way.<sup>77</sup>

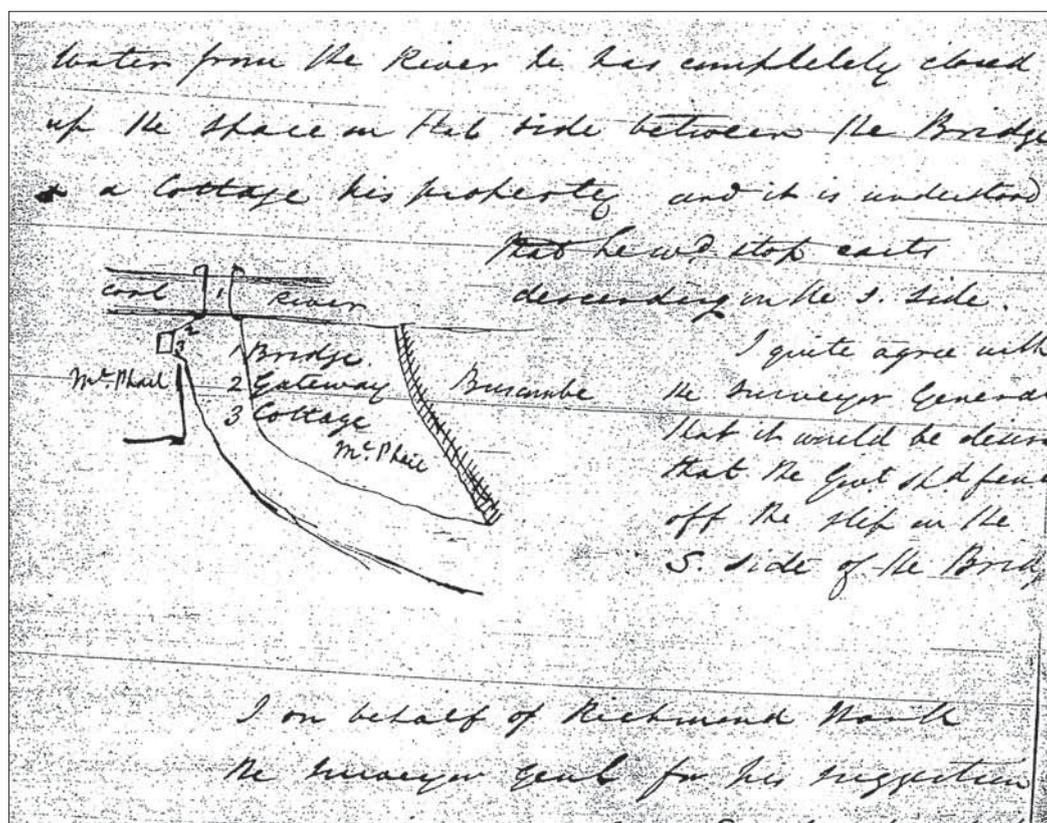


Figure 12: Aislabie's 1838 sketch plan showing the closed access to the north west river bank. North to left of Figure (TAHO, LSD 1/23/90 in Nigel Lewis *et al*, *op. cit.*, p.32)

## 2.7.2 The Development of Agriculture

In the first years of European settlement, food shortage reached famine proportions. As a result, rations were supplemented by hunting game: kangaroos and emus in the Coal River vicinity.<sup>78</sup>

The early colony was reliant on supplies from New South Wales and Britain for survival. Wheat was in short supply and the Coal River Valley and eastern shores of its estuary at Pittwater provided the solution. The land was lightly timbered which allowed for easier land clearance than in other districts.

Farming was seen as the foundation stone of the colony, and the settlers arrived with cattle, sheep, goats, and pigs in 1803. In the early years of settlement, sheep were the most important agricultural product, with a strong market. George Parramore imported merinos from Saxony in 1825. Sheep and cattle were also raised for meat, with diversification coming when falling wool prices made it necessary.<sup>79</sup>

Early farming in the district had mixed success. Many farmers had little experience, and their methods and understanding was mostly British. Boundaries were often unfenced allowing livestock to wander and destroy crops. Success came with difficulty. Farms were established at Pittwater as early as 1808 for growing wheat. At first, the grain was grown for the survival of the local colony. However, in time it became a commercial operation, and by 1816, grain was being exported to New South Wales. By 1820, all available land in the district was under cultivation and wheat gained high prices. For a time, the region was known as the 'granary of Australia', supplying domestic needs as well as exporting to New South Wales.<sup>80</sup>

In 1824, surveyor George William Evans recalled that during his 1821 tour of Van Diemen's Land, Governor Macquarie was particularly pleased in seeing the high level of improvement in the Coal River and Pittwater

<sup>77</sup> *Ibid*

<sup>78</sup> Whishaw, *op. cit.*, p.48

<sup>79</sup> Snowden, *op. cit.*, p.56

<sup>80</sup> *Ibid.*, pp.57-58; Whishaw, *op. cit.*, p.49

areas, and noting that the agricultural settlers of the area carried out their operations on a much more extensive scale than any others in the colony. In the 1830s, James Backhouse described the scene where small areas of land had been cleared, but otherwise the valley was covered by trees and shrubs.<sup>81</sup>

With the district under production, Richmond played an important role as a market town and as a supply and service centre. It remained the district market town until 1872 when saleyards were opened in Sorell. The role as a supply and service centre lasted longer, continuing for much of the twentieth century.<sup>82</sup>

### 2.7.3 Flour Milling

In addition to growing wheat for domestic and export needs, the Richmond district became an important milling centre, with mills located within the town. Flour milling was the first manufacturing industry to be established in Australia. Wheat and refined flour formed a staple of the early settlers diet, and from the beginning of settlement, Lieutenant-Governor David Collins was instructed to prepare as much ground as possible for sowing wheat.

To utilise the wheat, it had to be milled. In the early years of settlement, it was processed by either small millstones or more commonly, steel mills. Both devices were turned by hand. Not only was the work hard, but it only produced small yields. Even after the first purpose built mills were constructed, hand mills continued to be used whenever needed.

The wheat growing potential of the Coal River Valley was recognised shortly after settlement, soon to be ranked with Pittwater and Clarence Plains as the granary of Van Diemen's Land. Recognising the potential of the area, by September 1824, John Walker applied for a grant of land in the township for the purposes of erecting a mill, completed that same year.<sup>83</sup>

Walker had previous experience as the Government Miller in Hobart Town. The site chosen for the water mill was south of the bridge and ford in 'Mill Field', on the east bank of the river. The dam for the mill was 'not fifty feet (i.e., approx. 15.2 m) from the Bridge', and its location and the rise in water level caused the piers of the bridge to be undermined by 1826. Walker sold the mill to Patrick Miller (or Millor) who was then ordered to remove the dam which was causing such damage. Miller was compensated for his financial losses, but also sought a grant of land as restitution. In 1829, Arthur agreed to help Miller erect a new dam, but refused to provide him with any more land. Walker shortly after sold the mill for use as a house for £125. Jones wrote in 1973 that a slight depression existed on the margin of the eastern bank of the river as an indication of the old mill race.<sup>84</sup>

Dr Henry Thomas purchased the Mill Field in 1832, but sold it to Gilbert Robertson in 1834. Robertson in turn, sold the land to George Burn with a triangular shaped block of land between Pembroke Road leading to the ford, and East Street. A steam powered mill was erected on this triangular lot of land, and it is the only surviving flour mill in Richmond.

This mill was constructed by George Burns in the late 1840s or early 1850s, and was driven by steam. Burns' steam mill operated for many years, becoming the centre for the harvest milling in Richmond.<sup>85</sup> The Mill was offered for sale in 1872, the advertisement noting:

The Mill which was erected by the late firm of Easby & Robertson, is substantially built and in perfect order, and the whole driven by a 9 horse power engine with 12 horse power tubular boiler by Clayton and Shuttleworth, London. Attached is a circular saw and bench capable of cutting from 30-40 tons of wood per diem. All in first class order and let to Mr. Bone at the low rental of £100 per annum.<sup>86</sup>

In 1903, the Mill was described in the *Tasmanian Mail*:

For some years the mill worked day and night and turned out flour of a first-class quality. When the owner died the mill was purchased by Mr Nichols who subsequently turned it into a butter factory. After running for some time the factory closed its doors and has not been used since in either direction, a circumstance much regretted locally.<sup>87</sup>

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<sup>81</sup> Jones, 'A Guide to the History of Richmond, Tasmania', *op. cit.*, p.154

<sup>82</sup> Snowden, *op. cit.*, p.57; Michael Shield & Associates, *op. cit.*, p.5

<sup>83</sup> Cassidy, J, Preston, K, Thematic Study of the Tasmanian Flour Milling Industry, Queen Victoria Museum & Art Gallery, 2000, pp.7, 122

<sup>84</sup> Jones, *op. cit.*, p.53

<sup>85</sup> Jones, 'A Guide to the History of Richmond, Tasmania', *op. cit.*, p.162

<sup>86</sup> Cassidy, Preston, *op. cit.*, p.126

<sup>87</sup> *Ibid*

The property was purchased by the artist John Eldershaw, in c.1920 who converted it into a residence and landscaped the surrounding area. As part of the conversion, the chimney stack was demolished, and the 12 metre long x 1 metre deep tank was pushed into the river. Cassidy noted that one of the boilers from the mill was abandoned on the river bank.<sup>88</sup> It is currently partially exposed by erosion caused by foot traffic.

Milling was also taking place nearby on the west bank of the river near the bridge. Because of the lack of water in the Coal River, John Buscombe applied for a location of land to construct a windmill high on the west bank. He planned to build the first tower windmill in the colony. It was to be built between Russel Street, the Esplanade and Old Bridge Street. Buscombe experienced problems which delayed the construction of the mill. By May 1830 he had completed the stone tower which was 25 feet (i.e., approx. 7.5m) in diameter and 40 feet (i.e. approx. 12m) high. In comparison, it was shorter than both the Battery Point and Oatlands mills. Buscombe was not a millwright and he was required to engage Peter Ferguson who had previously worked on the construction of the new Government Mill in Hobart Town. Completion of Buscombe's mill was further delayed when Ferguson fell from the work site, and was seriously injured. It was not until February 1832 that the mill neared completion (Figure 13).<sup>89</sup>



Figure 13: The Richmond Bridge, looking south, with the two flour mills. Note the encased piers of the bridge, and sparse vegetation (TAHO, *Richmond Bridge collection of postcards*, Tasmaniana Library, AUTAS0016125441980. Reproduced with permission)

Jones writes that it is almost certain that Buscombe's Mill was the 'Providence Mill' offered for sale in 1839, the advertisement stating that it had a round house underneath, one pair of French burr stones four feet (i.e., approx. 1.2 m) in diameter, with a full size dressing machine and sack tackle complete.

Because of unreliable winds, the mill was later converted to steam power. Nonetheless, it was found to be unoccupied in 1858. The mill was demolished in the early twentieth century, and the stone recycled in the construction of the Richmond Town Hall (Figure 14).<sup>90</sup>

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<sup>88</sup> *Ibid.*, p.162

<sup>89</sup> *Ibid.*, p.123

<sup>90</sup> Jones, 'A Guide to the History of Richmond, Tasmania', *op. cit.*, pp.162-163



Figure 14: Buscombe's Windmill in a poor state of repair, before its demolition (TAHO, *Richmond Mill*, Allport Library and Museum of Fine Arts, AUTAS001126254424. Reproduced with permission)

#### 2.7.4 Transport

Richmond was historically an important transport route on the way to the east coast and Tasman Peninsula. This role existed prior to the establishment of the township. Two routes were available to the east coast. The first was across Pittwater by ferry, the second was overland, crossing the Coal River at the ford constructed below the present bridge.

Richmond was also historically accessible by water, and at one time, the town could be reached by boats travelling up the Coal River. A government built jetty was constructed on the river at the end of Commercial Road, approximately 1.6 kilometres below the town. The jetty was used for the transport of grain, produce, flour and coal, and importing general goods and machinery. In 1829, Ross described how 'boats of 6 tons burden come up within half a mile [*i.e., approx. 800 m*] of the town and the tide flows as far as the bridge'. Navigation of the river became difficult following the completion of the Sorell causeway in 1872 which silted up the mouth of the river.<sup>91</sup>

Road construction had begun by 1820, following a route from the south, via Kangaroo Point (Bellerive) and Cambridge.<sup>92</sup> In Van Diemen's Land, early road construction was little more than the clearance of trees, filling holes, and the rough bridging of creeks. However, it did not take long before British road engineering techniques and use of materials were applied in the colony. These scientific methods appeared at the same time that professional engineers were appointed to Van Diemen's Land, through a series of military officers of

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<sup>91</sup> Snowden, *op. cit.*, p.68

<sup>92</sup> Jones, 'A Guide to the History of Richmond, Tasmania', *op. cit.*, p.157

the Royal Engineers. These officers applied their knowledge to design problems using traditional craft skills and military discipline.<sup>93</sup>

Another road route to Richmond was established in the 1830s. In 1832, a punt was established at Risdon, joining the east and west banks of the Derwent. From Risdon, a road over Grass Tree Hill was planned and constructed. The road was completed c.1836-38. The construction of this road was criticised, and disparagingly called the Carrington Cut. It was criticised as overly benefiting Lieutenant-Governor Arthur by providing him with a shorter route to his Carrington property. Other district roads followed, with routes to Tea Tree, Campania and Prosser Plains established.

The establishment of these roads also created alternate routes to the north of the island. Crossing the Derwent at Austins Ferry was the most common means of reaching the midlands and the northern districts. However, an early route existed by crossing the Derwent to Kangaroo Point and then proceeding in a northerly direction through the Coal River district to Jericho.

With the construction of these roads, Richmond was serviced by regular coaches, running to Kangaroo Point and Restdown (Risdon), but also onto Campania and Swansea. Travellers to the east coast also travelled via Richmond, the alternative being a sea voyage or a ferry across Pittwater.

The main east coast road also travelled via Richmond until the completion of the Sorell Causeway in 1872. The construction of the causeway created a more direct route to the coasts and Tasman Peninsula. The causeway soon followed by the Main Line Railway which also bypassed the town had an adverse affect on Richmond's growth. In 1862, the population of the Richmond Municipality was 1,608, and this number remained stable for nearly a century. In 1957, the population was only 1,680.<sup>94</sup>

## 2.8 Later Works to the Bridge

Following the repairs to the parapet in 1835, further repairs were made as needed. It was reported that the bridge was 'in part destroyed' during the 1844 floods, The repairs were partially completed by January the following year. One parapet had been reconstructed, whilst the other replaced with a timber fence. Only a temporary solution, it is not clear when the bridge was returned to having two stone parapets. Von Stieglitz wrote that the last 'really serious' flood damage occurred in the autumn of 1846.<sup>95</sup>

In 1859, the Director of Public Works, WR Falconer wrote that the bridge was in a very dilapidated condition and was unsafe. Falconer recommended the underpinning of the piers, excavation of the loamy soil from the riverbed, filling the excavated areas with concrete and paving the riverbed to form an inverted arch between the piers and improve water flow. Correspondence to the Richmond Road Trust on 6 June 1859 suggests that repair works were carried out. However, the extent of the works carried out according to Falconer's advice is uncertain as no plans have survived.<sup>96</sup>

The works which have had the greatest affect on the visual appearance of the bridge occurred in 1884 when the piers were stabilised. The *Tasmanian Mail* reported on these works:

The piers are getting cased with stone and brought to a cut water edge in line with the current's course and newly pointed all under and over with cement. The roadway needs taking up for the top of the masonry to be grouted to throw soakage to weep holes in the sides instead of percolating through and driving the pointing out under the arches. It also requires crowning and side drains.<sup>97</sup>

Official records related to these works are sparse. The works were authorised under the Public Works Execution Act of 1884 (47<sup>o</sup> VIC, 31 Item 109). Archival documents only relate to the agreement with Martha Butcher at Lowlands to reopen the quarry for the stone, and a memorandum for acquiring scaffolding. Only outward correspondence exists in the general correspondence files, and these are largely requests for reports from the supervisor of the work, R Robinson.<sup>98</sup> Responding to one of the reports, the Engineer of Roads wrote in April 1884:

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<sup>93</sup> Newitt, *op. cit.*, pp.9-10, 12-13

<sup>94</sup> Jones, 'A Guide to the History of Richmond, Tasmania', *op. cit.*, pp.157-159; Nigel Lewis *et al. op. cit.*, p.38; Snowden, *op.cit.*, pp.68-71

<sup>95</sup> Von Stieglitz, *op. cit.*, p.15; *Colonial Times*, Tuesday 8 October 1844, p.3; *Colonial Times*, Saturday 18 January 1845, p.3

<sup>96</sup>; Nigel Lewis *et al. op. cit.*, p.43

<sup>97</sup> *Tasmanian Mail*, 12 July 1884: 28 in Nigel Lewis *et al. op. cit.*, p.43

<sup>98</sup> Austral Archaeology, *et. al. op. cit.*, p.20

I shall be glad if the haunching of the Bridge is examined – but on no pretext is the £300 [approved?] to be exceeded. Provided money will permit the haunching and crown of arches should not be grouted from the top.

Cannot you get the Richmond Trust to put the money for the roadway over the bridge into proper order so that rain and other water might be got quickly off.<sup>99</sup>

Smith's work *Early Tasmanian Bridges* describes these works to the piers:

The stone casing of the three piers in the stream may be seen clearly. Each of the three piers is completely surrounded with an outer case which is built up nearly to the springing of the arches, diminishing in thickness as it rises. It is tied with iron clamps to the older stonework of the piers and is sharply splayed at the cut-waters, covering up those of earlier date which were similar in form to those still to be seen at the shorter piers.<sup>100</sup>

Spratt reports that it was during the encasing of the piers in 1884 that the riverbed was also paved. The paving of the riverbed improved the water flow past the bridge, reducing the undermining of the piers.<sup>101</sup> A diagram of the modified bridge is included in Figure 15 below.

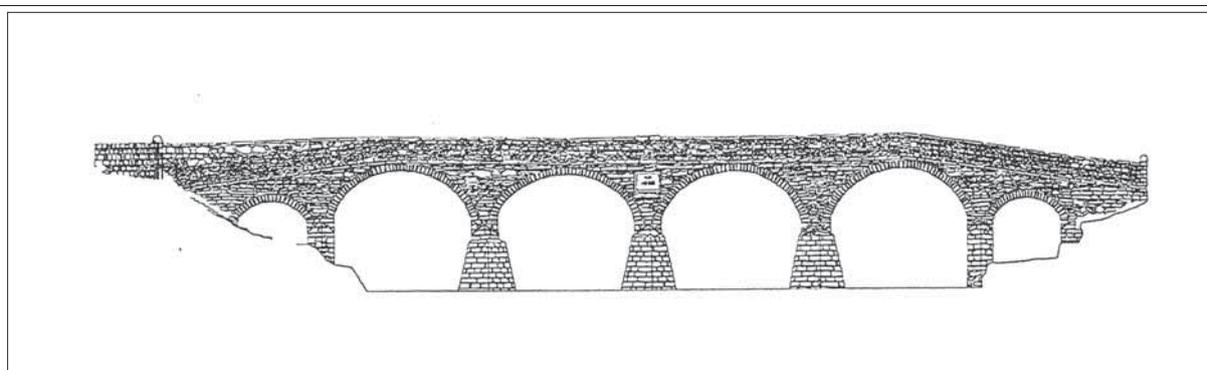


Figure 15: Richmond Bridge from Upstream, 1884-present (Nigel Lewis *et al, op. cit.*, p.44)

### 2.8.1 Maintenance Work on the Bridge 1884–2017

In 1924, flooding damaged part of the 1884 encasing around the piers. The Richmond Council Clerk wrote:

The protecting wall and paving of one of the arches of the Richmond Bridge over the Coal River have been seriously damaged by flood waters, so much so that the foundation of the eastern abutment is now in danger of being undermined.<sup>102</sup>

A report was ordered to assess the damage, although there are no records of any actual repair works being undertaken.<sup>103</sup> In 1927, and with a sense of urgency, the Council Clerk again wrote to Bridge Inspector Hobden requesting that repair works be carried out without delay, as:

It is liable to be seriously damaged if left in its present state until another flood comes along.

The support of one of the abutments is much undermined owing to the paving having been washed away, and the inner surface of the top of the bridge needs pointing with cement in several places to keep out the sparrows which are gradually enlarging the crevices to make their nests therein.<sup>104</sup>

Hobden reported on the condition of the bridge and in April 1928, and £163 was approved for repairs. He wrote that the reinforcement of the piers and paving of the riverbed was carried out 'about 25 years ago'. However, it appears that he was in error, and was actually referring to the 1884 encasement of the piers. He recommended the paving of 'bay 4' which had not previously been completed during the earlier works, and:

Also to build a masonry reinforcement at pier E [*eastern end*] ... it is also necessary to rubble out the outlet from No. 4 Bay to further prevent water scouring out below the level of the paving. The whole of the bridge requires pointing up ... and this will be a slow and difficult job.<sup>105</sup>

<sup>99</sup> TAHO, PWD, 2/43: 461 in Nigel Lewis *et al, op. cit.*, p.43

<sup>100</sup> Smith, R, *Early Tasmanian Bridges, op. cit.*, p.15

<sup>101</sup> Nigel Lewis *et al, op. cit.*, p.44

<sup>102</sup> TAHO, PWD35/46, 20 May 1924 in Nigel Lewis *et al, op. cit.*, p.44

<sup>103</sup> Austral Archaeology, *et. al., op. cit.*, p.21

<sup>104</sup> TAHO, PWD, 35/46, 20 December 1927 in Nigel Lewis *et al, op. cit.*, p.44

Lewis *et. al.* propose that the 'masonry reinforcement at pier E' is probably in reference to the stepped foundation masonry on the pier base between the first and second arches on the western end.<sup>106</sup>

A major change was made to the setting of the Richmond Bridge during the 1930s. In 1935 the Richmond Council constructed the Gatty Dam across the river to the south of the bridge. The dam created a swimming pool in the river and was named in honour of the long service of the Council Clerk, Jim Gatty. The connecting footbridge was named in honour of the Warden of the Day, Mr Grice (Figure 16). The dam caused the water level to rise upstream. Before its construction, the riverbed was often exposed at the bridge. However, following the construction of the dam, the water was raised to the base of the piers.<sup>107</sup>

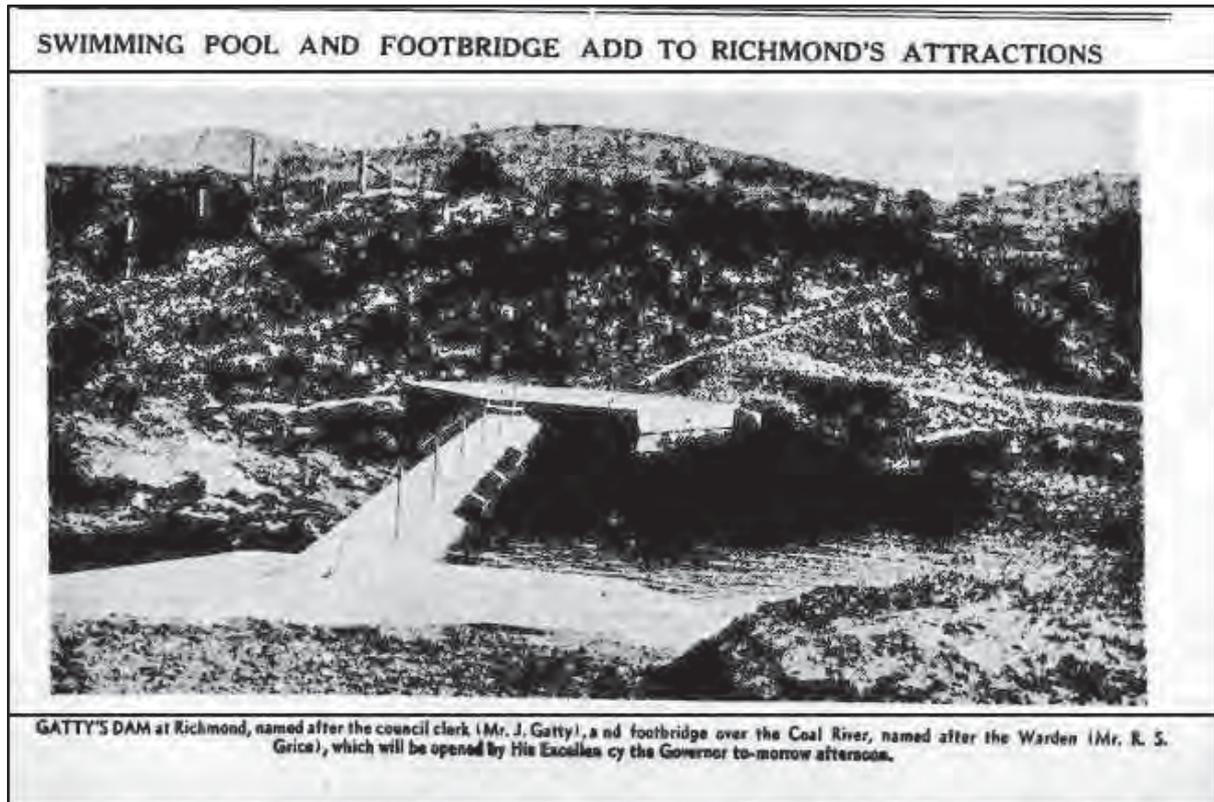


Figure 16: Opening of the Gatty Dam (TAHO, *The Mercury*, 6 December 1935, p.7. Reproduced with permission)

Initially, the dam was not used for irrigation purposes, but in 1986 it was converted and integrated in the South Eastern Irrigation Scheme (now Tasmanian Irrigation). This conversion included the rebuilding of part of the wall to fit a penstock.<sup>108</sup>

Ongoing concern was raised by the Richmond Council with water seeping through the bridge, which threatened it being undermined. In response, the deck and footpaths were supposed to be sealed and new kerbs and gutters added in 1946, but the works were left incomplete and water continued to seep through the bridge. When works recommenced in 1947, they were met with alarm, with the stone kerbs and gutters being replaced with 'garish' concrete. Once completed, the works proved ineffective, with water still percolating through the structure.<sup>109</sup>

The condition of the bridge was assessed in 1973. The Bridge Maintenance Engineer wrote that the bridge was in 'fair condition for its type and age' and that there was no need to 'precipitate structural repair'. This report also outlined the previous repair works:

The mortared joints of the whole bridge present a rather dubious picture in that the repairs carried out over the years offer a spectacle of rusticity and vulnerable age. The reality is that the original mortar in

<sup>105</sup>TAHO, PWD 35/46, 10 March 1928 in Nigel Lewis *et al, op. cit.*, p.44

<sup>106</sup> Nigel Lewis *et al, op. cit.*, p.49

<sup>107</sup>Snowden, *op. cit.*, p.158

<sup>108</sup> Bevan, pers. comm. 25 May 1997 in Nigel Lewis *et al, op. cit.*, p.49

<sup>109</sup> *The Mercury*, Saturday 13 July 1946, p.7; *The Mercury*, Wednesday 19 March 1947, p.8; *The Mercury*, Friday 21 March 1947, p.3; *The Examiner*, Thursday 11 December 1947, p.2

some places has fallen out, the joint begin covered with a sand/cement substitute .... this covers the joint but offers no support....

Some years ago the stonework of the crowns of the centre arches of the bridge was pierced in an attempt to drain collected roadway surface water and soakage water.... these should be filled with composition mortar.<sup>110</sup>

Remedial works were also recommended to direct water away from the eastern abutment where a soak led to water ponding beneath the first span. These works did not appear to take place. Minor, aesthetic works were carried out which included the recutting of the inscription and darkening of the inscription in the date stones, carved in 1923. These works were undertaken to make the bridge photographically more appealing.<sup>111</sup>

As part of his 1993 fabric assessment, Spratt noted works conducted in 1973. The Public Works Department reported:

Stone flagging slightly undercut at several stones adjacent to the pier cutwaters, spalls recommended on the downstream end of the stone flagging. Mortar fillets atop the chased stone sheathing to the piers required attention.

Rusting iron holding pier sheathing top course in place requires removal and replacement. Galvanised wire mesh was recommended to be used in the repairs to the mortar fillets.

Repointing repairs to be done in 1:2:12 cement mix so as not to cause stone damage. Cracking to arches and stone coursing to be measured and recorded. The stonework piercing at the crown of the centre arches put in to drain the roadway to be filled with mortar.<sup>112</sup>

Recognising its significance, in 1977, the speed limit on the bridge was reduced to 30 km/hr. A 25 tonne load limit was placed on the bridge in 1985. Repairs to the masonry took place during this period, first by Leo Luckman in 1979, and followed in 1987 with the repointing of the capping stones by Stephen Kaye. Works were also carried out on the deck of the bridge including the sealing of the road, and construction of concrete kerbs, retaining walls and gutter slabs in 1980. The bridge stonework was cleaned in 1981 using a 1% aqueous solution of quaternary ammonium, followed by a fungicide. A vehicle accident on the downstream side of the eastern end in 1988 required the reconstruction of 12 metres of the parapet.

Landscaping works were also carried out around the bridge in the mid-1980s. These works cost \$10,000 and included the reclamation of the eroded river bank below the Miller's Cottage, tree plantings, and the installation of furnishings. The geese were to be removed from the area, although other birds and ducks were to be encouraged. By the mid-1980s, increased traffic was becoming a major concern, and the inherent dangers and damage it caused to historic buildings and the bridge.

Adjacent to the bridge, a curved sandstone retaining wall was constructed in 1989 by the Richmond Council on the western end of the parapet. This provided a viewing platform, and later a position for a commemorative plaque erected by Engineers Australia. The bridge was included on the National Heritage List in 2005, in recognition of its outstanding value to Australia, and a plaque recognising this achievement has also recently been added to the platform.<sup>113</sup>

The 1997 Conservation Plan also made recommendations for works to the bridge and surrounds. Important works carried out in accordance with the 1997 Conservation Plan included the removal of the unsatisfactory mortars from the north and south faces of the bridge and removal of crack willows and other dense vegetation from the riverbanks.

The local community remain keenly involved in the care of the bridge and surrounds. A vehicle crash in July 2007 resulted in the destruction of part of the parapet. Although repaired, a community meeting was held with representatives from State and local government to explain how the bridge was being conserved.

Part of this work included the preparation of the 2010 Conservation Management Plan (CMP), in turn drawing on the detailed research and analysis carried out in 1997. The 2010 CMP was the first major review of the conservation requirements for the bridge and setting, with some 103 policies and actions identified. The Department of State Growth and Clarence City Council have primary responsible for the management and care of the place, and considerable work has been carried out since 2010 in implementing these findings. Perhaps the most notable has been the installation of a vibration meter to provide real time data on vibration

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<sup>110</sup> Nigel Lewis *et al*, *op. cit.*, p.58

<sup>111</sup> *Ibid*, p.63

<sup>112</sup> *Ibid*

<sup>113</sup> Snowden, *op. cit.*, p.164; Nigel Lewis *et al*, *op. cit.*, p.63

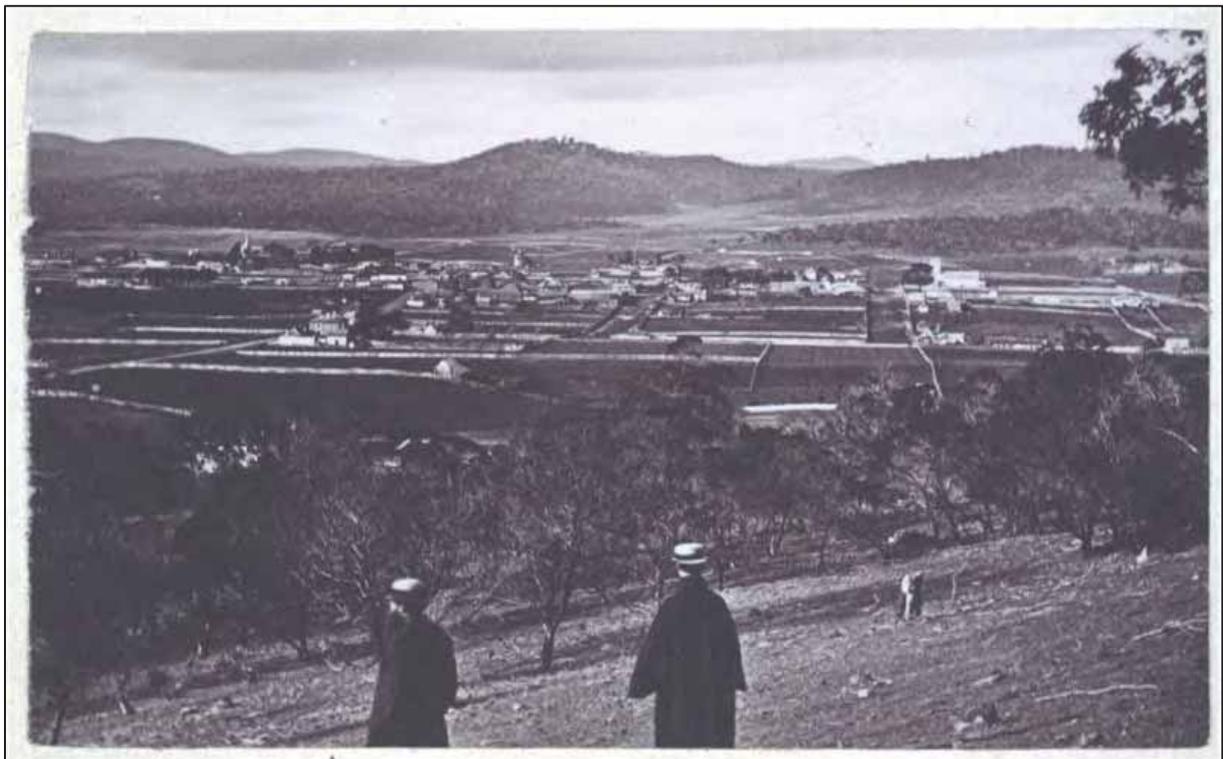
levels from vehicles crossing the bridge. The work identified that the existing 25 tonne load limit was sufficient, but that excess speed and load exposed the bridge to structural concerns. The use of a vibration meter was the first time this technology has been used on an historic structure. The importance of the work was recognised in 2013 with State Growth being awarded the Colin Crisp Award, which is Engineers Australia's premier recognition of excellence in engineering heritage projects.

Investigative works continue to this day, with geotechnical investigations of the bridge foundations and riverbed carried out in early 2017.

## 2.9 The Changing Character of Richmond

The growth of Richmond as a regional centre was short lived. Two events precipitated this decline. In 1849, discussions began for a proposed causeway over Pittwater to Sorell. The construction of the causeway was completed in 1872, and removed Richmond as the main route to the east coast and Tasman Peninsula. The second event to impact on the development of Richmond was the opening of the Mainline Railway to the north of the state through Brighton, Tea Tree, Campania and Colebrook.

Despite these impacts, Richmond's residential areas slowly consolidated. This was assisted by the arrival of military pensioners from England in 1850 who were granted land to the East of St Luke's Anglican Cemetery. In 1861, the township was declared a municipality, and the courthouse used as Council Chambers. An extension of the township was gazetted in 1878 (Figure 17).<sup>114</sup>



**Figure 17: Richmond, c.1888, looking from the north west towards the town. The spire of St Luke's Anglican Church can be seen on the right. Compare this photograph with the earlier c.1835 watercolour above, and painted from a similar vantage point (TAHO, *Richmond, Tas. from Butcher's Hill*, c.1888, Allport Library and Museum of Fine Arts, AUTAS001126183763. Reproduced with Permission)**

With the construction of the Sorell Causeway and the Mainline Railway, Richmond's focus changed to that of regional supply and service centre for the surrounding agricultural district. This role changed little over the next 150 years, conserving its strong nineteenth century character.<sup>115</sup>

In 1952, Michael Sharland described the town and bridge in his publication, *Stones of a Century*. He wrote:

<sup>114</sup> TAHO, CSO 24/96/464 in Nigel Lewis *et al*, *op. cit.*, p.42; McNeill, B, 'Richmond: A Progress Report on Township Conservation', *Proceedings of a Seminar on Preservation of Urban Landscapes in Australia, 16-18 August 1968*, Department of Adult Education, Australian National University, Canberra, 1968, p.45

<sup>115</sup> Michael Shield & Associates, *op. cit.*, p.5

The road leads by a line of curious old shops, to turn to the left past the council chamber (built 1825), and again to the right, to descend to the bridge, which gives the town its chief claim to historical interest. We need not be even mildly interested in architecture or history to appreciate its obvious age, the hallmark of antiquity in its graceful contours, and the imprint of apparent solidity, with massive arches spanning the gentle stream, its parapet polished by the elbow of many generations. The steps that lead to the water's edge lead also to an attractive view of the bridge from below, and of the river as well, for framed in any one of the arches is the picturesque tower of St. John's Roman Catholic Church on a hill behind and houses of ancient vintage along the banks.<sup>116</sup>

### 2.9.1 The Role of Tourism

The twentieth century saw a rise in interest in the bridge, and the heritage of Richmond, although this was a gradual transition. Nigel Lewis *et. al.* cite the major turning point as the publication in 1924 of WH Wilson's *Old Colonial Architecture in New South Wales and Tasmania*. The bridge was not included in this seminal work, although, what it did achieve was broader community awareness of Tasmania's heritage.<sup>117</sup>

In Richmond, an important development was the purchase of the Mill House in 1920 by the Sydney artist, John Eldershaw. Eldershaw renovated the building in the style of the day, demolishing the industrial chimney stack, removing the verandah and painting the raw red brickwork white. Extensive landscape works were also carried out with the planting of cypresses as a thick hedge and Lombardy Poplars as specimen trees (Figure 18). The bridge was an inspiration for a number of his paintings. One such artwork was chosen by the Tasmanian government as the wedding gift to Princess Elizabeth and Lt. Philip Mountbatten on their marriage.<sup>118</sup>



**Figure 18: The Mill House, following conversion by Eldershaw** (TAHO, PH30/1/4651, Photograph - Side view of the Mill House at Richmond the home of J. Eldershaw. Reproduced with permission)

<sup>116</sup> Sharland, M, *Stones of a Century*, Oldham, Beddome & Meredith Pty Ltd, Hobart, 1952, in Nigel Lewis *et al.*, *op. cit.* p.55

<sup>117</sup> Nigel Lewis *et al.*, *op. cit.*, p.49

<sup>118</sup> *The Mercury*, Thursday 30 October 1947, p.10

The poplar trees later spread to the east bank of the river. Around this time, an important civic development occurred with the transfer of land on the west bank to the Richmond Council to create a public walkway. This walkway also provided views of the eastern bank and Mill House.

Nigel Lewis *et. al.* put forward that Eldershaw was an important figure in the centenary celebrations of the commencement of construction of the bridge on 11 December 1923.<sup>119</sup> From newspaper coverage, the celebrations appear to have been a popular and important event. Photographic records show large numbers of people at the bridge, with horse and cart processions, and participants dressed in period costume. Included in the procession was a display by the Richmond Convent Schoolgirls, representing 'Early Tasmanian Girls'. The event was presided over by local dignitaries including the Warden, Mr Grice, the Honourable JW Evans, and Mr WE Shoobridge.

In reporting the event, the *Weekly Courier* wrote:

Memories of the past were revived on Saturday, when the centenary of the bridge which spans the Coal River at Richmond was celebrated. The proceedings took the form of a procession, sports gathering and children's picnic.<sup>120</sup>

At the time of the centenary, the bridge did not include any reference to its construction date. Although stone tablets had been built into the north and south faces of the bridge, no inscriptions had been made. As part of the celebrations, the Richmond Council later engraved 'A.D 1823' on these stones. On the inside of the northern parapet, an inscription was carved into the stone:

THE FIRST STONE OF THIS BRIDGE  
WAS LAID ON DEC<sup>R</sup> 11<sup>TH</sup> 1823  
IN THE PRESENCE OF  
JAMES GORDON AND G.W GUNNING ESQRS  
MAGISTRATES

The *Weekly Courier* provided a whole page to the centenary celebrations (Figure 19).

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<sup>119</sup> *Ibid.*, p.53

<sup>120</sup> *Weekly Courier*, 13 December 1923, p.41



**Figure 19: Photographs from the 1923 centenary celebrations** (TAHO, *The Weekly Courier*, 13 December 1923, p.29. Reproduced with permission)

It was also around this time that the bridge began to feature in postcards and publications and it became an attraction for tourists. A local Progress and Tourist Association was formed, whose first agenda was to plant ornamental trees on the riverbanks below the bridge, followed by providing seating. In 1925 a riverbank pathway was constructed on the west bank. Known as the Warden's Path, it demonstrated early interest in the bridge and providing public access to the surrounding land.<sup>121</sup>

The inscription 'OLDEST BRIDGE IN AUSTRALIA' was not carved into the parapet until 1933. Its addition was one of rivalry and local pride, with the Royal Australian Historical Society in Sydney making the unfortunate mistake of adding a tablet to the Lennox Bridge (constructed in 1834) that it was the oldest in Australia.<sup>122</sup>

Tourism began to play a major role in Richmond during the late twentieth century. In 1965 the South-Eastern District was admitted membership to the Tasmanian Tourist Council. The Division included the municipalities of Clarence, Richmond, Sorell, Tasman and Spring Bay. The Council approved of the principle of the erection of signs at selected sites, under the direction of the Scenery Preservation Board.

<sup>121</sup> Nigel Lewis *et al*, *op. cit.*, p.53; *The Mercury*, Monday 26 May 1924, p.6; *The Mercury*, Tuesday 18 September 1928, p.3; *The Mercury*, Saturday 20 June 1935, p.17

<sup>122</sup> *The Mercury*, Wednesday 13 September 1933, p.10; *The Advocate*, Monday 23 October 1933, p.7

By 1970, the Tourist Council was playing a major role in the development of Richmond. Early work included financial assistance for the preparation of a town plan for the preservation of the Richmond environment. This town plan aimed to provide for the preservation and restoration of historic places, and was noted as the first major community-oriented tourism activity attempted in Tasmania.

These measures were met with some opposition. Some residents felt that Richmond should be left for themselves. Whilst welcoming visitors, there was concern that the town should not become dominated by commercial interests. Criticism was also levelled at tourists who trespassed and damaged property to take photographs of the Richmond Bridge.

Service industries and attractions began to develop in the town during the early 1970s to cater for the tourism market. This included an improvement of roads and the establishment of attractions, such as the Saddler's Court Art Gallery.<sup>123</sup> Other galleries and craft shops followed.

Richmond's heritage is a major tourism attraction, and heritage is one of the key elements of Tasmania's tourism brand. The Tasmanian Visitor Surveys provide valuable data on visitor numbers to Richmond and are summarised in the table below.

Activity	Jan-Dec 2013	Jan-Dec 2014	Jan-Dec 2015	Jan-Dec 2016	% growth
Number of people passing through Richmond	55,847	62,789	71,883	79,065	+ 10%
Number of people stopping, but not staying overnight in Richmond	138,610	150,125	147,721	162,348	+9.9%
Number of people staying overnight in Richmond	18,473	23,411	23,799	24,195	+1.7%

**Table 1: Tourism Data for Richmond**

These figures relate to interstate and international visitors. Details of intrastate visitation are not recorded. Although this survey does not record statistics on visitors to the bridge, it is assumed that it is a major drawcard. General data collected by the Visitor Survey shows that visits to historic sites and attractions forms one of the most popular activities for interstate and international visitors.

However, tourism can also have a negative effect on local communities. McFie wrote in 1991 that Richmond has been changed by tourism, not always for the best. The provision of services to the local community has been replaced by the tourist operator's needs, creating alienation within the community with an overcrowding of visitors and cars. The loss of ownership and control has been identified as a common problem when tourism becomes dominant over other traditional forms of employment.<sup>124</sup>

## 2.9.2 The Rise of Interest in Heritage

Closely connected with the role of tourism was the growing interest in heritage protection. The Richmond community was one of the first in Tasmania to recognise the importance of their town and history. In 1964, the *Mercury* wrote of the formation and meeting of the Richmond Preservation and Development Committee. The meeting was held by the Town Planning Committee of the Tasmanian Chapter of the Royal Australian Institute of Architects and included representatives of the Tasmanian Government, Richmond Municipality, and the National Trust. Other groups with an interest in Richmond also attended, including the Scenery Preservation Board, the Tourist Department and the School of Architecture and Town Planning.

The Committee had the aim of preserving the historic character of Richmond and to guide future development. In March 1965, the Richmond Agricultural Society made a presentation titled 'Richmond as it was, is, and might be'. The display was developed in association with the Committee. It focussed on the question of 'how to encourage development without endangering the historical character of one of the best examples of an Australian colonial town', and included photographs and drawings of the 'more important historic buildings' that had been prepared by architecture and town planning students. It also included

<sup>123</sup> Snowden, *op. cit.*, p.249

<sup>124</sup> McFie, P, 'Whose Past? – Whose Present? Tourism and Local History', *Tasmanian Historical Research Association*, Vol. 39, No, 1, p.57

hypothetical schemes depicting how development could occur, and how Richmond might look if restoration occurred. The display later moved to the Richmond Council Chambers and later the Tasmanian Tourist Bureau in Hobart. A public meeting was held to discuss the matter, and a key theme that emerged was that the people of Richmond were those most concerned with development and should be given the opportunity to discuss the issues themselves.

Early action was taken in September 1965, with the Preservation and Development Trust advising Council on making the guttering and kerbs near the bridge sympathetic in colour and form. Other work included the development of a 'town centre' covering the area behind the Council Chambers and hotel to the police station and gaol. The Trust also recognised the importance of gravelled roads over bitumen surfaces as important to retaining 'atmosphere and charm'.

In 1968 the *Local Government Act* was amended to include new powers for issuing preservation orders. On the advice of the National Trust, local councils could prevent the demolition of further alteration of identified buildings and require that they be kept in good repair. Further progress was made in 1973 with a funding request to allow for the acquisition of properties in Richmond, including land at the gaol. A further \$2,000 was provided towards the preparation of a conservation study of Richmond.<sup>125</sup>

Despite these gains, difficulty was still experienced in the conservation of heritage places. By May 1972, the Preservation and Development Trust and the Richmond Council were having difficulties on reaching agreement on some planning issues, and sometimes the advice of the National Trust was ignored during developments. By August of that year, the Development Trust recommended the preparation of a statutory plan that would control development and allow particular areas to be kept for specific uses. In response, a public meeting was held and a wide range of issues were raised including town planning and tourism. Funding was provided by the Tasmanian Government in 1973 to allow for the preparation of a plan. The Minister stated that there should be no undesirable development and careful planning was the only way to ensure this. Suggestions were even made for converting the main street into a pedestrian mall. The need for the town plan was heightened when plans were submitted for the construction of a third petrol station in the town in October 1973. The Richmond Council suggested that delays in its preparation were caused by technical and financial difficulties. The role of tourism also came into question, with the Council suggesting that they derived no financial benefit. The Richmond Gaol was the only paying attraction, and proceeds from visitors went to the National Parks and Wildlife Service.

In January 1974 the Richmond Residents Group was formed, partly in response to a proposal for future government housing plans on the approaches to Richmond. A public meeting was called to address concerns and consider community priorities for future development of Richmond. The Council suggested that Richmond would soon undergo rapid development at a rate not previously seen. This future development needed to be carefully planned.

By February 1975 the Planning Scheme had been prepared and approved. The retention of open space within the town was identified as an important provision. The Planning Scheme also included a Schedule of places of cultural significance, containing places identified for both the Register of the National Estate, and National Trust classified and recorded buildings. Another outcome of the Scheme was the formation of the Richmond Advisory Committee to advise on all development applications in the historic zone. Snowden writes that one of the most controversial aspects of the Town Plan was the proposed by-pass of the main street. This scheme resulted in public attention, and objections. The question of a Richmond by-pass continues to be a topical question within the community and Clarence City Council, raised each time the bridge parapets are damaged by vehicles. A by-pass to the west of the town and linking to Campania Road has been completed. However, the Government has not accepted the need for an east-west by-pass as the secondary road has been upgraded as the east-west freight route.

In 1993, the Richmond Council ceased to exist as a municipal area, the area being split between the Clarence City Council and the Southern Midlands Council. The Richmond township became part of the Clarence municipal area. The last meeting of the Richmond Council was held in March 1993.<sup>126</sup>

Joint funding from the Clarence City Council and the Australian Heritage Commission allowed for the preparation of further heritage analysis and conservation guidance for Richmond in 2000-2001. One part of this work involved the preparation of the *Thematic History of the Cultural Resources of the Township of Richmond*. This document provided a detailed thematic overview of Richmond, including a strong focus on social

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<sup>125</sup> Snowden, *op. cit.*, pp.160-161

<sup>126</sup> *Ibid.*, pp.161-165

history.<sup>127</sup> It has been a valuable source of information in the preparation of the previous and this Conservation Management Plan.

This thematic study was also important in informing the outcomes of the *Richmond Cultural Resource Management Plan* (RCRMP), completed in 2001. The RCRMP was prepared in response to strong community interest in establishing the cultural values of the town and finding ways in which these values can be sustained.

The process undertaken by the study included:

- Development of key issues and recommendations to deliver a framework for ongoing Council and community action to retain Richmond's cultural values;
- Extensive field assessment of the built fabric to review heritage listings, establishment of Precincts and recommendation of planning guidelines to assist conservation; and
- The drawing together of a variety of data sources to produce a thematic history of Richmond.<sup>128</sup>

The first objective of this plan was to ensure the necessary statutory and administrative framework to foster the retention and conservation of the values and sites. The commitment of resources and activities to raise the profile of heritage within day-to-day activities in Richmond was recommended to Council. Eight broad recommendations were made in the RCRMP, which cover: townscape, streetscape, signage, traffic management, river management, heritage promotion, development control and community involvement. The results of the heritage survey led to new nominations to the Tasmanian Heritage Register.

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<sup>127</sup> *Ibid*

<sup>128</sup> Michael Shield & Associates, *op. cit.*, p.5



## Setting and Landscape Analysis

## 3.0 SETTING AND LANDSCAPE ANALYSIS

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### 3.1 Introduction

The setting and landscape of the Richmond Bridge are important parts of its significance. The aesthetic characteristics of the place are formally recognised by listings on both the National Heritage List and Tasmanian Heritage Register. This includes the importance of the bridge as a source of inspiration for artists; its regular depiction in tourism promotion; the visual appeal of the bridge within its setting; and the relationship with the broader townscape.

This section analyses two aspects of the setting and landscape of the Richmond Bridge.

Firstly, is an assessment of the cultural landscape of the bridge and its setting. This part has considered the historical evolution of the setting of the bridge and the ways in which this has shaped the landscape. For the purposes of this Conservation Management Plan emphasis has been given to the cultural landscape values of the immediate study area. It should be noted though, that the landscape qualities of the bridge extend well beyond this immediate area. The relationship between the bridge, river, town and Coal River Valley form part of a broader cultural landscape.

Secondly, a visual assessment has been prepared to identify significant views to and from the bridge and its setting. Both the cultural landscape and view analysis incorporate work carried out for the previous Conservation Management Plans, and the more recent assessment of the Vegetation Management Plan.

### 3.2 An Approach to the Richmond Bridge Cultural Landscape

A cultural landscape is a physically definable area with natural features modified by human activity resulting in patterns of evidence layered in the landscape. Cultural landscapes can broadly be categorised into three types: the designed landscape, the organically evolved and the associative. Although aspects of all three can be found at Richmond, the place most closely fits the category of 'organically evolved', where historical layers of social, economic and administrative forces have evolved in association with and in response to the natural environment. These evolved landscapes have developed over time often through incremental changes brought about by patterns of use, and often including designed elements.<sup>129</sup>

The identification, description and assessment of a cultural landscape is most useful where it offers new insights or interpretations not available through the normal process of assessing a 'place'. Methods of assessing and defining cultural landscapes vary, but are generally consistent in considering the land shaping processes, and defining the resulting components, or character elements of the landscape.

Defining heritage significance of cultural landscapes occurs through the standard assessment of historic, social and aesthetic values, Lennon and Matthews also identify other aspects to be considered in the assessment process. This includes rarity or uniqueness; representativeness; continuity of past and present; integrity of past and present; integrity of fabric and the relationship between components; interpretability; level of technical achievement; association; closeness and duration of association with event or theme; best expression of the type; how seminal or formative the activities, events, associations, and techniques evident in the landscape were; relative age; symbolic importance; and diversity represented in the landscape.<sup>130</sup>

With regard to the Richmond Bridge and its setting, strong emphasis is placed on the cultural/social aspects, which in turn inform on the perceptual/aesthetic components. An historical understanding of the evolution of the Richmond Bridge and its setting is particularly relevant for understanding the cultural/social aspects. The following section defines and summarises the Richmond Bridge setting and cultural landscape. It is informed from the previous 1997 and 2010 Conservation Management Plans, and the more recent Vegetation Management Plan.

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<sup>129</sup> Heritage Victoria, *Landscape Assessment Guidelines for Cultural Heritage Significance*, prepared report for Heritage Victoria, 2002

<sup>130</sup> Lennon, J, Matthews, S, *Cultural Landscape Management: Guidelines for identifying, assessing and managing cultural landscapes in the Australian Alps National Parks*, report prepared for the Cultural Heritage Working Group of the Australian Alps Liaison Committee, 1996, pp.7, 30-33

## 3.3 Overview of the Landscape Elements of the Richmond Bridge Setting

### 3.3.1 The Environment of the Coal River Valley and Richmond

The geology of the Coal River Valley is characterised by dolerite ridges and rounded hills which fringe extensive quartz sandstone deposits with some shale and mudstone of the upper valley floor. Sedimentary deposits of basalt silts and fine sands are found around Pittwater with basalt extending between Campania and Richmond on the Coal River plain. Alluvial deposits are restricted to the stream valleys.<sup>131</sup>

The town of Richmond is located in an area termed the Coal River flats, characterised by its undulating plains, fringed by higher areas. These higher areas, or the 'upper terraces' have deep duplex soil with a sandy loam to clay loam surface over clay deposits. The upper terraces include woodlands, predominantly consisting of white gum, black peppermint and an understorey of silver and black wattle. At lower elevations, sandy terraces occur in localised areas, supporting similar vegetation, with the addition of the guitar plant (*Lomatia tinctoria*) as understorey growth.

On the Coal River flats, the soil is dark, heavy clay, with native vegetation populations of swamp and white gum and silver wattle. Surrounding the flats are low sandstone hills, typically formed during the Triassic period. Originally, these hills were named the Oven Hills by European explorers and settlers, owing to their caves and cliffs. Later, they were renamed Butcher's Hills or Hill and were the source of sandstone for the construction of most of the stone buildings in Richmond, including the bridge.<sup>132</sup>

At a micro level, the Richmond Bridge is located across a narrow incised valley cut by the Coal River in soft sediments between two hard rock barriers. The upper upstream barrier is basalt. The lower rock barrier is dolerite. The upper basalt barrier has retreated upstream. Lag deposits of terrace gravels, silts and fine sands have developed downstream of the retreating basalt. The terrace silts and sands are easily eroded.<sup>133</sup>

The Coal River Valley is crossed by two small streams, the Coal River and Duck Hole Rivulet, which flow into Pittwater. The Coal River originates on a range of hills east of Tunnack at an altitude of 580 metres above sea level. It travels its way south through undulating land before flowing into Craigbourne Dam. From there the regulated river flows south through the Coal River valley, accepting unregulated inflows from its two main tributaries Native Hut and White Kangaroo rivulets before flowing through Richmond and into Pittwater. At Pittwater, the Coal River and Duckhole Rivulet form a shallow estuarine system that supports substantial numbers of waterfowl. The Pittwater – Orielson Lagoon area is included on the Register of the National Estate as a wetland of international significance.<sup>134</sup>

Prior to the construction of the Craigbourne Dam in 1986, the Coal River was ephemeral for its entire length and usually dry during summer (November-April). Historical records indicate that stream flow was generally highly dependent on rainfall resulting from easterly winds bringing moist air over the catchment.

The Coal River catchment is one of the driest in Tasmania with annual rainfall averaging from 500mm to 700mm. The distribution of rainfall is largely controlled by the topography, with higher rainfall occurring around the upland areas in the north, west and east of the catchment. Average monthly rainfall varies between 37 mm and 71 mm. Due to its location in the rain shadow of the mountainous areas in the State's west, the Coal River catchment does not receive rain from the westerly weather patterns that is largely responsible for rainfall in most other regions in Tasmania.<sup>135</sup>

### 3.3.2 The Coal River

At the northern end of the study area, the Coal River is a narrow stream flanked by escarpments on the east and west banks. On the east, the escarpment rises to a cliff face, surmounted by the cemetery of St John's. As the river flows south, the escarpment varies in height, rising again at the Anglican cemetery. The Richmond Bridge crosses the river at a point where the escarpment is at its lowest and narrowest, some 55 metres. The river supports native vegetation. *Phragmites australis* (Common rush) is prevalent in the northern section of the river, as well as *Juncus* sp. (Native rush) and *Triglochin procera* (Water Ribbon), an edible tuber which was a traditional food source for Aboriginal people. Today, the native riparian vegetation is most apparent below the

<sup>131</sup> Clarence City Council, *Coal River Catchment: Planning and Implementation*. Rosny Park: Clarence City Council, 2005, p.4

<sup>132</sup> Snowden, *op. cit.*, pp.14-15

<sup>133</sup> File Note, P Spratt?, Heritage Tasmania File, Richmond Bridge

<sup>134</sup> West Pitt Water, Richmond, TAS, Australia, Register of the National Estate, 14595

<sup>135</sup> DPIWE, *State of the River Report for the Coal River Catchment*, Water Assessment and Planning Branch, Department of Primary Industries, Water and Environment, Hobart, 2003, pp.1-2

Gatty Dam, although native rush and Water Ribbon are prevalent around the bridge. Increased sedimentation however is resulting in the spread of aquatic vegetation, which in turn, inhibits recreational uses of the river.<sup>136</sup>



Figure 20: Native Rush on river bank.

Historically, the Coal River was both ephemeral in its flow and also tidal below the bridge. Nigel Lewis *et. al.* write of the several fords which crossed the river prior the construction of the bridge. These ford crossings are indicated on early maps and plans as road alignments leading towards the river. One such crossing may have existed upstream of the bridge, reached via the right of way. Another crossing point may have been at the end of Pembroke Street, on the east bank of the river, and slightly downstream from the bridge. The third ford may have been near the present weir of the Gatty Dam, accessed from the west by Torrens Street.

The nature of the Coal River has changed dramatically during the twentieth century. Most notably was the construction of the Gatty Dam across the river, which is also the southern boundary of the study area. Constructed in late 1935, the dam was built to create a swimming pool, and a footbridge across the river. The damming of the river raised the water level above the weir. This is clearly evident in historical photographs. Prior to its construction, the Coal River near the bridge was characterised as a shallow stream with a rocky riverbed. After construction, the water level was raised to reach the piers of the bridge, permanently inundating access under the main west arch and spillways, and removing the iconic vantage point for viewing St John's Church through the arch of the bridge. The dam also caused erosion of the riverbanks. Initially, the weir was not used for irrigation purposes, but in 1986 it was converted and integrated in the South Eastern Irrigation Scheme (now Tasmanian Irrigation). This conversion included the rebuilding of part of the wall to fit a penstock.<sup>137</sup>

The nature of the Coal River was also modified by the construction of the Craighourne Dam in 1986, located approximately one third of the way down the Coal River, near Colebrook, to the north of Richmond. The Craighourne Dam created a lake covering some 4.1 x 1.5 kilometres, containing a water supply of 12,500 ML, with a catchment area around 24,700 ha. Irrigation water released from Craighourne Dam is pumped from the Coal River and supplied under pressure to the commercial farming properties within the district.<sup>138</sup>

### 3.3.3 The River Banks

Within the study area, the riverbanks of the Coal River form an important cultural landscape element. The riverbanks and alignment of the river have also been progressively modified through past human activities. Nigel Lewis *et. al.* note several causes of these changes including:

- Short lived dams for mill races;
- Access points for fords or water collection; and

<sup>136</sup> Landscape Impressions, *Richmond Bridge Vegetation Management Plan*, Final, 6 November 2015, pp.19, 28

<sup>137</sup> Nigel Lewis *et al, op. cit.*, pp.49, 76-77, 80

<sup>138</sup> <http://www.dpiw.tas.gov.au/inter.nsf/WebPages/LBUN-4Y44UZ?open>

- Notably, the construction of the Gatty Dam which raised the water level and caused erosion, most noticeably on the west bank downstream from the bridge.<sup>139</sup>

The Vegetation Management Plan (VMP) has divided the publicly owned river banks into separate 'Management Zones', identifying 16 specific zones. For brevity, the following described the riverbanks according to their position in relation to the bridge, that is, north east, north west, south east and south west. However, the full VMP is included in this report as an appendix.

### ***The North West Bank***

Several fords were constructed across the Coal River, corresponding to early road or track alignments. These likely ford crossing points are thought to have existed just to the upstream of the bridge on its western side (shown as a track on historic plans); on the eastern bank at the termination of what was Pembroke Street and crossing just below the bridge location; and thirdly, near what is now the Gatty Dam.<sup>140</sup>

On the north west bank above the bridge, the land was in private ownership as part of the 1815 grant to Surveyor Evans. This was later subdivided with parcels accessed by Gunning Street. However, the public did have access to the river from the north west bank, as a c.1840s plan notes a formed pathway, which was later formalised as a right of way. Nigel Lewis *et. al.* consider that it is this pathway that may have originally been one of the ford crossing points. The Crown acquired these parcels in 1973, and the land is now owned and managed by Clarence City Council.<sup>141</sup>

The north west bank is characterised by its steepness and low level of maintenance. Sandstone steps lead down from the bridge to the riverbank, and a cut and benched road formation follows the contour down to the river. Annual grasses and weeds dominate the site. The north west bank provides an important background for views of the bridge, and vantage point for views to the bridge (Figure 21)<sup>142</sup>



Figure 21: Richmond Bridge viewed from north west bank, looking south.

### ***The North East Bank***

The Catholic Church acquired the north east bank at an early date and used it for pasture. Currently, it is an open grassed area, located adjacent to the car park. It is one of the most visited parts of the site given the car park and its open views to the bridge. It has been acquired by Clarence City Council in recent years (Figure 22).

The area has an 'open parkland' character, with clear views towards the bridge. Lombardy Poplars are planted at the eastern abutments of the bridge; providing scale and framing seasonally changing views of the structure.

<sup>139</sup> Nigel Lewis *et al, op. cit.*, p.65

<sup>140</sup> *Ibid*, pp.76-77, 80

<sup>141</sup> *Ibid*

<sup>142</sup> Landscape Impressions, *op. cit.*, p.13

Environmental weeds are located along the riparian strip, as well as the Common Reed which provides an attractive edge to the bank and assists with preventing erosion.<sup>143</sup>



Figure 22: Richmond Bridge viewed from north east bank, looking south east over the open lawns.

### *The South East Bank*

Plans to reserve the riverbanks as public land were initially unsuccessful on the south east bank, as land grants extended to the river edge. The only point of access was via Pembroke Street. A loss of public access to the river occurred in 1965-66, when 3 roods and 14 perches (3,389 square metres) of land was sold. This land had historically formed part of the eastern approach to the river from Pembroke Street, with Nigel Lewis *et. al.* describing it as a 'regrettable loss of potential public access to the river bank'.

On the south east bank, Henry Thomas' land extended to the mill race, presumably east of the current river bank. The Municipality of Richmond negotiated a Crown Reserve in 1977, adjacent to the Mill House allotment. This was increased in 1990 by the addition of a small triangular piece of land.<sup>144</sup> The land remained fenced off until relatively recently, restricting public access. This fence has since been removed and an informal network of paths has been formed by foot traffic, resulting in erosion. One of the boilers from the adjacent mill remains partially exposed on the river bank.

The land forms part of the visual transition between the gardens of the Mill House and riverbank. It provides an important foreground to views of the bridge from south-eastern vantages, and is an important component of view taken from the bridge. A weeping willow is the only remaining tree of this species in the area (Figure 23).<sup>145</sup>

<sup>143</sup> Nigel Lewis *et al*, *op. cit*, p.80; Landscape Impressions, *op. cit.*, pp.-19

<sup>144</sup> *Ibid.*, pp.57, 78

<sup>145</sup> Landscape Impressions, *op. cit.*, p.20



Figure 23: Looking from the bridge, the south east river bank with the private residence of the Mill House behind. Note the eroded informal pathways.

### *The South West Bank*

The south west riverbank is the largest parcel of public riverbank land which forms part of the place. The land was historically reserved as the Esplanade or River Place/Street. Buscombe constructed his windmill to the west of the public land, and it was a landmark for many years until its removal and recycling of the stone in the construction of the town hall. The site of the windmill is thought to be marked by the large pine.

Further south on River Place are the remnants of an orchard with almond trees. It is discernible in a 1902 photograph. The Richmond Municipality acquired a 13 foot (4 metre) strip of land in 1925 along the west bank, downstream of the bridge. Nigel Lewis *et. al.* believe that this acquisition formalised an historic path connecting with the stone steps, and continuing under the bridge. The construction of the Gatty Dam permanently inundated the 1925 Warden's pathway and caused erosion near the bridge. It is likely that the sloping concrete apron within the main western arch was constructed as a result of the rise in water level.

Also on the west bank, the Crown acquired land adjacent to River Place in 1973 for 'Public Recreation and Amusement' uses. This land provided increased access by linking the lower car park below the gaol with the mill house behind the former Court House and the riverbank area. Picnic areas, shelters and barbeques have been constructed on the upper slopes of the escarpment.

Today, the south west bank provides the greatest level of public access to the river, with walking tracks, viewing platforms, parking and barbeque facilities (Figure 24). The area transitions from lawns and open views to the bridge and Mill House, to an area characterised as a woodland of Elms and White Poplars further to the south. This area has a 'wild' character and provides a backdrop to views. The woodland character has been formed through 'natural' suckering creating a copse of trees (Figure 25).<sup>146</sup>

<sup>146</sup> *Ibid*, p.16



Figure 24: Looking south from the bridge over the south west riverbank, with its formalised paths and viewing platforms. The remnants of the orchard can be seen on the slope in the middle distance, with the 'woodlands' in the background.



Figure 25: Looking north along the track through the Elm and White Poplar woodlands.

### *Public Land at the Gatty Dam*

A portion of public land exists on the eastern side of the riverbank, to the north of the Gatty Dam. The land is zoned as 'road casement'. The area can be characterised as relatively open informal parklands, with blackwood trees having become well established (Figure 26).<sup>147</sup>



Figure 26: Looking north along eastern riverbank in the vicinity of the Gatty Dam.

### *Recreation Reserve*

A public recreation reserve is located at the northern end of the study area, opposite the bluff of St John's Church and cemetery. The riverbanks are characterised as predominantly bushland with open grass, and as a landscape which transitions between the formal reserve area and the river (Figure 27).<sup>148</sup>

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<sup>147</sup> *Ibid*, p.17

<sup>148</sup> *Ibid*, p.15

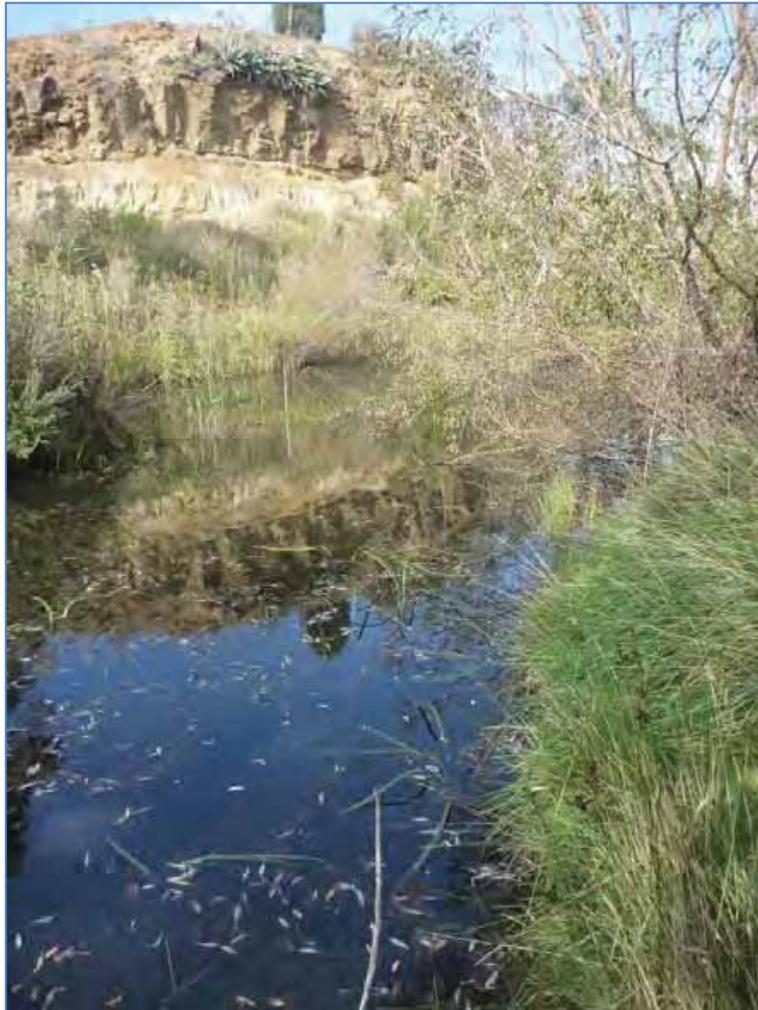


Figure 27: Looking east from the recreation reserve, over the Coal River to the Bluff of St John's Cemetery above.

### 3.4 Cultural Interpretations of the Richmond Bridge Setting and Landscape

Historical descriptions and visual depictions are important ways of understanding Tasmania's cultural landscapes. These accounts are very useful in understanding the past physical nature of the place. Importantly though, these descriptions are valuable in demonstrating how previous generations have perceived and interpreted their environment.

It is important to recognise that cultural landscapes in Tasmania were formed by Aboriginal people over many thousands of years. Traditional land management practices are reflected in many Tasmanian landscapes. Fire was the predominant tool for land management, and for hunting and gathering purposes. These practices created open forests and grass plains, encouraging fauna. It also predisposed the Coal River Valley for early European settlement.<sup>149</sup>

European settlement of Tasmania was overwhelmingly British. This ethnic origin was fundamental to how the settlers viewed and shaped the land. Naturally, the agricultural and land management practices transplanted to Tasmania were English in origin. Land use practices, such as agriculture ensured vast changes to the environment, creating a landscape different to what existed before European settlement.

Tasmania was particularly suited to this imposed landscape, in terms of aesthetics, climate and geography. Finding similarities between Tasmania and Britain was common during the nineteenth century. Lieutenant Bowen was one of the first to find this resemblance when in 1803 he described Risdon as 'more like a nobleman's park in England than uncultivated country'. England provided the context for judging new places against and the benchmark of beauty.

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<sup>149</sup> Morgan, *op. cit.*, pp. 43-44, 109-110, 119-121

It is possible that the settlers described Tasmania in English terms because this was their frame of reference. Alternatively, an exaggerated perception of the colony could express both the joy of finding this 'new' land and the opportunities for its exploitation.

It is also relevant to consider the prevailing thought of the day that nature could, and should be improved. Introducing exotic flora and fauna was one way of 'improving' the landscape, whilst also serving nostalgic or sentimental purposes of introducing elements from Britain. However, practical and economic considerations were also at play in creating the Tasmanian landscape. Although green fields and hawthorn hedgerows had a nostalgic quality, they were above all an attempt at greater productivity and profit.<sup>150</sup>

### 3.4.1 Modifying the Environment

European exploration of the Coal River Valley occurred shortly after European settlement at Risdon Cove in 1803. Settlers crossed the low hills to reach the valley, in search of game to supplement meagre supplies. The area was subject to early European settlement and the establishment of pastoralism and agriculture.

The light vegetation, excellent soils, water supply and proximity to the population centre on the Derwent made the Coal River Valley suitable for European settlement. Farming was seen as the foundation stone of the colony, firstly for survival, and later for export. Farms were established at Pittwater as early as 1808 for growing wheat and by 1816, grain was being exported to New South Wales. By 1820, all available land in the district was under cultivation. The region became known as the 'granary of Australia', supplying domestic needs as well as exporting to New South Wales.<sup>151</sup>

Richmond township maintains its strong sense of containment within the broader rural setting.

### 3.4.2 The Establishment of Richmond as a Crossing Place

A crossing point of the Coal River near the current bridge location existed before the construction of the bridge, and before the establishment of the town of Richmond. Access to the east coast and Tasman Peninsula was available via two routes: the first overland via the Coal River Valley, the second, was across Pittwater by ferry. Fords were constructed across the Coal River, though these were unsatisfactory, and impassable during times of flood and high tides.

John Bigge identified the need for a permanent crossing point of the river in 1820 during his Commission of Inquiry. The chosen location was upstream of the lower fords. Under a convict workforce, construction of the bridge commenced in December 1823, and was completed in 1825. The bridge allowed for more rapid transportation between Hobart and the Coast. By 1826, the bridge required extensive repairs. Water is thought to have undermined the foundations of two piers, resulting in them settling at a lower level, and providing the undulating appearance of the bridge which continues to exist to this day. Later repairs were required to raise the parapet of the bridge, followed by encasement of the piers during the 1880s.

The establishment of the town of Richmond followed the commencement of construction of the bridge. The first buildings constructed were the gaol, court house, barracks and a watch house, demonstrating the penal nature of the early colony. Town development was focused south west of the bridge. The early and continued growth of Richmond relied on its importance as a convict station and a military post. In time, Richmond became an important population and municipal centre, whilst acting as a regional supply and service centre for the surrounding agricultural districts. Several flour mills were established on the banks of the river. This growth ceased in the late nineteenth century with the construction of the Sorell causeway, which redirected traffic away from Richmond.

### 3.4.3 Historical Perceptions of the Coal River Valley and Richmond

The Coal River Valley and Richmond has historically been a focus of both written and visual depictions. Nineteenth century descriptions of Richmond and the Coal Valley frequently define the picturesque qualities of the area, regularly comparing it with England. The landscape was often described evocatively, drawing on painterly or literary allusions. The English picturesque qualities of Richmond were found in the combination of simple Georgian buildings constructed from the local, warm coloured stone, the small size of the village, the proximity of farmhouses, the valley setting with sparse tree cover and the focus on the bridge.<sup>152</sup> George Augustus Robinson noted this picturesque quality in 1829, describing Richmond as:

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<sup>150</sup> *Ibid.*, pp. 43-44, 109-110, 119-121

<sup>151</sup> Snowden, *op. cit.*, pp.17-18; Whishaw, *op. cit.*, p.49

<sup>152</sup> Nigel Lewis *et al.*, *op. cit.*, p.38

Being pleasantly situated on an eminence, and the buildings mostly constructed of brick or stone, comprising several neat villas, a courthouse (also used as a place of worship), a gaol and a windmill, the place somewhat resembling a country village in England, the serpentine course of the Coal River giving a picturesque effect.<sup>153</sup>

Likewise, the *Van Diemen's Land Anniversary and Hobart Town Almanack for the year 1831* described the combination of buildings, the bridge and the windmill as giving Richmond 'the appearance of a thriving English village'.<sup>154</sup>

Visually, this picturesque effect was depicted in the sketches and watercolours by Thomas Chapman, produced in the 1830s-40s. These artworks are the earliest known images of the Richmond Bridge. Chapman's watercolour *Richmond Van Diemen's Land* was painted in 1843 and is a romantic interpretation of Richmond and the evolving rural landscape (Figure 28). The country has been bought under production with grazing cattle, and fences erected demarking property boundaries. Trees are sparse; either in clumps or drifts, with tree cover on the hill slopes above. In the foreground is part of the tower of St Luke's Church, with its Gothic battlements. In the middle view are the buildings of Richmond, simple prismatic shapes, in warm sandstone tones. Identifiable is the Old Rectory in Edward Street and the Richmond Gaol. The bridge and Buscombe's windmill are also shown.

Notable for its historical importance as an early depiction of Richmond and the bridge, Chapman's watercolour is also telling of the romanticisation of the landscape. The built elements tell of earlier times. Simple buildings, a Gothic Church and a vernacular bridge, which Nigel Lewis *et. al.* describe as 'drawing on centuries of precedents in England and Europe'. A family group and grazing cattle are also shown, representing the rural ideal and the 'improvement' of nature.<sup>155</sup>



**Figure 28: Chapman's evocative 1843 painting of Richmond, and possibly the first depiction of the bridge. The tower of St Luke's is partially depicted on the far left (TAHO, Chapman, TE, *Richmond Van Diemen's Land*, 1843, Allport Library and Museum of Fine Arts, AUTAS001124066796. Reproduced with permission).**

<sup>153</sup> Plomley, NJB, *Friendly Mission: the Tasmanian Journals and Papers of George Augustus Robinson 1829-1834*, Tasmanian Historical Research Association, 1966, p.81 in Nigel Lewis *et al*, *op. cit.*, p.33

<sup>154</sup> James Ross, *The Van Diemen's Land Anniversary and Hobart-Town Almanack for the year 1831*, Hobart Town, 1831, p.111, in Snowden, *op. cit.*, p.9

<sup>155</sup> Nigel Lewis *et al*, *op. cit.*, p.41

Through prose, Richmond and the landscape was also idealised. In 1869, Thomas published an excursion guide for Tasmania. He relates a journey from Hobart to Richmond, describing English features along the way, and quoting poets to support the imagery:

*And on one side a windmill in decay;  
Beyond a bridge that spans the river Cole.*<sup>156</sup>

Supporting this picturesque sense of decay, Thomas mocks the pace of life in Richmond and the state of the shops:

I suppose they are sometimes visited by customers. I did not see any; but I saw many commodities, fictile and textile, that might have been eligible for admission into a museum of antiquities.<sup>157</sup>

Mention is also made of St John's cemetery and its situation on a:

lofty and insulated knoll, along the base of which "A broad brook brawls o'er a shingly bed". A scene more favourable to "meditation" can scarcely be imagined.<sup>158</sup>

On the broader landscape, Thomas pays some attention where:

But what a contrast there must have been between the inward fret and repining stir in the exile's mind and the pastoral repose and tranquil beauty of the surrounding landscape – the sleek kine [*cows*], grazing with such placid enjoyment in the fat pastures; the river sparkling in the sunshine and wrinkling in the breeze; the cloud shadows lazily drifting over garth and croft, brown fallow and yellow stubble; the chirp and twitter of the birds among the wattles; the miller leaning over the parapet of the bridge, and looking as though himself were carved out of freestone like the structure itself ...<sup>159</sup>

By the twentieth century, Richmond Bridge and its landscape became a popular destination for photographers and artists. The bridge was also featured in numerous postcards, testament to the growing tourism interest in Richmond. A 1940 article in the magazine *Woman's World* described the bridge where:

The massive buttresses, generous spacing of the arches and bold outline of the parapet, although typical of old bridges in the north of England, are reinterpreted in colonial style.<sup>160</sup>

Eldershaw painted the bridge a number of times. One of his watercolours reproduced below shows the bridge within a rural setting with horse and cart, a strong reference to the picturesque qualities of the landscape, and rural nature of Richmond (Figure 29).

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<sup>156</sup> Nigel Lewis *et al*, *op. cit.*, pp.41-42

<sup>157</sup> *Ibid*

<sup>158</sup> *Ibid*

<sup>159</sup> *Ibid*

<sup>160</sup> *Ibid*, p.55



**Figure 29: Watercolour sketch of the bridge by Eldershaw, published in 1922** (TAHO, *The Tasmanian Mail*, 14 December 1922, p.35. Reproduced with permission)

Other artists to depict the bridge include Morton Herman who sketched the bridge for his work *The Early Australian Architects and their Work*, and Michael Sharland in his publication *Stones of a Century*. Sharland also provided an evocative description of the bridge where:

We need not be even mildly interested in architecture or history to appreciate its obvious age, the hallmark of antiquity in its graceful contours, and the imprint of apparent solidity, with massive arches spanning the gentle stream, its parapet polished by the elbows of many generations.<sup>161</sup>

The bridge was also included in *Georgian Architecture in Australia*, a 1962 publication with images by leading architectural photographer, Max Dupain. Richmond Bridge was one of only three bridges to be included in this work.<sup>162</sup>

As shown in the following Figures, popular, and now iconic images include St John's Church viewed through the bridge arch, and views incorporating the Mill House. These same views continue to be appreciated. The community has previously demonstrated that the Richmond Bridge and its setting have strong and special meaning to their sense of place, and identity. The popularity of the bridge as a tourist destination and subject of photos is also readily apparent to any visitor.

<sup>161</sup> Sharland, *op. cit.*, in Nigel Lewis *et al*, *op. cit.*, p.55

<sup>162</sup> Nigel Lewis *et al*, *op. cit.*, pp.55-56

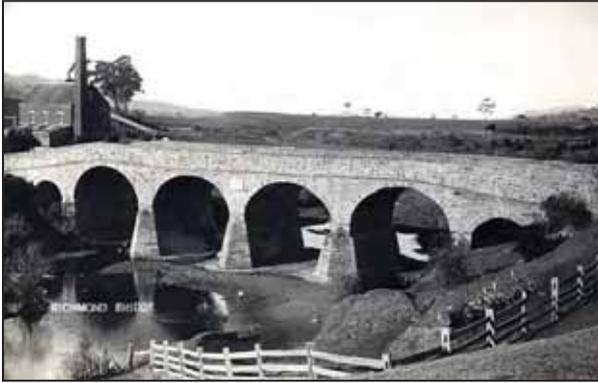


Figure 30: Richmond Bridge and the Mill House, prior to conversion, note the shallowness of the river and paving beneath the arches (TAHO, Richmond Bridge, Collection of Postcards AUTAS0016125441832. Reproduced with permission)



Figure 31: Richmond Bridge and the Mill House, post-conversion (TAHO, Richmond Bridge, Collection of Postcards. AUTAS0016125441733. Reproduced with permission)

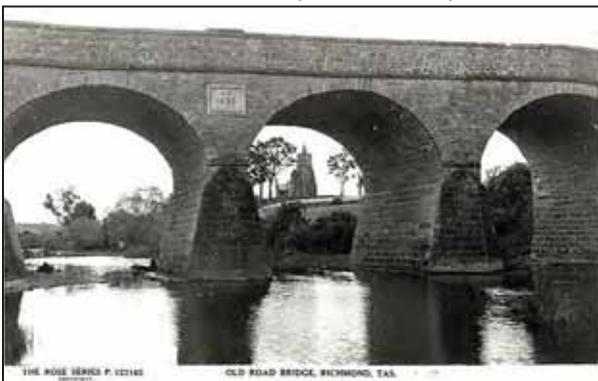


Figure 32: View of St John's through the arch (TAHO, Richmond Bridge, Collection of Postcards. AUTAS0016125441782. Reproduced with permission)



Figure 33: View of St John's through the arch (TAHO, Richmond Bridge, Collection of Postcards. AUTAS0016125441881, Reproduced with permission)

### 3.4.4 The Social Value of the Bridge and Setting

The significance assessment contained in Section 4 considers the social values of the bridge. The social significance of the bridge and its setting was assessed in the 1997 Conservation Plan. In summary, the bridge was considered the most important structure in the town, providing the community with a special sense of identity and pride. The community also expressed their concern with ongoing management of the bridge itself as well as the broader riverbank environment including visitor facilities. Extensive consultation as part of the 2010 Conservation Management Plan also consistently highlighted the community regard for the place.

The condition of the riverbanks was identified as a concern in 1997, where the growth of weeds, trees and willows posed a danger to the bridge in times of flood. The land around the bridge was identified for its recreational uses, as was the need for a range of vantage points to view the bridge. The growth of willows was viewed as a risk to these vantage points. Social values were also conveyed for the visual and historical links between the river and the two cemeteries.<sup>163</sup> The riverbanks continue to be extensively used for recreational purposes and as vantage points for viewing the bridge. Much work has been done in the removal of willows from the environment.

### 3.4.5 Road Approaches

The road approaches to Richmond and the bridge can be considered within both the macro and micro landscape setting.

At the broad level, the westerly route to Richmond via Cambridge travels through a variety of landscapes with the views across Pittwater being the dominant feature. The original route commenced at Bellerive. Approaching Richmond, the landscape changes to undulating farmland and the crossing the Pigeonhole and Duckhole Rivulets. Nigel Lewis *et. al.* write that this route was determined because of the position close to

<sup>163</sup> *Ibid.*, pp.96-97

where the Coal River was narrow and ceased to be tidal and because Butcher's Hill to the south west prevented a river crossing further downstream towards Pittwater.

The other historical western route, via Grass Tree Hill makes a rapid descent from the hill through dry wooded slopes, down to the valley floor. Spectacular views to the east and north are available during the descent.

Within Richmond, the main landscape focus is Butcher's Hill to the south west. Further to the east, the landscape changes to open country of the valley floor. Historical buildings are located prominently within the rising topography. Travelling from the west, this includes Prospect House, Belmont and the series of early Georgian buildings along Bridge Street. As Bridge Street continues towards the bridge, it makes a descent down the river escarpment. Mature trees on the Village Green conceal views of the western abutments of the bridge.

Travelling from the north via Campania the road winds through farmland in the Coal River Valley before reaching the town through Franklin Street. Turning left into Charles Street, the road continues down to the western abutment of the bridge.

Brinktop Road from Sorell to the east approaches the bridge and Richmond more directly. From the elevated plain, views of Richmond are available.

On choosing the location for the bridge, Nigel Lewis *et. al.* identify four factors:

- The location of early tracks and fords which served the earliest land grants prior to the establishment of Richmond;
- The land grant boundaries;
- Approach roads above flood levels; and
- The relatively low height of the river escarpment in this location.<sup>164</sup>

### 3.5 Changes in Vegetation

Both native and exotic vegetation have evolved, and continue to evolve along the riverbanks. The Vegetation Management Plan (VMP) notes that the contemporary landscape of the bridge and its setting are an outcome of 'deliberate' and 'accidental' processes over time. Remnants of historic plantings include the pine trees on the western banks and Lombardy Poplars on the eastern end of the bridge. However, most of the oldest plantings have declined and what exists today are largely naturalised exotic and native specimens. Much of the character of the place comes from this naturalised vegetation.<sup>165</sup>

The bridge and riverbanks also exist in a broader setting which frames significant views, or provides a backdrop of plantings. The VMP notes that many of the best views of the bridge are framed by vegetation from the broader landscape around the study area. It refers to this as the 'borrowed' landscape.

These trees are located outside of the study area, mostly on private property. It includes the Blue Gums at St John's Church and balanced by the Eucalypts at the Anglican cemetery to the south. These Eucalypts can be seen as large trees from photographs of the mid-nineteenth century, which suggests that they were planted around the late 1830s, or shortly afterwards. By the 1880s, the trees at St John's were higher than the nave of the Church, and Nigel Lewis *et. al.* conclude that they were planted around the time of the construction of the church in 1836. One of the trees to the west of the Church was removed in the 1970s and the growth rings showed that it had a possible age of c.120-150 years. Professor Jamie Kirkpatrick believes that because of the coastal environment, these trees may be indigenous. However they were also extensively planted in Tasmania from the earliest period of European settlement.<sup>166</sup>

Closer to the bridge, a c.1870-1884 photograph shows indigenous reeds and woody plants, either Boxthorn or the indigenous *Leptospermum lanigerum* (Woolly Tea Tree). A later photograph from the 1890s also possibly shows the boxthorn or the Woolly Tea Tree. It also includes major early trees, including large White Gums along the river bank. On the north east bank, the grass appears to be exotic pasture in this photograph. Boxthorn is readily apparent in photographs of the windmill by the 1890s. Beattie's c.1920s photograph of the

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<sup>164</sup> *Ibid.*, pp.76-77

<sup>165</sup> Landscape Impressions, *op. cit.*, p.5

<sup>166</sup> Nigel Lewis *et al.*, *op. cit.*, pp.80-81

bridge shows regrowth Woolly Tea Tree and White Gums on the riverbanks. Photographs from around this time looking south east also shows the river bank with regrowth of Woolly Tea Tree and White Gum.

Willows became dominant along the riverbanks by the late 1920s or early 1930s. Most of the willows on the western bank have now been removed. An isolated example has been left on the south east bank below the Mill House. After 1920, when John Eldershaw acquired the Mill House, *Cupressus macrocarpa* were planted along Wellington Street and returning along the river to enclose the property. A 1940s photograph shows large Lombardy Poplars near the south east abutment of the bridge. Lombardy Poplars were also established on the north east abutment by the 1950s. On the eastern bank of the river, below the Mill House, an extensive copse of Poplars has naturalised along the mill race, most likely because of the increased water following the construction of the Gatty Dam.<sup>167</sup>

These changes in vegetation can be partially understood through comparing historic aerial photographs (Figures 34-36). Beginning in 1946, the photographs indicate, the 'scrubby' nature of the north east and north west riverbanks, with relatively few trees to the south west. A few small trees can be seen in this location and may relate to the beautification works carried out during the 1920s and 1930s. Dense vegetation surrounds the Mill House. Individual trees were larger and more prominent by 1967 (Figure 35), but the most substantial changes occurred in the following decades. By 1989, dense groves of Elms and Poplars had emerged on both sides of the riverbank, to the south of the bridge (Figure 36). They continue to exist in some form to this day.

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<sup>167</sup> *Ibid.*, pp.80-81



Figure 34: 1946 Aerial Photograph (Base image by TASMAR ([www.tasmap.tas.gov.au](http://www.tasmap.tas.gov.au)), © State of Tasmania)



Figure 35: 1967 Aerial Photograph (Base image by TASMAR ([www.tasmap.tas.gov.au](http://www.tasmap.tas.gov.au)), © State of Tasmania)

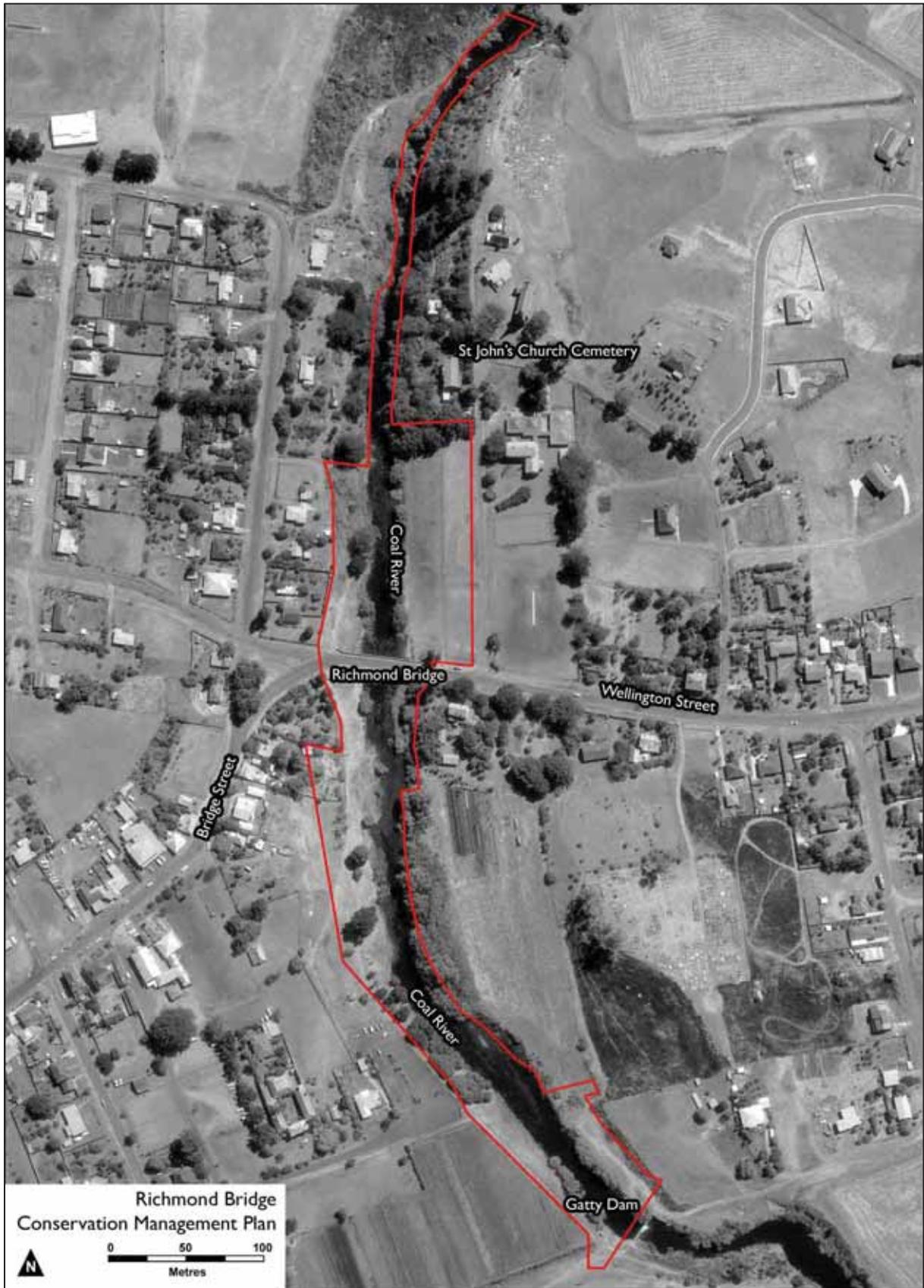


Figure 36: 1989 Aerial Photograph (Base image by TSMAP ([www.tasmap.tas.gov.au](http://www.tasmap.tas.gov.au)), © State of Tasmania)

### 3.6 Identification of Significant Views

The Richmond Bridge and its setting forms a rich cultural landscape. It is also notable for its important visual landscape qualities. These qualities come from the combination of built elements, topography and vegetation. The relationship with surrounding areas, such as the broader Coal River Valley landscape fringed by low hills and the Richmond township are important complementary elements. The aesthetic characteristics of the place have been formally recognised at both National and State levels.

The *Richmond Cultural Resource Management Plan (RCRMP)*<sup>168</sup> identified the major townscape elements of Richmond. The main thematic importance was associated with those elements which demonstrated the early nineteenth century establishment of Richmond as a significant service provider for Government, early settlers and the surrounding countryside. Of relevance to this report, these elements included the bridge, the Coal River, parks and reserves, churches and significant vistas to and from the town.

From the identification of these elements, the RCRMP considered issues of view scapes and vistas of individual streetscape settings and also the overall setting of the town. The RCRMP recognised the integral heritage value of view lines where they form an overview of a curtilage or a direct relationship with the property itself. The value of the important relationship between the town and its surrounding rural landscape was also recognised.<sup>169</sup>

Both the previous Conservation Management Plans and the Vegetation Management Plan have identified significant views to and from the bridge. For the purpose of this report, consideration has been given to identifying important views to and from the study area. From this process, twelve important views have been identified. Largely depending on the elevation, these views vary from narrow vistas framed by vegetation and topography, to broader landscape and townscape appreciation. The views analysis has considered the bridge itself, as well as the broader landscape elements within the study area. The identification of these significant public views can also assist in managing potential visual impacts which may occur from development occurring adjacent to the place. In this report, the following terms have been used:

- View: what can be seen;
- Vantage Point: the specific location from where the view is taken;
- Landscape: the subjective interpretation or perception of the view, for example, its aesthetic qualities.

The following Figure indicates the location of each of these vantage points and the general alignment of the views available. Each of these views is described in the following table.

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<sup>168</sup> The *Richmond Cultural Resource Management Plan* (2001) was prepared in response to strong community interest in establishing the cultural values of the town and finding ways in which these values can be sustained.

<sup>169</sup> Michael Shield & Associates, *op. cit.*, pp.27-30



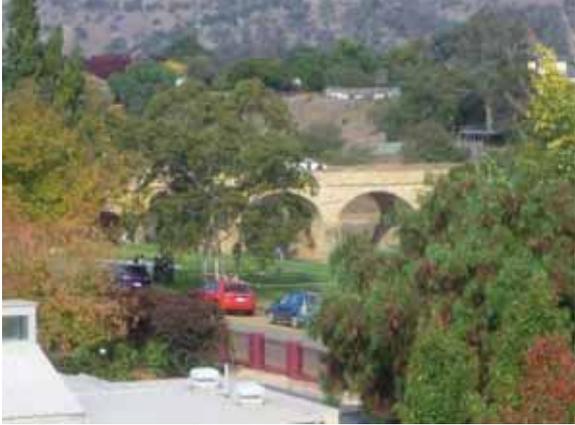
Figure 37: Location of Significant Vantage Points and Views (Base image by TASMAR ([www.tasmap.tas.gov.au](http://www.tasmap.tas.gov.au)), © State of Tasmania)

Vantage Point and Description of View	Image
<p><b>Vantage Point 1: Views from the Bridge</b></p> <p>The bridge provides the vantage point for 360 degree views over the Coal River, riverbanks and broader setting. This includes:</p> <ul style="list-style-type: none"> <li>• Views to the north, with the escarpment framing views of the river.</li> <li>• Views to the open north east bank and St John's Church and Eucalypts in their elevated position. The view is marred by the prominence of cars in the car park.</li> <li>• Views to the south, along the river and open lawn areas, with tree growth increasing to the south.</li> <li>• Views to the south east, and transition between the riverbank and Mill House behind.</li> <li>• Views to the west along Wellington Street, showing the transition to the rural landscape.</li> <li>• Views to the east and the Village Green with its mature Poplars and formal rose gardens.</li> </ul>	 <p>View to the south west riverbank from the bridge, looking south.</p>  <p>View to the south east riverbank, with the Mill House behind, looking south east.</p>
<p><b>Vantage Point 2: Views from the North East Riverbank</b></p> <p>The north east bank is a very popular location for viewing the bridge, picnics and feeding the ducks. The bank is largely an open grass area which is closely mown and accessible from the adjacent car park. Owing to the slope of the bank and its open nature, views of the entire north face of the bridge are available. The north face also receives a greater amount of sunlight than the southern elevation. Views up to St John's Church and the mature Blue Gums are available from this location. Long views towards Butcher's Hill on the horizon are taken from the top of slope.</p>	 <p>View from the top of north east bank to the bridge, looking south west.</p>

Vantage Point and Description of View	Image
<p><b>Vantage Point 3: Views from the North West Riverbank</b></p> <p>The escarpment of the north west bank rises steeply to the west which encloses the space and views. The landscaping of the area is also less structured with informal groups of plantings, coarse grasses and an informal pathway. Large areas of riparian vegetation line the riverbanks, providing relatively short and filtered views to the bridge.</p>	 <p>View from the north west bank to the bridge, filtered through riparian vegetation, looking south.</p>
<p><b>Vantage Point 4: Views from the South West Riverbank</b></p> <p>The south west bank provides a range of highly important views of the bridge and the immediate setting from varying locations. Significant views are available from:</p> <ul style="list-style-type: none"> <li>• The formal viewing platforms on the river banks looking towards the southern face of the bridge.</li> <li>• Through the arches to St John's Church.</li> <li>• To the east and the gardens and historic Mill House, with the transition from formal garden to naturalised Poplars lining the riverbank.</li> <li>• Filtered views, looking north through the copse of Elms and Poplars, which change seasonally, and provide a woodland character and framed views of the bridge.</li> </ul>	 <p>View from the south west bank to the bridge and steeple of St John's Church behind, looking north east.</p>  <p>Filtered views to the bridge from the 'woodlands' of Elms and Poplars, looking north.</p>

Vantage Point and Description of View	Image
<p><b>Vantage Point 5: Views from the Gatty Dam</b></p> <p>The Gatty Dam forms the southern boundary of the study area. Beyond the dam, there is dense indigenous and exotic vegetation that limits the view. To the north, the long, relatively straight length of the river allows views up to the river bend and 'woodlands'. The eastern bank is largely open grass and relatively small, but with well established blackwoods.</p>	 <p>View from the Gatty Dam, looking north.</p>
<p><b>Vantage Point 6: Views from Bridge Street</b></p> <p>Bridge Street provides views towards the bridge, including its wing walls and the circular bollards. Lombardy Poplars frame and give scale to the eastern end of the bridge. The gentle rise of the bridge is apparent. Views are also available to St John's Church hill. In the background are long views to the horizon formed by the lightly vegetated hills of the Brinktop Reserve and Strelley Hill.</p>	 <p>View from Bridge Street, looking east.</p>

Vantage Point and Description of View	Image
<p><b>Vantage Point 7: Views from the Wellington Street</b></p> <p>Long views are available because of the straightness of Wellington Street. As the bridge is approached, strong vertical elements are provided by the mature macrocarpa at the Mill House and the Lombardy Poplars on the bridge abutments.</p> <p>Closer to the bridge, the wavy outline of the bridge parapet becomes apparent. The curve of the bridge deck is also best appreciated from this perspective. Signage has been simplified on the chicanes since. The lightly wooded slopes of Jones Sugarloaf provide a background to the view.</p>	 <p>Looking west along Wellington Street.</p>
<p><b>Vantage Point 8: Views from the Anglican Cemetery</b></p> <p>The cemetery is located on an escarpment overlooking the river and provides expansive views of Richmond, the river valley and the surrounding countryside. It complements the similar values at the St John's Church and cemetery to the north. The Anglican cemetery also has mature blue gums located on the crest of the escarpment.</p> <p>Views of the bridge are not available from the Anglican cemetery. To the north west, the roof line of the Mill House and its landscape setting are apparent. As the view moves south, an extensive and dense copse of Poplars on the east bank screens the river.</p> <p>This opens up to reveal the southern extent of the study area which is at the Gatty Dam. In the middle distance the prominent built forms of St Luke's Anglican Church and the Richmond Gaol are apparent, with the lightly vegetated Butcher's Hill in the background.</p>	 <p>Looking north west from the cemetery.</p>

Vantage Point and Description of View	Image
<p><b>Vantage Point 9: Views from St John's Church</b></p> <p>St John's Church and hill are located on a high point, to the north east of the bridge. The elevated position of the Church provides expansive views of Butcher's Hill to the south west; Jones Sugarloaf to the west and the Brinktop Reserve and Strelley Hill on the east. In the middle distance, vegetation filters views of the Coal River, although glimpses of the bridge are available. This view changes seasonally with a large block of deciduous plantings at Yew Cottage.</p> <p>The Church is located on the high point of the hill, with the mature Blue Gums surrounding. Their height, form and foliage strongly contrast with the exotic plantings.</p>	 <p>Filtered views of the bridge from St John's Church, looking south west.</p>
<p><b>Vantage Point 10: Views from Council Reserve</b></p> <p>The Council Reserve falls to the east and the Coal River, it is lightly vegetated with native plantings.</p> <p>On descending the escarpment, the cliff face of St John's Hill dominates views to the east. The Coal River is a narrow stream at this point, and the combination of native and exotic vegetation and the curve of the river restrict views downstream.</p>	 <p>View to the escarpment of St John's Hill, looking east from the Council Reserve.</p>

Vantage Point and Description of View	Image
<p><b>Vantage Point 11: Views from St John's Church Cemetery</b></p> <p>St John's Church hill terminates in the dramatically located cemetery. At this point, the escarpment sharply falls away with a cliff face to the narrow river valley below. Unfortunately the escarpment edge is unstable and a tall and intrusive metal mesh fence has been installed. The river valley adjacent to the cemetery escarpment also forms the northern boundary of the study area.</p> <p>Views of the bridge are not available from the cemetery, although important and distant views are available of the river, and surrounding valley. Looking towards the north, the open country of the Coal River Valley is apparent, flanked on the west by extremity of Jones Sugarloaf.</p>	 <p>View from St John's Cemetery, looking to north west and the Council Reserve below.</p>
<p><b>Vantage Point 12: Views from St Luke's Church</b></p> <p>Expansive views of the river valley are available from St Luke's Church. This position was chosen by Chapman for his depiction of the bridge. From the escarpment, the broad valley opens as it reaches towards the river. Market gardens complement the rural nature of the scene. To the left is the Old Rectory, and further, the Gaol in its elevated position. Vegetation obscures any view of the bridge. On the opposite bank of the river can be seen the Anglican Cemetery with the vertical elements of the mature Blue Gums. Beyond the town, the open valley extends to the backdrop of Brinktop Reserve and Strelley Hill.</p>	 <p>View from St Luke's Church, looking to the north east towards the river.</p>

**Table 2: Descriptions of Significant Views**

### 3.7 Section Summary

The setting and landscape of the Richmond Bridge are important aspects of its significance, historically, aesthetically and socially. These values are elaborated in the assessment of significance. Natural and historical features combine to comprise the character of the place.

The organically evolved character of the setting of the Richmond Bridge is particularly strong. Here, various social, economic and administrative forces have combined and evolved in response to the natural environment. Within its immediate setting the landscape is linear. The Coal River provides the main north-south axis, flanked by narrow river banks with escarpments rising above.

The bridge location was chosen at a point where the river was narrow and the escarpments relatively low. The bridge predated the township of Richmond, and its construction encouraged the development of the town as an administrative and service centre for the surrounding district.

Early town planning envisaged public access to the river. However this was later curtailed, most notably on the east bank. The reacquisition of land for public uses did not emerge until the twentieth century and in response to increased interest in the history, beauty and tourism potential of Richmond and the bridge. The construction of the Gatty Dam in 1935 resulted in major changes to the setting of the bridge. Prior to the construction, the Coal River was ephemeral in its flow.

The riverbanks have distinct, and evolving characters. They can be characterised by their informality in layout and plantings providing spaces for passive recreation and appreciation of the bridge. The late twentieth century rise in tourism has resulted in the provision of visitor facilities such as car parks, seating, and stairs down to the riverbanks. This infrastructure has had varying levels of impact on the cultural landscape.

Plantings form an important part of the landscape, both within the place and outside of it. It includes both native and exotic vegetation, which is the result of 'deliberate' and 'accidental' processes over time. Remnant historic trees do exist, but much of the plantings are naturalised vegetation, contributing much to the character of the place.

The visual assessment of the Richmond Bridge and its setting has identified a number of important views available from public spaces. Significant views exist from the bridge, to the bridge and the broader townscape and countryside.



## Significance Assessment

## 4.0 SIGNIFICANCE ASSESSMENT

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### 4.1 Introduction

The heritage significance of the Richmond Bridge has long been recognised at all levels of Government. At a national level, the bridge was entered in the Register of the National Estate in 1978, the Tasmanian Heritage Register in 1999 and the National Heritage List in 2005. At a local level, the bridge has been included in Heritage Schedules or Codes of previous and current planning schemes.

Each of these listings provides a differing assessment of heritage values, different definition of place, and comes with different management implications.

Since 2010, substantial changes have been made in Tasmania (and continue to be made) in identifying and distinguishing places according to their levels of significance. This level of significance determines the tier of government management. That is, places of extraordinary significance to the nation may be entered in the National Heritage List and be managed in accordance with the *Environment Protection and Biodiversity Conservation Act 1999*. Places important to the State will be identified and managed according to the relevant State legislation, while local places are the responsibility of Local Government. This distinction between levels of significance is not about ranking the values or importance of a place. Rather, it is about understanding the context in which the place is important, and how far that importance reaches.<sup>170</sup>

Within Tasmania, places of State historic cultural heritage significance may be entered in the Tasmanian Heritage Register, and places of local heritage significance included in the Heritage Codes of planning schemes.

In terms of management, each level of Government has different responsibilities for the conservation of heritage places. Section 5 of this report outlines the management system for the Richmond Bridge and setting at National, State and Local levels.

The formally assessed National Heritage values of the Richmond Bridge are included in the following assessment. In 2014, the Tasmanian Heritage Council made substantial amendments to the Tasmanian Heritage Register entry for the bridge. The amended registration addressed issues with regard to the definition of the place and its values, and now provides a greatly improved assessment of significance. The formal State values of the place are documented in this section.

At a local level, the Clarence Interim Planning Scheme 2015 currently applies, but does not include statements of significance for places included in the Heritage Code. The Tasmanian Government has commenced a process of extensive local planning reform. Places which are currently included as Local Heritage Places under interim schemes will be brought across into the new Local Provisions Schedules. However, where that place is also included on the Tasmanian Heritage Register (as with the Richmond Bridge), the Heritage Place provisions of the Heritage Code will not apply, except for mutually exclusive parts of the same lot or lots. This removes the need for dual management and approvals between the Tasmanian Heritage Council and the Planning Authority. Other mechanisms providing for local involvement in heritage management do exist, and it would be desirable for these to be considered by Clarence City Council.

The Tasmanian Planning Scheme is yet to come into effect in the Clarence municipality, and the Clarence Interim Planning Scheme 2015 continues to apply. The described local level values contained in the following tables should be considered informal, but may assist in future management.

### 4.2 Assessing Significance

The assessment of cultural significance is a pivotal part of any Conservation Management Plan. In this report significance is firstly expressed in terms of the *Australia ICOMOS Burra Charter 2013* (the *Burra Charter*) definition of cultural significance Article 1.2 of the *Burra Charter* defines:

Cultural significance means aesthetic, historic, scientific, social, or spiritual value for past, present or future generations.

Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.<sup>171</sup>

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<sup>170</sup> Department of Primary Industries, Parks, Water and Environment, *Assessing Historic Heritage Significance for application with the Historic Cultural Heritage Act*, October 2011, p.6

<sup>171</sup> Australia ICOMOS *Burra Charter*, Art. 1.2

The National and State heritage values of the Richmond Bridge have already been assessed against the relevant criteria under each mechanism and the formally recognised values repeated here. The Clarence Interim Planning Scheme 2015 defines 'historic cultural heritage significance' as having the same meaning as in the *Historic Cultural Heritage Act 1995 (HCHA 1995)*, namely, 'its significance in terms of the registration criteria, which are:

- a) the place is important to the course or pattern of Tasmania's history;
- b) the place possesses uncommon or rare aspects of Tasmania's history;
- c) the place has the potential to yield information that will contribute to an understanding of Tasmania's history;
- d) the place is important in demonstrating the principal characteristics of a class of place in Tasmania's history;
- e) the place is important in demonstrating a high degree of creative or technical achievement;
- f) the place has a strong or special association with a particular community or cultural group for social or spiritual reasons;
- g) the place has a special association with the life or works of a person, or group of persons, of importance in Tasmania's history;
- h) the place is important in exhibiting particular aesthetic characteristics.

The most useful and detailed elaboration of the difference between State and Local significance is the Tasmanian Heritage Council's *Assessing Historic Heritage Significance for application with the Historic Cultural Heritage Act*. At its simplest, the distinction between State and local is a question of whether the heritage values are important to a region or local community, or extend to being important to the whole of Tasmania.

In applying this distinction, thresholds have been developed to define the minimum required value/s that a place must possess to be considered as having heritage significance at either State or local levels.<sup>172</sup> This Conservation Management Plan has had regard to the principles contained in these Guidelines.

### 4.3 Assessment of Significance for the Richmond Bridge

The following sections of this Conservation Management Plan provide the assessment of significance for the Richmond Bridge. The significance of the place has been identified at National, State and Local levels.

The formal assessment of National Heritage values by the Australian Heritage Council found that the place met two criteria - for its rarity and aesthetic characteristics.

The formal assessment of State heritage values by the Tasmanian Heritage Council found that the place met all eight criteria.

The formally assessed National Heritage List and Tasmanian Heritage Register assessment against criteria statements are repeated in the following tables. It is noted that in some instances, the same or similar attribute is recognised at both State and National levels.

There is no formal assessment of Local values for the place, and the following provides an assessment of Local significance for the purposes of this Conservation Management Plan.

#### 4.3.1 Assessment of Historical Significance

The *HCH Act 1995* provides that a place may be entered in the Tasmanian Heritage Register where it is important to the course or pattern of Tasmania's history.

The *Illustrated Burra Charter* states that historical values encompass the history of aesthetic, sciences and society, and therefore underlies other values. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may be the site of an important event. For any place the significance will be greater where the evidence of the association or event survives at the place, or where the setting is substantially intact, than where it has been changed or evidence does not survive.

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<sup>172</sup> DPIPWE, *op. cit.*

However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.<sup>173</sup>

With regard to the Heritage Council's Assessment Guidelines, the following five significance indicators are considered to be of most relevance to the Richmond Bridge:

- Association with an event, or series of events, of historical significance.
- Demonstration of important periods or phases of settlement.
- Association with important cultural phases or movements.
- Demonstration of important historical processes or activities.
- Symbolism and influence of place for its association with an important event, period, phase or movement.<sup>174</sup>

As noted by McGee in the *Guide to Heritage Bridge Management*, bridge heritage is an important demonstration of non-indigenous settlement patterns at both State and regional levels in the provision of communications and transport. Sometimes the heritage significance is derived from the continuity of crossing at a particular location rather than necessarily from the bridge that is currently at a site.<sup>175</sup>

The earliness of a bridge can be considered for two areas of historical significance. Firstly, is the historical importance of the town or region as an early European settlement area where the bridge demonstrates important aspects of communication and transport technology. An understanding of the historical development of the crossing point is useful in this regard. The second relevant factor is considering whether the bridge in its design and form demonstrates an early application of a particular technology.

The earliest Tasmanian bridges were poorly constructed of timber with earth covered timber decks resulting in continuous problems. These bridges were short lived, and were quickly replaced with more permanent stone or brick arches. With responsible Government in 1856 came the need to locally finance construction. Timber again became the predominate material. Wrought iron and steel remained reserved for special situations.<sup>176</sup>

The inclusion in the National Heritage List against criterion (b.) rarity, relates to historical values associated with its age as the oldest surviving large bridge in Australia with a high degree of integrity and its construction by convict labour.

In the 1997 Conservation Plan, Nigel Lewis *et al.* assessed the age of the Richmond Bridge in comparison with other structures. It was noted that throughout Australia, there are very few surviving bridge constructed prior to 1860. The oldest surviving bridge on the mainland Australia is the Horseshoe Bridge in New South Wales, completed in 1833. Similarly, surviving bridges in other States constructed prior to 1860 are rare.

Comparatively, Tasmania is fortunate in retaining fourteen stone bridges constructed between 1838 and 1847.<sup>177</sup> The Richmond Bridge has long been described as Australia's oldest bridge. However, it is likely that some surviving bridges contain elements that pre-date the completion of the Richmond Bridge in 1825.

For example, Evans writes that a causeway crossing the Elizabeth River at Campbell Town was completed c.1822-23 and is depicted in early illustrations. The causeway was constructed from earth and logs over some 200 feet (ie., approx. 70 metres), with culverts to allow the water to pass underneath. It may have included the small bridge that currently exists. The remaining bridge, has dry stone abutments and a timber deck. This is possibly a portion of the c.1823 causeway. However, Evans finds that whilst a number of early plans and illustrations of the bridge were located, there was found to be a substantive lack of written documentation of the first bridge/causeway at Campbell Town. An archaeological examination of the bridge in addition to further historical analysis was recommended to determine whether the bridge is the oldest surviving in Australia.<sup>178</sup>

The last substantial modifications to the Richmond Bridge occurred in 1884 with the sheathing of the piers. The Richmond Bridge continues to demonstrate to a high degree its period of construction, design, materials, workmanship and setting. Because of the lack of certainty regarding older structures, it can be concluded that

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<sup>173</sup> McGee, R, *Guide to Heritage Bridge Management*, Austroads Inc, 2001, pp.4, 6-11

<sup>174</sup> DPIPW, *op. cit.*, 2011, pp.10-11

<sup>175</sup> *Ibid*, pp.4, 6-11

<sup>176</sup> Balsille, GD, 'Notes on Tasmanian Highway Bridges', *Transactions of the Institution*, Vol XV, 1934, pp.1-2

<sup>177</sup> Nigel Lewis *et al*, *op. cit.*, p.87

<sup>178</sup> Evans, K, *Old Bridge, Bridge Street Campbell Town, Historical Review*, Tasmanian Heritage Council, 1998, pp.3-5

the Richmond Bridge is Tasmania's, and Australia's oldest surviving large bridge which retains a high degree of integrity and continues to serve its original function.

The Richmond Bridge also had the distinction of having the longest span of any bridge in Australia for a period of eleven years. It was not until the construction of the Lansdowne Bridge, New South Wales in 1836 with a span of 33.5 metres that the Richmond Bridge was surpassed.

The construction of the Richmond Bridge is also significant as a demonstration of public works and the development of Richmond and transport links to the east coast of Tasmania. Tasmania's first bridges were crude structures built as temporary crossing points as a matter of necessity. The appointment of Major Thomas Bell, Acting Engineer and Inspector of Public Works represented a major turning point in the design and construction of public infrastructure during the early nineteenth century. Bell's list of achievements include public buildings in Hobart; important roads in the Southern Midlands; the completion of the Wellington Bridge, Hobart; the construction of the sandstone causeway to Hunter Island; and a new brick bridge across the Hobart Rivulet in Argyle Street. Later, Civil Engineer and Architect, John Lee Archer carried out remediation works to the Richmond Bridge in 1829. Archer made a major contribution to Tasmania's architecture and engineering during the nineteenth century in the design of government buildings, numerous churches, the Ross Bridge, plans for improvements to Sullivan's Cove and designs for the Bridgewater Causeway.

The construction of the Richmond Bridge also demonstrates important aspects of the early European settlement of Tasmania, and the development of Richmond as a significant regional centre. Lieutenant-Governor Sorell encouraged the British settlement of Tasmania and the development of agriculture. He also initiated the construction of the Richmond Bridge. The works were completed under Lieutenant-Governor Arthur. Arthur's term witnessed the fastest growth to date in the European population. In 1823, the colony had a population of 10,009. This had increased to 43,895 by 1836.<sup>179</sup>

This rapid growth in population allowed for the expansion of European settlement beyond the nodes at Hobart and Launceston. It also required the development of transport infrastructure such as roads and bridges to allow for easier movement of people and goods. The Coal River Valley was an early place of European settlement in Tasmania. Relatively soon after colonisation, the district played a highly significant role in the supply of grain both internally, and later for export.

The construction of the bridge provided a permanent and safe crossing point of the Coal River on the route to the east coast, and later Tasman Peninsula. The combination of agricultural development, increased population and concentration of people crossing the Coal River at this point encouraged the establishment of the Richmond township. Early development focussed on providing military and penal services. In time, commercial, residential and civic infrastructure developed and the town became a major population and service centre in the early colony.

Other settlements such as Hobart, York Town, Launceston, New Norfolk, George Town, Pontville and Macquarie Harbour were established at an earlier date than Richmond. Nigel Lewis *et al.* note that Richmond's main development period occurred between initial settlement and the early 1840s. What distinguishes Richmond from many other early townships is its high level of intactness and ability to demonstrate its main period of historical development. Economic depression and later transport bypasses removed the town from later widespread development pressures. This has had the fortunate effect of conserving the townscape setting, street pattern, historic buildings and hierarchy of building forms.<sup>180</sup>

An important element of Richmond's development was the retention of public access to the riverbanks. As early as 1824, plans were made to reserve large areas of land on both sides of the Coal River. Although these plans did not eventuate, during the twentieth century, areas of the riverbanks, particularly on the western bank were acquired by both State and Local tiers of government. This public acquisition of the land acknowledged the growing interest in the Richmond Bridge, and importantly, also created recreation areas.

Richmond emerged as one of the first Tasmanian towns to take an active role and interest in the conservation of their heritage, including the central role of the bridge. As early as 1964, organisations were formed to protect the historical character of Richmond and guide its future development. The Richmond community continues to be deeply interested in the conservation of its heritage and the character of the town.

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<sup>179</sup> Nigel Lewis *et al.*, *op. cit.*, pp.88-89

<sup>180</sup> *Ibid*, p.92

Level of Significance	Statement
<b>National</b>	Formal assessment of the Richmond Bridge by the Australian Heritage Council found that it did not meet the threshold for inclusion in the National Heritage List in respect of importance in the course, or pattern, of Australia's natural or cultural history.
<b>State</b>	<p>Richmond Bridge demonstrates the early 19<sup>th</sup> century development of transport infrastructure in colonial Tasmania. It provided permanent access to the east coast and later the Tasman Peninsula and the scale and permanency of its masonry construction reflects the resources available to the colonial administration for infrastructure projects prior to responsible Government in 1856.</p> <p>The Richmond Bridge is an outstanding example of very early and substantial public works which demonstrate the evolution of the British penal system and the dependence on unpaid convict labour in the construction of major civil infrastructure which was unique to Tasmania. The bridge was constructed prior to the establishment of Richmond and demonstrates some of the earliest settlement patterns of colonial Tasmania.</p>
<b>Local</b>	<p>The Richmond Bridge is an integral township element. The general location of the Richmond Bridge was a crossing point of the Coal River prior to the construction of the bridge. With the construction of the bridge, travellers to the east coast, and later Tasman Peninsula converged on this crossing point, encouraging the establishment of the Richmond township.</p> <p>The Coal River formed an important source of water for people, stock and agriculture, encouraging the early grants of land in the district. The bridge was the first structure in the town, followed by significant civic infrastructure such as the Gaol and Court House. In time, Richmond became an important population centre in early colonial Tasmania, developing into a substantial service and supply town.</p> <p>The crossing point of the Coal River at this location influenced the layout of the town. The 1824 town plan indicates this proposed suburban development, and importantly, early attempts at providing public access to the river. Although the 1824 plan did not eventuate as originally envisaged, public access to the riverbanks became increasingly important during the twentieth century, in response to the growing interest in the bridge. A combination of Crown and Local Government purchases created a significant passive recreation area. The formation of tracks, tree plantings and the construction of the Gatty Dam to create a southern pedestrian crossing point and swimming hole demonstrates local interest in the Richmond Bridge and its setting.</p> <p>Richmond emerged as one of the first Tasmanian towns to take an active role and interest in the conservation of their heritage, including the central role of the bridge. As early as 1964, organisations were formed to protect the historical character of Richmond and guide its future development. The Richmond community continues to be deeply interested in the conservation of its heritage and the character of the town.</p>

**Table 3: Statements of Historical Significance**

#### 4.3.2 Assessment of Rarity

The *HCH Act 1995* provides that a place may be entered in the Tasmanian Heritage Register where it possesses uncommon or rare aspects of Tasmania's history. The bridge is included on the National Heritage List against this criterion, by reference to it being the earliest large stone bridge in Australia.

Rarity can be used to consider most criteria. However the *HCH Act 1995* also specifies it as a separate criterion, relating to rare or uncommon aspects of Tasmania's heritage. What is important though, is that the rarity relates to a heritage value.

With regard to the Heritage Council's Assessment Guidelines, the following four significance indicators are considered to be of most relevance to the Richmond Bridge:

- Rare surviving evidence of an event, phase, period, process, function, movement, custom or way of life in Tasmanian history that continues to be practised or is no longer practised.
- Evidence of a rare historical activity that was considered distinctive, uncommon or unusual at the time it occurred.
- Distinctiveness in demonstrating an unusual historical, architectural, archaeological, scientific, social or technical attribute(s) that is of special interest.
- Demonstrates an unusual composition of historical, architectural, archaeological, scientific, social or technical attributes that are of greater importance or interest as a composition/collection.<sup>181</sup>

With regard to the Richmond Bridge, factors to consider include the age, design, materials or form of the bridge in demonstrating an uncommon aspect of Tasmania's heritage. The bridge may have been rare at the time of construction, or may have become rare, as other similar structures have been lost.

The mechanism for considering rarity is by comparison. Making comparisons between heritage places is a useful way to develop a statement of significance, and to determine a level of significance. In undertaking this process, it is important to compare like with like, by identifying those elements of significance which can be compared.<sup>182</sup>

As noted above, the earliest Tasmanian bridges were poorly constructed and temporary crossings. The resources available to the colonial administration allowed for these temporary bridges to be replaced by permanent stone or brick structures. By comparison, Tasmania maintains the largest number of pre-1860 bridges in Australia. The specific rarity values of the Richmond Bridge relates to:

- Its earliness as Tasmania's and Australia's oldest surviving bridge with a high level of integrity that continues to serve its original function;
- The distinction of having the longest bridge span for a period of eleven years; and
- Its method and material of construction.

Beyond the bridge, the setting demonstrates important values as a rare surviving example of an early Australian colonial town. As noted above, Richmond experienced a short period of development and prominence. Relatively little subsequent development has resulted in a high number of heritage places being retained within the town. As noted in the 2001 *Richmond Cultural Resource Management Plan*, out of a total of 323 buildings in Richmond, nearly a third of them have heritage status. Shield notes that the built fabric and sense of place reflects the British colonial influence with architectural style, character, scale, siting and planning similar to that of English villages. Buildings demonstrate a consistent application of simple Georgian architecture providing a sense of cohesion. Furthermore, the retention of the rural setting and hills above reinforces the historic context.<sup>183</sup>

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<sup>181</sup> DPIPWE, *op. cit.*, 2011, p.15

<sup>182</sup> Making Comparisons, [http://www.heritage.nsw.gov.au/10\\_subnav\\_03.htm](http://www.heritage.nsw.gov.au/10_subnav_03.htm) accessed 13 August 2007

<sup>183</sup> Michael Shield & Associates, *op. cit.*, pp.6, 12

Level of Significance	Statement
National	Richmond Bridge, built by convict labour in 1823 to 1825, is the oldest, surviving, large, stone arch bridge in Australia with a high degree of integrity.
State	Richmond Bridge is the oldest surviving large stone arch bridge in Australia. It has remained largely unchanged since its construction in 1823 and is still in use today (2017). The Richmond Bridge was the first multiple arched bridge to be constructed in Tasmania and the first to have piers founded in the river itself. For a period of 11 years after its construction the bridge had the longest span of any bridge in Australia.
Local	<p>The Richmond Bridge within its setting is a rare surviving example of an early Australian colonial town. The bridge preceded the establishment of Richmond. The development of agriculture, increased population and concentration of people travelling via the Richmond Bridge encouraged the development of Richmond as an important penal, population and municipal centre, whilst acting as a regional supply and service centre for the surrounding agricultural districts. Several mills were established on the banks of the river. This growth ceased in the late nineteenth century.</p> <p>The town retains great unity in the high number of historic places, common construction period, and consistent use of building materials in the local sandstone. The town plan was laid out in 1824, dictated by the location of the bridge. During this early period of development, Richmond developed its current structure and form.</p>

**Table 4: Statements of Rarity Significance**

#### 4.3.3 Assessment of Research Potential

The *HCH Act 1995* provides that a place may be entered in the Tasmanian Heritage Register where it has potential to yield information that will contribute to an understanding of Tasmania's history.

The *Illustrated Burra Charter* notes that this value will depend on the importance of the data involved, on its rarity, quality or representativeness, and the potential to contribute further substantial information about the place itself or a type or class of place.<sup>184</sup>

With regard to the Heritage Council's Assessment Guidelines, the following four significance indicators are considered to be of most relevance to the Richmond Bridge:

- Potential to improve knowledge of a little-recorded aspect of Tasmania's past.
- Potential to fill gaps in our existing knowledge of Tasmania's past.
- Potential to provide information about single or multiple periods of occupation or use.
- Potential to yield site specific information which would contribute to an understanding of significance against other criteria.<sup>185</sup>

The assessment of the research potential of the Richmond Bridge and its setting is considered for two reasons. Firstly, it is the ability of the bridge to provide new information on early bridge design, construction and engineering. Secondly, it is considered that the setting of the bridge has historic archaeological potential.

The archaeological potential and significance of the Richmond Bridge and its setting has not been the subject of a separate and detailed archaeological assessment. A specific policy recommendation has been made on this matter. At present, the following factors are considered relevant to the archaeological significance of the place:

- The potential for evidence of the early fords across the Coal River;
- The industrial flour milling activities on the riverbanks with associated infrastructure such as dams and water races.

<sup>184</sup> Marquis-Kyle, Walker, *op. cit.*, p.80

<sup>185</sup> DPIPWE, *op. cit.*, 2011, p.19

Level of Significance	Statement
National	Formal assessment of the Richmond Bridge by the Australian Heritage Council found that it did not meet the threshold for inclusion in the National Heritage List in respect of its potential to yield information that will contribute to an understanding of Australia's natural or cultural history.
State	<p>Richmond Bridge has research potential because of its high degree of integrity and offers insight into very early bridge design and construction methods in Tasmania between the years 1823 and 1884. The continued operation of the bridge, and changing vehicular use and water flow conditions, provides an opportunity to understand structural stability, and hydraulic and structural stresses.</p> <p>The setting of the bridge also has the potential to yield information relating to the early uses of the Coal River and riverbanks. It is known that several fords were previously constructed, and these have archaeological potential to provide new information on the earliest European crossing points of the Coal River. Flour milling has also figured prominently on the riverbanks. The remains of mills and associated water races and dams have archaeological potential to provide new information on industrial activities in the area.</p>
Local	At a broader township level, Richmond offers the potential to understand the establishment and development of a Tasmanian town to the mid nineteenth century. The lack of subsequent wide scale development provides the town with a higher level of integrity and ability to provide new, significant information on the early operations of Richmond as a penal, administrative and service centre of regional importance.

Table 5: Statements of Research Potential

#### 4.3.4 Assessment of Importance in Demonstrating the Principal Characteristics of a Class of Place

The *HCH Act 1995* provides that a place may be entered in the Tasmanian Heritage Register where it is important as a representative in demonstrating the principal characteristics of a class of place in Tasmania's history.

Like rarity, representativeness can be used to consider most criteria. However the *HCH Act 1995* also specifies it as a separate criterion. What is important though, is that the representativeness relates to a heritage value.

In assessing representativeness, the intactness of the place should be considered. Matters such as the authenticity of the design, materials, workmanship and setting are important factors to assist in determining whether a place can demonstrate the principal characteristics of a class of cultural places. Furthermore, the class of place and principal characteristics, or qualities of the place should be defined.<sup>186</sup>

With regard to the Heritage Council's Assessment Guidelines, the following two significance indicators are considered to be of most relevance to the Richmond Bridge:

- Representative of a class of places that demonstrate a construction method, engineering design, technology or use of materials, of historical importance.
- Representative of a class of places that demonstrate an historical land use, function or process, of historical importance.<sup>187</sup>

Applied to the Richmond Bridge and its setting, the representativeness is considered in two areas. Firstly, it is the ability of the bridge to demonstrate common characteristics of early public bridge infrastructure. The Richmond Bridge has a high level of intactness, with the last substantial works occurring in 1884. Secondly, the design, materials, workmanship and setting are considered to be authentic, or using traditional materials and techniques, therefore demonstrating the significant historical period of development.

<sup>186</sup> Queensland Heritage Council, *Entering Houses in the Queensland Heritage Register*, 2005

<sup>187</sup> DPIPWE, *op. cit.*, 2011, p.23

As a class of places, the Richmond Bridge can be compared to other nineteenth century Tasmanian road bridges constructed from permanent materials. This class includes bridges such as:

- The ashlar sandstone Ross Bridge;
- The ashlar sandstone Tacky Creek Bridge, north of Ross;
- The red brick Campbell Town Bridge;
- The ashlar sandstone Lovely Banks Bridge;
- The stone fill Spiky Bridge culvert, Swansea;
- The ashlar sandstone Risdon Bridge; and
- The random rubble Strathroy Bridge at Franklin Village.

These bridges share the common characteristics of being constructed from permanent materials, erected by a convict workforce and most continuing to be used for their original transport function. The bridges vary from small structures that may be considered culverts, to large multi-span structures. Stone was the preferred material for these bridges, with brick being used less often. The arch form also figures prominently. These early bridges also demonstrate structural defects, notably the absence of solid quicklime mortars. For example, the use of site soil as stone bedding at Richmond has resulted in the undermining of the piers and entry of water. Strathroy Bridge is the exception to this, where proper quicklime mortar was used.

Secondly, at a macro level, Richmond is important in demonstrating the principal characteristics of an important regional centre up to the mid nineteenth century. These characteristics include:

- The centrality of the bridge within the town and broader Coal River Valley;
- The 1824 township plan which established a grid of streets and regularised subsequent development;
- The establishment of Richmond as a Police District with the construction of associated civic buildings including the Gaol, courthouse, barracks and watch house; and
- The later residential development, within the urban setting which displays consistency in simple building forms, setback, materials and roof pitch.

The large number of historic buildings, streetscapes and other elements combine to form an authentic townscape of essential heritage value. The Richmond Bridge and Coal River are central to these characteristics.

Level of Significance	Statement
<b>National</b>	Formal assessment of the Richmond Bridge by the Australian Heritage Council found that it did not meet the threshold for inclusion in the National Heritage List in respect of its importance in demonstrating the principal characteristics of a class of Australia's natural or cultural places.
<b>State</b>	Richmond Bridge is representative of the large-scale public infrastructure developed in Tasmania during the early colonial period which was built of permanent materials on major strategic road transport routes.
<b>Local</b>	<p>The Richmond Bridge and setting form a focal point for the Richmond township. The bridge exists within a townscape setting and the broader Coal River Valley. In combination, these elements create a landscape and townscape setting of essential heritage value that generally demonstrates development to the mid nineteenth century.</p> <p>The combination of street pattern, consistent building forms and mature plantings create a highly intact, representative example of an important rural centre to the mid nineteenth century.</p> <p>The topography, access to water at the Coal River and crossing point dictated the layout of Richmond. As early as 1824 a township plan was established with a grid of streets to regularise subsequent development.</p> <p>Operating as a Police District, Richmond developed the infrastructure and buildings related to a convict station and military post. The gaol, courthouse, barracks and watch house were some of the first buildings. Churches soon followed, and their prominent form and location provided vertical focal points. Housing developed within this urban setting with consistency in simple building forms, setback, materials and roof pitch. Low scale elements such as the cemeteries were located in visually prominent positions. The importance of Richmond as a regional centre was short lived. As a consequence, the town retains many nineteenth century buildings and places.</p> <p>The broader landscape is also important in representing agricultural development to the mid nineteenth century. Early settlers commented on the sparsely covered nature of the Coal River Valley, making the location ideal for settlement and agricultural development. This landscape element continues to be highly evident and complements the historic township.</p>

**Table 6: Statements of Demonstration of Principal Characteristics**

#### 4.3.5 Assessment of Creative or Technical Achievement

The *HCH Act 1995* provides that a place may be entered in the Tasmanian Heritage Register where it is important in demonstrating a high degree of creative or technical achievement. The *Illustrated Burra Charter* notes that in some jurisdictions, creative or technical achievement may be a component of aesthetic significance of the place.

Bridges can demonstrate technical achievement through innovative technology and the use of materials. The development of bridge engineering can be demonstrated through their design; methods of construction and maintenance; use of materials; and their association with the people who designed, constructed and maintained the bridge. Technological development in bridges can also reflect changes in modes of transport, and sometimes is also related to political and economic factors. Bridges can also demonstrate creativity in their aesthetic values, for example having noteworthy proportions, or being located in a visually appealing setting.<sup>188</sup> The aesthetic value of the Richmond Bridge and its setting is separately addressed.

With regard to the Heritage Council's Assessment Guidelines, the following three significance indicators are considered to be of most relevance to the Richmond Bridge:

- Recognition of artistic or design excellence.

<sup>188</sup> McGee, *op. cit.*, pp.4, 6-11

- Distinctiveness as a design solution, treatment or use of technology.
- Adapts technology in a creative manner or extends the limits of available technology.<sup>189</sup>

It should be noted that 'recognition of artistic or design excellence' is more appropriately considered under Criterion (h.) aesthetic characteristics. The Assessment Guidelines have yet to be updated to reflect this criterion.

The intactness of the Richmond Bridge is also an important factor in considering its technical achievement. The authenticity of the design, materials and workmanship are important in determining whether the bridge can demonstrate its technical achievement. The following relevant factors have been considered:

- The form, material and construction method of the bridge;
- The technical achievement in being the first multiple arched bridge to be constructed with the piers in the river itself; and
- The ongoing functioning of the bridge for its original purpose demonstrating the skill of the designer and those who constructed the bridge.

With regards to the setting of the bridge, the creative achievement of the riverbank setting has been considered. The landscape of the riverbanks can be characterised by their informality in the arrangement of trees, paths and open spaces. Although greatly complementing the rural nature of the place, this informality is not considered to demonstrate a particular creative achievement.

The factor that more clearly demonstrates a creative achievement is the continued effort to reserve riverbank land for public access. Scott's 1824 plan of Richmond created the regular grid layout for the urban development of the town. It also reserved large areas of the east and west riverbanks below the bridge. Private land acquisitions greatly curtailed this reservation. However, during the twentieth century, both State and local governments progressively acquired riverbank land, particularly on the west bank. This provided permanent public access to the riverbanks for a combination of recreational uses, as well as locations from which to appreciate the bridge.

In this sense, the creative achievement is considered to be the innovative urban planning design for the town that was first envisaged by Scott. Scott's 1824 plan that provided for public access to the riverbanks demonstrates a creative approach to the provision of public space. It is also a very early example of such planning, particularly within a rural context. These plans were not properly realised until the twentieth century.

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<sup>189</sup> DPIPWE, *op. cit.*, 2011, p.28

Level of Significance	Statement
<b>National</b>	Formal assessment of the Richmond Bridge by the Australian Heritage Council found that it did not meet the threshold for inclusion in the National Heritage List in respect of its importance in demonstrating a high degree of creative or technical achievement at a particular period.
<b>State</b>	Richmond Bridge demonstrates a high degree of technical achievement in Tasmanian bridge design and construction. Before steel, masonry bridges were the only means of permanent bridge construction and the bridge retains a high level of integrity, with the last major alteration occurring in 1884 (the installation of the cutwaters). The continued operation of the bridge since 1825 demonstrates the technical achievement of its design and construction.
<b>Local</b>	<p>The riverbank setting of the Richmond Bridge is important for its creative achievement. Reserved public access to the riverbanks was envisaged as early as 1824 although this was curtailed by private land acquisition and industrial activity. These early attempts at land reservation demonstrate early and innovative urban planning.</p> <p>The progressive acquisition of riverbank land by both State and Local Governments, particularly on the west bank, created permanent public access to the riverbanks for a combination of recreational uses, as well as locations from which to appreciate the bridge.</p>

**Table 7: Statements of Creative or Technical Achievement**

#### 4.3.6 Assessment of Social Significance

The *HCH Act 1995* provides that a place may be entered in the Tasmanian Heritage Register where it has a special meaning for a particular community or cultural group for social, or spiritual associations.

The *Illustrated Burra Charter* notes that social value embraces the qualities for which a place is associated with the community or cultural group and the social, political or other cultural meanings that the place signifies to the group.<sup>190</sup>

The spiritual value of a place may also be part of its social value. This embraces the non-material qualities evoked by a place and for which it has traditional meaning in the spiritual belief system, knowledge, art and practices of a cultural group. It may derive from the intensity of aesthetic or social values and the physical values that inspire an overwhelming spontaneous response in people, evoking or broadening their understanding and respect of life.<sup>191</sup>

Bridges may have particular community value. As noted by McGee, bridges may be significant to the community because of the history of the site, the use of the bridge, the beauty of the structure, or the combination of the design with its setting. Sometimes, the historical crossing point may be valued by the community, and in certain circumstances, the community may closely associate itself with the bridge site.

With regard to the Heritage Council's Assessment Guidelines, the following five significance indicators are considered to be of most relevance to the Richmond Bridge:

- Important to the community as a key landmark (built feature, landscape or streetscape) within the physical environment of Tasmania.
- Important to the community as a landmark within the social and political history of Tasmania.
- Important as a place of symbolic meaning and community identity.
- Important as a place of public socialisation.
- Important in linking the past affectionately to the present.<sup>192</sup>

<sup>190</sup> Marquis-Kyle, Walker, *op. cit.*, p.80

<sup>191</sup> *Ibid*, p.80

<sup>192</sup> DPIPWE, *op. cit.*, 2011, p.32

Consultation for the 2010 Conservation Management Plan highlighted the importance of the bridge for a range of reasons. These included:

- Being Australia's oldest bridge still serving its original function;
- The importance of the bridge as an iconic and beautiful place, central to Richmond and a key tourism drawcard;
- The importance of the bridge as part of the social fabric of Richmond.

Members of the community also expressed a number of concerns. This includes the risks of damage to the bridge from vehicles or floods and the importance of managing the heritage values of Richmond and the broader setting of the bridge.

As part of the preparation of the 1997 Conservation Plan, Nigel Lewis conducted a series of workshops to identify the ways in which the local community valued the bridge and broader setting. These workshops included community representatives, members of the Richmond Advisory Committee, and former and present members of Council. In summary, the community expressed the following sentiments:

- The Richmond Bridge is the most important structure in the town. It provides residents with a sense of distinction and special sense of identity;
- Pride was expressed that the bridge is an icon of the Tasmanian tourism industry. However, concern was also expressed that short visits to the bridge and Richmond on the way to other destinations degraded the full importance of the place;
- It was important that the bridge continue to be used for its original purpose. However, concern was expressed on the impact of vehicles on the bridge, both structurally, but also the impact on the ability to appreciate the bridge;
- A northern heavy vehicle by-pass was supported;
- Concern was expressed about changes to the riverbanks, such as the growth of weeds and trees, and the risk of willows causing damage to the bridge in times of flood;
- The riverbanks were valued as a place of recreation and picnicking;
- A range of viewing points of the bridge was required;
- Concern was expressed that the visitor facilities on the south west bank (car park, shelters, barbeques) were not fully utilised;
- A sense of loss was felt because the river no longer served recreational functions as a swimming hole;
- The growth of willows on the riverbanks was of concern because of the loss of vantage points for viewing the bridge;
- There was general support for the conservation of Richmond and the bridge environs;
- The cemeteries were identified as important for their historical and visual relationship with the river;
- The community wanted advice on perceived visitor impacts, and how this could be improved; and
- Mixed views were expressed on the amalgamation of the Richmond and Clarence Councils.<sup>193</sup>

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<sup>193</sup> Nigel Lewis *et. al., op. cit.*, pp.96-97

Level of Significance	Statement
<b>National</b>	Formal assessment of the Richmond Bridge by the Australian Heritage Council found that it did not meet the threshold for inclusion in the National Heritage List in respect of its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
<b>State</b>	Richmond Bridge is valued by the community as a key structure which reflects the early settlement of Richmond and its association with the penal system in Tasmania. It has special meaning to the community as the oldest surviving large stone bridge in Australia, and also as one of the many convict era structures which contribute to Richmond's overall historical streetscape. High visitor numbers and use of the riverbanks for both viewing the bridge and recreation reflect the substantial social value of the bridge and its surrounds.
<b>Local</b>	<p>The bridge is a special place for the people of Richmond. The local community identify the bridge as the most important structure in their historic town, providing a sense of identity and distinction from other rural communities. Although noting concerns with the impacts of tourism, the Richmond community has expressed pride in the bridge being an icon of Tasmania and the role it plays in the tourism industry. The riverbank areas also provide locals with a readily accessible recreation area. Historically, the river was used for swimming.</p> <p>The Richmond community also has a long and involved interest in the conservation of the heritage of their town. An indicator of the community's regard for the bridge is their concern for its ongoing conservation. Issues such as structural capacity, the impact of vehicles on the character of the place, and the sense of loss caused by vehicular damage to the bridge demonstrates that the bridge has strong and special meaning to the people of Richmond.</p>

**Table 8: Statements of Social Significance**

#### 4.3.7 Assessment of Associative Significance

The *HCH Act 1995* provides that a place may be entered in the Tasmanian Heritage Register where it has a special association with the life or work of a person, a group of persons of importance in Tasmania's history.

With regard to the Heritage Council's Assessment Guidelines, the following two significance indicators are considered to be of most relevance to the Richmond Bridge:

- A key phase(s) in the establishment or subsequent development of the place was undertaken by, or directly influenced by, the important person(s) or organisation.
- One or more achievements for which the person(s) or organisation are considered important are directly linked to the place.<sup>194</sup>

In assessing associative significance, three factors have been considered:

1. The importance of the individual, group or organisation to Tasmania's history, either within the context of the State or region;
2. The nature or extent of the association. For example, their role in the design, construction, maintenance of the Richmond Bridge; and
3. The extent to which the place demonstrates that association.

The Richmond Bridge and its setting is associated with a range of individuals who have played a variety of roles in Tasmania's history. The degree of association varies. However, based on the research undertaken for the development of this Conservation Management Plan, the following individuals are considered noteworthy:

*For their important role in early Tasmanian history:*

- David Lord;

<sup>194</sup> DPIPWE, *op. cit.*, 2011, p.36

- Lieutenant-Governor Sorell;
- As a group, the convict workforce responsible for the construction of the bridge;
- Lieutenant-Governor Arthur;
- Major Thomas Bell;
- David Lambe;
- William Wilson;
- John Lee Archer;<sup>195</sup>

*For their important role during the twentieth century:*

- John Eldershaw;
- Jim Gatty; and
- Warden Grice.

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<sup>195</sup> Nigel Lewis *et. al., op. cit.*, p.99

Level of Significance	Statement
<b>National</b>	Formal assessment of the Richmond Bridge by the Australian Heritage Council found that it did not meet the threshold for inclusion in the National Heritage List in respect of its special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history.
<b>State</b>	<p>Richmond Bridge is associated with a range of individuals and groups whose lives and work was important in Tasmania's history. The bridge was recommended by Commissioner Bigge as part of his investigation into the state of colonial agriculture. Bigge's work was important to the development of Van Diemen's Land, including the recommendation that the island be granted separation from New South Wales. The bridge was constructed at the direction of Lieutenant-Governor Sorell who, during his office, encouraged the restoration of law and order, the encouragement of British settlement, and the development of agriculture and pastoralism.</p> <p>The works on the bridge were overseen by Major Thomas Bell, Acting Engineer and Inspector of Public Works, who was responsible for many public buildings and roads in Hobart and the Southern Midlands, including the Wellington Bridge, Hobart, the sandstone causeway to Hunter Island, and a new brick bridge across the Hobart Rivulet in Argyle Street.</p> <p>Soon after its completion, the Richmond Bridge required major stabilisation which was carried out by John Lee Archer, Civil Engineer and Architect, in 1829. Archer is widely acknowledged as one of Tasmania's most important architects of the 19<sup>th</sup> century. For a period he was responsible for the design of all government buildings, including those for penal and military purposes. Buildings designed by Archer include Parliament House (former Customs House), the Public Offices, the Ordnance Stores and numerous churches. His engineering achievements include the Ross Bridge, plans for improvements to Sullivans Cove and the design for the Bridgewater Causeway.</p>
<b>Local</b>	<p>The oral history conducted as part of the <i>Richmond Cultural Resource Management Plan</i> highlighted the many community figures associated with the development of Richmond who made valuable contributions to their community.</p> <p>Individuals of particular note include David Lord. The land on which Richmond was established was part of property owned by David Lord. His acquisition, and later exchange of this land is acknowledged as highly irregular and demonstrates the misuse of land grants. Lord was a major landholder in early Tasmania and was said in 1827 to be the richest man in the colony. He was one of the founding subscribers of the Van Diemen's Land Bank in 1823 and took an active interest in Church affairs.</p> <p>In the 1920s, artist John Eldershaw acquired the Mill House adjacent to the bridge which he converted to a residence. Eldershaw appears to have played an important role in the centenary celebrations for the bridge in 1923. He also developed extensive landscaping of the setting of the bridge on the eastern riverbank.</p> <p>The setting of the bridge also has a special association with the work of the former Richmond Council which acquired land on the riverbanks for public purposes so as to create important recreational spaces for locals and visitors alike. At the southern end of the river, the Council constructed the Gatty Dam, creating a swimming pool and named in honour of long serving Council Clerk, Jim Gatty. The connecting footbridge was named in honour of the Warden of the day, Mr Grice.</p>

**Table 9: Statements of Associative Significance**

#### 4.3.8 Assessment of Aesthetic Significance

The *HCH Act 1995* provides that a place may be entered in the Tasmanian Heritage Register where it is important in exhibiting particular aesthetic characteristics.

The Heritage Council's Assessment Guidelines are yet to be amended to include information on the assessment of aesthetic significance, but provide some discussion of the topic. Typical parameters include:

- The place being of landmark quality.
- The place having, or contributing to, its significance setting or important vistas; and
- Buildings that sit well within their landscape due to the use of local materials, form, scale or massing.

These factors can all be considered as having relevance to the Richmond Bridge.

The Richmond Bridge has been included in the National Heritage List against criterion (e.) aesthetic characteristics. This recognises the widely appreciated aesthetic values of the bridge; the tourism status of the bridge; and being a source of inspiration for artists.

The *Illustrated Burra Charter* defines aesthetic significance as including aspects of sensory perception (sight, touch, sound, taste and smell) for which criteria can and should be stated. These criteria may include consideration of the form, scale, colour, texture, and materials of the fabric; and the smells and sounds associated with the place and its use.<sup>196</sup>

Aesthetic significance is considered to be inclusive of views and vistas, and the form and layout and groupings of relations between different elements. Aesthetic significance may also be evident in design qualities of some landscapes, or for scenic beauty.

The cultural landscape and visual assessment has been crucial for understanding the aesthetic significance of the Richmond Bridge and its setting. Through this process, the various factors of the aesthetic significance of the place have been identified. This includes:

- The built form of the bridge;
- The position of the bridge within the landscape;
- The views of the bridge;
- The views available from the bridge;
- The vegetated landscape;
- The visual qualities of the Coal River;
- The relationship between the bridge, Coal River and the broader townscape and valley landscape; and
- The visual beauty of the bridge and landscape as depicted by artists and writers.

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<sup>196</sup> Marquis-Kyle, Walker, *op. cit.*, p.80

Level of Significance	Statement
<b>National</b>	The aesthetic significance of Richmond Bridge is appreciated locally, within Tasmania and nationally. Its picturesque image has been used widely in national and international tourism promotions since the 1920s and has inspired the work of major Australian artists.
<b>State</b>	Picturesque images of the bridge and its riverbank setting have been used widely in state, national and international tourism promotions since the 1920s, and the scene has inspired the work of major Australian artists. Second to Port Arthur, the bridge is believed to be the most photographed and publicised historic structure in Tasmania. Views of St John's Church through the arches of the bridge are iconic heritage images, and the relationship between the bridge, river and the broader townscape demonstrate an historic landscape of a nineteenth century rural village. The aesthetic value of Richmond Bridge is appreciated by locals and visitors alike, and is an integral part of cultural tourism promotion in Tasmania.
<b>Local</b>	<p>The Richmond Bridge, and its location within its river setting have important visual relationships with the surrounding town and broader Coal River Valley landscape. Located at a low point in the valley, the escarpment rises on both sides. To the east are St John's Church and cemetery and the St Luke's cemetery, providing historical vistas and focal points with the church spire and the mature native Blue Gums. The town centre is located on a rise on the west bank. The concentration of historic buildings from a similar period of construction, utilising local sandstone and simple, vernacular Georgian forms provide great architectural unity, creating an aesthetic character strongly reminiscent of Richmond's nineteenth century rural origins. The combination of built forms and the landscape has long been perceived as evocative of an English country town.</p> <p>Located at an elevation, broad views are available from the town of the Coal River surrounding rural countryside. The surrounding river valley is a rich cultural landscape, subject to very early European settlement and agricultural development. Flanking the valley are low, lightly covered hills.</p>

**Table 10: Statements of Aesthetic Significance**

#### 4.4 Statement of Heritage Significance

The Richmond Bridge and its setting is a place of exceptional heritage significance at National, State and Local levels. The Richmond Bridge is Tasmania's, and Australia's oldest surviving large bridge which retains a high degree of integrity and continues to serve its original function. At its completion in 1825, the bridge had the record of having the longest span of Australia's bridges, a record held until 1836.

The bridge is a significant representative example of public works erected by convict labour under the direction of the Royal Engineers. The bridge is significant in demonstrating the pivotal role played by convict labour in the early development of the colony. The continued operation of the bridge since 1825 for its original purpose also demonstrates the skills and technical achievement of bridge design and construction.

The bridge is important in demonstrating the early development of Tasmania and the provision of transport infrastructure in response to the growing population and emerging agricultural industry by providing access to the east coast and later Tasman Peninsula.

The combination of increasing population, development of agriculture and construction of the bridge resulted in travellers converging on the Richmond Bridge as a crossing point of the Coal River. In turn, this encouraged the establishment of the Richmond township as a significant rural service and supply centre. At first, town development focussed on civic and penal infrastructure, followed by residential growth.

The lack of subsequent development has resulted in Richmond being a rare surviving example of an early Australian colonial town. The town retains great unity in the high number of historic places, common construction period, and consistent use of building materials in the local sandstone, creating an aesthetic character strongly reminiscent of Richmond's nineteenth century rural origins.

The combination of the historical significance and high level of integrity provide the bridge and its setting with research potential. The bridge can contribute new, important information into very early bridge design and construction methods in Tasmania. The continued survival and operations of the bridge provides an opportunity to understand structural stability, and hydraulic and structural stresses. Potential evidence of the early fords and flour milling activities on the riverbanks also has archaeological significance requiring clarification. It is noted that further archaeological assessment of the place is required.

The Richmond Bridge and its setting has strong and special meaning to the community. The bridge and its setting are appreciated by both visitors and locals alike. From the social values assessment, the local community identified the bridge as the most important structure in their historic town, providing a sense of identity and distinction from other rural communities. The Richmond community also has a long and involved interest in the conservation of their heritage, including the central role of the bridge.

Numerous notable individuals and groups are associated with the Richmond Bridge. This includes Commissioner Bigge who recommended the construction of the bridge; David Lord on whose land the bridge and town were established; Lieutenant-Governor Sorell who encouraged the British settlement of the colony and authorised the construction of the bridge; William Wilson, Superintendent of Stonemasons who was likely to have designed the bridge; Major Thomas Bell, of the Royal Engineers who oversaw construction of the bridge; the convict workforce that built the bridge; David Lambe who supervised the completion of the bridge; Civil Engineer and Architect, John Lee Archer who undertook major stabilisation works; the important artist John Eldershaw who is likely to have played a role in the centenary celebrations and popularisation of the bridge; the former Richmond Council in acquiring riverbank land for recreational purposes; and Jim Gatty and Warden Grice who are commemorated in the naming of the dam across the river.

The Richmond Bridge is an iconic place. The bridge and its setting are an important place for their aesthetic significance. The aesthetic values of the bridge are appreciated locally, within Tasmania and nationally. Its picturesque image has been used widely in national and international tourism promotions since the 1920s and has inspired the work of major Australian artists, struck by both the beauty and historical qualities of the scene.

The bridge has an obvious sense of age in its design, construction and form. The bridge is a prominent visual landmark within a rich cultural landscape of natural topography, built elements and vegetation. In combination, these elements form a landscape of great scenic beauty.



## Management System for the Richmond Bridge

## 5.0 MANAGEMENT SYSTEM FOR THE RICHMOND BRIDGE

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### 5.1 Introduction

The Richmond Bridge and its setting fall under a complex management regime at all levels of government. This management regime includes responsibility for the bridge proper, the Coal River, the riverbanks and the town. As recognised in the National Heritage Management Principles, the management of National Heritage places should seek to integrate, where appropriate, any Commonwealth, State, and Local Government responsibilities for those places. Considerable advances have been made since 2010 in simplifying management, following Clarence City Council acquiring all land previously owned by the Archdiocese of Hobart and the Crown. Nonetheless, complexities of management for the bridge and setting do exist and opportunities to coordinate responses should be explored. The following section summarises the various responsibilities of each level of government.

### 5.2 Australian Government

Since 2003, the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999 & 2003 (Heritage) Amendments* has provided protective powers in relation to historic heritage that is regarded as having national level significance. The legislation provides for:

- A National Heritage List (a list of places of national heritage significance);
- A Commonwealth Heritage List (for significant heritage places that are Commonwealth owned or managed or are on Commonwealth land); and
- The creation of an independent expert body, the Australian Heritage Council, to advise the Minister on the listing and protection of heritage places.

This legislation replaces and repeals the *Australian Heritage Commission Act 1975* which provided protection for places of National Estate significance, but only in relation to Commonwealth activities or activities which occur through an agreement with the Commonwealth. The Register of the National Estate has been retained as an information source but no longer has any statutory meaning at a Commonwealth level.

#### 5.2.1 The National Heritage List

The Richmond Bridge was entered in the National Heritage List on 14 November 2005. The National Heritage List is Australia's list of places with outstanding heritage value to the nation, and inclusive of natural, Indigenous or historic values. Places may be entered in this list where they are of outstanding heritage value to the nation and meet one or more of the nine criteria for entry. The National Heritage List criteria are:

- (a) The place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history;
- (b) The place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history;
- (c) The place has outstanding heritage value to the nation because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history;
- (d) The place has outstanding heritage value to the nation because of the place's importance in demonstrating the principal characteristics of:
  - (i) a class of Australia's natural or cultural places; or
  - (ii) a class of Australia's natural or cultural environments;
- (e) The place has outstanding heritage value to the nation because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) The place has outstanding heritage value to the nation because of the place's importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) The place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;

- (h) The place has outstanding heritage value to the nation because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history; and
- (i) The place has outstanding heritage value to the nation because of the place's importance as part of Indigenous tradition.

The Richmond Bridge has been assessed as meeting two of the nine criteria, which are:

- (b) The place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history; and
- (e) The place has outstanding heritage value to the nation because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;

Places that are entered in the National Heritage List are subject to the *EPBC Act 1999*. Actions affecting places entered in the National Heritage List are considered to be matters of National Environmental Significance.

### 5.2.2 Management Requirements and the National Heritage Management Principles

The *EPBC Act 1999* creates provisions to ensure that the values of the listed place will be protected and conserved. The guiding framework for how these places will be managed is contained in the National Heritage Management Principles. The seven Principles are:

1. The objective in managing National Heritage places is to identify, protect, conserve, present and transmit, to all generations, their National Heritage values.
2. The management of National Heritage places should use the best available knowledge, skills and standards for those places, and include ongoing technical and community input to decisions and actions that may have a significant impact on their National Heritage values.
3. The management of National Heritage places should respect all heritage values and seek to integrate, where appropriate, Commonwealth, State, Territory and local government responsibilities for those places.
4. The management of National Heritage places should ensure that their use and presentation is consistent with the conservation of their National Heritage values.
5. The management of National Heritage places should make timely and appropriate provision for community involvement, especially by people who:
  - (a) Have a particular interest in, or associations with, the place, and
  - (b) May be affected by the management of the place.
6. Indigenous people are the primary source of information on the value of their heritage. The active participation of Indigenous people in identification, assessment and management is integral to the effective protection of Indigenous heritage values.
7. The management of National Heritage places should provide for regular monitoring, review and reporting on the conservation of National Heritage values.

These Principles should be used when preparing, implementing and reviewing management plans.

The *EPBC Act 1999* applies to the actions undertaken by: a constitutional corporation; the Commonwealth or a Commonwealth agency; or a person for the purposes of trade or commerce between Australia and another country, between States, between Territories, or between a State and a Territory.<sup>197</sup> Given these limitations, the primary means of protecting the bridge and setting is the *Historic Cultural Heritage Act 1995* (Tas).

An 'action' includes a project, a development, an undertaking, an activity, or series of activities, or an alteration to any of these things. This includes activities occurring both within a listed place, and those activities occurring outside the listed place that will have, or are likely to have a significant impact on the national heritage values of the place.

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<sup>197</sup> Australian Government, Department of the Environment, *Matters of National Environmental Significance. Significant impact guidelines 1.1. Environment Protection and Biodiversity Conservation Act 1999*, p.19

### 5.2.3 Determining if Approval is Required

Where an action will, or is likely to have a significant impact on a matter of national environmental significance, the approval of the Commonwealth Minister is required to undertake that action. The process for determining whether a proposed action requires formal assessment and approval under the *EPBC Act 1999* is called a 'referral'.

In making a decision, the Minister will classify the action into one of the following three categories:

- **Controlled Action:** Where the Minister decides that the action is likely to have a significant impact on a matter of national environmental significance, the action will require approval under Part 3 the *EPBC Act 1999*, or
- **Not Controlled Action 'Particular Manner':** Where the Minister decides that the action is not likely to have a significant impact on a matter of national environmental significance and does not require approval under the *EPBC Act 1999*, because the action will be undertaken in a particular manner.
- **Actions that are not Controlled:** Where the Minister decides that the action is not likely to have a significant impact on a matter of national environmental significance, the action will not require approval under the *EPBC Act 1999*.<sup>198</sup>

### 5.2.4 Significant Impact Criteria for National Heritage Places

The Australian Government Department of the Environment have prepared a policy document providing practical guidance on whether an action is likely to have an impact on a matter of national environmental significance. Ministerial approval will be required if there is a real chance or possibility that the action will cause:

- One or more of the National Heritage values to be lost;
- One or more of the National Heritage values to be degraded or damaged; or
- One or more of the National Heritage values to be notably altered, modified, obscured or diminished.<sup>199</sup>

For places with historic cultural heritage values, like the Richmond Bridge, an action is likely to have a significant impact if it will:

- Permanently remove, destroy, damage or substantially alter the fabric<sup>200</sup> of a National Heritage place in a manner which is inconsistent with relevant values;
- Extend, renovate, refurbish or substantially alter a National Heritage place in a manner which is inconsistent with relevant values;
- Permanently remove, destroy, damage or substantially disturb archaeological deposits or artefacts in a National Heritage place;
- Involve activities in a National Heritage place with substantial and/or long-term impacts on its values;
- Involve the construction of buildings or other structures within, adjacent to, or within important sight lines of, a National Heritage place which are inconsistent with relevant values; and
- Make notable changes to the layout, spaces, form or species composition of a garden, landscape or setting of a National Heritage place in a manner which is inconsistent with relevant values.

Actions that may have a significant impact on other cultural heritage values can:

- Restrict or inhibit the continuing use of a National Heritage place as a cultural or ceremonial site causing its values to notably diminish over time;
- Permanently diminish the cultural value of a National Heritage place for a community or group to which its National Heritage values relate;

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<sup>198</sup> *Ibid*, pp.27-28

<sup>199</sup> *Ibid*, p.19

<sup>200</sup> 'Fabric' means physical material including structural elements or other components, fixtures, fittings, contents and items with historic value.

- Destroy or damage cultural or ceremonial, artefacts, features, or objects in a National Heritage place;
- Notably diminish the value of a National Heritage place in demonstrating creative or technical achievement.

As shown above, there is a broad range of actions which may have a significant impact on the values of the place. Significant impacts may include actions on a part, element, or feature of a National Heritage place which embodies, manifests, shows, or contributes to the values of that place.

Guidance is also provided on identifying those actions which would not be expected to have a significant impact on a matter of national environmental significance. With regards to the Richmond Bridge, this has primary relevance to urban development and local government considerations. The following matters can be considered in this category:

#### ***Relevant Urban Development Considerations***

- Repairing, maintaining, or making alterations to commercial and domestic buildings and properties would not be expected to have a significant impact on a matter of national environmental significance, unless the repairs, maintenance or alterations are being made to a National Heritage place and are inconsistent with the values of the property or place.
- Repairing and maintaining existing distribution infrastructure for utilities for power, water and sewage would not normally be expected to have a significant impact on a matter of national environmental significance, unless there is a substantial expansion or modification of these utilities.
- Establishing a new subdivision within or adjacent to a National Heritage place is likely to have a significant impact on the National heritage values of that property or place.
- Building a house in close proximity to a National Heritage place may have a significant impact on the values of the place, in particular where the place is located in a non-urban environment or where the proposed development would obstruct or detract from the viewing axes of the heritage place, where applicable.

#### ***Relevant Local Government Activities***

- Maintaining existing facilities such as visitor centres and roadside facilities would not be expected to have a significant impact on a matter of national environmental significance.
- Routine vegetation management to maintain existing roads in or adjacent to a National Heritage place would not normally be expected to have a significant impact on a matter of national environmental significance.<sup>201</sup>

### **5.2.5 Approvals Process**

Actions that are likely to have a significant impact on a matter of national environmental significance require approval under the *EPBC Act 1999*. A proposed action can be assessed by either the Australian Government or an accredited State or territory process.

The Minister is required to determine the application following the completion of the assessment. Decisions can be either to approve or not approve an application, or approval with conditions. Decisions are required to be made within 30 business days.<sup>202</sup>

### **5.2.6 Actions that may have a significant impact on the Richmond Bridge and Setting**

The Tasmanian Government and Clarence City Council are responsible for the ownership and management of the Richmond Bridge and setting.

As discussed, the *EPBC Act 1999* applies to the actions undertaken by: a constitutional corporation; the Commonwealth or a Commonwealth agency; or a person for the purposes of trade or commerce between Australia and another country, between States, between Territories, or between a State and a Territory.

Because of these limitations, it will depend on who is proposing an action to determine whether approval under the *EPBC Act 1999* is required. Differences will exist if the action is proposed by the Tasmanian

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<sup>201</sup> *Ibid*, pp.32-33

<sup>202</sup> *Ibid*, pp.28-29

Government, the Clarence City Council, or a third party acting on behalf of the State or Local Government. In light of these complexities, it is important that the State and/or Local Government discuss with the Department of the Environment any action that may impact the National Heritage values before that action is undertaken. The proponent has the onus of referring a proposal to the Department of the Environment.

In assessing a proposed action, consideration will be given to whether it will have, or is likely to have a significant impact on the national heritage values of the Richmond Bridge. The National Heritage Values for the Richmond Bridge are:

**Criterion (b) Rarity:** Richmond Bridge, built by convict labour in 1823 to 1825, is the oldest, surviving, large, stone arch bridge in Australia with a high degree of integrity.

**Criterion (e) Aesthetic characteristics:** The aesthetic significance of Richmond Bridge is appreciated locally, within Tasmania and nationally. Its picturesque image has been used widely in national and international tourism promotions since the 1920s and has inspired the work of major Australian artists.

These values are wide in their description, referring to:

- The historical value of being the oldest bridge;
- Being constructed by convict labour;
- Having a high degree of integrity;
- Aesthetic values that are widely appreciated;
- Being an iconic tourism place; and
- Being a source of inspiration for artists.

Given the breadth of these values, there are a variety of actions that may potentially have an impact on the Richmond Bridge and its setting. The Conservation Policies recommended in this Plan do not anticipate a substantial amount of works or development occurring at the place. Rather, they largely refer to ongoing maintenance requirements to ensure the retention of the values. Planned actions that may require approval under the *EPBC Act 1999* include:

- Works which would substantially alter the form, appearance, materials or capacity of the bridge. For example, large scale stone replacement; altering the colour of the road surface; the traffic management measures for the bridge approaches;
- Works which would impact on the appreciation of the bridge and setting. For example, the removal of significant trees; the installation of structures interrupting significant views; and modifications to the bridge inconsistent with its current form, appearance, materials; and
- Works which would restrict public appreciation of the bridge by visitors and artists. For example, restricting public access to the bridge and publicly accessible vantage points.

## 5.3 Tasmanian Government

Responsibility for the management of the Richmond Bridge and its setting comes under various State laws and authorities. Each has different roles and responsibilities. The following sections describe these roles.

### 5.3.1 Department of State Growth

The Transport Infrastructure Branch of the Department of State Growth has responsibility for the management of the existing road and bridge assets and planning for the future development of the Tasmanian Classified State Road Network. The Department is responsible for the ongoing management of the Richmond Bridge and commissioned the 1997 Conservation Plan with the assistance of funds made available under the National Estate Grant Program. The Department commissioned the 2010 and this current Conservation Management Plan with financial assistance from the Australian Government Department of the Environment.

### 5.3.2 Historic Cultural Heritage Act 1995

The *Historic Cultural Heritage Act 1995 (HCH Act 1995)* is the primary legislative means for the identification, assessment, protection and conservation of Tasmania's historic heritage. The *HCH Act 1995* establishes the Tasmanian Heritage Council, the Tasmanian Heritage Register (THR) for places of State significance and the

processes for considering works to heritage registered places. The Richmond Bridge is permanently entered in the THR and therefore the *HCH Act 1995* applies to the management of this place.

All types of places can be considered, including places, structures, shipwrecks (i.e., any maritime relic) and items physically or historically related to heritage places and shipwrecks. Places may be entered in the Tasmanian Heritage Register where they are of historic cultural heritage significance and meet one or more of the eight criteria for registration. The criteria recognise historical significance, rarity, research potential, important examples of certain types of places, creative and technical achievement, social significance, associations with important groups or people, and aesthetic importance. The Richmond Bridge and its setting have been included in the THR as meeting all eight criteria.

One of the roles of the Tasmanian Heritage Council is to work within the planning system to achieve the proper protection of Tasmania's historic cultural heritage. Works to places included in the THR require approval, either through a Certificate of Exemption for works which will have no or negligible impact, or through a discretionary permit for those works which may impact on the significance of the place.

The definition of 'works' includes:

- (a) any development; and
- (b) any physical intervention, excavation or action which may result in a change to the nature or appearance of the fabric of a place; and
- (c) any change to the natural or existing condition or topography of land; and
- (e) any removal of vegetation or topsoil.

In turn, 'development' is defined as:

- (a) the construction, exterior alteration or exterior decoration of a building; and
- (b) the demolition or removal of a building; and
- (c) the subdivision or consolidation of land, including buildings or airspace; and
- (d) the placing or relocating of a building; and
- (e) the construction, or putting up for display, of signs or hoardings.

Under Section 4A, the following must be taken into account in exercising any powers or carrying out any function in relation to the *HCH Act 1995*:

- The retention of the historic cultural heritage of the place;
- Any relevant provisions of the *Building Act 2000* (now the *Building Act 2016*).

Functions or powers exercised under the Act must be consistent with the objectives of the resource management and planning system and the planning process (in Schedule 1 of the *Land Use Planning Approvals Act 1993*).

### ***Works Process and Guidelines***

Discretionary permit applications are lodged with the relevant local planning authority. On receipt, the application is sent to the Heritage Council, which will firstly decide whether they have an interest in determining the application. If the Heritage Council has no interest in the matter, the local planning authority will determine the application.

If the Heritage Council has an interest in determining the application, a number of matters may be relevant to its decision. This includes the likely impact of the works on the significance of the place; any representations; and any regulations and works guidelines issued under the *HCHA 1995*. The Heritage Council may also consult with the planning authority when making a decision.

In making a decision, the Heritage Council will exercise one of three options: consent to the discretionary permit being granted; consent to the discretionary permit being granted subject to certain conditions; or advise the planning authority that the discretionary permit should be refused.

The Heritage Council's decision is then forwarded to the planning authority, which will incorporate the decision into any planning permit.

The Tasmanian Heritage Council and Heritage Tasmania, DPIPWE, have issued *Works Guidelines for Historic Heritage Places* which must be applied when considering an application for an exemption or a discretionary permit. The guidelines provide a general reference for the types of works which may be exempt, or those where a permit will be required. They also define appropriate outcomes for a range of different works and development scenarios. The following categories are of most relevance to the Richmond Bridge, surrounding riverbanks and various uses:

- Maintenance and repair of built elements;
- Restoration and reconstruction;
- Interpretation;
- Excavation and archaeological investigation;
- Access to heritage places;
- New services;
- Historic plantings and landscapes; and
- Signage.

### 5.3.3 Aboriginal Heritage Act 1975

The *Aboriginal Heritage Act 1975 (AH Act 1975)* is the key Tasmanian legislation providing for the conservation of Aboriginal heritage. The *AH Act 1975* applies to 'relics' which are defined as:

- 2 (3)(a) any artefact, painting, carving, engraving, arrangement of stones, midden, or other object, made or created by any of the original inhabitants of Australia or the descendants of any such inhabitants, which is of significance to the Aboriginal People of Tasmania; or
- (b) any object, site, or place that bears signs of the activities of any such original inhabitants or their descendants, which is of significance to the Aboriginal People of Tasmania; or
- (c) the remains of the body of such an original inhabitant or of a descendant of such an inhabitant that are not interred in –
  - (i) any land that is or has been held, set aside, reserved, or used for the purposes of a burial-ground or cemetery pursuant to any Act, deed, or other instrument; or
  - (ii) a marked grave in any other land
- 2 (4) Despite subsection (3)(a) or (b), objects made, or likely to have been made, for the purposes of sale (otherwise than by way of barter or exchange in accordance with Aboriginal tradition) are not relics for the purposes of this Act.<sup>203</sup>

All relics are protected under the provisions of the Act, including those found during works. Permits are required for a range of activities, including to:

- (a) destroy, damage, deface, conceal, or otherwise interfere with a relic;
- (b) make a copy or replica of a carving or engraving that is a relic by rubbing, tracing, casting, or other means that involve direct contact with the carving or engraving;
- (c) remove a relic from the place where it is found or abandoned;
- (d) sell or offer or expose for sale, exchange, or otherwise dispose of a relic or any other object that so nearly resembles a relic as to be likely to deceive or be capable of being mistaken for a relic;
- (e) take a relic, or cause or permit a relic to be taken, out of this State; or
- (f) cause an excavation to be made or any other work to be carried out on Crown land for the purpose of searching for a relic.<sup>204</sup>

The 2010 CMP recommended that an Aboriginal heritage assessment be carried out.<sup>205</sup> For the current project, preliminary consultation has taken place with Aboriginal Heritage Tasmania (AHT), DPIPWE, to

<sup>203</sup> *Aboriginal Heritage Act 1975*, s2(3)

<sup>204</sup> *Ibid*, s14

<sup>205</sup> Richmond Bridge CMP 2010, policy 7.11.4, p.234

determine if the place contains any previously recorded Aboriginal heritage sites, or if there is any potential for heritage sites to exist at the place. AHT has advised that there are no Aboriginal heritage sites recorded within the immediate area. A review of previous reports suggests that the area has a low probability of Aboriginal heritage being present. On this basis, there were no requirements for an Aboriginal heritage investigation.<sup>206</sup>

AHT also advised that the provisions of the Act will apply should Aboriginal heritage be discovered or suspected during works. An Unanticipated Discovery Plan should be implemented should Aboriginal Heritage be discovered or suspected during ground disturbance works.<sup>207</sup> This Unanticipated Discovery Plan is included in Appendix 4.

Whilst AHT have no requirement for a separate Aboriginal heritage assessment, this CMP considers that such an assessment would assist in understanding if Aboriginal heritage items or values exist at the place and how they should be appropriately managed. Such an assessment is also consistent with the National Heritage Management Principles and that:

3. The management of National Heritage places should respect all heritage values and seek to integrate, where appropriate, any Commonwealth, state, territory and local government responsibilities for those places.
6. Indigenous people are the primary source of information on the value of their heritage and the active participation of Indigenous people in identification, assessment and management is integral to the effective protection of Indigenous heritage values.

#### 5.3.4 Water Resources Management - the Coal River

After the bridge, the Coal River is the key defining element of the place. It makes a substantial contribution to the aesthetic values of the place and visitor amenity. Its management and use comes under the *Water Management Act 1999*, which sets out the framework for freshwater management in Tasmania, and the need to:

- Promote sustainable use and facilitate economic development of water resources;
- Recognise and foster the significant social and economic benefits resulting from the sustainable use and development of water resources for the generation of hydro-electricity and for the supply of water for human consumption and commercial activities dependent on water;
- Maintain ecological processes and genetic diversity for aquatic and riparian ecosystems;
- Provide for the fair, orderly and efficient allocation of water resources to meet the community's needs;
- Increase the community's understanding of aquatic ecosystems and the need to use and manage water in a sustainable and cost-efficient manner; and
- Encourage community involvement in water resources management.

Responsibility for management, regulation and use of freshwater resources occurs through various bodies. This includes management of aquatic and riparian ecosystems, water pollution and public health, and the provision of water for drinking and irrigation.

The key use of water within the Coal River is for irrigation purposes. Irrigation uses are managed under the *Water Management Act 1999* and the *Irrigation Clauses Act 1973*, which consolidates various provisions related to irrigation schemes into the one Act. The river forms part of the Pittwater - Coal Catchment and the South East Irrigation Schemes (SEIS). The water resource is managed by Tasmanian Irrigation, a State owned company that owns and operates irrigation schemes.

The SEIS Stage 2 commenced operation in May 1991. The scheme supplies 1,975 ML of water under pressure through a network of buried pipelines to the South East Water District Stage 2 which extends across the Richmond and Cambridge areas.

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<sup>206</sup> Email, Adam Marshall (Aboriginal Heritage Tasmania) to James Puustinen (Austral Tasmania), 10 December 2015: AHTP2649 - 2010 Richmond Bridge - Conservation Management Plan Review

<sup>207</sup> *Ibid*

The scheme was initially supplied from the Richmond Weir at the Gatty Dam using water released from Craigbourne Dam. The Daisy Banks Dam was completed in August 2000 and from the 2000-2001 irrigation season the scheme has been supplied by the bulk water authority (now TasWater).<sup>208</sup>

### ***The Coal River Catchment Management Plan***

In 1998 a cooperative approach to the management of the Coal River catchment was developed. The Coal River Catchment Committee was established, including a broad range of interests to develop a common vision of the area. Representatives of tourism, agriculture, Landcare Australia, the Richmond Chamber of Commerce, forestry, aquaculture, commuters and hobby farmers were included on the Committee.<sup>209</sup>

The preferred approach of the Committee was education, cooperation, coordination and demonstration as opposed to legislative mechanisms. The Committee developed a common vision for the catchment. As a management document, the Plan made recommendations relevant to the bridge and setting, including:

- The retention, protection and enhancement of native vegetation: Native vegetation across a range of diverse environments is seen as an integral part of the ecosystem of the Valley, protecting the soil, water quality and bio-diversity.
- Weeds: A catchment free of the serious impacts of agricultural and environmental weeds.
- Reserve and Habitat management: The retention of native vegetation and revegetation with native species on private land and the dedication by some landholders for the support of native flora and fauna in combination with public reserves will provide an extensive network of natural areas to sustain the range of ecosystems characteristic of the catchment.
- Water: The reliable supply of good quality water available in the catchment is maintained or increased.
- Aboriginal heritage: The Aboriginal heritage values of the Valley are respected and protected.
- Development/Planning: The development of sustainable agricultural and related activities and maximising of the potential economic benefits of the South East Irrigation Scheme (now Tasmanian Irrigation) while maintaining the rural character of the area with 'village' type residential areas. Any subdivision and development should not detract from the natural and cultural heritage values of the area and not result in pollution of land, air, surface water or ground water.

The *Catchment Management Plan* was officially launched in 1998, and an implementation Committee formed. It is a non-statutory plan but is used by Clarence City Council as a reference document. Activities carried out under the plan included the management of weeds including horehound and African Boxthorn, and assisting in the development of a river care plan which led to on-ground works including the removal of willows, fencing off riparian zones and revegetation projects; salinity monitoring and management and tree planting.<sup>210</sup>

The vision developed by the *Coal River Catchment Management Plan* encourages river and riparian health and is of benefit to the conservation of the heritage values of the bridge and setting. It should be noted that with regards to the riverbanks of the Coal River near the bridge, some introduced plant species form an important part of the cultural values of the place and should be retained.

### **5.3.5 Land Use Planning and Approval Act 1993**

At the local government level, the *Land Use Planning Approval Act 1993* (the *LUPA Act 1993*) applies generally, but its main function in relation to historic heritage is to allow for the establishment of the Tasmanian Planning Scheme, consisting of State Planning Provisions and Local Provisions Schedules.

The general objectives for resource management in the *LUPA Act 1993* are set out in Schedule 1 of the Act. Specific provision for cultural heritage is contained in Part 2 of Schedule 1:

The objectives of the planning process established by this Act are .... (g) to conserve those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value.

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<sup>208</sup> <http://www.tasmanianirrigation.com.au/index.php/about/the-team/>

<sup>209</sup> Clarence City Council, *Coal River Catchment: Planning and Implementation*. Rosny Park: Clarence City Council, 2005, p.5

<sup>210</sup> *Ibid*, pp.13-14

## 5.4 Local Government - Planning Reforms and the Clarence Interim Planning Scheme 2015

It should be noted that the Tasmanian Government has commenced a process of local planning reform, but these reforms are yet to come into effect. The Tasmanian Planning Scheme and State Planning Provisions have been approved, but implementation at a local level will require the creation of Local Provision Schedules in each municipality. Heritage Codes in Local Provision Schedules will include tables listing Local Heritage Places, Local Heritage Precincts, Local Historic Landscape Precincts, Places of Archaeological Potential and Significant Trees. Places that are already included as Local Heritage Places will be brought across to the new Local Provisions Schedules. However, where that place is also included on the Tasmanian Heritage Register (as with the Richmond Bridge), the Heritage Place provisions of the Heritage Code will not apply, except for mutually exclusive parts of the same lot or lots.<sup>211</sup>

This approach removes the need for dual approvals from both the Tasmanian Heritage Council and the Planning Authority. Local participation in heritage management should be encouraged, and Clarence City Council should consider other mechanisms under the Tasmanian Planning Scheme such as Local Heritage Precincts or Local Historic Landscape Precincts which would provide for this. The Richmond Bridge and setting is likely to be most valued by the people of Richmond, and opportunities for local involvement in management is desirable. The review of other mechanisms under the Local Provisions Schedules such as precincts or landscape precincts should be considered by Clarence City Council.

### 5.4.1 Clarence Interim Planning Scheme 2015

The Tasmanian Planning Scheme - Local Provisions Schedules are yet to come into effect within Clarence, and as such, the Clarence Interim Planning Scheme 2015 remains in operation and has a significant bearing on the management of the Richmond Bridge, setting, and the town. Clarence City Council maintains the local roads in Richmond, is the land owner and manager for the public riverbank areas and is the planning authority for development occurring at the place.

Development approval occurs through the Clarence Interim Planning Scheme 2015 (CIPS 2015) which sets out the requirements for use or development of land. It is likely that the Scheme will remain at an 'interim' stage until the single statewide planning scheme is finalised. The following therefore summarises the planning provisions as they currently exist.

The planning scheme area is divided into zones which set out the primary controls for the use or development of land. With regard to the Richmond Bridge, the two key zones are:

- Open Space; and
- Environmental Management.

In addition to zone provisions, the Scheme sets out codes which identify specific areas of land or planning issues which require additional matters to be complied with by new uses and developments. With regard to the Richmond Bridge and setting, the three codes are the:

- Waterway and Coastal Protection Code;
- The Historic Heritage Code; and
- The Inundation Prone Areas Code.

The following sections summarises the applicable requirements of the zoning and codes, with particular reference to the bridge.

### 5.4.2 Open Space Zone

The Open Space Zone applies to the publicly accessible riverbanks owned and managed by Clarence City Council. The relevant Purpose of the zone is to provide land for open space, including passive recreation and natural or landscape amenity and to encourage networks linked through walking and cycling trails.<sup>212</sup>

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<sup>211</sup> Department of Justice, Tasmanian Government, Information Sheet - Amendments to SPP Local Historic Heritage Code, 23 August 2017; Tasmanian Planning Commission, Draft State Planning Provisions Report. A Report by the Tasmanian Planning Commission as required under section 25 of the *Land Use Planning and Approvals Act 1993*, p.32

<sup>212</sup> CIPS 2015, CI.19.1

Passive recreation, natural and cultural values management and minor utilities do not require a permit within this zone. All other uses require a permit, are discretionary or prohibited. A series of 'Use Standards' are set out in Clause 19.3. These relate to hours of operation, noise, external lighting, commercial vehicle movements and discretionary uses and the impact such uses may have on nearby residential zones.

Development standards are also established for 'building and works' within the Open Space Zone. These provisions in Clause 19.4 relate to building height, setback, landscaping and fencing. The specific objectives include making positive contributions to the streetscapes; avoiding unreasonable impacts on residential amenity; and enhancing the appearance or attractiveness of the area.

Clause 19.5 provides the standards for subdivision within the Open Space Zone. The objective of the standards is to have lots appropriate to accommodate development consistent with the Zone Purpose and any relevant Local Area Objectives or Desired Future Character Statements.

#### **5.4.3 Environmental Management Zone**

The Environmental Management Zone applies to the Coal River. Of the defined reasons for the zoning, the following Purpose Statements are most applicable to the Richmond Bridge and surrounds:

- To provide for the protection, conservation and management of areas with significant ecological, scientific, cultural or aesthetic value, or with a significant likelihood of risk from a natural hazard; and
- To only allow for complementary use or development where consistent with any strategies for protection and management.

No permits are required for natural and cultural values management and passive recreation within this zone. A range of different uses are permitted provided a reserve management plan applies, whilst most other uses are discretionary or prohibited. 'Use Standards' are set out in Clause 29.3, to ensure that proposed uses are consistent with any strategies for the protection and management of reserved land.

Development standards for buildings and works and subdivisions are provided in the following sections, but are unlikely to have relevance to the Coal River itself.

#### **5.4.4 Waterways and Coastal Protection Code**

The Waterways and Coastal Protection Code applies to the Coal River itself. Of the stated purposes of the Code, most relevant to the Coal River at Richmond are the objectives of managing vegetation and soil disturbances in the vicinity of watercourses to minimise impact on water quality, natural values, river condition and natural ecological function of watercourses; and, minimise impacts on water quality in potable water supply catchment areas.

A series of different developments are exempt from the Code. Of most relevance are those exemptions related to:

- Development not involving removing vegetation or soil disturbances or disturbances within a public garden or park;
- The removal of declared weeds;
- Works to rectify public or private safety or prevent environmental harm;
- Maintenance works within 2 metres of existing infrastructure;
- The erection or maintenance of boundary fences; and
- Piped sewerage and stormwater works.

Development standards are established for buildings and works, buildings and works dependent on a coastal location and subdivision. Within the context of the Coal River, the most likely development scenarios would involve structures located over or within the river itself, such as jetties, pontoons, viewing platforms and so on. The objective of the standard is to avoid unnecessary or unacceptable impacts on natural values. Where development does not meet the specified acceptable solutions, it must meet the performance criteria, which emphasise avoiding or mitigating impact on natural values with regard to erosion, vegetation, stream banks and beds, and animal habitat and movement.<sup>213</sup>

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<sup>213</sup> CIPS 2015, Cl.E11.0

### 5.4.5 Historic Heritage Code

The Historic Heritage Code applies to the Richmond Bridge and part of the riverbanks. The purpose of the Code is to recognise and protect the historic cultural heritage significance of places, precincts, landscapes and areas of archaeological potential by regulating development that may impact on their values, features and characteristics. It can apply to a Heritage Place, a Heritage Precinct, or both as is the case for the bridge and setting.

The 'Richmond Bridge and Surrounds' is included as a Heritage Place in Table E 13.1. This relates to the bridge structure proper. A broader area has also been defined as a Heritage Precinct for the town of Richmond. The precinct listing boundaries include the bridge itself, and the riverbanks to the north of the bridge.

The Code specifies certain exemptions for developments and separate management provisions for individual heritage places and precinct listings. These are summarised below.

#### *Exemptions*

The Scheme establishes a series of exemptions for development of heritage places and development within a precinct. With regard to development of a heritage place the following are exempt and of greater relevance to the bridge and setting:

- The temporary structural stabilisation as certified by a structural engineer; and
- Permanent stabilisation works considered by a suitably qualified person to meet the Purpose and Objectives of the Code.<sup>214</sup>

The following development within a heritage precinct *or* heritage place is exempt:

- Works incidental to the maintenance of a garden or grounds, except where they are specifically part of the General Description of the place or precinct;
- Minor attachments (e.g., services) to the side or rear of a building that are at least 1 metre from any boundary;
- Temporary fencing for occasional events, construction works or public safety;
- Planting, clearing or modification of vegetation (unless the vegetation is specifically part of the General Description) for the following reasons: within a garden or park unless the vegetation is protected by a permit condition or other mechanism; to allow for the maintenance, repair or protection of buildings or infrastructure; for soil conservation of rehabilitation works; to implement an approved vegetation management agreement; for safety reasons;
- The provision of utilities and certain infrastructure.

Certain development within a heritage precinct (but not an individually listed heritage place) may also be exempt. With regard to the Richmond Bridge and surrounds, the following are perhaps of most relevance in their potential to have adverse visual impacts on the place:

- Installing one satellite dish no more than 2 metres in diameter;
- Installing solar panels and photovoltaic cells on a roof.<sup>215</sup>

#### *Development Standards for Heritage Places*

Clause E13.7 sets out the standards for three types of development of a heritage place and the provisions are applicable to the Richmond Bridge. These are demolition, buildings and works other than demolition and subdivision. There are no acceptable solutions for these types of development and therefore they must be assessed against the relevant performance criteria.

The potential adverse impact from demolition (in whole or part) is recognised in the provisions, noting that it is not to occur unless there are exceptional circumstances. Such circumstances are set out in the performance criteria. They include there being greater environmental, social, economic or safety reasons that outweigh the heritage values; the lack of prudent and feasible alternatives; significant fabric can be retained and reused; and significant fabric is documented. The threshold for demolition is high, with all criteria required to be met.<sup>216</sup>

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<sup>214</sup> CIPS 2015, Cl.E13.4(c)(d)

<sup>215</sup> CIPS 2015, Cl.E13.4(c)(d)

<sup>216</sup> CIPS 2015, Cl.E13.7.1

A broader range of scenarios are set out for buildings and works other than demolition. The objective is that such works are not to result in the loss of heritage significance and that new work be designed to be subservient to the values of the place and responsive to its dominant characteristics. Again, no acceptable solutions exist for this type of development and the five performance criteria must be met. Most of the criteria relate to the modification or development of built places and would be of limited application to the bridge itself. However issues with regard to materials, colours, finishes and the loss of significant fabric would be relevant.<sup>217</sup>

The subdivision requirements of the Code are unlikely to have relevance as the extent of listing relates to the bridge itself and not its setting.<sup>218</sup>

### ***Development Standards for Heritage Precincts***

The bridge and river banks to the north are located within the Richmond Heritage Precinct. The Statement of Historic Cultural Heritage Significance for the precinct is that Richmond is Tasmania's finest Georgian village. Design Criteria/Conservation Policy have been established for Richmond requiring that the collective built integrity of the place be enhanced; that the distinctive character of the place (buildings, spaces, topography, gardens, scale, materials etc.) be retained; and that important views to the town landmarks and the surrounding rural countryside be retained.

Clause E13.8 sets out the standards for development within a heritage precinct, namely, demolition, buildings and works other than demolition and subdivision. There are no acceptable solutions for these types of development and therefore they must be assessed against the relevant performance criteria.

The potential adverse impact from demolition (in whole or part) is recognised in the provisions, noting that it is not to occur unless there are exceptional circumstances and must not result in the loss of elements that contribute to the significance of the precinct. Such contributory elements can include buildings or works, and other items such as plants, trees, fences, paths and so on. Some exceptions to restrictions on demolition do exist, and these again consider if greater environmental, social, economic or safety reasons exist; the lack of prudent and feasible alternatives; and if opportunities exist for improvement through new buildings more complementary to the precinct. The threshold for demolition is high, with all criteria required to be met.<sup>219</sup>

New buildings and works within the precinct must be sympathetic to its character. Performance criteria are set out for new buildings, extensions and fencing. Generally, the design and siting of new buildings and works must comply with the Design Criteria/Conservation Policy for Richmond, as given above. New buildings must be sympathetic in terms of bulk, setbacks, materials, colour scheme, form, and character of the place, streetscape and surrounding area.<sup>220</sup>

Subdivision within the Heritage Precinct must be consistent with the historic patterns of development and must not create potential for future incompatible development. With regard to the setting of the bridge, 'incompatible development' would be one that had an adverse impact on significant views to and from the place.

In addition to complying with the Design Criteria/Conservation Policy for Richmond, subdivision must not result in the loss of significance of the precinct; must not result in an unsympathetic subdivision pattern; must not confuse an understanding of the development of the precinct; must not increase the likelihood for future incompatible development; and, must not result in the potential loss of raised view lines through urban areas to non-urban areas around Richmond.<sup>221</sup>

#### **5.4.6 Inundation Prone Areas Code**

The Inundation Prone Areas Code applies to the Coal River and surrounding riverbanks. The purpose of the Code is to identify areas at risk from inundation and mitigate such risks through managing or restricting development.

Specific application requirements are set out in clause E15.5 for development of land which is designated under this Code. It requires an assessment, and as necessary engineering detail of a range of matters, including flow paths of rainfall and modifications to these flows, and the management of stormwater. Additional information

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<sup>217</sup> CIPS 2015, Cl.E13.7.2

<sup>218</sup> CIPS 2015, Cl.E13.7.3

<sup>219</sup> CIPS 2015, Cl.E13.8.1

<sup>220</sup> CIPS 2015, Cl.E13.8.2

<sup>221</sup> CIPS 2015, Cl.E13.8.3

may also be required, including an inundation risk management plan, a site analysis plan documenting flow paths, and evidence of how the development will withstand flood events.<sup>222</sup>

#### **5.4.7 Non-Statutory Management Resources - Richmond Cultural Resource Management Plan**

The Richmond Cultural Resource Management Plan is the key non-statutory heritage management guide for Richmond. It was prepared in 2001 in response to strong community interest in establishing the cultural values of the town and finding ways in which these values can be sustained. The Plan is not referred to in CIPS 2015, but Council does use it as reference material.<sup>223</sup>

The Plan is of considerable value and relevance to this CMP and its key findings are summarised here. Eight broad recommendations were made to Council to ensure statutory and administrative means of conserving heritage values and site. These recommendations covered the areas of:

1. Townscape;
2. Streetscape;
3. Signage;
4. Traffic management;
5. River management;
6. Heritage promotion;
7. Development control; and
8. Community involvement.

With regards to the Richmond Bridge, and the current review of the CMP, the following recommendations are most relevance:

##### ***Townscape***

That Council adopt planning controls and guidelines which protect the heritage resource of Richmond from further inappropriate development which diminishes its character.

##### ***Traffic Management***

- Enhanced car parking within the town to improve pedestrian amenity;
- Stage 1 of the Richmond by-pass to provide a link to the west of the town between Campania Road and Richmond Road to be completed by no later than June 2002. These works have subsequently been completed;
- Stage 2 of the Richmond by-pass to provide an east-west link north of the town and across the Coal River to be commenced and constructed no later than June 2005 following appropriate investigation, design and feasibility. These works have not been completed but the land has been designated a Future Road Corridor under the CIPS 2015; and
- For the Clarence City Council to make representation to both State and Federal Governments to reinforce the importance of the need for the by-pass construction to sustain the cultural and heritage values of Richmond for future generations.

##### ***River Management***

- Council prepare an appropriate landscape and use strategy for the river edge to enable an application for funding for the completion of a Rivercare Plan for the section of the Coal River a kilometre either side of the Richmond Bridge;<sup>224</sup> and
- Council is recommended to review other improvements to the river edge to enable an enhanced experience along/on the river.

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<sup>222</sup> CIPS 2015, CI.15.5.2

<sup>223</sup> Email, Ian Preece (CCC) to James Puustinen (Austral Tasmania), 20 April 2016

<sup>224</sup> The Rivercare Plan for the Coal River was prepared in 1999 and is being progressively implemented by Coal River Products Association through its Landcare work. This mainly involves crack willow removal and revegetation with native plants in a controlled way, section by section, to avoid bank erosion and build up of woody debris which could threaten the bridge during flood.

### *Heritage Promotion*

- The concept of heritage tourism as a resource opportunity in Richmond and the conservation of the heritage character should form the strategic base for all planning by Council in the area; and
- Council to coordinate the preparation of applications and programs for the establishment of on-site interpretation of heritage sites and the establishment of an interactive and tourist information centre in the former Richmond Council Chamber. Funding should be sought from both Federal/State Governments in establishing and operating the proposed centre.<sup>225</sup>

#### **5.4.8 Richmond By-pass**

Proposals for a Richmond by-pass have existed since the 1970s. The Richmond Cultural Resource Management Plan considered that delays in the construction of the by-pass have had a significant detrimental impact on the management of Richmond's cultural resource. Concern was also expressed at the lack of enforcement of the load limit on the bridge. Further, Shield wrote that Richmond suffered from the impact of larger articulated vehicles travelling through the town boundaries with the result that the cultural resource is losing an increasing amount of its tourism and pedestrian amenity.<sup>226</sup>

Similarly, Spry's 1990 assessment of the stonework condition of the bridge considered that the solution to the slow deterioration of the Richmond Bridge was the diversion of traffic over a new bridge, and restricting the Richmond Bridge to foot traffic only.<sup>227</sup>

There has been progress on this matter since 2010. The Richmond heavy vehicle link road was completed in 2014, providing an alternative route for traffic with a new road located on the western outskirts of the town. Data on the effectiveness of this road in removing heavy vehicles from Richmond was not available for this CMP. Land has also been reserved for a by-pass to the north of the town and crossing the Coal River north of the escarpment of St John's Church. However, the Tasmanian Government has not accepted this second by-pass option, as Tea Tree Road to the north provides an alternative by-pass route.

The assessment of by-pass options for Richmond is beyond the scope of this study. The effectiveness of a second by-pass in removing through traffic from Richmond would need to be carefully assessed. However, this CMP does not support restricting the use of the Richmond Bridge to pedestrian traffic. The bridge has continued to operate as a major piece of road infrastructure since 1825, responding to changing transport means. This continued use is an important aspect of its significance.

### **5.5 Summary of Management System**

As indicated in this section, the Richmond Bridge and its setting comes under a complex management system at National, State and Local Government levels. Each authority has different responsibilities for the management of the bridge and the various elements of its setting. A cooperative and coordinated approach between the various authorities will assist in the ongoing management of the bridge and setting.

#### ***Australian Government***

The Richmond Bridge is entered in the National Heritage List and is subject to the provisions of the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999 & 2003 (Heritage) Amendments*.

Ministerial approval is required for actions that impact, or may impact, the National Heritage Values if these actions are carried out by a constitutional corporation; the Commonwealth or a Commonwealth agency; or a person for the purposes of trade or commerce between Australia and another country, between States, between Territories, or between a State and a Territory. The definition of 'action' is broad and encompassing. Significant impacts can include the loss, degradation or damage of a National Heritage value. With specific reference to historic heritage places, actions including construction, vegetation clearance, introduction of intrusive elements with long term impacts, substantial alterations, and the loss of significant views can all have significant impacts.

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<sup>225</sup> Michael Shield & Associates, *op. cit.*, pp.7-9

<sup>226</sup> *Ibid* pp.35-36

<sup>227</sup> Spry, AH, *Richmond and Ross Bridges. Stonework Condition Report. Report C148 February 1990*, Department of Roads and Transport, p.7

### ***Tasmanian Government***

The ongoing management of the Richmond Bridge is the responsibility of State Growth. The Richmond Bridge is permanently entered in the Tasmanian Heritage Register, and therefore the *Historic Cultural Heritage Act 1995 (HCH Act 1995)* is applicable to its ongoing conservation. Heritage Works require the prior approval of the Tasmanian Heritage Council through either a permit or certificate of exemption. The definition of 'works' is broad in its application to encompass a wide variety of actions that may potentially affect the place. The *Works Guidelines for Historic Heritage Places* provide a very useful resource for the managers of the place when considering works and development, and define which works may be exempt and those which will require a permit. There has been no identification or assessment of potential Aboriginal heritage values at the place, but nonetheless, all Aboriginal heritage is protected via the *Aboriginal Heritage Act 1975*.

The allocation, licensing and regulatory system of the Coal River is also a State responsibility, as is the maintenance or enhancement of water quality. Salinity has been identified as a major water health issue for the Coal River. The river forms an integral element of significance for the Richmond Bridge and the enhancement of the water quality is of benefit to the conservation of the place.

### ***Local Government***

Clarence City Council has responsibilities for the conservation of the Richmond Bridge and its setting as a land manager and as the planning authority. Significant planning reforms are in progress, but are yet to come into effect within the Clarence municipality. Until this time, the Richmond Bridge and surrounds continues to be managed under a number of different zoning and code provisions of the 2015 Interim Planning Scheme. Of most relevance is the Heritage Code which sets out the standards and criteria for regulating potential heritage impacts arising from new uses and development of the place. The Heritage Code provisions apply to the bridge itself and riverbanks to the north of the bridge. It would be desirable for these provisions to also apply to all publicly owned riverbanks for consistency in the management of the heritage values of the place. The riverbanks also come under the Open Space zoning provisions, and should continued to be managed for passive recreation uses and, natural and cultural values management.

The potential for adverse heritage impacts arising from development adjacent to the place, or within important sight lines must be acknowledged. The precinct provisions of the Heritage Code are most applicable in this regard. The appropriate management of heritage throughout Richmond and the retention of significant public views to the bridge and setting is an important responsibility of Clarence City Council. This is also a relevant consideration for the Australian Government, which has identified that construction in close proximity to a National Heritage place may have a significant impact on the values of the place, particularly where the place is located in a non-urban environment or where the proposed development would obstruct or detract from the viewing axes of the heritage place.



## Conservation Policy

## 6.0 CONSERVATION POLICY

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### 6.1 Introduction

The purpose of the conservation policies is to state how the conservation of the Richmond Bridge and its setting may be achieved both in the short, medium and long term, and is based on an understanding of the cultural significance of the place.

The policies cover many aspects of the conservation of the bridge; these range from recognition of the significance, to the physical conservation needs and ongoing operational requirements. The policy statements are accompanied where necessary by a short explanatory paragraph or definitions. These are followed by the strategies and actions that should be carried out in order to implement the policy.

In preparing these policies, the relevant sections of the previous Conservation Management Plans and background reports have been reviewed, and as necessary revised. Both the 1997 and 2010 Conservation Management Plans made recommendations for a schedule of works to implement the conservation policies. Where information is available, details of compliance with these works is noted.

#### 6.1.1 Terminology

Much of the terminology used in conservation practice is standardised. The meanings of key terms used in this document are summarised below. These are underlined where they appear in conservation policies or explanatory statements to indicate the specific terms of reference which apply. The definitions are taken (almost verbatim) from the *Australia ICOMOS Burra Charter, 2013*.

<i>Place</i>	means a geographically defined area. It may include elements, objects, spaces and views. <u>Place</u> may have tangible and intangible dimensions.
<i>Cultural significance</i>	means aesthetic, historic, scientific, social or spiritual values for past, present or future generations.  <u>Cultural significance</u> is embodied in the <u>place</u> itself, its <u>fabric</u> , <u>setting</u> , <u>use</u> , <u>associations</u> , <u>meanings</u> , <u>records</u> , <u>related places</u> and related objects.  <u>Places</u> may have a range of values for different individuals or groups.
<i>Fabric</i>	means all the physical material of the <u>place</u> including elements, fixtures, contents and objects.
<i>Related Place</i>	means a <u>place</u> that contributes to the <u>cultural significance</u> of another place.
<i>Associations</i>	means the connections that exist between people and a <u>place</u> .
<i>Setting</i>	means the immediate and extended environment of a <u>place</u> that is part of or contributes to its <u>cultural significance</u> and distinctive character.
<i>Conservation</i>	means all the processes of looking after a <u>place</u> so as to retain its <u>cultural significance</u> .
<i>Maintenance</i>	means the continuous protective care of a <u>place</u> , and its setting.  <u>Maintenance</u> is to be distinguished from repair which involves restoration or <u>reconstruction</u> .
<i>Preservation</i>	means maintaining a <u>place</u> in its existing state and retarding deterioration.
<i>Restoration</i>	means returning the a <u>place</u> to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.
<i>Reconstruction</i>	means returning a <u>place</u> to a known earlier state and is distinguished from <u>restoration</u> by the introduction of new material.
<i>Adaptation</i>	means modifying a <u>place</u> to suit the existing <u>use</u> or a proposed <u>use</u> .
<i>Use</i>	means the functions of a <u>place</u> , including the activities and traditions and customary practices that may occur at the <u>place</u> or are dependent on the place
<i>Compatible use</i>	means a <u>use</u> which respects the <u>cultural significance</u> of a <u>place</u> . Such a <u>use</u> involves no, or minimal, impact on <u>cultural significance</u> .

### ***Acronyms and Abbreviations***

<i>State Growth</i>	Department of State Growth
<i>CCC</i>	Clarence City Council
<i>THC</i>	Tasmanian Heritage Council
<i>HT</i>	Heritage Tasmania, Department of Primary Industries, Parks, Water and Environment
<i>DEE</i>	Australian Government Department of the Environment and Energy
<i>W&amp;MR</i>	Water & Marine Resources, Department of Primary Industries, Parks, Water and Environment
<i>All parties</i>	State Growth, CCC, THC, HT, DEE, WRD

Conservation policies provide the philosophical basis for heritage management based on an understanding and recognition of the cultural significance of the place. Policies are not theoretical, but must take cognisance of the conservation needs of the place and relevant operational requirements. The conservation policies have been grouped into the following eleven key subjects:

- General conservation policies;
- Management system for the Richmond Bridge and setting;
- Use of the Richmond Bridge and setting;
- Management of the fabric of the Richmond Bridge;
- Management of public riverbank land and infrastructure;
- Vegetation management;
- River management;
- Traffic and road management;
- Interpretation;
- Further work;
- Review and reporting.

Each policy has a unique number, statement, reason, implementation tasks, identification of the responsible party, and a priority for works.

Policies from 2010 which remain current and valid have been repeated in this current Conservation Management Plan. Others have been modified, or removed if specific works have been completed.

#### **6.1.2 Priorities for Works and Actions**

To assist the various managers and authorities conserve the significance of the place, a three tier priority system for works and actions has been established. These priorities are in addition to ongoing maintenance requirements. The tiers are:

***High Priority 1:*** To be addressed within one year;

***Moderate Priority 2:*** To be addressed within three years; and

***Long-term Priority 3:*** To be addressed within five years.

The priorities have been determined through site visits undertaken by the consultants; reviews of the previous Conservation Plans; and works or actions that have been completed since 2010. The priorities have been determined with consideration given to the significance of the element, their apparent condition and potential issues and threats to the identified values.

The policies contained in this Conservation Management Plan reflect existing management approaches or maintenance actions and new areas to be addressed. It is noted that implementation of these policies will depend on available resources, with State Growth and the Clarence City Council having primary responsibility.

## **6.2 Review of Previously Recommended Policies and Actions**

One means of determining whether or not the previous CMP has been a useful and practical management tool is to review the success or otherwise in implementing the policies and actions. The 2010 CMP included some 103 policies that varied from broad general considerations, to specific items requiring attention. A further 11 policies or strategies from the 1997 Conservation Plan were also identified and these had yet to be implemented by 2010.

The 2010 and 1997 policies which remain outstanding have been reviewed as part of this current CMP. Whilst many policies or actions represent ongoing or continual maintenance tasks, State Growth and Clarence City Council have implemented the vast majority of actions.

Some policies or actions have not been implemented. Non-compliance has occurred for a number of reasons including lack of resources, the lower priority of certain actions or new information becoming available suggesting a revised approach to management. Other policies do however remain applicable and have been repeated in this current CMP.

The review of the 1997 and 2010 policy implementation is included at Appendix 5.

### **6.3 General Conservation Policies**

The general conservation policies provide the overarching framework for managing the heritage significance of the Richmond Bridge and its setting. It begins with recognition of the exceptional significance of the place. From this recognition, the general and detailed policies are developed. The bridge and setting are comprised of multiple elements: built fabric, spaces, visitor infrastructure and the use of the place. These elements range in their levels of significance. Assessing the levels of cultural significance allows for an understanding of the relative values of the elements that form the study area and appropriate management practices.

With regard to the fabric of the bridge, the period of significance dates from its construction in 1823, to the centenary celebrations in 1923. This period was identified in the 1997 Conservation Plan and is considered to accurately reflect the significance of the bridge fabric. However, not all values of the Richmond Bridge and its setting are demonstrated in the fabric of the place. For example, the community significance relates to the place as a whole, and importantly its contemporary recreational uses. Because of this, beyond the bridge itself, the cultural significance is embodied in certain elements of fabric, but also the contemporary setting, use, associations and meanings of the place.

Table 11: General Conservation Policies

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
1.01	<p><b>General Policy</b> The Richmond Bridge and its setting must be conserved as a place of exceptional <u>cultural significance</u> to the nation, Tasmania, and the local community. All elements of cultural significance that form part of the Richmond Bridge and its setting should be retained and conserved. The <u>place</u> is to be managed in accordance with the policies of this Conservation Management Plan, and the guidelines and philosophy of the Australia ICOMOS Burra Charter (the Burra Charter).</p>	<p>The Richmond Bridge is a place of exceptional <u>cultural significance</u>. This significance should guide decisions about its future <u>conservation, use</u> and development. The Burra Charter contains the accepted basis for the <u>conservation</u> of heritage places in Australia.</p>	<p>Endorsement and implementation of the policies in this Conservation Management Plan.</p>	<p>All parties.</p>	<p>1</p>
1.02	<p><b>Managing the National Heritage Values</b> The National Heritage Values of the Richmond Bridge are to be managed in accordance with the National Heritage Management Principles and the provisions of the EPBC Act 1999.</p>	<p>The National Heritage Values of the bridge and setting relate to its rarity and aesthetic significance. The National Heritage Management Principles provide overarching guidance for managing heritage places by setting standards for ongoing <u>conservation</u>.</p>	<p>Apply the National Heritage Management Principles in the <u>conservation</u> of the bridge and <u>setting</u>.</p>	<p>All parties.</p>	<p>1</p>
1.03	<p><b>Cultural Significance</b> The <u>cultural significance</u> of the Richmond Bridge is embodied in the <u>place</u> itself, its <u>fabric, setting, use, associations, meanings, and related places</u>. The cultural significance of the <u>fabric</u> of the bridge is recognised as being demonstrated by its evolution to 1923. The fabric of the bridge post-1923 is of no appreciable <u>cultural significance</u>.<sup>228</sup> The cultural significance of the <u>place</u> beyond the bridge is embodied in certain elements of the <u>fabric, setting, use, associations</u> and meanings.</p>	<p>The period of significance for the <u>fabric</u> of the bridge recognises the key development of the place and its cultural significance: its construction in 1823-1825; rebuilding of the western arches (late 1820s); raising the western parapets (1835); the addition of the cutwaters on the piers (1884); and centenary celebrations and commemorative stones in 1923. Fabric post-1923 includes the current asphalt road surface and the 1980 gutters and drains. These elements are of no appreciable <u>cultural significance</u>. The <u>cultural significance</u> of the broader place</p>	<p>Recognition of the <u>cultural significance</u> of the <u>place</u> in undertaking works or actions.</p>	<p>All parties.</p>	<p>1</p>

<sup>228</sup> Nigel Lewis et. al., op. cit., p.113

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
1.04	<p><b>Levels of Cultural Significance</b> The various elements that form the <u>place</u> have different levels of <u>cultural significance</u>.</p>	<p>includes <u>fabric</u> such as historic plantings, potential archaeological fabric, early landscaping undertaken by John Eldershaw, and formalised public access to the riverbanks and the Gatty Dam.</p> <p>The contemporary community significance of the place, with its associated recreational uses developed during the twentieth century and may not be demonstrated in the <u>fabric</u> of the <u>place</u>.</p> <p>Assessing the levels of <u>cultural significance</u> allows for an understanding the relative values of the elements that form the <u>place</u> and appropriate management practices.</p> <p>The various elements of the bridge and its <u>setting</u> have been assessed as having high, moderate, and low <u>cultural significance</u> as contained in the Site Inventory Sheets.</p> <p>High Significance is representative of key functions or thematic contributions of the <u>place</u>. This includes: the construction and provision of transport infrastructure; recreational uses of the riverbanks; and industrial activity on the riverbanks. Elements of high significance will demonstrate its age, intactness, rarity/representativeness and high aesthetic qualities.</p> <p>Moderate Significance is representative of secondary functions or thematic contributions of the <u>place</u>. Elements may be described as being of moderate significance where they date from later periods of development, have a lower level of integrity, are typical of their form or type and do not have high aesthetic qualities. Although not being of high <u>cultural significance</u>, these elements contribute to an understanding of the <u>place</u>.</p> <p>Low Significance elements contribute to the</p>	<p><u>Conservation</u> processes are to be consistent with the levels of high, moderate or low <u>cultural significance</u>.</p>	<p>All parties.</p>	<p>1</p>

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
1.05	<p><b>Applying Levels of Cultural Significance in Conservation Processes</b>            Elements of high <u>cultural significance</u> must be conserved.</p> <p>Elements of moderate <u>cultural significance</u> should be conserved wherever possible.</p> <p>Elements of low cultural significance may be retained, modified or removed provided a <u>conservation benefit</u> can be demonstrated by the action.</p> <p>Preservation, restoration and reconstruction (in that order) are the preferred conservation processes for elements of <u>cultural significance</u>.<sup>229</sup></p> <p>Elements intrusive to the <u>cultural significance</u> of the place should be removed or modified in a sensitive manner that enhances the <u>cultural significance</u> of the place.</p> <p>Neutral elements neither contribute nor have an adverse impact on the <u>cultural significance</u> of the place and may be retained or removed.</p>	<p>significance of the bridge and its setting, although have little heritage value in their own right. These elements may be recent introductions, or may have been so modified that they no longer have the ability to demonstrate their thematic context. Elements of low significance should not be confused with neutral or intrusive elements.</p> <p>The <u>cultural significance</u> of the place should guide decisions about its future <u>conservation, use and development</u>.</p>	<p>Actions, works, or development potentially affecting the <u>cultural significance</u> of the place are to be consistent with the relative levels of <u>cultural significance</u> of the elements of the place.</p>	<p>All parties.</p>	<p>1</p>
1.06	<p><b>Removal of Elements of Low Cultural Significance</b>            Demonstrating the <u>conservation benefit</u> from the removal of elements of low <u>cultural significance</u></p>	<p>Although elements of <u>low significance</u> may not individually be essential to the <u>cultural significance</u> of the place, in combination, they form part of the <u>cultural significance</u> of the place.</p>	<ul style="list-style-type: none"> <li>• Determine the <u>conservation benefit</u> of the removal of the element prior to its removal;</li> <li>• Seek and gain any necessary approvals to undertake works; and</li> </ul>	<p>All parties.</p>	<p>3</p>

<sup>229</sup> Nigel Lewis et. al., op. cit., p.113

No.	Policy	Reason for Policy	Action/ Implementation	Responsibility	Priority
	<p>can be established where:</p> <ol style="list-style-type: none"> <li>It will further reveal the <u>cultural significance</u> of the <u>place</u>; and</li> <li>It will not have an adverse impact on <u>cultural significance</u> of the <u>place</u>.</li> </ol>		<ul style="list-style-type: none"> <li>Undertake appropriate recording of the element prior to its removal. The type of recording required will depend on the element proposed for removal. It may include, but not be limited to photographs, written description, a site plan etc.</li> </ul>		
1.07	<p><b>Removal of Intrusive Elements</b> Elements intrusive to the <u>cultural significance</u> of the <u>place</u> should be removed.</p>	Intrusive elements are detrimental to the <u>cultural significance</u> of the <u>place</u> .	Removal of intrusive elements.	All parties.	2
1.08	<p><b>Reconstruction of Missing Fabric</b> Reconstruction of missing <u>fabric</u> should only be permitted where:</p> <ol style="list-style-type: none"> <li><u>Interpretation</u> of the bridge and its <u>setting</u> would be considerably enhanced; and</li> <li>This would not cause an unacceptable impact nor be anachronous to its immediate surrounds/context; and</li> <li>There is appropriate documentary or physical evidence.<sup>230</sup></li> </ol>	<p><u>Reconstruction</u> means returning a <u>place</u> to a known earlier state and is distinguished from restoration by the introduction of new material into the <u>fabric</u>.</p> <p>At the Richmond Bridge, <u>reconstruction</u> largely relates to repairing damage to the parapets caused by vehicular accidents. Beyond this, the scope for <u>reconstruction</u> is limited. Opportunities may exist for the <u>reconstruction</u> of the guttering.</p> <p>The priority for <u>reconstruction</u> works over <u>maintenance</u> would need to be carefully considered.</p>	<ul style="list-style-type: none"> <li>Determine the priority for any <u>reconstruction</u> works; and</li> <li>Seek and gain any necessary approvals to undertake works.</li> </ul>	State Growth	3
1.09	<p><b>Maintenance &amp; Works Program</b> A detailed cyclical <u>maintenance</u> and works program be prepared establishing the priorities and timeframes for implementing the policies of this plan.</p>	The effectiveness of this Conservation Management Plan relies on the implementation of the policies by State Growth and CCC.	Preparation of maintenance and works program.	State Growth/CCC	1
1.10	<p><b>Works Approvals</b> All actions, works, or development undertaken at the <u>place</u> should comply with relevant legislation, including the provisions of the EPBC Act 1999, the HCH Act 1995, the Clarence Interim Planning</p>	The Richmond Bridge is subject to National, State and Local heritage regimes which have different requirements for approval for undertaking works, development or actions.	Lodgement of necessary applications.	Parties undertaking works.	1

<sup>230</sup>Nigel Lewis et. al., op. cit, p.114

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
	Scheme 2015 and the Tasmanian Planning Scheme State Planning Provisions when they come into effect.				

## 6.4 Management System of the Richmond Bridge and Setting

As noted in Section 5, the Richmond Bridge and its setting comes under a complex management system at National, State and Local Government levels. Each authority has different responsibilities for the management of the bridge and the various elements of its setting.

The National Heritage listing of the Richmond Bridge encourages a cooperative approach between the Australian and Tasmanian Governments for the management of the Richmond Bridge. On this basis, it has been recommended that a coordinated approach to the management and conservation of the Richmond Bridge be adopted. The 2010 Conservation Management Plan recommended the formation of a management committee as a means of addressing the complex land ownership and management issues and involving the community in the ongoing decision making and management of the bridge and setting. Land ownership has simplified since 2010, with Clarence City Council now the land owner for the publicly accessible riverbanks. This will assist in consistent decision making for these areas. Because of these changes, the formation of a specific Richmond Bridge management committee may be less useful.

Although yet to come into effect, the Tasmanian Planning Scheme State Planning Provisions will result in the removal of dual approvals from both the Tasmanian Heritage Council and the local Planning Authority where the same place is registered at both State and local levels of management. Opportunities to maintain local involvement in heritage management should be considered by Clarence City Council, such as inclusion of the place as a precinct or landscape precinct.

Table 12: Policies on the Management System of the Richmond Bridge and Setting

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
2.01	<p><b>Review of Draft Conservation Management Plan</b> The Draft Conservation Management Plan is to be provided to key organisations for review and comment.</p>	To ensure that relevant organisations have the opportunity to comment on the Draft Conservation Management Plan.	Provision of Draft Conservation Management Plan for comment.	State Growth	1
2.02	<p><b>Endorsement</b> State Growth and CCC should endorse this Conservation Management Plan as a guide for the management of the Richmond Bridge and its <u>setting</u>. The THC should have regard to this Conservation Management Plan in the consideration of any Development Application or application for Certificate of Exemption.</p>	To ensure that the management and decision making bodies responsible for the <u>conservation</u> of the Richmond Bridge and its <u>setting</u> is in accordance with the current understanding of the significance of the place and the policies for its <u>conservation</u> .	Endorsement by relevant groups.	Identified groups.	1
2.03	<p><b>Review of Local Planning Mechanisms</b> Clarence City Council should investigate mechanisms under the Tasmanian Planning Scheme State Planning Provisions and Local Provision Schedules to implement effective planning controls to protect the Richmond Bridge and its <u>setting</u> as a place of <u>cultural significance</u> in accordance with this Conservation Management Plan.</p>	To provide a means for direct local management in managing the <u>cultural significance</u> of the <u>place</u> , once Local Provision Schedules for Clarence municipality come into effect. Such mechanisms may include the designation of the <u>place</u> as a Local Heritage Precinct (or inclusion as part of the larger Richmond precinct) or Local Historic Landscape Precinct.	Investigate mechanisms under the Local Provisions Schedules for local heritage management.	CCC	1
2.04	<p><b>Coordinated Response to Management</b> To ensure the <u>conservation</u> of the <u>place</u>: State Growth, THC, HT, CCC, W&amp;MR, and Australian Government DEE and any other necessary groups or individuals, including community representatives, should adopt a cooperative approach to the management and <u>conservation</u> of the Richmond Bridge.</p>	Each authority has a different responsibility for the management of the bridge and the various elements of its <u>setting</u> . A cooperative approach will help ensure a coordinated approach to the <u>conservation</u> of the <u>place</u> . Community representatives should be able to participate in the decision making and management of the <u>place</u> .	Coordinate management between owners and statutory authorities for the <u>place</u> .	Identified groups.	1

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
2.05	<p><b>Community Involvement</b> Methods of involving the community in the ongoing management of the Richmond Bridge and its <u>setting</u> should be explored.</p> <p>Regular engagement and the advice of the Richmond Advisory Committee should be sought.</p>	<p>Statutory mechanisms exist for the community to comment on works matters through the Historic Cultural Heritage Act 1995 and the Land Use Planning and Approval Act 1993.</p> <p>However, the Richmond community has demonstrated a strong interest in the <u>conservation</u> of the bridge and a more holistic approach to community involvement is desirable.</p>	<p>Investigate methods for community involvement in the ongoing management of the Richmond Bridge. Including:</p> <ul style="list-style-type: none"> <li>Actively seeking the advice of the Richmond Advisory Committee on any proposed changes to the place requiring a permit;</li> <li>Public meetings;</li> <li>Public launch of the report on the conservation of the <u>place</u>.</li> </ul>	State Growth/CCC	1
2.06	<p><b>Management of Heritage Character of Richmond</b> Clarence City Council has primary responsibility for managing the <u>cultural significance</u> of Richmond as a <u>place</u>.</p> <p>Due consideration is to be given to potential impacts on the <u>cultural significance</u> of the Richmond Bridge from adjacent development, or development that may have an impact on important public views to the Richmond Bridge and its <u>setting</u>. The Richmond Cultural Resource Management Plan should be implemented to assist in the management of the heritage character of Richmond.</p> <p>Development outside of the <u>place</u> that may have a significant impact on the National Heritage values of the Richmond Bridge may also require approval under the EPBC Act 1999.</p>	<p>The Richmond Bridge and its <u>setting</u> is part of a broader townscape of <u>cultural significance</u>. Development within Richmond has the potential to have impacts on the <u>cultural significance</u> of the Richmond Bridge and its <u>setting</u>, including intruding on important public views of the <u>place</u>.</p> <p>The Richmond Cultural Resource Management Plan is the most thorough and detailed plan for the identification, assessment and management of cultural heritage in Richmond.</p> <p>The EPBC Act 1999 also extends to considering actions occurring outside of a place if they have the potential to affect the National Heritage Values.</p>	<ul style="list-style-type: none"> <li>Consideration of potential impacts from adjacent development;</li> <li>Retention of significant public views during development;</li> <li>Implement Richmond Cultural Resource Management Plan; and</li> <li>Referral of actions under the EPBC Act 1999 where works or development may result in potential impacts on National Heritage Values.</li> </ul>	CCC	1

## 6.5 Use of the Richmond Bridge and Setting

The following table details the specific policies related to the use of the Richmond Bridge and setting. The following key points summarise the rationale for these policies.

### 6.5.1 Use of the Bridge

The bridge is currently used for both vehicular and pedestrian use. This includes use by both locals and tourists to Richmond. The continuing use of the bridge since 1825 is part of the cultural significance of the place.<sup>231</sup>

The 1997 Conservation Plan recommended that the existing 25 tonne load limit should be reduced to 15 tonnes. The recommendation to reduce the load limit was not accepted by the Department because it would restrict tourist buses crossing the bridge. The 2010 Conservation Management Plan also recommended that the Department consider reducing the load limit to 15 tonnes in the absence of more recent data. Subsequently, new information has become available through the use of the vibration meter. The results of vibration monitoring indicate that the current 25 tonne load limit is sufficient, but that the bridge is susceptible to damage caused by vibrations, with traffic load and traffic speed being the sources of vibration.

### 6.5.2 Use of the Riverbank Setting of the Bridge

The riverbank setting of the bridge has a variety of uses, of which, tourism and passive recreation are the predominate uses. The riverbanks are used for appreciating and photographing the bridge and surrounds; for walking; for picnics and relaxation. In response to these uses, a range of visitor infrastructure has been provided including car parks; viewing platforms; steps down to the riverbanks; shelters and barbecues; seating and walking paths. The recreational use of the riverbanks forms part of the cultural significance of the place and involves minimal impact on this significance.

The range of infrastructure located at the bridge serves this recreational use. The infrastructure varies from more discrete elements, to visually intrusive items. Nigel Lewis et. al. identify parking, bus access over the bridge, intrusive picnic facilities and the appearance of some paths and steps as elements that are not compatible with the cultural significance of the place.<sup>232</sup>

The 1997 Conservation Plan also noted the potential risk from overt commercial exploitation. A commercial operation was established in 2014 that provided two swan-shaped paddle boats available for public hire but the business has since ceased. The 2010 Conservation Management Plan did not include specific policies regarding commercial uses of the place and a new policy has been provided.

### 6.5.3 Use of the Coal River

The Coal River forms part of Tasmanian Irrigation's water supply. The River has historically been used as a source of water for people, stock and agriculture.

The Gatty Dam at the southern end of the River has been modified for irrigation purposes. The continued use of the Coal River at the place for water supply is compatible with its cultural significance, provided that rapid water level fluctuations do not cause geotechnical issues which would compromise the structure of the bridge. Hydrological investigations are being carried out and the results require assessment to determine what, if any action is needed.

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<sup>231</sup> Nigel Lewis et. al., op. cit., p.116

<sup>232</sup> Ibid., pp.108, 112

The Coal River was also historically used for swimming, with the construction of the Gatty Dam creating a swimming hole. The infestation of the area with crack willows resulted in the end of this use. The social values assessment undertaken in 1997 highlighted that this loss of use had an adverse effect on the community values of the place. Crack willows in the vicinity of the Dam have subsequently been removed but require ongoing monitoring.

Table 13: Policies on Use of the Richmond Bridge and Setting

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
3.01	<b>Use of the Bridge</b> The Richmond Bridge is to continue to be used for vehicular and pedestrian <u>use</u> .	To ensure that the significant <u>use</u> of the Richmond Bridge for vehicles and pedestrians continues.	Ongoing cyclical maintenance in accordance with this Conservation Management Plan.	State Growth	1
3.02	<b>Use of the Bridge: Structural Capacity</b> That the vibration meter be made operational to provide for early warnings of problems resulting from the basic weaknesses of the bridge. The vibration meter and associated equipment are to be regularly inspected and maintained.  Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue.  The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework.	Owing to foundation movements, lack of continuity and the use of site soil as a bedding material, the bridge is very susceptible to vibration impacts.  The vibration meter measures and records increased vibrations so as to give warning prior to a problem occurring.  However, it must be operating to provide ongoing and real time data.	<ul style="list-style-type: none"> <li>Rectify and maintain the vibration meter and monitoring of results;</li> <li>Modify uses where excessive vibration risks the structural capacity of the bridge; and</li> <li>Annual monitoring and recording of bridge.</li> </ul>	State Growth	1
3.03	<b>Commercial Uses of the Place</b> Commercial <u>uses</u> of the <u>place</u> must not adversely affect its <u>cultural significance, character, interpretation and presentation</u> . Commercial <u>uses</u> should enhance the visitor experience and must be approved according to relevant planning provisions.	To ensure that commercial uses are compatible with the <u>significance</u> of the place. Changes of use are a responsibility of local government, and if potentially affecting the National Heritage Values, also the responsibility of the DEE.  Changes of use which involve the alteration of fabric are also the responsibility of the Tasmanian Heritage Council.	All commercial uses must not impact on the <u>cultural significance</u> of the place and receive appropriate approvals.	All parties	1
3.04	<b>Use of the Riverbank Setting</b> The riverbanks are to continue to be <u>used</u> for recreational purposes.	To ensure that the significant recreational <u>use</u> of the riverbank <u>setting</u> continues.	Maintain recreational <u>use</u> for the place under the Clarence Interim Planning Scheme 2015 and future planning mechanisms.	CCC	1
3.05	<b>Visitor Management and Interpretation Plan for the Setting</b> That consideration be given to developing a Visitor Management and Interpretation Plan for the	To ensure that visitor experience and recreational <u>use</u> of the riverbanks is not significantly compromised.	Undertake Visitor Management and Interpretation Plan.	State Growth/CCC	1

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
	<p>Richmond Bridge and its <u>setting</u>. The Visitor Management Plan should consider the needs of the mobility impaired and access to the bridge and <u>setting</u>. For consistency in approach and strategies, it would be useful to consider a Visitor Management and Interpretation Plan for Richmond as a whole, inclusive of the bridge and riverbank <u>setting</u>. The Visitor Management Plan should also consider tourist vehicle and pedestrian movements/routes through Richmond.</p>				
3.06	<p><b>Use of the Coal River</b> The Coal River continue to be used in a sustainable manner for water supply as a compatible use. The analysis of hydrological investigations is required to determine any geotechnical issues at the bridge associated with rapid water fluctuations at the bridge.</p>	<p>The use of the Coal River for water supply purposes involves no, or minimal impact on the <u>cultural significance</u> of the <u>place</u>. However, this should be confirmed through hydrological investigations.</p>	<p>The management of water flow in the river at the Richmond Bridge may require review following analysis of the hydrological assessment.</p>	<p>State Growth/ Tasmanian Irrigation/CCC/ W&amp;MR, DPIPWE</p>	1

## 6.6 Managing the Fabric of the Richmond Bridge

The following two tables detail the specific policies related to managing the fabric of the Richmond Bridge. The policies provide both broad and detailed approaches to managing the fabric and have been structured according to their priority. The highest priority has been given to those policies that address the weaknesses of the bridge and will assist in preventing further damage. Secondary policies have been provided for longer term issues such as maintenance, recording and aesthetic considerations.

The following sections provide an overview of the bridge and its key conservation issues. It includes documentation from previous investigations, and new studies that have been completed since 2010.

### 6.6.1 The Geology of the Site and its Effects on the Bridge

A structural assessment of the bridge formed part of the 1997 Conservation Plan, but has not been repeated since. The assessment prepared by Peter Spratt & Associates began by investigating the geology of the bridge crossing site. The bridge is located across a narrow incised valley cut by the Coal River in soft sediments between two hard rock barriers. The upper upstream barrier is basalt. The lower rock barrier is dolerite. The upper basalt barrier has retreated upstream. Lag deposits of terrace gravels, silts and fine sands are developed downstream of the retreating basalt. The terrace silts and sands are easily eroded, which Spratt determined was probably the reason why the riverbed between the piers was paved in 1884. Further, the movement in these sediments after construction probably accounts for the undulations across the bridge.

The geological condition appeared to be a key issue for the structural distortions to the bridge. For example, the poor foundation conditions were likely causes of the history of cracking at each end of the bridge, and the undermining of the piers. However, at that time, the geotechnical conditions of the ground near the bridge remained unknown, and Spratt recommended these works should occur.<sup>233</sup>

The need for a geotechnical investigation was identified in the 2010 Conservation Management Plan. These works were completed in 2017, following the identification of rapidly changing water levels resulting from extraction of water for irrigation. A risk was identified that these water level fluctuations may be adversely affecting the integrity of the foundation materials (i.e., the natural subsurface materials which support the constructed bridge footings).<sup>234</sup>

Geotechnical drilling was carried out in early 2017 at seven sites between the arches of the bridge. Vertical drilling was undertaken at a number of places to nominal depths of 10 metres beneath the arches, and angled drilling carried out beneath piers 2 and 4 to test the footings of the two piers.<sup>235</sup>

The drilling generally supports the published geology of the area, showing 1-3 metres of Quaternary alluvium within the river channel, overlying clays and sands to depths of at least 10 metres which are inferred to be Tertiary in age.

Angled test drilling was carried out at four sites beneath piers and 2 and 4. The drill fully recovered the sandstone blocks and mortar (where present) of the footings.<sup>236</sup>

Full core recovery of sandstone blocks and intervening mortar (where present) is thought to have been achieved. Where no core was recovered from drilling, it has been assumed that sandstone footings were absent, and the non-recovered material was loose alluvium. On this basis, sandstone footings were not encountered in drill holes at vertical depths (relative to

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<sup>233</sup> Spratt in Nigel Lewis et. al., *op. cit.*, Appendix Four – Structural Analysis

<sup>234</sup> Cromer, W/C, Department of State Growth: Richmond Bridge, Richmond Tasmania. Geotechnical Drilling of Footings and Foundations: Interim Report, April 5 2017, p.3

<sup>235</sup> *Ibid*, *op. cit.*, pp.7-8

<sup>236</sup> *Ibid*, pp.11-12

flagstone level) below 1.1 metres and 1.6 metres in holes C and G respectively on the eastern side of pier 4, and below 0.7 metres and 0.6 metres in holes D and E respectively on the eastern side of pier 2. The sandstone core in hole G in the vertical depth interval 1.3 to 1.8 metres and about 0.5 metres thick may be part of a central sandstone footing.<sup>237</sup>

The geotechnical report recommended hydrological investigations to be carried out beneath arch 4, a digital water level recorder installed, and with the data to be down loaded and reviewed every three to six months.<sup>238</sup>

### 6.6.2 The Bridge: Stonework

Spry undertook a fabric condition assessment of the bridge in 1990. He identified six slightly different sandstones that were used in the construction of the bridge. These sandstones are:

1. The oldest stone used as rubble on the piers and arches is a yellow to brown, argillaceous sandstone (composed of particles less than 0.002 mm in diameter) of mediocre quality;
2. The voussoirs and arch stones are of a yellow-brown, well-bedded, banded sandstone;
3. The copings to the parapet and the projecting string courses are of a massive, grey, glittering quartz sandstone;
4. The 1885 sheathing to the piers is of a massive sandstone, white to brown, in well shaped ashlar blocks with a neatly dress (picked) surface;
5. The small rubble blocks of the inner faces of the parapets are of various sandstone lithologies; and
6. A small retaining wall surrounding a rest area on the south west corner of the bridge is of yellow-brown sandstone of modern construction.<sup>239</sup>

Spry found that the stonework was generally in sound condition and not in need of repair or replacement. Isolated stone decay located on the projecting string course, some of the pier sheathing blocks, and the base of the stone post at the north-western corner required monitoring. The stonework was also clean and free from organic growth. The stone work remains free of growth.

In his structural assessment, Spratt extended this analysis of the sandstone. Small samples of stone were removed from delaminated surfaces of the western parapet and the underside of the eastern arch. These samples were analysed by X-ray diffraction for clay content, and the different types of clay. Smectite clays were identified, which Spratt concludes is of great significance. Halite, or sodium chloride deposits were also located in the samples from the east arch.

Smectite is common in south east Tasmanian sandstones, and is very reactive to wet/dry and hot/cold cycles particularly in the presence of soluble salts, especially sodium chloride. These physical and chemical reactions make the stones subject to marked cracking, exfoliation and surface disintegration. Because of the presence of smectite and of halite, Spratt concludes that it is essential that continuing attention is given to water shedding, keeping pointings in good repair and avoiding water entry and water retention in bridge stones.<sup>240</sup>

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<sup>237</sup> Ibid, pp.12-13

<sup>238</sup> Ibid, p.12

<sup>239</sup> Nigel Lewis et. al., op. cit, pp.71-72

<sup>240</sup> Spratt in Nigel Lewis et. al., op. cit, Appendix Four – Structural Analysis

### 6.6.3 The Bridge: Detailed Recordings

As part of the 1997 Conservation Plan, a spatial study of the Richmond Bridge was carried out using terrestrial photogrammetric surveys. This provided a photographic coverage of the external fabric of the bridge structure and wingwalls. This method allowed for digital spatial information to gain an accuracy of +/- 10mm in a 3 dimensional environment. A total of 52 stereo models were required for coverage of the bridge, including the internal features of the bridge walls and wingwalls.

At the time, this was seen as the most effective and efficient means in survey science for mapping, modelling and monitoring structures. It provided a set level of base information on which future measurements could be compared. This survey captured a moment in time, which made it possible to investigate dynamic occurrences such as stress deflection under load.

Further spatial studies of the bridge were carried out in 2006, advancing on the previous photogrammetric survey with Sinclair Knight Mertz (SKM) undertaking 3D laser scanning. The laser scan and model was conducted for the entire bridge, and provides a comprehensive model to use as a basis for recording, maintenance, repair, structural integrity and deformation modelling. The results of the laser scanning provided a higher degree of accuracy than the earlier photogrammetric survey. The photogrammetric survey achieved accuracy of +/-10mm, whereas the laser scanning achieved a point cloud accuracy of 3-5mm and density of 10mm.

A key achievement of the laser scanning was that once the scans were registered together, the data was transferred onto the Map Grid of Australia so that it could be amalgamated with any existing or future datasets on or near the bridge. What this method achieved was a final and highly accurate dataset for the bridge that can be used for a variety of different management and ongoing maintenance requirements. For example, SKM note that one of its most important uses would be in accident repair. Because all the stone shapes and sizes have been modelled, damage can be repaired identical in form to what originally existed.

The key achievement of the laser scanning is a highly accurate recording of the bridge as it currently exists. This will prove particularly useful for understanding structural movements in the bridge, and mapping its individual components. The following figures highlight some of the results of the survey.

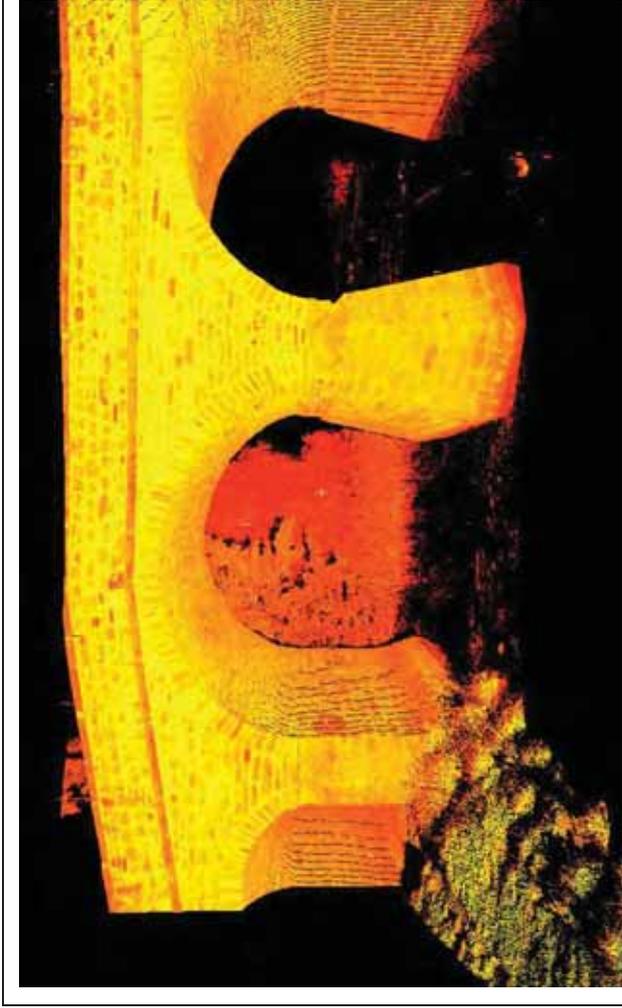


Figure 38: Laser Scans of the Richmond Bridge

#### 6.6.4 The Bridge: Bedding and Pointing

The original mortar bedding of the Richmond Bridge used very soft lime mortar. The effect of this is that the bedding is susceptible to washout from water entry, causing cracking and stones to loosen. Pointing works have been progressively undertaken on the bridge, using a variety of mortar mixes resulting in unsatisfactory composition and unprofessional application. This included cement-rich mortars which were retaining salts.

A considerable amount of work has been carried out since 1997 in repointing the bridge. These works have greatly assisted in the presentation of the bridge and its aesthetic qualities. Repointing works should continue as required and have been included in the policies of this Conservation Management Plan.

#### 6.6.5 The Bridge: Cracking

The Richmond Bridge is subject to cracking. The cracks have existed for a long time, and some have been subject to previous repair attempts. Some have also cracked through the repair works.

Spry identified two types of cracks in 1990. Transverse cracks existed on the northern and southern faces of the bridge, mainly confined to the buttresses, along joints and some through stones. Discontinuous, comparatively straight cracks are visible under the arches where they begin at or below the spring line, these tended to stop before reaching the mid span. They were recognised by Ginn in 1973 and sketched in 1985 by P Wood. They are difficult to trace and to represent on paper because of repeated patching, but observations by

Spry suggest that they might be more abundant than depicted by Wood in 1985. Smith (1969) referred to a recommendation by Lambe in 1824 that 'instead of forming the extrados of the arches with loose stone rubbish, that longitudinal walls should be built about two feet apart [i.e., approx. 60 cm] and the spaces filled with loam'. Test pits were dug adjacent to the upstream and downstream parapet walls in June 1993 to provide data on the construction of the arch barrel and the nature of the fill materials. It was found that the fill material consists of moist basalt and sandstone gravel of loose to medium dense compaction with sandy clay fines. The extrados were found to have been coated with a hard tar-based material, which is a material of heritage significance. The masonry forming the arch is grouted full-depth by very soft lime mortar.

Spry also suspected that these internal longitudinal structures might control the formation of longitudinal cracks. State Growth had previously fixed glass plates across these cracks as a way of indicating movement. Vandals destroyed these glass plates, although their locations are still evident.

Different conclusions have been reached as to the potential effects of these cracks on the bridge. In his stonework condition assessment, Spry (a geologist) provided advice on engineering matters. He found that the cracks have the potential to cause structural problems. In particular, on the ability of the bridge to act as a complete member under horizontal forces such as those caused by flood. However, the structural assessments of Spratt and Jordan came to different conclusions. Spratt's structural assessment identified cracking right across the bridge roadway and parapets at each end of the flat arch No. 5 from the west side. He considered that this cracking may be caused by foundation settlement. Spratt's conclusion was that the bridge did not suffer from major cracking, and that those cracks that did exist, did not require intervention of the fabric or structure. Similarly, Jordan's brief structural assessment observed a few minor cracks in the arch barrels. His conclusion was that movement in these cracks was a result of seasonal effects. The bridge is annually inspected in accordance with the VicRoads Bridge Inspection Manual. This includes continual monitoring of the cracks. State Growth has found that there has been no long term movement in the cracks.

In summary, the previous assessments found that the bridge was generally in good condition. In his stonework condition assessment, Spry, a geologist provided advice on structural matters, noting that given the age and continued use of the Richmond Bridge, it did not appear to be in danger of early failure if current conditions hold. However, the cracks in the bridge should be considered to have the potential for damage either slowly due to continuing existing use, or quickly if subjected to sudden excessive stress.<sup>241</sup> Owing to foundation movements, lack of continuity and the use of site soil as a bedding material, the bridge is susceptible to vibration impacts.

#### **6.6.6 The Bridge: Drainage**

The effective removal of water away from the bridge has been a continual problem. Spry found that poorly directed surface rainwater drainage on the southern side of the eastern abutment has caused ponding and accumulation of soil moisture, resulting in rising saline damp in the stonework. Some joints and stones were stained with white salt efflorescence and some stones are decayed.

The 1997 Conservation Plan recommended the waterproofing of the bridge deck and modification of the roadway grades to improve the water shedding. These waterproofing works have been carried out. However drainage problems continue to result in problems with damp, salt efflorescence and stone degradation in the eastern arch. Priority should be given to those works which prevent pointing defects and water entry into the bridge stonework.

Spry also recommended that the soil should be built up to the level of the depression and the surface drainage modified so as to direct the run-off into the river. Given the smectite clay content of the sandstone, Spratt also recommended that water shedding from the roadway should be improved.

Substantial works were carried out in 2013. The bridge deck was waterproofed and resealed in 2013. The paths were also re-gravelled, but not waterproofed. Conservation works were carried out to repair the damaged stonework and mortar joints in the eastern arch. The ground depression was filled and a gravelled drain installed to assist with water removal. Despite the extent of works and repairs, drainage continues to be an ongoing problem with ponding in the eastern arch. Further investigation of drainage management for the whole bridge is recommended.

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<sup>241</sup> Nigel Lewis et. al., op. cit, p.75, Appendix Four – Structural Analysis: Bill Jordan & Associates Pty Ltd, Richmond Bridge, Richmond, Structural Assessment, September 2001

### 6.6.7 The Bridge: Load Limit

For several decades, the load limits placed on the bridge have been a matter of debate. A structural analysis was undertaken for the 1997 Conservation Plan. The Cardiff/Transport Road Research Laboratory Masonry Arch Assessment Package (CTAP) was used to investigate the structural capacity of the bridge. This method draws on two forms of analysis:

1. The Transport Road Research Laboratory (TRRL) mechanism analysis; and
2. The University of Wales College of Cardiff (UWCC) elastic analysis which uses the theory of Castigliano.

The TRRL method was used to provide details of the critical load pattern and position. Live loads applied to the bridge consisted of various axle group and short vehicle combinations which were run individually across Span Nos. 3, 4, and 5 of the bridge. From each of the combinations, the minimum collapse load and corresponding position was calculated.

The UWCC elastic analysis supplemented this work by: verifying the minimum collapse load and providing data on deflections, stresses, collapse mode and path to failure. The input variables in this analysis include the effects of arch and fill material on overall collapse.

The results of the CTAP analysis was that Span No. 5 (eastern river span) was found to be critical to the load limit. This was primarily because of the reduced height of fill over the crown of the arch as compared with the other river spans. The analysis showed that the shape of this arch is markedly deformed due to settlement of the piers. The analysis then considered the potential effects of vehicle loads on the bridge, across various axle configuration and truck loads. From this, it was determined that the existing 25 tonne load limit should be reduced to 15 tonnes as an appropriate measure to cover a range of short vehicles.<sup>242</sup>

On the basis of this assessment, the 1997 Conservation Plan recommended that the load limit should be reduced to 15 tonnes. The predecessor of the Department of State Growth did not accept this recommendation on the basis of that it would restrict tourist buses from crossing the bridge. Subsequently, further information has come to hand that questions the accuracy of the CTAP Structural Assessment.

In September 2001 a brief structural assessment report was prepared by Bill Jordan & Associates based on a visual inspection of the bridge. This assessment reviewed the findings of the 1997 Conservation Plan and the recommendation to reduce the load limit to 15 tonnes.

Jordan notes that the CTAP program was the best available at that time, but was based on the empirical MEXE formula which has been shown to be overly conservative. Since then, the more accurate computer based 'Discrete Element Method' had been developed for assessing masonry arch bridges. Using this approach, Jordan notes that bridges formerly assessed using the MEXE formula have had their safe loads upgraded from 7.5 tonnes to 40 tonnes without requiring additional strengthening. He considered it likely that an assessment using the Discrete Element Analysis would upgrade the load limit on the Richmond Bridge.

Jordan undertook a site visit to the bridge and observed a few minor cracks in the arch barrels, that were largely circumferential, that is, located on the outer boundary of the circular area. These cracks are under continual monitoring and show only seasonal effects. Jordan concluded that none of the cracks are considered to have structural implications. Further, other than these crack, no evidence was found of signs of distress in the masonry joints which might be associated with movement under load. Supporting this conclusion, Jordan compared the recent soft lime repointing, as opposed to the older, harder and more brittle Portland cement-based mortar. He considered that if distress was occurring, the harder Portland cement based mortar would show evidence of cracking. No such cracking was observed, and therefore structural distress would not appear to be associated with the 25 tonne load limit.

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<sup>242</sup> Nigel Lewis et. al., *op. cit.*, Appendix Four – Structural Analysis

Jordan concluded that the Richmond Bridge was in a satisfactory condition and that it was likely that an assessment of the load carrying capacity using the Discrete Element Analysis would result in a safe capacity of at least 25 tonnes.<sup>243</sup>

The 2010 Conservation Management Plan considered these contrasting findings; one recommending a reduction of load to 15 tonnes, and the other finding that the 25 tonne load limit was acceptable. No structural assessment was carried out for the 2010 CMP, and adopting a caution approach, it was recommended that further consideration be given to reducing the load limit.

The reduction in load limit has not occurred. Since 2010, new important information about the structural capacity of the bridge has been derived through the monitoring of vibration levels. Information regarding the vibration monitoring is provided below. In summary, the existing 25 tonne load limit has been found to be acceptable, but should continue to be monitored.

## 6.7 Addressing the Weaknesses of the Bridge Caused by Vibration

According to Spratt, the basic weaknesses of the bridge are:

1. A history of foundation movements due to river bed erosion and settlement;
2. Alterations which have given a lack of continuity due to the later constructions not achieving an original bond entry. The implications of this are that the bridge will be sensitive to vibration impact;
3. The use of site soil as stone bedding gives a material readily washed out by entering water. There is no bond between stones and the result is that the bridge is very sensitive to vibration and if wash out occurs then stone fracture and settlement becomes highly likely. The emphasis is again on the need to prevent water entry.<sup>244</sup>

In summary, these weaknesses demonstrate the susceptibility of the bridge to vibrations. Spratt notes five causes of vibration on the Richmond Bridge. These causes are:

1. Traffic load;
2. Traffic speed;
3. Bedding loss;
4. Foundation movement; and
5. Bridge deck potholes.

In response to these weaknesses, a vibration meter was first trialled on the bridge in 2009. A meter was installed and measured the vibration caused by different sized vehicles and at different speeds. The measure of risk from vibration was the German standard DIN4150. For structures of great value or sensitivity to vibration (such as the Richmond Bridge), the German standard required that transient vibration should not exceed a peak particle velocity of 3mm/s at low frequencies. The Standard allowable levels increase to 8mm/s at 50Hz and 10mm/s at 100Hz and above.

The trials found that vehicles obeying the speed limit and with reasonable loads were not causing damage to the bridge. The east end of the bridge and centre of the east river span number 7 consistently returned the highest vibration levels, which accorded with previous structural testing.<sup>245</sup>

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<sup>243</sup> Bill Jordan & Associates Pty Ltd, Richmond Bridge, Richmond, Structural Assessment, September 2001

<sup>244</sup> Spratt in Nigel Lewis et. al., op. cit, Appendix Four – Structural Analysis and Spratt, Richmond Bridge – Conservation Management Plan Review, 25 March 2008; Spratt, letter report to GHD, 31 March 2008

The trial found that the east end of the bridge and the centre of the east river span were the most sensitive location of the bridge where the highest vibration levels were recorded. Speed was shown to have a very large impact on vibration, as did the longitudinal pavement failure. In conclusion, the trials demonstrated that vibration monitoring is a practical bridge management tool.<sup>246</sup>

A key benefit of the meter was in providing real time data on any gradual movement which may be occurring, whilst a structural assessment only provides information for a given point in time.<sup>247</sup> In effect, the vibration meter can provide prior warning of a problem resulting from the basic weaknesses of the bridge.

The 2009 trials were shown to be a success in providing real time data for the bridge and acting as an early warning system to monitor excessive vibrations caused by vehicle load and speed. The system was implemented and installed permanently on the bridge in late 2010. Analysis of the data collected to date indicates that there were periodic exceedances of trigger limits from heavier vehicles such as buses and trucks with or without trailers. These were possibly triggered from high speeds and braking actions over the crest. Confirmation of this theory is yet to occur and will require further testing to be agreed between State Growth and Clarence City Council, and the monitoring equipment being made operational.<sup>248</sup>

Operational difficulties have occurred on two occasions since, and the monitoring system is currently offline for maintenance. Rectifying this problem and ensuring continual operation must be a priority.

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<sup>245</sup> Spratt, P, Richmond Bridge Evaluation of Vibration Monitoring of Traffic for Bridge Management, prepared for DIER, 1 June 2009

<sup>246</sup> Spratt, Richmond Bridge – Conservation Management Plan Review, 25 March 2008

<sup>247</sup> Spratt, letter report to GHD, 31 March 2008

<sup>248</sup> Email, Vincent Tang (State Growth) to James Puustinen (Austral Tasmania), 11 April 2017

Table 14: Policies for the Prevention of Further Damage to the Richmond Bridge

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
4.01	<p><b>Vibration Monitoring</b> The vibration meter on the bridge is to be maintained in continual operation to provide an early warning of problems resulting from the basic weaknesses of the bridge. Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue.</p>	<p>The 2009 trial and subsequent permanent installation has shown the vibration meter to be a highly effective management tool. Higher speeds and braking over the crest of the bridge appear to trigger excessive vibrations indicating the importance of enforcing the speed limit on the bridge. However, the vibration meter is only a useful management tool if it is operational. Maintenance needs to be improved.</p>	<ul style="list-style-type: none"> <li>Provide continual monitoring of vibrations; and</li> <li>Undertake regular inspections and maintenance of the vibration meter.</li> </ul>	State Growth	1
4.02	<p><b>Load Limit &amp; Camera</b> The vibration meter camera to be maintained to indicate whether load or speed is excessive for a recorded vibration.</p>	<p>The two methods for the structural analysis of the bridge provide markedly different results and the CTAP results may be overly conservative. Further structural analysis could provide further information related to the structural capacity of the bridge. However, such data would relate to that particular time. Vibration monitoring has been shown to provide continual information on vibration levels that are known likely to cause structural problems and can provide data on reviewing the load limit of the bridge if and when required.</p>	<p>Monitor vibration and photographic data and review load limit as required.</p>	State Growth	1
4.03	<p><b>Conservation of Bridge Stonework</b> As required, an appropriately skilled stonemason with experience in working on historic structures undertakes conservation works to the stonework in accordance with the General Policy.</p>	<p>The Richmond Bridge is a place of exceptional cultural significance. The significance of the bridge requires that <u>conservation</u> works utilise the best available expertise.</p>	<p>Appointment of appropriately skilled stonemason.</p>	State Growth	1
4.04	<p><b>Replacement of Badly Decayed Stones</b> As required, an appropriately skilled stonemason with experience in working on historic structures replace badly decayed stones when subject to a 50mm surface loss. New stones should use 100mm</p>	<p>Badly decayed stones pose a weakness to the structural capacity of the bridge.</p>	<ul style="list-style-type: none"> <li>Appointment of appropriately skilled stonemason; and</li> <li>Stones to be replaced when subject to a 50mm surface loss and new stones to use 100mm thick inserts of a better quality stone.</li> </ul>	State Growth	1

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
	thick inserts of a better quality stone.				
4.05	<b>Stone Decay in east Arch</b> An appropriately skilled stonemason to carry out annual inspection of the stonework in the east arch to monitor stone degradation. Seek specialist advice on the management of damp related issues which are affecting the stonework and mortar.	The east arch has a long history of damp and efflorescence causing stone decay on the inside of the east arch. Damp continues to be a problem in this location and will require ongoing monitoring and maintenance.	<ul style="list-style-type: none"> <li>Annual inspection of stonework; and</li> <li>Conservation actions as required.</li> </ul>	State Growth	1
4.06	<b>Replacement of Lost Bedding</b> As required, an appropriately skilled stonemason should replace lost bedding with a quicklime grout to make loose stonework solid.	The original mortar bedding of the Richmond Bridge used very soft lime mortar. The effect of this is that the bedding is susceptible to washout from water entry, causing cracking and stones to loosen.	<ul style="list-style-type: none"> <li>Appointment of appropriately skilled stonemason; and</li> <li>Replace lost bedding with quicklime grout.</li> </ul>	State Growth	1
4.07	<b>General Repointing</b> As required, the repointing of mortar joints be undertaken by an appropriately skilled stonemason using a permeable quick lime based mortar coloured to match the recent repointing work. Repointing works should have a weather struck finish. Any remaining hard, cement rich mortar should be replaced.	Effective pointing is required to prevent water entry into the bridge stonework. The bridge demonstrates the various repointing undertaken at different times and with different success. Hard, cement-rich mortar should be avoided to prevent further structural problems at the mortar joints by being impermeable to water and retaining salts. Considerable work has been carried out in removing inappropriate mortars. Care should be taken to rake out the previous cement-rich mortar and the new lime mortar is to be applied in a careful manner, avoiding joints that stand proud of the stone and direct water into the bridge interior. Differing mortar mixes may be required where good breathing is required from the stone, for example, where damp problems exist, such as at the eastern arch.	<ul style="list-style-type: none"> <li>Appointment of appropriately skilled stonemason;</li> <li>Determine appropriate lime mortar mix for general repointing;</li> <li>Determine appropriate mortar mix where damp problems exist and</li> <li>Undertake repointing.</li> </ul>	State Growth	1

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
4.08	<b>Drainage Management</b> Specialist advice to be sought on drainage management for the entire bridge.	Drainage issues have, and continue to be a conservation issue, particularly in the eastern arch. A coordinated response to assessing drainage requirements in their entirety is necessary.	Carry out drainage management assessment.	State Growth	1
4.09	<b>Ponding &amp; Drainage under east Arch</b> As part of drainage management, identify measures to prevent water from ponding under the south east arch.	The east arch area is subject to water ponding which is causing damp and salt efflorescence to the inside stonework. Works were carried out in 2013 to address this issue however ponding continues to occur.	Seek specialist advice on the source of the water as part of a coordinated approach to drainage and damp.	State Growth	1
4.10	<b>Damp Problems, south west wing wall</b> As part of drainage management, identify the cause of damp on the south west wing wall and appropriate means of addressing the problems.	Damp has potential to cause stonework problems.	Seek specialist advice on damp problems as part of a coordinated approach to drainage and damp issues.	State Growth	1
4.11	<b>Ongoing Maintenance of Road Surface</b> The road surface is to be continually maintained.	The continued <u>maintenance</u> of the road surface is required to ensure that the bridge continues to have a vehicular use and prevent excessive vibrations and water entry caused by potholes. The vibration trials in 2009 showed pavement failure to be a cause of high vibration levels.	Ongoing inspection and <u>maintenance</u> .	State Growth	1
4.12	<b>Waterproofing Footpaths</b> The footpaths are to be waterproofed by expert specialists to prevent the transfer of water into the structure of the bridge.	The entry of water into the bridge has the potential to cause structural problems.	Waterproofing of footpaths by specialist as part of a coordinated approach to drainage and damp issues.	State Growth	1
4.13	<b>Traffic Impacts on Parapet Walls</b> The prevention of excessive speeding over the bridge be pursued as a means of minimising damage to the parapet walls caused by vehicular accidents. <sup>249</sup>	Vehicle collisions have caused damage to the parapet walls on several occasions. Strengthening the parapet walls is not recommended, because it is preferable that the impact energy from collision causes the dislodgment of parapet stones, rather than the transfer of stress to the bridge structure.	<ul style="list-style-type: none"> <li>Undertake monitoring of speed limit; and</li> <li>Enforcement of breaches of the speed limit.</li> </ul>	Tasmanian Police	1

<sup>249</sup> Spratt, letter report to GHD, 31 March 2008

Table 15: Management, Maintenance, Inspection, Recording and Aesthetic Policies

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
4.14	<b>Managing the National Heritage Values</b> The fabric of the Richmond Bridge is to be managed to protect, conserve, present and transmit to all generations the National Heritage Values of the place.	The National Heritage Values of the bridge and setting relate to its rarity and aesthetic significance. Actions that could have a significant impact on these values includes substantial alterations to the form, appearance, materials or capacity of the bridge which may be inconsistent with the National Heritage Values of the place.	Apply the National Heritage Management Principles in the conservation of the bridge.	All parties.	1
4.15	<b>General Monitoring</b> The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and the general condition of stonework.	Continual annual monitoring is necessary to measure changes in the condition of the bridge and determine any necessary conservation works.	Annual monitoring and recording of bridge.	State Growth	1
4.16	<b>3D Laser Recording</b> The 3D laser scanning of the bridge is to be used as the basis for understanding the fabric of the bridge.	The laser scan and model was conducted for the entire bridge, and provides a comprehensive model to a point cloud accuracy of 3-5mm and density of 10mm. It provides the most accurate current record of the fabric of the bridge.	<ul style="list-style-type: none"> <li>Restoration, and as required, reconstruction works to utilise the 3D laser scan as the record of the fabric of the bridge; and</li> <li>As required, repeat the laser scanning to indicate long term settlement of the arches and foundations, structural integrity and deformation modelling.</li> </ul>	State Growth	3
4.17	<b>Recording Changes to the Bridge</b> All actions, works or development affecting the fabric of the bridge are to be appropriately recorded and copies lodged with State Growth and HT.	The recording of works to the bridge is important in documenting the nature of the bridge and changes over time. This will also be important in understanding past conservation practices.	<ul style="list-style-type: none"> <li>The type of recording required will depend on the nature of the works, and element being modified. Recording may be required prior to, during and after the works. Recording may include, but not be limited to photographs, written description, a site plan etc.; and</li> <li>Lodgement of recording with State Growth and HT.</li> </ul>	State Growth /HT	1

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
4.18	<b>Maintenance of Footpaths</b> The footpaths are to be <u>maintained</u> including the continued use of the gravel surface.	The continued <u>maintenance</u> of the footpaths is required to ensure that the bridge continues to have a pedestrian <u>use</u> . The gravel surface of the footpaths complements the <u>cultural significance</u> of the bridge.	Ongoing inspection and <u>maintenance</u> .	State Growth	1
4.19	<b>Maintenance of Gutters</b> The gutters are to be <u>maintained</u> to a condition that ensures their functionality for the removal of water.	Effective guttering infrastructure is essential for removing water from the bridge.	Ongoing inspection and maintenance as part of a coordinated approach to drainage and damp issues.	State Growth	1
4.20	<b>Reconstruction of Gutters</b> Consideration is to be given to replacing the current concrete bridge gutters with infrastructure that is of a material that is more sympathetic to the <u>cultural significance</u> of the place.	The current bridge gutters are constructed from concrete in a colour designed to mimic sandstone. The <u>reconstruction</u> of the original gutters is advocated provided sufficient evidence can be located regarding their form and material.	Investigate original gutter details and feasibility of their replacement.	State Growth	3
4.21	<b>Inspection &amp; Maintenance of Drains</b> The drains are to be regularly inspected and maintained to ensure their continued functioning.	Effective maintenance of the drainage system is essential for removing water from the bridge.	Ongoing inspection and <u>maintenance</u> as part of a coordinated approach to drainage and damp issues.	State Growth	1
4.22	<b>Visual Impact of Drains</b> The PVC drain on the north east abutment is to be reburied and landscaped to prevent erosion and exposure of the drain.	The pipe near the north east abutment has been buried in the batter leading to the river. However, informal pedestrian access between the treated pine fencing has re-exposed the pipe and is visually intrusive. Works on the drainage infrastructure on the north west and south west banks was completed in 2015.	Re-bury the PVC pipe and seek advice on landscaping/visitor management to prevent re-exposure of the pipe and soil erosion.	State Growth/CCC	3

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
4.23	<p><b>Sandstone Stairs, West end of Bridge</b> The sandstone stairs on the west end of the bridge abutments are to be conserved as elements of <u>cultural significance</u>.</p> <p>The sandstone stairs should continue to function for their original use and all maintenance work should follow professional standards and be undertaken by suitably qualified personnel.</p>	<p>The sandstone stairs and their use are of cultural significance. The continuing use of the stairs will require ongoing <u>maintenance</u>.</p> <p>It is noted however that the stairs at the western end are not compliant to current Building Code of Australia standards and it is not possible to upgrade them without considerable modifications which would substantially alter the appearance of the bridge and stairs. Repairs will be required approximately every 5 years.</p>	Ongoing <u>maintenance</u> .	State Growth	1
4.24	<p><b>Removal of Graffiti</b> Specialist advice is to be sought on the removal of graffiti from the bridge.</p>	<p>The bridge is subject to graffiti, particularly in the mortar joints on the vault of the west arch, which has an adverse impact on the <u>cultural significance</u> of the <u>place</u>.</p> <p>Care is required to ensure the removal of graffiti does not cause damage to the stone or mortar joints.</p>	Seek specialist advice on graffiti removal and routinely remove.	State Growth	3
4.25	<p><b>Conservation of Centenary Stones</b> The lettering of the date stones on the north and south face of the bridge, and the commemorative centenary stones on the inside of the northern parapet are to be <u>conserved</u>.</p>	<p>The date and commemorative stones have historical significance and demonstrate some of the earliest interpretation of the bridge.</p> <p>Recutting the stones may cause further degradation of the stone by exposing a softer interior. The careful repainting of the inscriptions is preferred.</p>	Undertake careful <u>conservation</u> works as and when required to ensure that the inscriptions remain legible.	State Growth	2
4.26	<p><b>Maintenance of Sheathing Cramps</b> The cramps holding the top course of the sheathing stones are to be monitored and maintained to ensure that they continue to function.</p>	<p>Iron cramps hold the top course of the sheathing stones to the bridge piers. The cramps should be inspected and maintained to prevent rusting which could lead to stone decay.</p>	Ongoing inspection and <u>maintenance</u> .	State Growth	2

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
4.27	<p><b>Cleaning the Bridge</b> As required, organic growth is to be cleaned from the bridge. Care should be taken to ensure that the contractor is skilled in working on historic structures and that the methods and materials are appropriate to the cultural significance of the bridge and any necessary environmental considerations.</p> <p>Trial cleaning methods should be conducted on discreet parts of the bridge to ensure correct and non-invasive process.</p>	<p>Care is required to ensure cleaning methods and materials do not damage the stonework or the environment of the riverbanks and Coal River.</p> <p>Organic growth can affect the aesthetic significance of the bridge.</p> <p>The northern face is clean of organic growth as it receives greater sunlight.</p> <p>The southern face is in greater shade, has damp problems on the south west wing wall and has organic growth on the face of the bridge and piers.</p>	<ul style="list-style-type: none"> <li>• Appoint an experienced contractor to undertake cleaning of the bridge;</li> <li>• Conduct trial cleaning at discreet locations on the bridge; and</li> <li>• Utilise methods and materials that are culturally and environmentally appropriate.</li> </ul>	State Growth	3

## **6.8 Management of Public Riverbank Land and Infrastructure**

The public riverbank land forms a crucial part of the significance of the place. It also provides important tourism and passive recreation uses for relaxation, picnics and appreciating the bridge and surrounds. These values have been articulated in previous Conservation Plans and the more recent Vegetation Management Plan. Conservation policies have been prepared, based on this significance, the physical nature of the place, and the limited compatible uses available. Since 2010, the fence located on the south-east bridge abutment has been removed, allowing access to the public riverbanks defined by CTs 10089/3, 10089/4 and 44025/2. Informal pedestrian tracks have emerged in this area but require consolidation and management to prevent erosion. Foot traffic has also partially exposed the cylindrical and riveted iron boiler once associated with the adjacent flour mill. Rust has caused erosion and there is a potential risk of pedestrian damage to the boiler and personal injury. A new policy is provided to manage the boiler.

Table 16: Management of Public Riverbank Land and Infrastructure Policies

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
5.01	<b>Management</b> The land managers of the public open space apply the relevant policies of this Conservation Management Plan.	To ensure that the vegetation and public open spaces are managed in accordance with their <u>cultural significance</u> .	Endorsement of relevant sections of Conservation Management Plan.	CCC	1
5.02	<b>Maintaining Existing Character</b> The existing character of each of the publicly accessible riverbanks is to be <u>maintained</u> in accordance with their distinct character.	Each of the publicly accessible riverbanks has a different character. The north east bank is largely open, closely mown lawn; the north west bank is a more enclosed space, with informal arrangement of plantings and paths and subject to less maintenance; the south west bank combines both open grassed areas, formed viewing platforms, walking tracks, and individual and groups of trees. The variation between these three areas complements the general informality and character of the place and should be retained.	Ongoing <u>maintenance</u> consistent with the existing character.	CCC	1
5.03	<b>Walking Track Maintenance</b> The existing walking tracks are to be <u>maintained</u> in the existing form and materials. The construction of new tracks is to be avoided.	The existing walking tracks are important recreation elements allowing visitors to the <u>place</u> to appreciate its cultural significance. The gravel material of the tracks complements the informal character of the place.	Ongoing <u>maintenance</u> .	CCC	1
5.04	<b>Removal and Consolidation of Tracks</b> Manage the walking tracks along the riverbanks to minimise erosion. The unofficial dirt bike tracks on the CCC Reserve on the north west bank are incompatible with the cultural significance of the place and should be removed.	There has been improvement in consolidating the tracks on the south west end of the bridge, although grass loss and erosion appears to remain an issue. The unofficial dirt bike tracks are inconsistent with the <u>cultural significance</u> of the <u>place</u> .	<ul style="list-style-type: none"> <li>Determine means of maintaining existing tracks and minimising erosion and spread of informal tracks; and</li> <li>Remove unofficial dirt bike tracks on the CCC Reserve on the north west bank.</li> </ul>	CCC	2
5.05	<b>Cement Block Stair, South West Bank</b> The cement block stair on the south west bank	The current cement block stair is visually intrusive on the <u>cultural significance</u> of the place in terms of	<ul style="list-style-type: none"> <li>Remove existing cement block stair; and</li> </ul>	CCC	3

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
	should be removed. Should it be established that stair infrastructure is required at this point, any new stair should be designed to be sympathetic to the <u>cultural significance</u> of the bridge and its <u>setting</u> .	location, materials and the handrail. The replacement of this stair with new infrastructure requires careful consideration.	<ul style="list-style-type: none"> <li>Any replacement stair should not visually intrude on the <u>cultural significance</u> of the <u>place</u>.</li> </ul>		
5.06	<b>Introduction of new Visitor Infrastructure</b> Prepare a landscape masterplan and review built elements such as seating, rubbish bins, walking tracks, shelters etc. New infrastructure should be avoided until such a plan has been prepared.	The setting of the Richmond Bridge is an important aspect of its <u>cultural significance</u> . The informality and rural nature of this setting complements these values. The introduction of new infrastructure presents risks of introducing further visually intrusive elements, and an unsustainable <u>use</u> of the <u>place</u> . It should be coordinated and managed through the preparation of a landscape masterplan as recommended in the Vegetation Management Plan.	<ul style="list-style-type: none"> <li>Prepare a landscape masterplan; and</li> <li>Avoid the introduction of new infrastructure until the masterplan is prepared.</li> </ul>	CCC	1
5.07	<b>Car Parks</b> The car parks on St Johns Circle and off Bathurst Street should not be increased in size. New car parking spaces should avoid potential visual impacts to the Richmond Bridge and its <u>setting</u> .	The two car parks provide important services for visitors. However, providing further car parking in such proximity to the bridge and its <u>setting</u> should be avoided. Additional car parking poses risks to the setting of the <u>place</u> and an over intensification of the <u>use</u> of the <u>place</u> .	<ul style="list-style-type: none"> <li>Maintain current car park capacity; and</li> <li>Consider potential visual impacts on the Richmond Bridge and its <u>setting</u> from new car parking spaces.</li> </ul>	CCC	1
5.08	<b>Screening of North East Bank car park</b> The car park on St Johns Circle should be screened by low height plants.	The car park is a negligible element in the landscape. However, the car park is often full and the vehicles are visually intrusive on the <u>setting</u> of the <u>place</u> and important views to St John's Church. Any screening plants should be maintained at a height to retain significant views to St John's Church. The Vegetation Management Plan recommends carefully designed plantings to screen cars.	<ul style="list-style-type: none"> <li>Engage appropriate arboricultural, and/or heritage landscape architect to advise on:</li> <li>Planting of screening plants; and</li> <li>Ongoing maintenance to retain significant views.</li> </ul>	CCC	3
5.09	<b>Gatty Dam</b> The Gatty Dam is to be <u>maintained</u> to continue	The Gatty Dam is an element of <u>cultural significance</u> and should be <u>conserved</u> . Management	Ongoing <u>maintenance</u> .	CCC/Tasmanian Irrigation/	1

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
	to function.	responsibilities for the dam should be resolved between relevant parties.		TasWater	
5.10	<p><b>Rehabilitation of North East Embankment Area</b></p> <p>That professional landscape advice be sought on preventing pedestrian access directly adjacent to the north east bridge abutment which has caused erosion and exposure of the PVC drainage pipe.</p>	<p>A timber stair was previously located at this point and the 2010 CMP recommended its removal. The stair was subsequently removed, but no new stair infrastructure was introduced at another location. The result is that people continue to walk down the steep riverbank adjacent to the north east abutment causing erosion and visually marring the area.</p> <p>Continuation of the treated pine fence along the footpath and the introduction of native grass species may help discourage pedestrian access at this point.</p> <p>Options for creating a new stair towards the centre or northern end of the north east bank should be considered as a means of discouraging visitors using the informal track.</p>	<ul style="list-style-type: none"> <li>Seek professional advice on rehabilitating the area and discouraging pedestrian access at this point; and</li> <li>Construct a new sympathetic stair towards the centre or northern end of the north east bank.</li> </ul>	CCC	1
5.11	<p><b>Management of CCC Reserve, North West Bank</b></p> <p>Effort should be made to control the illegal dumping of rubbish at the CCC Reserve. Rubbish should be regularly collected from the area and the dumping of fill on the steep escarpment should cease.</p>	<p>The dumping of rubbish and fill at the CCC Reserve is inconsistent with the <u>cultural significance</u> of the <u>place</u>.</p>	<p>Ongoing monitoring and maintenance of the CCC Reserve to prevent the illegal dumping of rubbish and fill.</p>	CCC	1
5.12	<p><b>Management of Boiler, South East Bank</b></p> <p>The upper portion of the boiler should be carefully archaeologically excavated for recording purposes.</p> <p>The advice of a conservator should be sought for long term management strategies for the boiler.</p>	<p>The boiler is an item of <u>cultural significance</u> and should be conserved. It should be recorded in detail and long term conservation strategies developed.</p>	<ul style="list-style-type: none"> <li>Carry out discrete archaeological excavation and recording of the boiler; and</li> <li>Obtain and implement long term <u>conservation</u> advice.</li> </ul>	CCC	2

## 6.9 Vegetation Management

Vegetation forms an important part of the setting of the Richmond Bridge. Native riparian reeds are found along the river in certain locations, while mature exotic trees are located along the riverbanks providing shade, variations in height and form and seasonal transitions. These plantings include both specifically planted specimens and naturalised species on the riverbanks. The significance of these plantings was recognised in previous conservation plans.

The 2010 Conservation Management Plan recommended the preparation of a Vegetation Management Plan (VMP). This detailed study was commissioned by Clarence City Council and prepared by Landscape Impressions in 2015. It is included as an appendix in this Conservation Management Plan. The following sections summarises its key findings and recommendations. Recommendations have been transferred into policies below.

The VMP provides an assessment for the maintenance and renewal of vegetation in the vicinity of the Richmond Bridge. It includes a site analysis, weed assessment and an arboricultural assessment of trees to inform decision making on long term vegetation management. The VMP notes that the contemporary landscape of the bridge and its setting is an outcome of 'deliberate' and 'accidental' processes over time.

Remnants of historic plantings include the pine trees on the western banks and Lombardy Poplars on the eastern end of the bridge. However, most of the oldest plantings have declined and what exists today are largely naturalised exotic and native specimens. Much of the character of the place comes from this naturalised vegetation.

The VMP adopts the approach that it is appropriate to let the plantings landscape of the bridge continue to evolve with a similar character to what currently exists. Some elements of the built landscape do however require attention such as paths and drainage, signage, rubbish bins and seating.<sup>250</sup> Key findings from the VMP are summarised below.

### 6.9.1 Key Principles

The VMP has been informed by the following eight key principles:

1. Preserve historical and cultural values in the landscape, including views to and from the bridge.
2. Provide a safe and pleasant environment from which to enjoy the character and ambience of the Richmond Bridge.
3. Respect and celebrate the values that combine to make this an attractive and characterful 'place'.
4. Ensure a relatively smooth succession of vegetation over time so that drastic or sudden landscape changes are minimised.
5. Ensure 'weeds' are not allowed to spread to neighbouring properties.
6. Minimise the financial burden of management and maintenance of the landscape to current and future generations.
7. The character of the place is to be preserved over time by maintaining, as far as possible, vegetation type and structure similar to the current (2015) landscape.
8. Historically important species, which are often now declared weed species, should be replaced with modern cultivars of the same variety to preserve landscape character whilst minimising management costs and damage to historical or cultural assets.<sup>251</sup>

The VMP includes a recommended planting palette, identifying a range of native and exotic (evergreen and deciduous trees) as well as smaller native shrubs and grasses.<sup>252</sup>

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<sup>250</sup> Landscape Impressions. Richmond Bridge Vegetation Management Plan, Final, 6 November 2015, p.5  
<sup>251</sup> Ibid, p.6

### 6.9.2 Aquatic Vegetation

The VMP notes that the majority of aquatic vegetation within the Coal River is native, including *Phragmites australis* (common reed) dominating the northern end of the river, rushes (*Juncus* spp., *Eleocharis gracilis* etc.) and Ribbon Weed (*Triglochin procera*). Some of these plantings dominate the riverbanks, such as the common reed in the northern section and ribbon weed throughout. Some of these plantings are protecting the riverbanks from erosion and may filter high nutrient runoff from surrounding areas. The plantings are likely to continue to spread throughout the river as it continues to shallow due to sedimentation.<sup>253</sup>

### 6.9.3 Weed Strategy

A separate Weed Strategy is contained in the VMP. It acknowledges that some weeds are naturalised specimens of historical plantings on or adjacent to the study area, and may therefore be important elements contributing to the character of the place. Due to the long history of European settlement, this character is essentially a 'European' landscape. The objective is to maintain this character but balanced against minimising environmental and economic impacts of weeds, and in particular, management of the eight identified 'priority weeds' which are inconsistent with the character of the place and its use. A six point strategy is adopted for weed management:

1. Bimonthly monitoring each Management Zone for isolated specimens of priority weed species.
2. On-the-spot (i.e. at inspection time) manual removal of small specimens of priority weeds.
3. Using GPS tagging of larger priority weed specimens and scheduling a follow-up removal works request to be actioned within one month.
4. In the Riparian Management Zones, start weed control works up-stream. Ensure all weed debris is removed from the site to a Council nominated location and treated in accordance with Council's weed management policy.
5. The selected method of eradicating each weed specimen/clump will be site and species specific. The objective is to minimise disturbance of surrounding vegetation at all times and to 'work in from the edges' of larger infestations.
6. Sow/plant desirable species where larger areas of 'bare ground' have been exposed. This will be site-specific.<sup>254</sup>

### 6.9.4 Management Zone Approach

The VMP divided the publicly owned river banks into separate 'Management Zones' based on the rationale that the different areas have unique landscape characteristics warranting different approaches to landscape management. The VMP identifies 16 specific zones. Eleven of these relate to the publicly accessible riverbanks (Zones A-K) and five relate to Riparian Management Zones (1-5). This zoning is shown in the Figure below with a description of the key findings for each zone.

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<sup>252</sup> Ibid, pp.24-27

<sup>253</sup> Ibid, p.28

<sup>254</sup> Ibid, p.29

# Management Zones Map



# MANAGEMENT ZONES

NOTE: All title boundaries shown are indicative only. Works by council under this plan will be undertaken on public land only.

Figure 39: Vegetation Management Zones (Richmond Bridge Vegetation Management Plan. Reproduced with Permission of Clarence City Council)

### 6.9.5 The Cultural Landscape and Broader Setting

The VMP notes that many of the best views of the bridge are framed by vegetation from the broader landscape around study area. It refers to this as the 'borrowed' landscape. These significant views are depicted in the following Figure.

These trees are located outside of the study area, mostly on private property. The VMP recognises that succession planting for these trees is important to maintain the cultural landscape of the bridge and surrounds. In response, the VMP recommends that Council proactively engage with the community on succession plantings to ensure the smooth transition of the landscape, whilst avoiding drastic changes to the skyline and views when existing trees die or are removed. It is recommended that Clarence City Council investigate the potential of developing partnerships with adjacent landowners to implement the vegetation management principles and succession plantings. The VMP identifies seven areas where the vegetation of this 'borrowed' landscape is of particular priority for management:

1. The Blue Gums at St John's Church which form an important backdrop and skyline to views of the bridge, when viewed from the south west. It is recommended that Blue Gums continue to be used as replacement plantings in this location.
2. Cypress and Pines, 12 Gunning Street, and 52, 56 St John Circle: 12 Gunning Street is located to the north west of the bridge and 52 and 56 St John Circle are located to the north east of the open lawn area (Zone A). The private properties include mature cypress and pine trees. They have not been assessed by an arborist. Management options include replanting the trees on the private property (where owner consent is provided), or planting new trees near the northern ends of the adjacent public land (Zones A and F).
3. White Poplars, Bridge Street. These two trees are located at the western side of the traffic island and form an important focal point and backdrop for the bridge. The specimens are currently healthy but succession planning for these trees is important.
4. Poplars on Private Land, 'The Mill', 2 Wellington Street. This includes the Lombardy Poplars to the south of the eastern bridge abutments; White Poplars along the river banks; and mature trees throughout the garden of the Mill House. The VMP recommends negotiation with the land owner to manage succession plantings, and gradual replacement of the White Poplars with Elms, as recommended for the opposite Zones I, J and Riparian Zone 5. Ongoing management of suckered poplars is necessary, and potential impacts on the bridge structure from such growth has been identified as an issue by State Growth.
5. Mature Eucalypt, She-Oak and Peppercorn trees to rear of 62 and 64 Bridge Street. These trees are located on private property to the south west of the bridge. The trees screen the buildings on the properties. Negotiations with the landowners for ongoing management is recommended.
6. Eucalypts west of St Luke's Cemetery. These trees are located on the cemetery escarpment, to the south east of the bridge. The mature eucalypts form a backdrop to views and should eventually be replaced with the same species, subject to landowner negotiations.
7. Poplars, 51 Bridge Street (Corner Gunning Street). The Lombardy Poplars form a focal point to views as the bridge is approached from the east. They are located on private property. Negotiations with the landowner are recommended for succession planning either at this site, or an alternative location in the vicinity, using low-suckering Lombardy poplars.<sup>255</sup>

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<sup>255</sup> Ibid, pp. 8, 31-32, 34

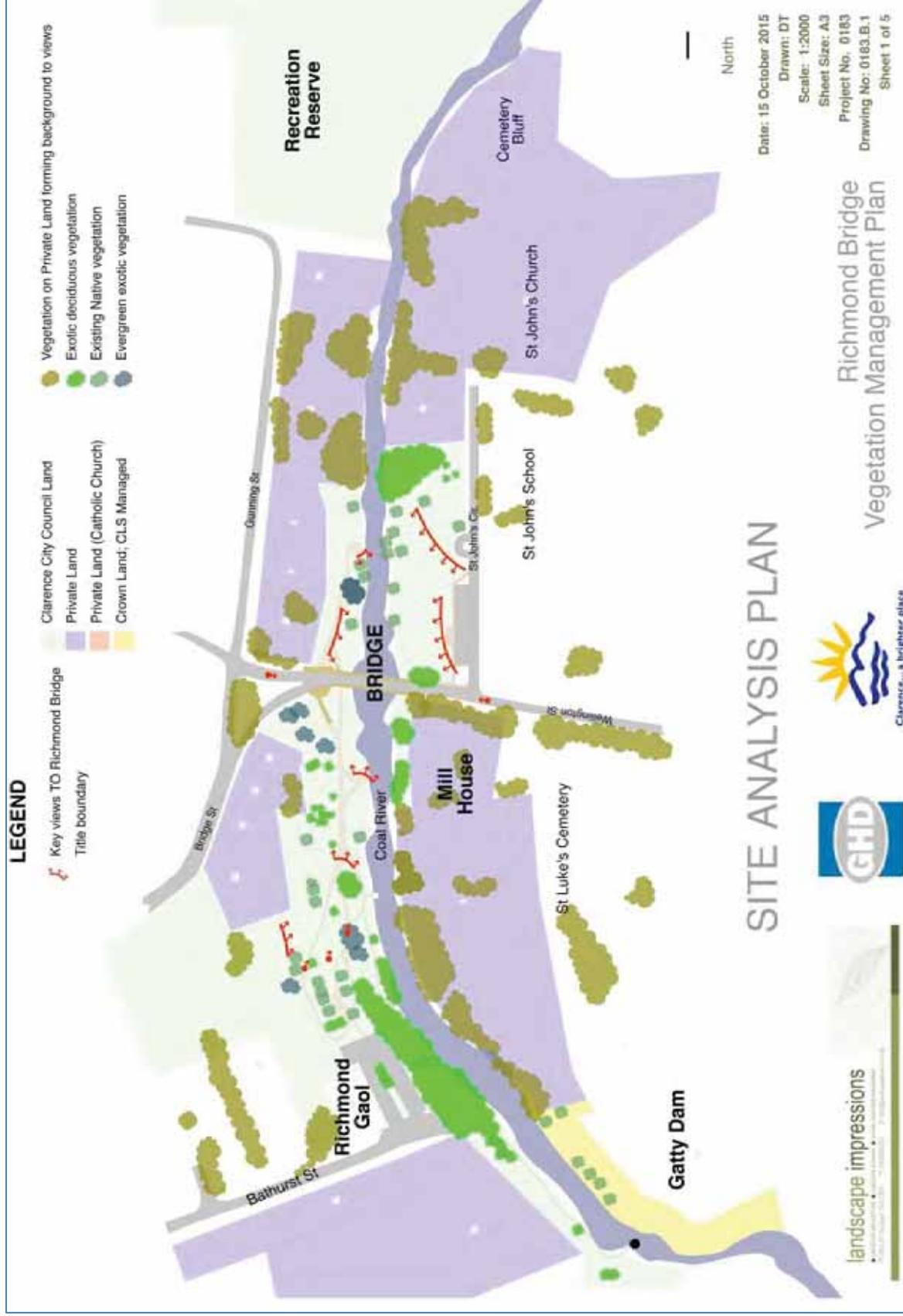


Figure 40: Site Analysis Plan showing significant views to the Bridge and Landscape (Richmond Bridge Vegetation Management Plan. Reproduced with Permission of Clarence City Council)

Table 17: Vegetation Management Policies

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
6.01	<p><b>Recognition of Significance</b> The vegetated <u>setting</u> of the bridge including individual and groups of trees, open grassed areas and riparian vegetation forms part of the <u>cultural significance</u> of the place and should be managed in accordance with the Vegetation Management Plan (VMP).</p>	<p>The vegetation of the riverbanks is an important part of the aesthetic and historical <u>cultural significance</u> of the <u>place</u>. The VMP analyses this <u>significance</u> and proposes strategies for management which should be applied.</p>	<p>Consideration of the <u>significance</u> of the vegetation as part of ongoing maintenance.</p>	CCC	1
6.02	<p><b>Management of Vegetation</b> That the VMP be adopted as the overarching guideline for vegetation management in accordance with the following key principles:</p> <ol style="list-style-type: none"> <li>1. Preserve historical and cultural values in the landscape, including views to and from the bridge.</li> <li>2. Provide a safe and pleasant environment from which to enjoy the character and ambience of the Richmond Bridge.</li> <li>3. Respect and celebrate the values that combine to make this an attractive and characterful '<u>place</u>'.</li> <li>4. Ensure a relatively smooth succession of vegetation over time so that drastic or sudden landscape changes are minimised.</li> <li>5. Ensure 'weeds' are not allowed to spread to neighbouring properties.</li> <li>6. Minimise the financial burden of management and maintenance of the landscape to current and future generations.</li> <li>7. The character of the <u>place</u> is to be preserved over time by maintaining, as far as possible, vegetation type and structure similar to the current (2015) landscape.</li> </ol> <p>Many historically important species exhibit</p>	<p>The key principles included in the VMP provide a sound basis for future decision making regarding vegetation management.</p>	<ul style="list-style-type: none"> <li>• Adoption of the VMP; and</li> <li>• Implementation of the VMP in accordance with its key principles.</li> </ul>	CCC	1

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
	undesirable traits, and in several cases are now declared weeds. Replacement planting and succession planting should be implemented in-line with the VMP recommendations to incrementally replace these species with modern cultivars or new species that would <u>maintain</u> the character of the place. <sup>256</sup>				
6.03	<b>Weed Management</b> That the Weed Strategy contained in the VMP be implemented, acknowledging that some weeds are naturalised specimens of historical plantings on or adjacent to the study area, and may therefore be important elements contributing to the character of the <u>place</u> . <sup>257</sup>	The character of the <u>place</u> is essentially that of a European landscape. The objective of maintaining this character needs to be balanced against minimising environmental and economic impacts of weeds, and in particular the eight identified 'priority weeds'. <sup>258</sup>	<ul style="list-style-type: none"> <li>Implement the six point strategy for weed management as contained in the VMP.</li> </ul>	CCC	1
6.04	<b>Management through Zoning</b> That the zoning of the <u>place</u> be used as the mechanism for managing the character, values, and issues for each zoning area.	The VMP divided the publicly owned river banks into separate 'Management Zones' based on the rationale that the different areas have unique landscape characteristics warranting different approaches to landscape management. The VMP identifies 16 specific zones. Eleven of these relate to the publicly accessible riverbanks (Zones A-K) and five relate to Riparian Management Zones (1-5).	<ul style="list-style-type: none"> <li>Adopt the objectives for each of the management zones;</li> <li>Address the key vegetation management issues for each zone; and</li> <li>Implement the main prescriptions for each zone.</li> </ul>	CCC	1
6.05	<b>Management of the Broader Vegetated Setting</b> That CCC proactively engage with the community and private landowners on vegetation management, including succession plantings to ensure the smooth transition of the landscape.	The broader Richmond townscape and its plantings provide an important background or <u>setting</u> for the bridge landscape.  These trees are on private property and outside of the areas of land owned and managed by Clarence City Council.  A cooperative approach to manage this vegetation is recommended. Mechanisms under the Planning Scheme may also assist in managing changes to	<ul style="list-style-type: none"> <li>Adopt a cooperative approach with the landowners of significant vegetation located on private properties as identified in the VMP.</li> </ul>	CCC	1

<sup>256</sup> Ibid, p.6

<sup>257</sup> Ibid, p.29

<sup>258</sup> Ibid, p.29

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
6.06	<b>Vegetation Management Plan Action Plan</b> Adopt the VMP Action Plan (Appendix 1 of the VMP) as the plan for achieving the vegetation management objectives.	vegetation. The Action Plan documents the various actions recommended to implement the principles and strategies of the VMP. The Action Plan identifies specific vegetation works such as tree removal or pruning, and removal of stumps, shrubs of weeds. Each action is allocated a priority of high (within 6 months), moderate (6-18 months) or low (18 months-3 years), and identifies the responsible party, based on land ownership, namely Clarence City Council and State Growth.	<ul style="list-style-type: none"> <li>Implement the VMP Action Plan.</li> </ul>	CCC/State Growth	1-3
6.07	<b>Processes for Works</b> Seek necessary Commonwealth, State and Local heritage approvals when undertaking actions, works or development which may affect significant vegetation.	The heritage listing of the <u>place</u> includes its vegetated setting, principally the publically accessible riverbanks.	<ul style="list-style-type: none"> <li>Seek and obtain all necessary permits.</li> </ul>	Parties proposing works	1

## 6.10 River Management

After the bridge, the Coal River is the dominant element of the place. It has important historical and aesthetic values providing a strong north-south axis within the linear landscape. Enhancing the health of the Coal River brings both environmental and cultural benefits. An area of concern are the risks it poses to the bridge during times of flood. Flood damage to the bridge has also been previously identified by the community as a concern.

In 1995, a flood plain study of Richmond was undertaken. The study aimed to determine the extent and height of flooding due to flooding events in the Coal River. The analysis found that the area was prone to flooding at selected risk levels and hence can be used to guide development and planning within certain areas. Better information on flood levels and flows would improve the accuracy of the results, and it was recommended that during floods the Richmond Bridge should be used as a hydrograph to aid the gauging of flow during the flood. The study also found that the bridge itself could potentially have a significant impact on flow in the river. The modelling showed that an Annual Exceedance Probability (AEP) of 1:20 would result in flooding of the riverbank areas of Richmond. AEP's at 1:50 or 1:100 probabilities would result in the flooding of extensive areas to the north east of St John's Church and on the south east riverbank.<sup>259</sup> The 1995 study provides important information on analysing flood risk. However, it does not provide recommendations on how to manage flood risks.

A hydraulic analysis was prepared for the 1997 Conservation Plan. The hydraulic analysis found that because of the shallow riverbed slope, there were minimal differences in hydrostatic pressure between the upstream and downstream bridge faces. Should water levels increase above the arch soffits, water would flow across the road and behind the parapet walls. Although it was concluded that this water movement would ensure minimal differential hydrostatic pressure on the upstream parapet wall, heavy debris could pose a problem. The average recurrence interval for floods reaching the main arch soffit was once every 90 years. Flood levels reaching the top of the pavement of the bridge are estimated as occurring every 250 years, and reaching the top of the parapets once every 1000 years.

The hydraulic analysis recognised that flood risk could be reduced where the capacity of the river could be improved. That is, a 10% reduction in the 'roughness' of the riverbanks would result in a corresponding 10% increase in flow capacity. For this reason, it was recommended that willows and other dense growth should be rigorously controlled. As noted, considerable work has been achieved in removing willows from the riverbanks. However, attention should be given to north east riverbank below St John's Cemetery bluff. The removal of willows will require continual work. Noting the risk and pressures debris could pose to the bridge, the hydraulic analysis recommended the removal of items like fences in the line of the floodway.<sup>260</sup>

The Department has previously advised that the 1997 hydraulic analysis remains applicable. This CMP recommends a coordinated approach to mitigating flood risks through the preparation of a flood management plan. The flood management plan should review previous studies and more recent information or data on flood risk assessments and management approaches.

The completion of the Craigbourne Dam in 1987 regulated the flow of water downstream, and has moderated previous seasonal fluctuations. Prior to the construction of the dam, the river would cease flowing and dry up frequently during summers. Geotechnical testing was carried out in 2017 and hydrological investigations are underway to determine if rapid fluctuations in water levels at the bridge have the potential to cause geotechnical issues which would compromise the structural integrity of the bridge. Investigations are ongoing, and the results of this hydrological work will be used to determine what, if any, action is needed.

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<sup>259</sup> Hydro Electric Commission, Tasmania, Water Resources Department, Richmond Flood Plain Study, Department of Primary Industry and Fisheries, Tasmania. Land & Water Resources Division, June 1995, Report No. 001-0546-CR-001, pp.7, 22, Flood Inundation Map

<sup>260</sup> Nigel Lewis et. al., op. cit, pp. 65-66

Table 18: River Management Policies

No.	Policy	Reason for Policy	Action/ Implementation	Responsibility	Priority
7.01	<b>General Management of Coal River</b> The Coal River is to be managed as an element of <u>cultural significance</u> .	The Coal River is a defining element of the <u>place</u> and an integral part of the history and perception of the bridge and therefore its <u>cultural significance</u> .	Changes to the nature of the Coal River, for example flow and water quality, should be considered for their impact on the <u>cultural significance</u> of the <u>place</u> .	Tasmanian Irrigation/W&MR	1
7.02	<b>Health of Coal River</b> The water quality of the Coal River should be enhanced.	The health of the Coal River is important for environmental reasons. It also assists in the <u>conservation</u> of the riparian vegetation which is an important element of <u>cultural significance</u> .	Ongoing monitoring of water health.	W&MR	1
7.03	<b>Flood Management Plan</b> A flood management plan is to be prepared to assist in preventing damage to the bridge.	Floods present a risk to the Richmond Bridge. A management plan allows for a coordinated and more effective approach to mitigating risks. The flood management plan should review previous studies and more recent information or data on flood risk assessments and management approaches.	As part of a coordinated approach to flood risk, prepare a Flood Management Plan involving all necessary stakeholders.	All parties	1
7.04	<b>Removing Flood Risks</b> Debris should be removed from upstream of the bridge, which could pose a risk during times of flood. Support and encouragement should be given to the work of Landcare Australia in removing crack willow and debris from upstream of the bridge.	Landcare Australia provides an important service in removing crack willows and associated debris from public, and where allowed, private land. The Rivercare Plan for the Coal River was prepared in 1999 and is being progressively implemented by Coal River Products Association through its Landcare Australia work. This mainly involves crack willow removal and revegetation with native plants in a controlled way, section by section, to avoid bank erosion and build up of woody debris which could threaten the bridge during flood. The removal of these elements helps mitigate flood risk.	As part of a coordinated approach to flood risk: <ul style="list-style-type: none"> <li>Remove debris from upstream of the bridge;</li> <li>Support and encourage the work of Landcare Australia; and</li> <li>Ongoing <u>maintenance</u> will be required to prevent reinfestation.</li> </ul>	All parties	1

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
7.05	<b>Removing Flood Risks: Other Elements</b> During times of extreme flood, the fences on the downstream side of the floodway across Wellington Street may need to be removed to allow the floodway by-pass to function.	The ability of the floodway to by-pass water around the bridge relies on the unimpeded flow of water across the floodway. <sup>261</sup>	As part of a coordinated approach to flood risk remove fences in flood spillway during times of extreme flood.	State Growth /CCC	1
7.06	<b>Mitigating Impacts during times of Flood</b> During times of flood, an excavator is to be made available to prevent the build up of debris against the north face of the bridge.	The build up of debris against the north face of the bridge may create horizontal pressures, resulting in structural damage to the bridge.	As part of a coordinated approach to flood risk remove debris from north face of the bridge.	State Growth	1
7.07	<b>Managing Riverbank Erosion</b> The riverbanks are to be monitored for erosion and remediation works be carried out as necessary.	The erosion of the riverbanks poses a risk to the cultural significance and recreational use of the place.	Remediation works in accordance with a Rivercare Plan and the Vegetation Management Plan.	CCC	1
7.08	<b>Managing Water Fowl</b> The population of ducks and geese is to be managed at a sustainable level to prevent adverse pollution of the Coal River.	The ducks and geese at the bridge are a popular attraction for visitors. However, the number of birds needs to be monitored, and as required, controlled to prevent water pollution.	Monitoring and management controls of ducks and geese.	CCC	3
7.09	<b>Hydrological Investigations</b> Carry out analysis of hydrological investigations to determine any geotechnical issues at the bridge associated with water management practices.	The use of the Coal River for water supply purposes involves no, or minimal impact on the cultural significance of the place. However, this should be confirmed through hydrological investigations.	The management of water flow in the river at the Richmond Bridge may require review following analysis of the hydrological assessment.	State Growth/ Tasmanian Irrigation/CCC/ W&MR, DPIW&E	1

<sup>261</sup> Nigel Lewis et. al., op. cit, p.68

## 6.11 Traffic and Road Management

The continued use of the bridge for its original purpose forms part of its significance. However, traffic management remains an ongoing concern with damage arising from:

- vehicle collisions with the parapets;
- The inadequacy of the current traffic calming measures in preventing speeding over the bridge;
- The visual intrusion of the current traffic calming measures;
- The visual and auditory impact from vehicles on the aesthetic significance and visitor experience; and
- The lack of monitoring and enforcement of the speed and load limit over the bridge.

The latest Annual Average Daily Traffic (AADT) data for the Richmond Bridge dates from 2014, at which time 3,457 vehicles per day were recorded. Previous AADT data for the bridge noted, 3,114 vehicles in 2008; 2,871 vehicles in 2004 and 2,328 vehicles in 2000.

Data from 2004 also provided some information about the type of vehicles crossing the bridge at that time. It was observed that school and bus traffic formed the bulk of traffic on the bridge and that, some 90 light trucks crossed the bridge. In March and April 2000, a three week vehicle classification survey was undertaken to examine if vehicles in excess of the 25 tonne load limit were crossing the bridge. More than 60,000 vehicles were recorded. Three, one-way crossings by semi trailers were recorded. The survey technique did not measure vehicle masses. However it was concluded that there was no evidence that vehicles exceeded the load limit.

As noted in the policies for managing the fabric of the bridge, the structure is susceptible to vibrations, and two of the causes of vibration relate to traffic load and traffic speed.

An issue of some contention remains the current 25 tonne vehicle load limit. Previous Conservation Management Plans recommended that this be reduced to 15 tonnes, advice which was not adopted. The more recent data obtained from vibration monitoring has shown that the 25 tonne limit is acceptable, but that vibration risks increase substantially with high speeds and braking actions over the crest of the bridge. This 2017 Conservation Management Plan does not recommend a reduction in load limit, but rather the limit should be continually reviewed through vibration monitoring. Of considerable importance is the need to alter driver behaviour. The most effective means of doing so is through enforcement of the speed limit. Ideally this would be from a fixed speed camera on the approach to the bridge. Where a fixed camera is not installed, mobile cameras should be used at the crossing with greater regularity as a measure of changing driver behaviour.

Appropriate traffic management solutions should be determined between State Growth and Clarence City Council. In addition to addressing the road treatment and approaches to the bridge, heritage issues should be considered in traffic management planning for the bridge. This includes:

- Investigate the possibility of installing a permanent speed camera at the crossing point as a means of enforcing the speed limit;
- If a permanent speed camera is not installed, the regular use of mobile speed cameras;
- Pedestrian safety on the bridge and approaches;
- Consideration of appropriate standard lights that are more sympathetic to the cultural significance of the place;
- Consideration of appropriate signage regimes; and

- Intelligent Access Recording (IAR) on permit vehicle movement. IAR allows State Growth to remotely monitor the movement of heavy vehicles, and would provide data on permit vehicles exceeding the upper load limit which have crossed the bridge. It is envisaged that IAR for the bridge would form part of a monitoring program for the broader State road network.

Table 19: Traffic Management Policies

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
8.01	<b>Load Limit</b> The load limit of the bridge be continually monitored through the use of the vibration meter.	The vibration meter has demonstrated that the existing 25 tonne load limit is acceptable, but exceedances in speed and braking on the crest of the bridge pose increased vibration risks to the bridge. The vibration meter must however be operational to provide this data.	Monitor road limit and adjust if required.	State Growth	1
8.02	<b>Monitoring and Enforcement of Load Limit</b> Monitor the weight of vehicles to ensure compliance with the load limitation by monitoring vibration. Intelligent Access Recording (IAR) should be considered as a means of monitoring permit vehicle movements over the bridge. The drivers of vehicles exceeding the load limit should be prosecuted.	Restricting vehicles in excess of the load limit is an important means of preventing structural damage to the bridge through excessive weight. IAR would provide State Growth with data on the movement of heavy vehicles, and those vehicles exceeding the upper load limit which have crossed the bridge. It is envisaged that IAR for the bridge would form part of a monitoring program for the broader State road network. Enforcement of the load limit provides an important educational role.	<ul style="list-style-type: none"> <li>Undertake monitoring of load limit by installation of a vibration monitor;</li> <li>Investigate IAR on permit vehicle movement; and</li> <li>Enforcement of breaches of the load limit.</li> </ul>	State Growth	1
8.03	<b>Monitoring and Enforcement of Speed Limit</b> That State Growth liaise with the Tasmanian Police regarding speed management at the crossing. Investigations should occur on the possibility of installing a permanent speed camera at the crossing point as a priority. If a permanent speed camera is not installed, mobile speed cameras should be used regularly at the crossing.	Excessive speed has previously caused damage to the bridge through collisions and is a key source of excessive vibrations. Enforcement of the speed limit provides an important educational role and a means of modifying driver behaviour.	<ul style="list-style-type: none"> <li>Liaison with Tasmanian Police regarding speed management;</li> <li>Investigate possibility of installing a permanent speed camera;</li> <li>If a permanent speed camera is not possible, mobile speed cameras should be used regularly at the crossing; and</li> <li>Enforcement of breaches of the speed limit.</li> </ul>	State Growth / Tasmanian Police	1
8.04	<b>Maintaining Road Approaches</b> The gravel road verges on the Wellington Street approach to the bridge are to be maintained.	The gravel road verges complement the historic setting of the bridge.	Maintain the road verges in their gravel form.	CCC	2

## 6.12 Interpretation

Interpretation refers to all the ways of presenting the significance of the place. It may be a combination of the treatment and fabric of the place; the use of the place; the use of interpretive media, such as events, activities, signs and publications, or activities, but is not limited to these examples. Interpretation can form an integral part of the visitor experience to heritage places.<sup>262</sup>

The National Heritage Management Principles also include the objective of presenting and transmitting the National Heritage Values to all generations.

The 1997 Conservation Plan recommended interpretation works as a priority and that interpretation was to encompass the entire history of the place, based on authenticity. It provided a number of components including:

- Restoration of the landscape setting to the significant period (i.e. to 1923);
- Retention or reestablishment of viewing points, especially views to St John's;
- Determine appropriate walking routes, prepare map and guide and discreetly define major routes near the bridge using ground level markers; and
- Publications ranging from handouts to detailed books.<sup>263</sup>

At present, there is on-site interpretation including the centenary commemoration stones, information panels, the viewing platform adjacent to the south west abutment, and two viewing platforms on the south west bank from which to appreciate the bridge and recreate views from the river edge looking to St John's Church through the arches of the bridge. Certain aspects of the heritage significance of the Richmond Bridge are easily appreciated. For example, its high aesthetic values and strong sense of age which relates to the historical importance of the bridge. Interpretation of the historical use and significance of the setting of the bridge is less well understood but explained in summary form through the interpretation panels. The National Heritage Values of the bridge are also acknowledged on a panel installed in recent years.

Importantly, the bridge and its setting form part of a broader landscape and townscape. Relationships exist between the bridge and numerous other sites such as the gaol, court house, cemeteries and cottages near the bridge. Any interpretation should provide a holistic approach to presenting the significance of the bridge within this broader setting.

- A variety of options may be appropriate for the bridge and its setting. What is important is that it stimulates visitors and enhances their understanding of the place. Options may include:
- Consider options that integrate the bridge and setting into a broader Richmond visitor experience, for example, the Richmond Gaol, the Miller's Cottage, Bridge Street, and the Churches and cemeteries;
  - The use of the place for temporary events, for example, community functions, 'Ten Days on the Island', Dark MOFO installations or events;
  - Downloadable walks providing a recommended walking route for visitors, and multimedia interpretation of the place and its features (the Sullivans Cove pod walk might be useful to consider as a model);
  - Inclusion of the Richmond Bridge within existing Tourism Tasmania Smartphone apps such as AppnGo, or developing a new one similar to existing apps for Tasmania's touring regions;
  - Social media such as Facebook, Twitter or Instagram where new information on the bridge can be shared with the public; and

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<sup>262</sup> New South Wales Heritage Office, Heritage Information Series: Heritage Interpretation Policy, 2005

<sup>263</sup> Nigel Lewis et. al., op. cit, p.117

- Annual celebrations of the anniversary of the bridge.

The above options are provided to provoke thought and ideas and not necessarily specific interpretation proposals. Before developing specific interpretation proposals, it is recommended that a separate Interpretation Plan be prepared for the bridge and setting. An interpretation plan establishes the policies, strategies and advice for interpreting a heritage item. It is based on research and analysis and plans to communicate the significance of the item. The plan identifies key themes, storylines and audiences and provides recommendations about interpretation media. It also includes advice on how to implement the plan.<sup>264</sup> This recommendation was made in the 2010 Conservation Management Plan and remains relevant.

Whilst recognising the importance of interpretation, it is considered that conveying the values of the bridge needs to occur in a coordinated and consistent manner, hence the need for a separate plan. An important aspect of the significance of the setting of the bridge is its informality, and strong rural character. For this reason, careful consideration should therefore be given to any further on-site interpretation structures that could potentially compromise the values and character of the place by introducing further visual clutter.

Richmond is an important tourism destination, with 162,348 international or inter-state visitors stopping in the town during 2016. Although specific visitor statistics are not available, it could be assumed that the Richmond Bridge is a significant drawcard for tourists. The image of the bridge is certainly promoted to tourists in both advertising material and souvenirs. Tourism can provide significant economic benefits to a community. It can also explain the importance of a place to a broader audience.

However, the local community has previously expressed concern with short visits to the bridge and Richmond which degrade the full importance of the place. Social media or tourism apps that promote heritage, gastronomic, wine and commercial attractions within Richmond and the Coal River valley could go some way in expanding appreciation of the region.

More broadly, tourism can create alienation within a community with a loss of traditional industries and services, and an overcrowding of visitors and cars.<sup>265</sup> For these reasons, it would be desirable to understand what tourism activities are sustainable in the long term without having an adverse social impact on the local community. The need to promote the values and tourism potential of Richmond and the bridge needs to be balanced with the Richmond community's aspirations for their town. For this reason, it has been recommended that there would be benefit to preparing a Visitor Management Plan and Interpretation Plan for Richmond as a whole.

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<sup>264</sup> New South Wales Heritage Office, Heritage Information Series: Heritage Interpretation Policy, 2005

<sup>265</sup> McFie, P, 'Whose Past? – Whose Present? Tourism and Local History', Tasmanian Historical Research Association, Vol. 39, No. 1, p.57

Table 20: Interpretation Policies

No.	Policy	Reason for Policy	Action/ Implementation	Responsibility	Priority
9.01	<p><b>Interpretation of Significance</b> The <u>cultural significance</u> of the Richmond Bridge and its <u>setting</u> should be adequately <u>interpreted</u> to managers, users and visitors. <u>Interpretation</u> should consider a variety of forms and be based upon a sound and authentic <u>interpretation</u> of the history of the <u>place</u> and its <u>cultural significance</u>. <u>Interpretation</u> of <u>geoheritage</u>, natural and indigenous values would complement the <u>interpretation</u> of the historic cultural heritage values of the bridge and setting.</p>	<p>The Richmond Bridge and setting is of exceptional <u>significance</u>. Interpretation can form an integral part of the visitor experience to heritage places.</p>	<p>The New South Wales Heritage Office has developed an interpretation policy that would be highly useful in the development of an interpretation plan for the Richmond Bridge and setting. All forms of interpretive devices should be considered for the place including: determining a visitor walking route to appreciate the significance and visual qualities of the bridge; publications; developing a social media and digital presence; using the place for special events or temporary installations.</p>	State Growth /CCC	1
9.02	<p><b>Development of an Interpretation Plan</b> An interpretation plan should be developed that authentically presents and explains the history of the <u>place</u>. An interpretation plan should consider all the values of the place: National, State and Local.</p>	<p>Formal interpretation of the Richmond Bridge and its <u>setting</u> should not occur on an ad hoc basis without consideration to broader issues such as historical veracity, potential heritage impacts, and visitor management issues.</p>	<p>Development of an interpretation plan.</p>	State Growth /CCC	1
9.03	<p><b>Interpretation</b> Future interpretation of the <u>place</u> should not compromise its heritage significance and character.</p>	<p>Interpretation should enhance the understanding and appreciation of the significance of the <u>place</u>. The values and character of the <u>place</u> should be properly considered in the development of interpretation devices to avoid compromising the significance of the <u>place</u>, for example, through unsympathetic or poorly located signage that could mar the aesthetic values of the <u>place</u>.</p>	<p>That any interpretation plan is developed in conjunction with an appropriately skilled heritage practitioner. That interpretation is available in digital format via Smartphone Application and social media.</p>	State Growth /CCC	1

## 6.13 Further Work

The National Heritage Management Principles encourages further work in the identification and protection of the heritage values of the bridge and setting in two areas. In summary, these are:

1. Ongoing technical and community input to decisions and actions that may have a significant impact on their National Heritage values; and
2. Management should respect all heritage values.

The need for heritage training has been recommended as a specific policy. Community involvement in decision making is also to be pursued. Regular engagement and the advice of the Richmond Advisory Committee (a committee of Clarence City Council) is likely to be the most effective means of community engagement in management of the place.

An important National Heritage Management Principle is respect for all heritage values. The National Heritage values of the place relate to historic heritage values. The existence of any Aboriginal heritage values are at this stage unknown. Preliminary consultation with Aboriginal Heritage Tasmania, DPIPWE determined that the place does not contain any previously recorded Aboriginal heritage sites and that there were no requirements for an Aboriginal heritage investigation as part of this Conservation Management Plan. The absence of previously recorded Aboriginal heritage items should not necessarily be interpreted as a conclusion that that such values do not potentially exist at the place. This Conservation Management Plan continues to recommend an Aboriginal heritage assessment be prepared for the place.

Although the Tasmanian Heritage Register acknowledges archaeological values at the place, there is yet to be a survey of such values. The need for an historical archaeological assessment remains a priority in this Conservation Management Plan.

Table 21: Further Work Policies

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
10.01	<b>Heritage Training</b> Ongoing heritage management and <u>conservation</u> training is to be made available to managers, contractors and staff working on the bridge and <u>setting</u> .	The management of National Heritage places should use the best available knowledge, skills and standards.	Provision of training to managers, contractors and staff.	State Growth /CCC	1
10.02	<b>Historical Archaeology Assessment</b> A suitably qualified historical archaeologist should prepare an archaeological assessment of the Richmond Bridge and its setting. Such an assessment should provide an understanding of the archaeological values of the <u>place</u> (the bridge, river and riverbanks); including its potential to contain significant archaeological features; and provide guidance on the <u>conservation</u> of those values. The results of the assessment should be included in the next review of this CMP.	The archaeological significance of the <u>place</u> is currently poorly understood. The historical activities that have occurred at the place (e.g. fords across the river, flour milling) have potential to be demonstrated through archaeological <u>fabric</u> at the <u>place</u> . Archaeological values may be present in the bridge, the river and the riverbanks.	Engage a suitably qualified historical archaeologist to prepare an archaeological assessment of the Richmond Bridge and its setting. Archaeological values will be managed in accordance with the THC's Practice Note 2: Managing Historical Archaeological Significance in the Works Process.	State Growth /THC/CCC	1
10.03	<b>Historical Archaeology during Works</b> In the absence of an archaeological assessment, Heritage Tasmania, DPI/PWE should be consulted with for any works within the place which are likely to involve subsurface disturbances.	Ground disturbance works, for example, landscaping or the installation of services has the potential to impact on archaeological values.	Consultation should occur with Heritage Tasmania to determine archaeological requirements.	State Growth /CCC	1
10.04	<b>Aboriginal Heritage</b> An Aboriginal Heritage assessment of the Richmond Bridge and its setting should be undertaken. Such an assessment should provide an understanding of the potential Aboriginal heritage values of the <u>place</u> and provide guidance on the <u>conservation</u> of those values. The results of the assessment should be included in the next review of this CMP. In the absence of an assessment, the Unanticipated Discovery Plan (Appendix 4) should be applied.	All Aboriginal heritage is protected under Tasmanian legislation. Items of Aboriginal heritage significance can continue to exist within highly developed areas. It is considered that there would be benefit in undertaking an Aboriginal heritage assessment of the <u>place</u> to provide an inclusive understanding of the values of the place and to establish management practices where necessary. An Aboriginal Heritage assessment would also be consistent with the Coal River Catchment Management Plan.	<ul style="list-style-type: none"> <li>Undertake an Aboriginal heritage assessment of the Richmond Bridge and its setting; and</li> <li>In the absence of an assessment, apply the Unanticipated Discovery Plan.</li> </ul>	State Growth /CCC	1

## 6.14 Review and Reporting

Places can change over time in their values, uses, owner expectations and statutory requirements. For this reason, it is necessary to regularly review Conservation Management Plans to determine whether significant fabric and/or values have been compromised. Likewise, the community have an expectation to be informed of the current condition, changes of progress in conservation works.

**Table 22: Review and Reporting Policies**

No.	Policy	Reason for Policy	Action\ Implementation	Responsibility	Priority
11.01	<p><b>Review of Conservation Management Plan</b> This Conservation Management Plan (CMP) should be reviewed on a regular basis, at least once every five years, or when new evidence is discovered that has the potential to impact on the present policies.</p> <p>State Growth and CCC should have primary responsibility for implementing any review.</p>	<p>Conservation Management Plans should not be static documents but be regularly reviewed to ensure they remain relevant.</p> <p>State Growth and CCC have primary responsibility for the management of the bridge and setting.</p>	Engage suitably qualified team to undertake review.	State Growth /CCC	1
11.02	<p><b>Making the CMP Publicly Available</b> On endorsement, the CMP should be made publicly available online and at a variety of locations, for example, State Growth, CCC, HT, and the State Library of Tasmania. It should also be made available to staff or contractors undertaking works at the <u>place</u>.</p>	<p>The community have a demonstrated interest in the <u>conservation</u> of the Richmond Bridge and the management policies should be readily available.</p>	Disseminate final report.	State Growth	1
11.03	<p><b>Reporting</b> Reports should be made publicly available that detail the <u>conservation</u> of the <u>cultural significance</u> of the <u>place</u> and progress in implementing policies, or other works related to the Richmond Bridge and its setting.</p>	<p>The community have a demonstrated interest in the <u>conservation</u> of the Richmond Bridge and should be regularly informed of its current condition and works.</p> <p>An understanding of past works will also be useful to future managers of the <u>place</u>.</p>	Produce and disseminate report.	State Growth /CCC	1



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## Appendix 1: Site Inventory Sheets

## Introduction

The purpose of the following Site Inventory Sheets is to document key elements of the place, or conservation issues which require addressing. The Sheets are structured into those components related to the bridge, and key items of conservation concern and infrastructure such as stairs, car parks and so on. The conclusion from this analysis is that the heritage values of the place have been retained, and in some cases enhanced since 2010. The Inventory Sheets have been simplified from the 2010 version. Some Inventory items have been removed for works that have been completed, whilst in other cases multiple elements have been grouped into single inventories, where they logically relate to each other.

The Inventory Sheets provide concise information regarding each element, including (as relevant):

- A brief description of the element, including any historical information, physical description, and as identified its current condition;
- An assessment of significance including the overall level of significance of the element;
- Applicable policies and actions; and
- Current identified risks to the element.

Historical information has been sourced from this Conservation Management Plan, and unless otherwise stated, the original references have not been repeated.

The 2010 Conservation Management Plan included Inventory Sheets for the riverbanks and plantings. This information has now been superseded by the Vegetation Management Plan (VMP) which is now incorporated into this Conservation Management Plan. The VMP should be referred to for its principles, zoning, objectives and actions as relevant.

## Levels of Significance

The various elements that form the Richmond Bridge and setting have different levels of cultural significance. Understanding this hierarchy of significance provides guidance on the appropriate conservation processes. That is, proposed actions, works, or development potentially affecting the cultural significance of the place should be consistent with the relative levels of cultural significance of the elements of the place.

Providing levels of significance can also allow for the prioritisation of conservation works and the sound allocation of resources. Specific policies have been prepared on how the levels of significance are to be applied.

Each element has been given a rating of significance, from high, moderate to low. Neutral and intrusive elements are similarly identified. In combination, the various elements form a place of exceptional significance, as acknowledged by the National Heritage listing. It should be noted that there is no ranking of elements in the National Heritage values; all are of equal outstanding value to the nation.

### *High Significance*

Those elements considered representative of key functions or thematic contributions of the place. This include: the construction and provision of transport infrastructure; recreational uses of the riverbanks; and industrial activity on the riverbanks.

Elements of high significance will demonstrate earliness, intactness, rarity/representativeness and high aesthetic qualities. Elements of high cultural significance must be conserved.

### *Moderate Significance*

Those elements considered representative of secondary functions or thematic contributions of the place. Elements may be described as being of moderate significance where they date from later periods of development, have a lower level of integrity, are typical of their form or type and do not have high aesthetic qualities. Although not being of high significance, these elements contribute to an understanding of the place. Elements of moderate cultural significance should be conserved wherever possible.

### *Low Significance*

Those elements that contribute to the significance of the bridge and its setting, although have little heritage value in their own right. These elements may be recent introductions, or may have been so modified that they no longer have the ability to demonstrate their thematic context.

Elements of low significance should not be confused with neutral or intrusive elements. Elements of low cultural significance may be retained, modified or removed provided a conservation benefit can be demonstrated by the action.

### ***Neutral and Intrusive Elements***

The following Inventory Sheets also identify those neutral and intrusive elements. Neutral elements make no contribution to the significance of the place, nor do they have an adverse impact on the place. Conversely, intrusive elements do have an adverse impact and should be removed.

### **Other Considerations**

Providing the various elements of the place with levels of significance is particularly useful when considering fabric based values. However, not all values of the Richmond Bridge and its setting may be demonstrated in the fabric of the place. For example, the community significance relates to the place as a whole, and specifically its recreational uses. The recreational uses are complemented by a range of infrastructure. The infrastructure varies from discrete to intrusive elements. Where an element of infrastructure associated with recreational uses is recommended for removal, consideration should be given to what impact that may have on the community use, and therefore appreciation of the place.

Another area where the values may not be demonstrated in fabric are certain elements of aesthetic significance. Aspects such as the reflections and sound of water, and the seasonal changes in the landscape are more intangible in their nature.

1

**RICHMOND BRIDGE**



North Face of Bridge, looking south west



South Face of Bridge, looking north

**DESCRIPTION AND CURRENT CONDITION:**

The Richmond Bridge crosses the Coal River at a low point between the east and west escarpments. The bridge was constructed from 1823 to 1825 and is an arched road bridge constructed from locally sourced brown sandstone. The bridge has six spans of 4.3, 8.1, 8.3, 8.5 and 4.1 metres respectively with four main semi-circular arches founded in the river bed, with two smaller arches founded on the east and west banks. It has been suggested that a cross section through the bridge would show longitudinal walls built 600mm apart providing the structure with robust stiffness. The fill of the bridge is basalt and sandstone gravel of loose to medium density with sandy clay fines. The foundations have been subject to settlement, providing the bridge with its asymmetrical and undulating outline.

The bridge is faced with random coursed rough ashlar, with a darker stone chosen for the stringcourse. Above the stringcourse are the parapets, constructed from random course sandstone with coping stones. The parapets were raised in 1835. In 1884, the bridge piers were encased and the riverbed paved in sandstone to improve water flow. The piers have sloping fins with angular leading edges to direct the water flow and are constructed from smooth faced ashlar sandstone.

The bridge operates for vehicle and pedestrian uses with a current load limit of 25 tonnes. The bridge has two road lanes, originally 7.2 metres between the parapets and 41 metres in length with a bitumen road surface. Gravel footpaths flank the road deck. Terminating the parapets are circular bollards.

The bridge is generally in good condition and continues to be used for both pedestrian and vehicular transport.

**SIGNIFICANCE ASSESSMENT:**

Historical Value:	High	<p>The Richmond Bridge is Tasmania's, and Australia's oldest surviving large bridge which retains a high degree of integrity and continues to serve its original function.</p> <p>The bridge is an outstanding example of very early and substantial public works.</p> <p>The bridge is important in demonstrating the system of convict punishment through employment in public works.</p> <p>The scale of the bridge is significant in demonstrating the pivotal role played by convict labour in the early development of the colony.</p>
Rarity Value:	High	<p>The Richmond Bridge is a rare example of an early nineteenth century large stone arch bridge. Richmond Bridge is Tasmania's oldest bridge which retains a high degree of integrity and continues to serve its original purpose. For a period of eleven years, the Richmond Bridge had the longest span of any of Australia's bridges.</p> <p>Masonry bridges constructed prior to 1856 are comparatively rare in Tasmania.</p> <p>The construction method of the Richmond Bridge is also a significant</p>

1 RICHMOND BRIDGE		
		and rare aspect.
Research Potential:	Moderate	From an engineering perspective, the bridge offers insight into very early bridge design and construction methods in Tasmania. The continued operations of the bridge and changing conditions in vehicles and water flow provides an opportunity to understand structural stability, and hydraulic and structural stresses.
Representative Value:	Moderate	The Richmond Bridge is representative of the large-scale public infrastructure developed in Tasmania during the early colonial period.
Technical Achievement:	High	<p>The Richmond Bridge demonstrates a high degree of technical achievement in Tasmanian bridge design and construction.</p> <p>The Richmond Bridge was the first multiple arched bridge to be constructed in Tasmania and the first with the piers actually founded in the river itself.</p> <p>Using the ancient method of rubble construction, the Richmond Bridge is important in demonstrating the skills of its designer, Major Thomas Bell and the skill and workmanship of the convict workforce in its construction.</p> <p>The continued operation of the bridge since 1825 demonstrates the technical achievement of the design and construction.</p>
Social Value:	High	<p>The Richmond Bridge is an iconic place. The bridge within its riverbank setting and the historic Richmond township form a landscape that is appreciated and valued by locals and visitors alike. The bridge has formed an integral destination of cultural tourism and promotion since the mid twentieth century.</p> <p>The social value of the place is also demonstrated by visitation to the bridge and use of the riverbanks as vantage points for viewing the bridge as well as for passive recreation.</p> <p>The bridge is a special place for the people of Richmond. The local community identify the bridge as the most important structure in their historic town, providing a sense of identity and distinction from other rural communities.</p>
Associational Value:	High	<p>The Richmond Bridge is associated with a range of individuals and groups whose lives and work was important in Tasmania's history. This includes:</p> <ul style="list-style-type: none"> <li>• Commissioner Bigge;</li> <li>• Lieutenant-Governor Sorell;</li> <li>• Superintendent of Stonemasons, William Wilson;</li> <li>• Major Thomas Bell;</li> <li>• The convict workforce;</li> <li>• Colonial Architect, David Lambe;</li> <li>• Civil Engineer and Architect, John Lee Archer.</li> </ul>
Aesthetic Value:	High	<p>The aesthetic significance of Richmond Bridge is appreciated locally, within Tasmania and nationally. Its picturesque image has been used widely in national and international tourism promotions since the 1920s and has inspired the work of major Australian artists.</p> <p>The form of the bridge has an obvious sense of antiquity.</p> <p>The Richmond Bridge is a prominent visual landmark within the</p>

## 1

## RICHMOND BRIDGE

landscape.

The relationship between the built form of the bridge, topography, Coal River and vegetation, combine to form a view of great scenic beauty.

**OVERALL LEVEL OF SIGNIFICANCE:** High

**POLICIES: & ACTIONS**

The Richmond Bridge is to be managed in accordance with the policies of this Conservation Management Plan. Policies of particular relevance include:

- **The General Policies:** General Policy (1.01), Managing the National Heritage Values (1.02), Cultural Significance (1.03), Levels of Cultural Significance (1.04), Applying Levels of Cultural Significance in Conservation Processes (1.05), Removal of Elements of Low Cultural Significance (1.06), Removal of Intrusive Elements (1.07), Reconstruction of Missing Fabric (1.08), Maintenance & Works Program (1.09), Works Approvals (1.10);
- **Use of the Richmond Bridge Policies:** Use of the Bridge (3.01), Use of the Bridge: Structural Capacity (3.02); Commercial Uses of the Place (3.03); Use of the Coal River (3.06);
- **Managing the Fabric of the Bridge Policies – Policies for the Prevention of Further Damage:** Vibration monitoring (4.01), Load Limit (4.02), Conservation of Bridge Stonework (4.03), Replacement of Badly Decayed Stones (4.04), Stone Decay in the East Arch (4.05), Replacement of Lost Bedding (4.06), General Repointing (4.07), Drainage Management (4.08), Ponding & Drainage under East Arch (4.09), Damp Problems south west Wing Wall (4.10), Ongoing Maintenance of Road Surface (4.11), Waterproofing Footpaths (4.12), and Traffic Impact on Parapet Walls (4.13);
- **Managing the Fabric of the Bridge Policies – Management, Maintenance, Inspection, Recording and Aesthetic Policies:** Managing the National Heritage Values (4.14), General Monitoring (4.15), 3D Laser Recording (4.16), Recording Changes to the Bridge (4.17), Maintenance of Footpaths (4.18), Maintenance of Gutters (4.19), Reconstruction of Gutters (4.20), Inspection & Maintenance of Drains (4.21), Visual Impact of Drains (4.22), Sandstone Stairs west end of Bridge (4.23), Removal of Graffiti (4.24), Conservation of Centenary Stones (4.25), Maintenance of Sheathing Cramps (4.26), Cleaning the Bridge (4.27);
- **Vegetation Management Policies:** As in Accordance with the Vegetation Management Plan;
- **River Management Policies:** Flood Management Plan (7.03), Removing Flood Risks (7.04 and 7.05), Mitigating Impacts during times of Flood (7.07), Hydrological Investigations (7.09); and
- **Traffic and Road Management Policies:** Load Limit (8.01), Monitoring and Enforcement of Load Limit (8.02), Monitoring and Enforcement of Speed Limit (8.03).

Full details of these policies are included in the Conservation Policies Section, and as required, the following individual Inventory Sheets.

**THREATS:**

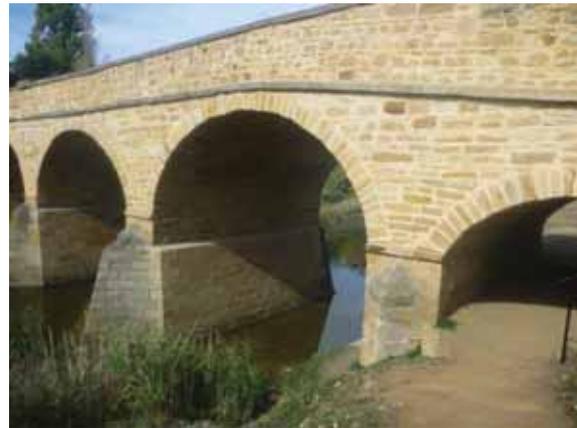
- Inherent weaknesses of the bridge from foundation movements due to river bed erosion and settlement; alterations which have given a lack of continuity due to the later constructions not achieving an original bond entry, and the use of site soil as stone bedding;
- Susceptibility of the bridge to vibrations resulting from traffic load, traffic speed, bedding loss, foundation movement and bridge deck potholes;
- Lack of adequate ongoing maintenance;
- Lack of appropriate ongoing repair work;
- Lack of monitoring of condition of the bridge;
- Damage due to vehicular usage including heavy loads, excessive speed accidents and wear due to ongoing use;
- Drainage and damp has potential to cause stonework problems;
- Graffiti problems;
- Adverse impacts from adjacent development;

**1****RICHMOND BRIDGE**

- Damage from vegetation growth;
- Flood risks;
- Lack of enforcement of speed and load limits.



Northern Face of Bridge, looking south west



Northern Face of Bridge, looking south east

**DESCRIPTION AND CURRENT CONDITION:**

The northern face of the bridge is generally in a good condition and enhanced since 2010.

- The old cement-rich mortar appears to have been completely removed and replaced with more appropriate lime based mortars. This has improved the aesthetic appeal of the bridge and will assist in long term conservation.
- Cracks are located on the northern face, on the north east abutment, eastern and western piers, but are managed and rectified as necessary as part of annual maintenance.
- The north face of the bridge receives a greater amount of sun and is largely free of organic growth. The fins of the piers have some staining.

**SIGNIFICANCE ASSESSMENT:**

The northern face of the bridge is an essential component of the place. This element has the same significance as the Richmond Bridge as a whole.

**OVERALL LEVEL OF SIGNIFICANCE:** High

**POLICIES & ACTIONS:**

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Attention should be given to the following specific policies:

- The vibration meter should be maintained in continual operation for early warning of problems resulting from the basic weaknesses of the bridge. Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue (4.01);
- The vibration meter camera to be maintained to indicate whether load or speed is excessive for a recorded vibration (4.02);
- As required, an appropriately skilled stonemason with experience in working on historic structures undertakes conservation works to the stonework in accordance with the General Policy (4.03);
- As required, an appropriately skilled stonemason with experience in working on historic structures replace badly decayed stones when subject to a 50mm surface loss. New stones should use 100mm thick inserts of a better quality stone (4.04);
- As required, an appropriately skilled stonemason should replace lost bedding with a quicklime grout to make loose stonework solid (4.06);
- As required, the repointing of mortar joints to be undertaken by an appropriately skilled stonemason using a permeable quick lime based mortar coloured to match the recent repointing work. Repointing works should have a weather struck finish. Any remaining hard, cement rich mortar should be replaced (4.07);

## 2

## NORTHERN FACE OF BRIDGE

- The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework (4.15);
- The 3D laser scanning of the bridge to be used as the basis for understanding the fabric of the bridge (4.16);
- All actions, works or development affecting the fabric of the bridge are appropriately recorded and copies lodged with State Growth and Heritage Tasmania (4.17);
- The lettering of the date stones on the north and south face of the bridge, and the centenary stone on the inside of the northern parapet are conserved (4.25); and
- As required, organic growth is cleaned from the bridge. Care should be taken to ensure that the contractor is skilled in working on historic structures and that the methods and materials are appropriate to the cultural significance of the bridge and any necessary environmental considerations. Trial cleaning methods should be conducted on discreet parts of the bridge to ensure correct and non-invasive process (4.26).

### THREATS:

The threats identified in Inventory Sheet 1 (Richmond Bridge) are applicable to the northern face. Specific threats to the northern face include:

- Inherent weaknesses of the bridge from foundation movements due to river bed erosion and settlement; alterations which have given a lack of continuity due to the later constructions not achieving an original bond entry, and the use of site soil as stone bedding;
- Susceptibility of the bridge to vibrations resulting from traffic load, traffic speed, bedding loss, foundation movement and bridge deck potholes;
- The cracks have the potential for damage to the structure of the bridge, either slowly due to continuing use, or quickly if subjected to sudden excessive stress; and
- Organic growth on the bridge could have an adverse affect on the aesthetic significance of the place.

### PREVIOUS INVENTORY:

- The cracks in the north eastern abutment identified by Spry in 1990 but are managed and rectified as needed; and
- Spry considered that the condition of the pointing of the bridge (in 1990) was unsatisfactory with poor quality mortar and application. Spratt considered in 1993 that the high cement mortars were not causing damage sufficient to warrant their immediate removal at that time. It would appear that nearly all the cement rich mortars have been removed since 2010.

## 3

## SOUTHERN FACE OF BRIDGE



Southern Face of Bridge, looking north



Southern Face of Bridge, looking north west

**DESCRIPTION AND CURRENT CONDITION:**

The southern face of the bridge is generally in a good condition and enhanced since 2010.

The old cement-rich mortar appears to have been completely removed and replaced with more appropriate lime based mortars. This has improved the aesthetic appeal of the bridge and will assist in long term conservation. The south face of the bridge receives less sun and the fins of the piers have some staining. Damp problems continue exist on the south west wing wall following the stone steps. Ivy has re-grown on the south east abutment and face of the bridge.

**SIGNIFICANCE ASSESSMENT:**

The southern face of the bridge is an essential component of the place. This element has the same significance as the Richmond Bridge as a whole.

**OVERALL LEVEL OF SIGNIFICANCE:** High

**POLICIES & ACTIONS:**

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Attention should be given to the following specific policies:

- The vibration meter to be maintained in continual operation for early warning of problems resulting from the basic weaknesses of the bridge. Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue (4.01);
- The vibration meter camera to be maintained to indicate whether load or speed is excessive for a recorded vibration (4.02);
- As required, an appropriately skilled stonemason with experience in working on historic structures undertakes conservation works to the stonework in accordance with the General Policy (4.03);
- As required, an appropriately skilled stonemason with experience in working on historic structures replace badly decayed stones when subject to a 50mm surface loss. New stones should use 100mm thick inserts of a better quality stone (4.04);
- As required, an appropriately skilled stonemason should replace lost bedding with a quicklime grout to make loose stonework solid (4.06);
- As required, the repointing of mortar joints be undertaken by an appropriately skilled stonemason using a permeable quick lime based mortar coloured to match the recent repointing work. Repointing works should have a weather struck finish. Any remaining hard, cement rich mortar should be replaced (4.07);
- The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework (4.15);

### 3

## SOUTHERN FACE OF BRIDGE

- The 3D laser scanning of the bridge is used as the basis for understanding the fabric of the bridge (4.16);
- All actions, works or development affecting the fabric of the bridge are appropriately recorded and copies lodged with State Growth and Heritage Tasmania (4.17);
- The lettering of the date stones on the north and south face of the bridge, and the centenary stone on the inside of the northern parapet are conserved (4.25);
- As required, organic growth is cleaned from the bridge. Care should be taken to ensure that the contractor is skilled in working on historic structures and that the methods and materials are appropriate to the cultural significance of the bridge and any necessary environmental considerations. Trial cleaning methods should be conducted on discreet parts of the bridge to ensure correct and non-invasive process (4.26); and
- That the ivy growing on south east end of the bridge should be continually removed.

#### THREATS:

The threats identified in Inventory Sheet 1 (Richmond Bridge) are applicable to the southern face. Specific threats to the southern face include:

- Inherent weaknesses of the bridge from foundation movements due to river bed erosion and settlement; alterations which have given a lack of continuity due to the later constructions not achieving an original bond entry, and the use of site soil as stone bedding;
- Susceptibility of the bridge to vibrations resulting from traffic load, traffic speed, bedding loss, foundation movement and bridge deck potholes;
- The cracks have the potential for damage to the structure of the bridge, either slowly due to continuing use, or quickly if subjected to sudden excessive stress; and
- Organic growth on the bridge could have an adverse affect on the aesthetic significance of the place.

#### PREVIOUS INVENTORY:

It would appear that the vast majority of cement rich mortars have been removed since 2010 improving the visual aesthetics of the bridge and stone conservation.

## RICHMOND BRIDGE ROAD SURFACE, FOOTPATHS, GUTTERS & KERBS



Road Surface and footpath, looking north east, note pot holes forming on gutter edge.



Southern gravelled footpath, with concrete kerb on right. Looking west.



Typical section of footpath, kerbs and gutters and road surface

### DESCRIPTION AND CURRENT CONDITION:

The surface of the bridge is bitumen and generally in good condition. It was sealed in 1946 and in 1980 and waterproofed post-1997. Potholes are beginning to form on the southern edge between the road and gutter which should be addressed.

The concrete guttering and kerbing were carried out as part of the 1980 works. The Richmond Preservation and Development Trust advised the then Richmond Council that the guttering and kerbs near the bridge should be sympathetic in colour and form to the significance of the bridge. The bridge gutters and kerbs vary from good to fair condition. The gutters and kerbs are concrete, coloured to match sandstone kerbing.

Gravel footpaths are in a good condition, but do not appear to have been waterproofed as part of previous works projects. The gravel surface is not original fabric, although the material is consistent with the traditional surface.

### SIGNIFICANCE ASSESSMENT:

The bitumen road surface is a neutral element.

The bridge gutters and kerbs are neutral elements. However, they complement the overall significance of the bridge by attempting to provide a more sympathetic colour than normal grey concrete.

The gravel footpaths are of high significance for demonstrating the traditional surface of the footpaths which complements the historic values of the bridge; and contributing to the aesthetic value and community uses of the place.

### POLICIES & ACTIONS:

- The road surface should be subject to ongoing maintenance, including rectifying pot holes which are beginning to emerge adjacent to the gutters (4.11);
- The footpaths be waterproofed by expert specialists to prevent the transfer of water into the structure of the bridge (4.12). Waterproofing must form part of a coordinated response to managing drainage issues (4.08);
- The footpaths should be maintained including the continued use of the gravel surface (4.18);
- The gutters be maintained to a condition that ensures their functionality for the removal of water (4.19); and
- Consideration be given to replacing the current concrete bridge gutters with infrastructure that is of a material that is more sympathetic to the cultural significance of the place. The reconstruction of the original gutters is advocated provided sufficient evidence can be located regarding their form and material (4.20).

### THREATS:

- Lack of maintenance of road, footpaths and gutters;
- Water entry through footpaths and
- The potholes will continue to cause further degradation to the road surface.

### PREVIOUS INVENTORY:

The road was resealed in 2013, but requires attention to emerging potholes. The footpaths have not been waterproofed as previously recommended.



Inner face of southern parapet, looking south east.



Coping Stones, southern parapet. Looking east.

#### DESCRIPTION AND CURRENT CONDITION:

The inner faces of the parapet walls are generally in a good condition. The western end of the parapet was raised in 1835. The replacement of most of the inappropriate cement-rich mortar on the inner faces of the parapet with lime based mortars occurred prior to 1990.

Generally, the mortar on the inner face of the northern parapet is in a poorer condition than that on the southern parapet wall. This would appear to be because the southern wall has been repeatedly repaired following vehicular damage.

The western end of the inner parapet included commemorative centenary stones which are separately addressed in these inventory sheets.

#### SIGNIFICANCE ASSESSMENT:

The parapets are essential component of the place. They have the same significance as the Richmond Bridge as a whole.

#### POLICIES & ACTIONS:

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Attention should be given to the following specific policies:

- The vibration meter to be made operational to provide for early warnings of problems resulting from the basic weaknesses of the bridge. The vibration meter and associated equipment should be regularly inspected and maintained. Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue (3.02, 4.01);
- The vibration meter camera to be maintained to indicate whether load or speed is excessive for a recorded vibration (4.02);
- As required, an appropriately skilled stonemason with experience in working on historic structures undertakes conservation works to the stonework in accordance with the General Policy (4.03);
- As required, an appropriately skilled stonemason with experience in working on historic structures replace badly

**5****INNER FACES OF PARAPETS**

decayed stones when subject to a 50mm surface loss. New stones should use 100mm thick inserts of a better quality stone (4.04);

- As required, an appropriately skilled stonemason should replace lost bedding with a quicklime grout to make loose stonework solid (4.06);
- As required, the repointing of mortar joints be undertaken by skilled stonemason using a permeable quick lime based mortar coloured to match the recent repointing work. Repointing works should have a weather struck finish. Any remaining hard, cement rich mortar should be replaced (4.07);
- The prevention of excessive speeding over the bridge to be pursued as a means of preventing damage to the parapet walls caused by vehicular accidents (4.13);
- The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework (4.15);
- The 3D laser scanning of the bridge be used as the basis for understanding the fabric of the bridge (4.16);
- All actions, works or development affecting the fabric of the bridge are appropriately recorded and copies lodged with State Growth and Heritage Tasmania (4.17); and
- As required, organic growth is cleaned from the bridge. Care should be taken to ensure that the contractor is skilled in working on historic structures and that the methods and materials are appropriate to the cultural significance of the bridge and any necessary environmental considerations. Trial cleaning methods should be conducted on discreet parts of the bridge to ensure correct and non-invasive process (4.27).

**THREATS:**

- Lack of ongoing inspection and maintenance;
- Vehicle collisions;
- Strengthening the parapet walls;
- Water entry into joints from open joints; and
- Hard, cement-rich mortar causing structural problems.

**PREVIOUS INVENTORY:**

The condition of the parapets appears to have been maintained since 2010. Open joints appear to have been filled. Ongoing monitoring and maintenance will be required.



Eastern arch, note drainage left hand side. Looking south.



Repaired mortar joint. Looking east.



Gravel drain, looking north.



Ivy growth, looking north.

**DESCRIPTION AND CURRENT CONDITION:**

Of all components of the bridge, the most extensive conservation works post-2010 have been carried out in the eastern arch. The arch was in a poor condition, largely caused by moisture. Specific problems included water ponding; longitudinal cracks; salt efflorescence on the stones and mortar joints; severe stone and mortar loss; the presence of hard, cement rich mortars and ivy growing on the exterior.

A substantial amount of work has been carried out in the eastern arch including its entire repointing, the installation of a drainage system, removal of the tree and filling of the depression. Despite these works, damp continues to be a problem within the arch, and salt efflorescence is beginning to re-emerge. The ivy from the adjoining property has also regrown and will require continual maintenance and removal.

**SIGNIFICANCE:**

The intrados of the eastern arch is an essential component of the place. This element has the same significance as the Richmond Bridge as a whole.

**POLICIES & ACTIONS:**

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Moisture problems appear to be a particular problem for the eastern arch, and attention should be given to the following specific policies:

- The vibration meter to be made operational to provide for early warnings of problems resulting from the basic weaknesses of the bridge. The vibration meter and associated equipment should be regularly inspected and maintained. Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue (3.02, 4.01);
- The vibration meter camera to be maintained to indicate whether load or speed is excessive for a recorded vibration (4.02);
- As required, an appropriately skilled stonemason with experience in working on historic structures undertakes conservation works to the stonework in accordance with the General Policy (4.03);
- As required, an appropriately skilled stonemason with experience in working on historic structures replace badly decayed stones when subject to a 50mm surface loss. New stones should use 100mm thick inserts of a better quality stone (4.04);
- As required, an appropriately skilled stonemason should replace lost bedding with a quicklime grout to make loose stonework solid (4.06);
- As required, the repointing of mortar joints be undertaken by skilled stonemason using a permeable quick lime based mortar coloured to match the recent repointing work. Repointing works should have a weather struck finish. Any remaining hard, cement rich mortar should be replaced (4.07);
- That specialist advice be sought on drainage management for the entire bridge, including preventing the ponding of water under the south east arch (4.08, 4.09);
- The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework (4.15); and
- That the ivy growing on south east end of the bridge should be continually removed.

**THREATS:**

- Lack of ongoing maintenance;
- Spry identified two threats relating to the cracks. Firstly, slow damage due to continuing existing use, and secondly, rapid damage caused by sudden excessive stress;
- Structural problems caused by stone decay;
- Water entry into joints from open joints;
- Hard, cement-rich mortar causing structural problems;
- Water entering the structure of the bridge by poorly maintained, inoperative or ineffective water shedding

**6****MOISTURE IMPACTS - EASTERN ARCH**

methods; and

- The ivy has the potential to cause damage to the stone.

**PREVIOUS INVENTORY:**

Problems with the eastern arch were identified in the 1997 and 2010 CMPs. Extensive works have been carried out in the area, which have greatly improved the arch structurally and aesthetically. However water ponding and removal continues to be an ongoing issue and must be considered as part of a comprehensive analysis of water removal from the bridge.



South western wingwall, with stairway. Looking west.



South western wingwall. Note the lime mortar pointing. Looking east.

#### DESCRIPTION AND CURRENT CONDITION:

The south western wing wall is in a good condition. The different sized stones clearly demonstrate the raising of the parapet wall in 1835.

Damp issues appear to exist with this area of the bridge. The stones on the inner face of the parapet adjacent to the bollard exhibit delamination. The southern face of the bridge receives less sun than the northern face. Stone staining and damp problems are evident on the southern face.

#### SIGNIFICANCE:

The south west wing wall is an essential component of the place. This element has the same significance as the Richmond Bridge as a whole.

#### POLICIES:

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Attention should be given to the following specific policy:

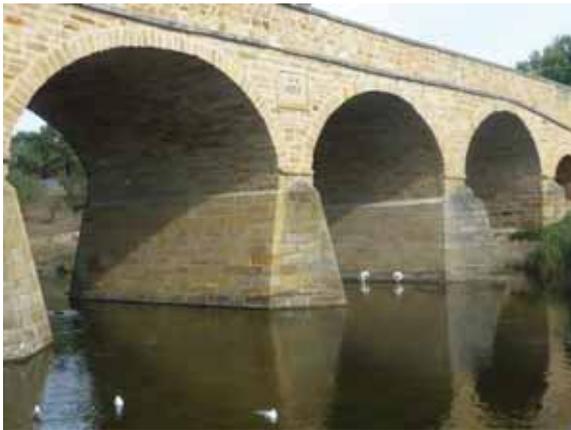
- As part of drainage management, identify the cause of damp on the south west wing wall and appropriate means of addressing the problems (4.10).

#### THREATS:

- Lack of ongoing maintenance; and
- Structural problems caused by damp and stone decay.

**PREVIOUS INVENTORY:**

The 2010 CMP identified damp issues with the south western wingwall. Repointing works have been carried out, however damp continues to be an issue.



Northern face of bridge and piers. Looking south east.



Southern face of bridge and piers. Note the cement mortar on the pier fin. Looking east

#### DESCRIPTION AND CURRENT CONDITION:

In 1884, the bridge piers were encased and the riverbed paved in sandstone to improve water flow. The piers have sloping fins with angular leading edges to direct the water flow and are constructed from smooth faced ashlar sandstone. The sandstone is tied to the piers with painted iron cramps. In 1973 it was identified that the iron cramps were rusting and should be replaced. The southern faces of the piers demonstrate greater staining than the northern piers. The piers are in good condition.

#### SIGNIFICANCE:

The bridge piers are essential components of the place. They demonstrate the last major works to the bridge occurring in 1884. These elements have the same significance as the Richmond Bridge as a whole.

#### POLICIES:

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Attention should be given to the following specific policies:

- The vibration meter to be made operational to provide for early warnings of problems resulting from the basic weaknesses of the bridge. The vibration meter and associated equipment should be regularly inspected and maintained. Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue (3.02, 4.01);
- The vibration meter camera to be maintained to indicate whether load or speed is excessive for a recorded vibration (4.02);
- As required, an appropriately skilled stonemason with experience in working on historic structures undertakes conservation works to the stonework in accordance with the General Policy (4.03);
- As required, an appropriately skilled stonemason with experience in working on historic structures replace badly decayed stones when subject to a 50mm surface loss. New stones should use 100mm thick inserts of a better

**8****BRIDGE PIERS**

quality stone (4.04);

- As required, an appropriately skilled stonemason should replace lost bedding with a quicklime grout to make loose stonework solid (4.06);
- As required, the repointing of mortar joints be undertaken by skilled stonemason using a permeable quick lime based mortar coloured to match the recent repointing work. Repointing works should have a weather struck finish. Any remaining hard, cement rich mortar should be replaced (4.07);
- The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework Any remaining hard, cement rich mortar should be replaced (4.07);
- The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework (4.15);
- That the cramps holding the top course of the sheathing stones be monitored and maintained to ensure that they continue to function (4.26); and
- As required, organic growth is cleaned from the bridge. Care should be taken to ensure that the contractor is skilled in working on historic structures and that the methods and materials are appropriate to the cultural significance of the bridge and any necessary environmental considerations. Trial cleaning methods should be conducted on discreet parts of the bridge to ensure correct and non-invasive process (4.27).

**THREATS:**

- Lack of adequate ongoing maintenance;
- Rusting of iron cramps causing damage to the stonework of the piers; and
- Organic growth on the bridge could have an adverse affect on the aesthetic significance of the place.

**PREVIOUS INVENTORY:**

The 1997 CMP noted that the iron cramps tying the top of the sheathing to the pier were cleaned and painted and the adjacent fillet reformed with cement mortar and that they were in good condition. They have not been addressed since.

Spry identified biocide application followed by water jetting as having been effective in cleaning the bridge. Cleaning works occur as required.



Stormwater cover, north west riverbank, looking east.



Stormwater cover (RHS), south west riverbank, looking east.



Exposed PVC drainage pipe, north eastern abutment, looking south east.

**DESCRIPTION AND CURRENT CONDITION:**

Drainage infrastructure on the north east, north west and south west banks has been improved since 2010. Some redundant infrastructure has been removed, which has improved the aesthetic qualities of the place. Specialist advice has been sought on the drainage of the bridge, however issues continue to exist, particularly with the eastern arch. The concrete stormwater covers are necessary, but visually intrusive.

**SIGNIFICANCE:**

Drainage infrastructure on the north east, north west and south west riverbanks are intrusive elements.

**POLICIES & ACTIONS:**

- Specialist advice to be sought on drainage management for the entire bridge (4.08);
- The drains to be regularly inspected and maintained to ensure their continued functioning (4.21); and
- The PVC drain on the north east abutment to be reburied and landscaped to prevent erosion and exposure of the drain (4.22).

**THREATS:**

- Lack of ongoing maintenance;
- Water entering the structure of the bridge by poorly maintained, inoperative or ineffective water shedding methods; and
- Visual impact on intrusive infrastructure.

**PREVIOUS INVENTORY:**

Substantial improvements have been made to rectifying drainage infrastructure since 2010, although damp does remain a continuing problem. The visual appearance of the concrete drainage infrastructure on the western bank could be improved through painting a darker colour.



Informal track on north east bridge abutment.  
Looking east.



Informal track on north east bridge abutment.  
Looking west.



Exposed wing wall, looking south west.



Exposed wing wall, notice undercutting, looking south.

#### DESCRIPTION AND CURRENT CONDITION:

A simple timber stair previously existed at the north east abutment. This was removed as part of the implementation of the 2010 Conservation Management Plan. The recommendation to replace the infrastructure with a new stair in a more sympathetic location was not implemented. The result has been informal pedestrian use from the Wellington Street footpath leading down to the riverbank.

This has caused erosion of the soil and exposure of the wingwall. Casual observation indicates the loss or removal of pointing from the stonework, and at least two courses being undercut as soil is progressively removed.

## NORTH EAST ABUTMENT & INFORMAL TRACK

### SIGNIFICANCE:

The north east abutment is an essential components of the place. It has the same significance as the Richmond Bridge as a whole.

The informal track is an intrusive element. It is damaging the fabric of the bridge and the appearance of the setting.

### POLICIES & ACTIONS:

- As required, an appropriately skilled stonemason with experience in working on historic structures undertakes conservation works to the stonework in accordance with the General Policy (4.03);
- As required, the repointing of mortar joints be undertaken by skilled stonemason using a permeable quick lime based mortar coloured to match the recent repointing work. Repointing works should have a weather struck finish (4.07); and
- Professional landscape advice to be sought on preventing pedestrian access directly adjacent to the north east bridge abutment which has caused erosion and exposure of the PVC drainage pipe. Construct a new sympathetic stair towards the centre or northern end of the north east bank (5.01).

### THREATS:

- Structural problems caused by erosion.

### PREVIOUS INVENTORY:

No previous inventory. This is a new conservation issue that has emerged since 2010 and the removal of the former stair.



Vandalism present on mortar joints, looking east.

#### DESCRIPTION AND CURRENT CONDITION:

The western arch is generally in a fair condition. This arch has historically been subject to vandalism, with graffiti dating back several decades. The vandalism occurs particularly on the mortar joints. Since 2010, much of the graffiti has been removed from the stones, although remains in place on the mortar joints.

#### SIGNIFICANCE:

The western arch is an essential component of the place. This element has the same significance as the Richmond Bridge as a whole. The vandalism is an intrusive element.

#### POLICIES & ACTIONS:

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Attention should be given to the following specific policies:

- That specialist advice be sought on the removal of graffiti from the bridge (4.24).

#### THREATS:

- Graffiti has an adverse impact on the aesthetic significance of the bridge; and
- Inappropriate removal of graffiti can cause damage to the stone or mortar joints.

#### PREVIOUS INVENTORY:

The 1997 CMP identified the graffiti problem in the western arch. Spry recommended the regular removal of the graffiti, application of anti-graffiti treatments and surveillance.

Further recommendations were made for closing off the area at night and the installation of lighting. These measures were not accepted as part of the 2010 CMP and were considered disproportionate to the problem and could potentially have adverse impacts with the installation of further infrastructure.

The removal of graffiti from the stonework itself has improved the appearance of the arch. Continual removal of the graffiti from the mortar joints will be required. New information has also come to hand suggesting that the application of anti-graffiti treatments may cause more harm than good, and this recommendation has been removed from this CMP.



Stone Stair south west bank, looking west



Stone Stair north west bank, looking east

**DESCRIPTION AND CURRENT CONDITION:**

Two sets of sandstone stairs exist on the western end of the bridge. On the north west embankment, narrow sandstone steps lead off the 1840s right of way. These steps return to enter the western arch. A simple steel railing has been installed on these stairs in recent years. On the south west side, narrow sandstone stairs follow the curve of the wing wall to enter the western arch. Nigel Lewis *et. al.* suggest that these steps follow the original roadside reservation to the water edge. In 1925 the Richmond Council acquired a narrow strip of riverbank land, connecting the stairs and providing public access under the western arch. The stairs are in a fair condition.

**SIGNIFICANCE ASSESSMENT:**

The sandstone stairs are essential elements of the place. The steel railings are, intrusive but necessary elements. The sandstone stairs have specific significance with reference to:

Historical Value:	High	The sandstone stairs demonstrate early means of providing public access to the Coal River. Access to public water supplies was important in the early development of Richmond. Later, the stairs provided important visitor infrastructure.
Representative Value:	Moderate	As part of the overall structure of the bridge, the sandstone stairs are representative of a key element of public road bridges in providing access to the riverbanks.
Social Value:	High	The stone stairs provide an essential community function by providing pedestrian access to the riverbank.
Aesthetic Value:	High	As part of the overall structure of the bridge, the sandstone stairs complement the historic form of the bridge in their material, form, and patina of age.

**OVERALL LEVEL OF SIGNIFICANCE:** High

**POLICIES & ACTIONS:**

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Attention should be given to the following specific policy:

- The sandstone stairs on the west end of the bridge abutments are to be conserved as elements of cultural significance. The sandstone stairs should continue to function for their original use and all maintenance work should follow professional standards and be undertaken by suitably qualified personnel (4.23).

**THREATS:**

- Lack of continued maintenance; and
- The potential inappropriate upgrading to meet safety standards e.g. balustrade heights, dimensions of stones.

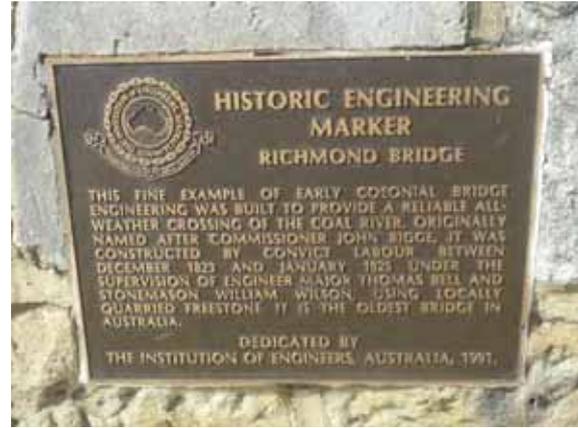
**PREVIOUS INVENTORY:**

The 1997 Conservation Plan identified the north west stairs as being of some cultural significance. The 2010 CMP assessed it as being of high significance.

The stairs are not compliant to current standards and it is not possible to upgrade them without considerable modifications which would substantially alter the appearance of the bridge and stairs. Re-packing and grouting of the bedding for the steps was carried out in 2014/15. Repairs will be required approximately every 5 years.



Viewing platform, looking east.



Historic Engineering Marker

**DESCRIPTION AND CURRENT CONDITION:**

The viewing platform was erected in 1989 by the then Richmond Council on the south west end of the bridge. It is constructed as a low sandstone wall in a broad arc with concrete pavers in a sandstone colour. The platform provides views of the southern face of the bridge, the eastern riverbank and Mill House and a stretch of the Coal River. The platform is in a good condition.

In 1991, the Institution of Engineers, Australia installed a commemorative plaque recognising the Richmond Bridge for its engineering significance.

Subsequently, further viewing areas have been constructed on the south west riverbank.

**SIGNIFICANCE ASSESSMENT:**

As a structure, the platform is largely a neutral element within the immediate bridge setting. The height and material of the structure is sympathetic to the overall character of the place. However, locating the platform so close to the bridge has had some impact on the setting of the place. The commemorative plaque has some heritage value, although does not have to remain in its current location. The following considers the significance of the feature as a monument and not as a structure.

Historical Value:	Low	The commemorative plaque is a demonstration of the growing recognition during the twentieth century of the heritage significance of the Richmond Bridge.
Social Value:	Potential	The commemorative plaque may have social value to Engineers Australia as a public recognition of the importance of the bridge to that group.

**OVERALL LEVEL OF SIGNIFICANCE:** Low Significance for the plaque, neutral for the platform.

**POLICIES & ACTIONS:**

Actions, works, or development potentially affecting the cultural significance of the place are to be consistent with the relative levels of cultural significance of the elements of the place. As a neutral element, the viewing platform may be retained or removed. As an element of low cultural significance, the plaque may be removed where a conservation benefit can be demonstrated (1.05 and 106).

**THREATS:**

- Lack of continued maintenance; and
- The location of the viewing platform has had some impact on the setting of the bridge and its aesthetic significance.

**PREVIOUS INVENTORY:**

The 1997 Conservation Plan identified the viewing platform as having some cultural significance. The 2010 CMP assessed the plaque as having low significance and the viewing platform being neutral.



Commemorative panels added in 1823, inner face of northern parapet. Looking north.



Date stone on northern face, looking south

#### DESCRIPTION AND CURRENT CONDITION:

Centenary monument stones are placed on the north and south faces of the bridge, and on the inner parapet wall at the north west end. Stone tablets were constructed into the faces of the bridge, although never inscribed. For the centenary celebrations, the Richmond Council had engraved 'A.D 1823' on each of the tablets.

The centenary celebrations on the 11<sup>th</sup> December 1923 were a popular and important event. Photographic records show large numbers of people at the bridge, horse and cart processions, and participants dressed in period costume. The event was presided over by local dignitaries including the Warden, Mr Grice, the Honourable JW Evans, and Mr WE Shoobridge.

On the inside of the northern parapet, two inscriptions were made. On the parapet stone was carved:

THE FIRST STONE OF THIS BRIDGE  
WAS LAID ON DECR 11TH 1823  
IN THE PRESENCE OF  
JAMES GORDON AND G.W GUNNING ESQRS  
MAGISTRATES

Later in 1935, the text OLDEST BRIDGE IN AUSTRALIA was added above. These stones were recut and the inscriptions darkened in 1973.

The condition of the centenary monuments is generally good. Conservation works have occurred to the construction date tablet on the northern face. The inscriptions on the inner face are less legible.

#### SIGNIFICANCE ASSESSMENT:

The centenary monuments are important elements of the place. They demonstrate the last changes to the fabric of the bridge that are of heritage significance. Specifically:

Historical Value:	Moderate	The centenary monument stones are important as an early demonstration of official and public recognition of the heritage value of the Richmond Bridge. They are also reminders of the popular centenary celebrations which occurred in December 1923.
Social Value:	Moderate	The centenary monument stones have social value to as a physical reminder of the centenary celebrations held in 1923.
Associational Value:	Low	The centenary monument stones are associated with local dignitaries the Warden, Mr Grice, the Honourable JW Evans, and Mr WE Shoobridge who presided over the December 1923 centenary celebrations.
Aesthetic Value:	Moderate	As part of the overall structure of the bridge, the centenary monument stones complement the historic form of the bridge in their material,

form, and patina of age.

**OVERALL LEVEL OF SIGNIFICANCE:** Moderate

**POLICIES & ACTIONS:**

Manage and conserve as part of overall structure in accordance with the policies of this Conservation Management Plan and the policies provided in Inventory Sheet 1 (Richmond Bridge). Attention should be given to the following specific policy:

- The lettering of the date stones on the north and south face of the bridge, and the commemorative centenary stones on the inside of the northern parapet are conserved (4.25).

**THREATS:**

- Loss of inscriptions and interpretive meaning of the centenary monuments; and
- Inappropriate conservation works causing further degradation of the stones.

**PREVIOUS INVENTORY:**

This date stone on the northern is in good condition and appears to have been repaired in line with Spratt's 1993 recommendation. The stones have maintained their condition since 2010.



Stairs, looking south.



Stairs, looking south west.

**DESCRIPTION AND CONDITION:**

The cement block stair was constructed in 1989 by the then Richmond Council. It leads off the southern end of the sandstone viewing platform also constructed at that time. The stairs are in a fair condition. Some attempt has been made to address the sensitivity of the location with sandstone capping on the risers and eastern side of the stairs. A track has been developed on its eastern side.

**SIGNIFICANCE ASSESSMENT:**

The current cement block stair is visually intrusive on the cultural significance of the place in terms of location, materials and the handrail. The replacement of this stair with new infrastructure requires careful consideration.

**POLICIES & ACTIONS:**

The cement block stair on the south west bank should be removed. Should it be established that stair infrastructure is required at this point, any new stair should be designed to be sympathetic to the cultural significance of the bridge and its setting (5.05).

**THREATS:**

Ongoing visual intrusion from the stair.

**PREVIOUS INVENTORY:**

The 1997 and 2010 Conservation Management Plans identified this as an intrusive element.



Gatty Dam, looking west



Dam and wingwall, looking west

**DESCRIPTION AND CONDITION:**

The Gatty Dam forms the southern boundary of the study area located at approximate Australian Map Grid coordinates 536181E/5268287N.

In 1935 the Richmond Council constructed the Gatty Dam across the Coal River to the south of the bridge. The dam created a swimming pool across the river and was named in honour of the long service of the Council Clerk, Jim Gatty. The connecting footbridge was named in honour of the Warden of the Day, Mr Grice.

The Dam raised the water level. Before its construction, the riverbed was often exposed at the bridge. However, following its construction, the water was raised above the piers. The raising of the water level caused erosion, most noticeably on the west bank downstream from the bridge.

The Dam is constructed from concrete flanked by rubble stone wing walls. The dam provides water as part of the South Eastern Irrigation Scheme (now Tasmanian Irrigation).

**SIGNIFICANCE ASSESSMENT:**

The significance of the Gatty Dam boundary primarily relates to its historical and associative values.

Historical Value:	Moderate	The Gatty Dam has historical significance for its association with its past use as a recreational area.
Associational Value:	Moderate	The Gatty Dam has some associational value. It was named in honour of Jim Gatty, prominent Council Clerk, and the connecting footbridge was named in honour of Mr Grice, warden of the day.

**OVERALL LEVEL OF SIGNIFICANCE:** Moderate at a local level.

**POLICIES & ACTIONS:**

Manage and conserve as part of overall place in accordance with the policies of this Conservation Management Plan. Attention should be given to the following specific policies:

- The Coal River should continue to be used in a sustainable manner for water supply as a compatible use. The analysis of hydrological investigations is required to determine any geotechnical issues at the bridge associated with rapid water level fluctuations at the bridge (3.06); and
- The Gatty Dam is to be maintained to continue to function (5.09).

**THREATS:**

Lack of maintenance.

**PREVIOUS INVENTORY:**

The 1997 CMP identified the Gatty Dam as a neutral element. The 2010 and 2017 CMP's identify it as a feature with local level of significance.



Car Park off St Johns Circle, looking north.



Car Park of Bathurst Street, looking north

**DESCRIPTION AND CONDITION:**

Two car parks exist within the area. On the north east bank, a gravel car park has been established running adjacent to St Johns Circle. On the south west bank, a bitumen car park has been established on the escarpment off Bathurst Street. This car park is screened by plantings.

The car park infrastructure enhances the usability of the site.

**SIGNIFICANCE:**

The car parks are neutral elements. The gravel surface of the north east car park is sympathetic to the setting of the bridge. However, this car park is often full to capacity and the cars are a highly intrusive element in the setting of the bridge.

**POLICIES & ACTIONS:**

- The size of the car parks on St Johns Circle and off Bathurst Street should not be increased. New car parking spaces should avoid potential visual impacts to the Richmond Bridge and its setting (5.07); and
- The car park on St Johns Circle should be screened by low height plants (5.08).

**THREATS:**

- Ongoing visual intrusion from vehicles in the south east car park; and
- Increase in the capacity of the car parks.

**PREVIOUS INVENTORY:**

The 1997 CMP assessed the car parks as neutral elements. The landscaping was assessed as being intrusive. The 2010 CMP concurred with this finding and made a recommendation that the St Johns Circle car park be screened by plantings. This has not occurred. The Vegetation Management Plan recommends that carefully designed planting be undertaken to screen cars in the car park from views from the south west.



Bridge Street approach, looking north east.



Wellington Street approach, looking west. Note soft road edge.



Recent changes to the St Johns Circle/Wellington Street junction. Looking west.

**DESCRIPTION AND CURRENT CONDITION:**

The Richmond Bridge is approached from east-west roadways. The speed limit over the bridge and its immediate approaches is 30km/hr. On the west, the bridge is accessible via Bridge, Gunning and Charles streets. Bridge Street travels via the commercial centre of Richmond, before descending towards the river. Access to the bridge is made by a short reverse curve at the Village Green, travelling to the western end of the bridge. The Village Green forms a road island, dividing the east/west approaches. The Village Green includes a group of mature Poplars, rose garden and grassed area. Signage and a chicane define the lanes, but are somewhat intrusive on the view. Jordan suggested in 2001 that this reverse curve could result in a loss of control in vehicles, worsened by a steep crossfall at the edge of the pavement close to the bridge. These factors may explain some of the past accidents which have caused damage to the parapet.

On the southern edge of lower Bridge Street, the footpath is paved with sandstone coloured pavers, flanked by stone kerbs. A post and rail timber fence follows the curve of the road. A c.1903 photograph of the area shows that the footpath was originally gravel with an open ditch drain. The stone kerbing is therefore a later introduction. The post and rail fence would be a reproduction of the earlier fence (Snowden, 2000: 69).

On the east, Wellington Street approaches the bridge. Wellington Street features soft edges with gravel verges which complement the rural nature of Richmond. These have been modified with the reworking of the junction of Wellington Street and St Johns Circle which now includes standardised concrete kerbs. As the bridge is approached, the mature macrocarpa and the Lombardy Poplars on the eastern termination of the bridge provide strong vertical elements. Signage and the traffic management chicanes mar the view, but has been improved somewhat through the installation of narrow, vertical 'keep left' signage, which is smaller in size than the standard signs. As early action as 1965, the Preservation and Development Trust recognised the importance of gravelled roads over bitumen surfaces as important to retaining 'atmosphere and charm'.

In 1995, the community expressed extreme concern about the visual impact of these traffic control measures. In 2007, questions were raised as to the effectiveness of the chicanes and the western approach to the bridge in reducing speeding, and subsequent damage to the parapets from collisions.

**SIGNIFICANCE ASSESSMENT:**

The road approaches do not form part of the definition of the place. However, they are important elements in how visitors both approach the bridge and experience the values of the place. The road approaches have also been identified as potential explanations for vehicular accidents on the bridge.

Historical Value:	High	The road approaches provide an historical context for reaching the Richmond Bridge. Following the construction of the bridge, Scott prepared the town plan c.1824 with a pencil sketch showing a curved section of Bridge Street to meet the western end of the bridge.
Aesthetic Value:	High	<p>The road approaches are of heritage significance as important visual elements within the broader setting of the bridge.</p> <p>From the east, long views towards the bridge are available from Wellington Street. The soft edges of the road with gravel verges complement the rural nature of Richmond. The mature macrocarpa and Lombardy Poplars near the bridge provide strong vertical elements and variation in colour and form.</p> <p>From the west, Bridge Street descends towards the Coal River and the bridge. The Village Green is located on a slight elevation and the combination of open grassed areas, mature trees and rose garden complement the setting of the bridge.</p>

**OVERALL LEVEL OF SIGNIFICANCE: High****POLICIES:**

- The vibration meter be maintained in continual operation for early warning of problems resulting from the basic weaknesses of the bridge. Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue (4.01);
- Monitor the weight of vehicles to ensure compliance with the load limitation by monitoring vibration. Intelligent

**18****ROAD APPROACHES TO THE BRIDGE**

Access Recording (IAR) should be considered as a means of monitoring permit vehicle movements over the bridge (8.02);

- That State Growth liaise with the Tasmanian Police regarding speed management at the crossing. Investigations should occur on the possibility of installing a permanent speed camera at the crossing point as a priority. If a permanent speed camera is not installed, mobile speed cameras should be used regularly at the crossing (8.03); and
- That the gravel road verges on the Wellington Street approach to the bridge be maintained (8.04).

**THREATS:**

- Risk of vehicular accidents on the bridge caused by western approach;
- Risks of vehicles in excess of load limit crossing the bridge;
- Ongoing visual intrusion from traffic calming measures and signage; and
- Replacement of gravel road verges.

**PREVIOUS INVENTORY:**

The 1997 and 2010 CMP identified the road approaches as significant elements. The visual intrusion of the signage on the eastern, Wellington Street approach has been improved since 2010 with smaller, but still clear signage. A similar signage regime on the western, Bridge Street approach should be considered.

Improvements to the junction of Wellington Street and St Johns Circle have replaced the gravel road verges with standard concrete kerbing and gutters. It would be undesirable from aesthetic perspective to extend this further along Wellington Street.



Exposure of egg-ended tubular boiler on south east riverbank, looking west.



Riveted egg end and visible rusting on boiler, looking south.



Riveted egg end and visible rusting on boiler, looking south.

#### DESCRIPTION AND CURRENT CONDITION:

The Coal River Valley was historically an important wheat growing district and Richmond emerged as a flour milling centre. Several flour mills were established on the riverbanks. One such mill was erected by George Burn in the late 1840s or early 1850s on the south east riverbank. The mill was driven by steam and became the centre for milling in Richmond for many years. Burns' mill was offered for sale in 1872 noting that it was driven by a 9 horse power engine with a 12 horse power tubular boiler manufactured by Clayton and Shuttleworth, London. At that time the machine was being used to power a circular saw for timber milling. The property was purchased by John Eldershaw in c.1920 and converted to residential use. Cassidy noted that one of the boilers was exposed on the riverbank in 2000. It was not accessible for the 2010 CMP because of a fence blocking access.

This fence has subsequently been removed and the riveted egg-ended iron boiler is again visible on the south east bank, and located at 536035E/5268632N. The boiler is on a roughly north-south alignment, with approximately 2 m of the boiler exposed. The domed end of the boiler is visible, with rust corroding along the rivet joint.

**SIGNIFICANCE ASSESSMENT:**

Historical Value:	Moderate	In conjunction with the adjacent Mill House, the boiler has value in demonstrating historical industrial activity in Richmond, which was once an important centre of flour milling centre.
Research Potential:	Moderate	The boiler has potential to provide important and new information related to steam powered flour milling during the mid-nineteenth century.

**OVERALL LEVEL OF SIGNIFICANCE:** Moderate local level

**POLICIES & ACTIONS:**

- The upper portion of the boiler should be carefully archaeologically excavated for recording purposes. The advice of a conservator should be sought for long term management strategies for the boiler (5.12).

**THREATS:**

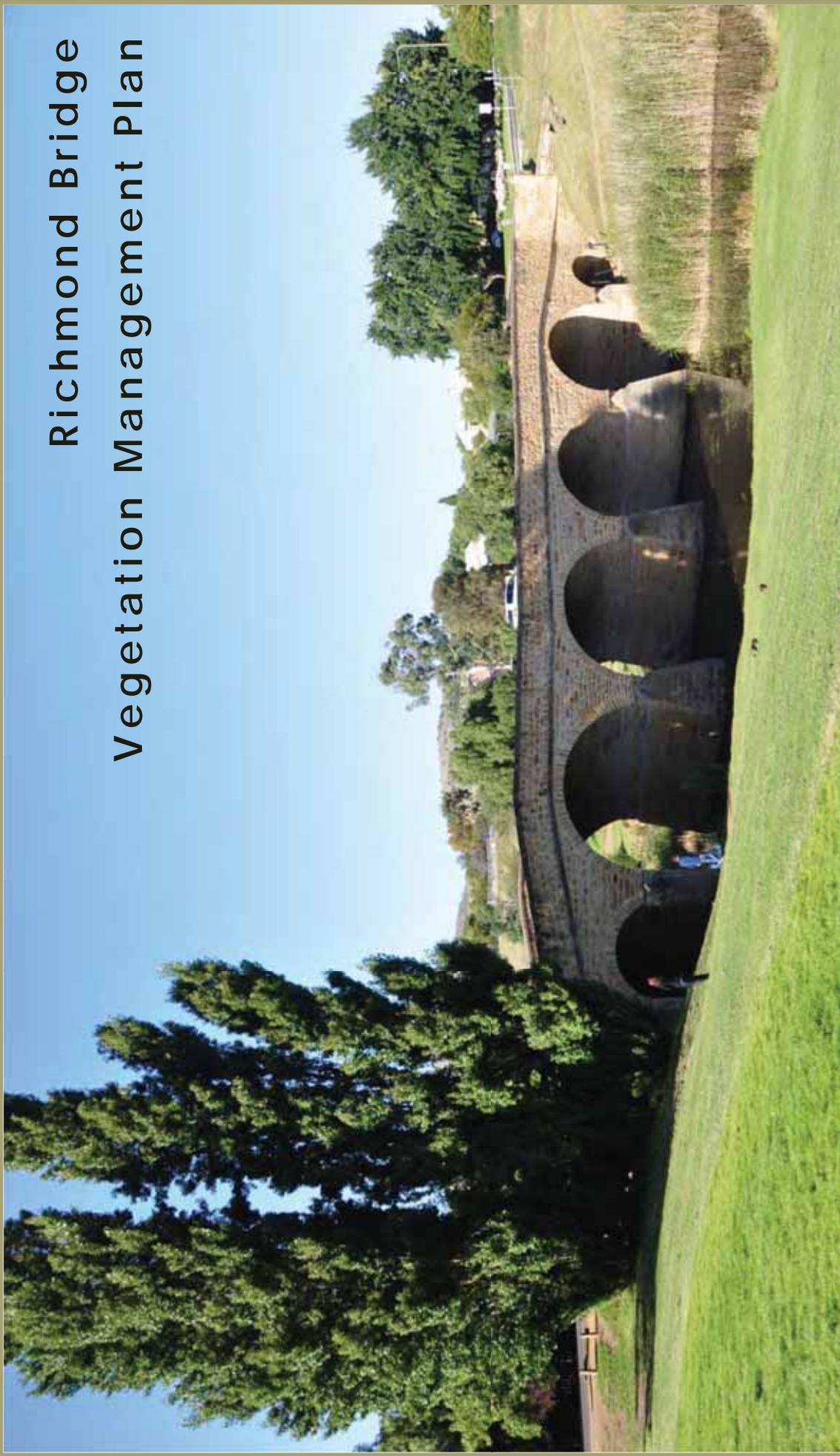
- Continued degradation due to rusting and pedestrians standing on the boiler;
- Potential personal injury caused by collapse of boiler.

**PREVIOUS INVENTORY:**

No previous inventory. The boiler was not accessible for consideration in the 1997 or 2010 CMPs.

## Appendix 2: Vegetation Management Plan

# Richmond Bridge Vegetation Management Plan



Final

November 6, 2015

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## Acknowledgements

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# Introduction

In January 2010, a Conservation Plan for the Richmond Bridge (1997) was reviewed by GHD under a commission by the former Department of Infrastructure Energy and Resources.

A number of policy recommendations of the 2010 Richmond Bridge Conservation Management Plan (CMP) related to the assessment, maintenance and

renewal of vegetation in the vicinity of the Richmond Bridge. This Vegetation Management Plan responds to those policy recommendations.

Clarence City Council's brief for the Vegetation Management Plan set out requirements for the key elements of the plan, including:

**Site Analysis** – including consideration of the site's history, the cultural heritage value and significance of existing plantings and other relevant existing site conditions such as weeds, public use, aesthetics, access, infrastructure, etc.

**Analysis of existing Vegetation Conditions** – including the engagement of an arborist to assess the current health and estimated lifespan of the historic and naturalised plantings.

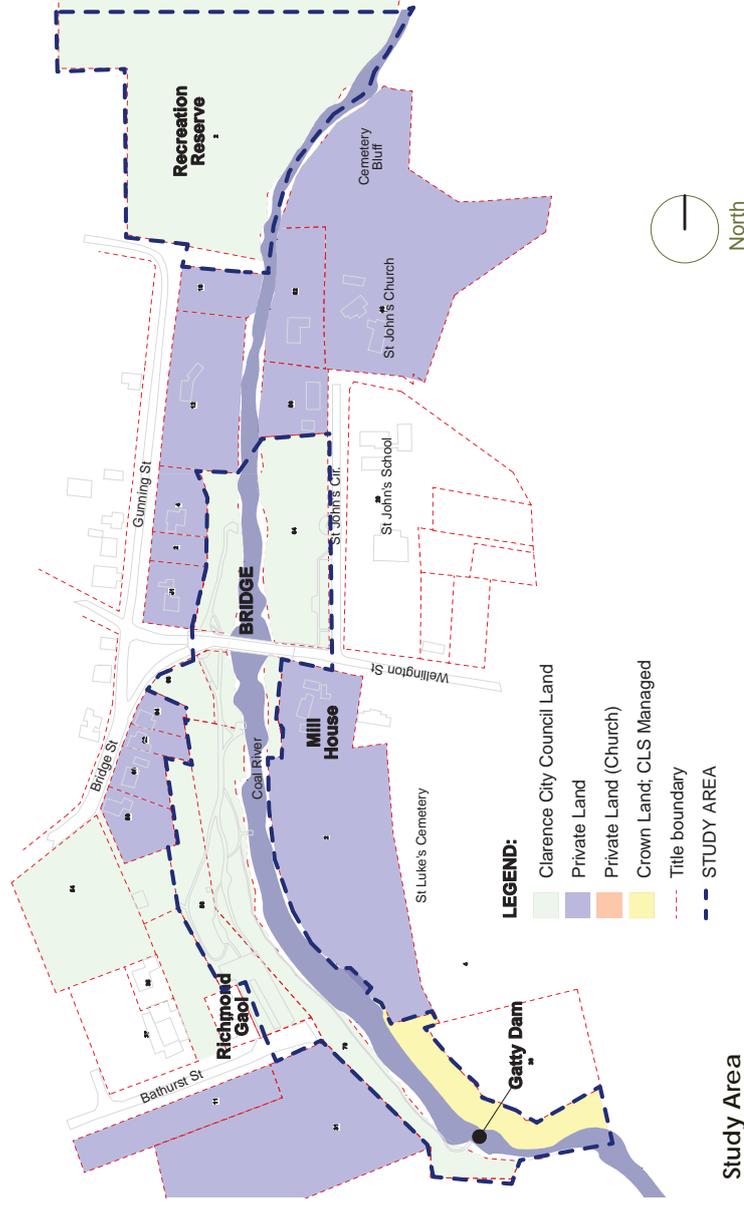
**Weed management strategy** – including the consideration of the existing site planting conditions, any weed issues and ongoing management activities.

**Future planting Strategy/plan** – addressing the long term conservation of the historic and aesthetic setting of the Bridge.

## Methodology:

Consultations with the Clarence City Council, Heritage Tasmania, the Department of State Growth and the Department of Primary Industries, Parks, Water and Environment Crown Land Services were undertaken to gather information pertinent to vegetation management from the perspectives of each authority.

Don Thomson, Registered Landscape Architect and Principal of Landscape Impressions, undertook site inspections and fieldwork during



# Introduction...

January and February 2015 to undertake the Site Analysis and weed assessment components of the project.

Arborist and Environmental Consultant Philip Jackson undertook an assessment of trees throughout the study area and provided a report to inform decisions about the longer-term strategy for vegetation management across the study area.

A 'Community Walk and Talk' was held on February 11 as a preliminary information-sharing opportunity and data collection tool.

Fourteen local residents attended the 'Walk and Talk' and provided input into a range of vegetation management issues. This event enabled a range of issues to be discussed in detail and proved to be a very useful information gathering technique.

A web-based survey was also conducted to seek community feedback on the proposed 'management zone' delineation and the priorities and issues identified for the broad management zones presented. Six people responded to the survey over the 2 weeks it was open. There was general agreement by respondents with the delineation of the Management Zones and their prioritisation.

Discussions were held (in person or by telephone) with adjacent landholders in late April 2015. One of the key discussion points in these meetings was the management and succession of trees on private land that form

important components of the 'borrowed landscape'.

The adjacent landholders were supportive of the proposed vegetation management actions and are willing to continue discussions about ongoing succession planning.

During the period in which the Draft VMP was open for public comment, the plan was presented and discussed with the Richmond Advisory Committee (July 21, 2015).

Five written responses were received by Council and these were considered by the consultants and Council staff. The amended Plan was adopted on October 5, 2015.



# Site Analysis for Vegetation Management Plan

## Historical Context:

The Richmond Bridge was completed in September 1824 and open to traffic in January 1825 (THC, 2015). It is widely recognised as Australia's oldest bridge that continues to serve its original purpose (DIER, 2010).

In 2005, the Richmond Bridge was included on the National Heritage List, in recognition of its outstanding value to the nation (DIER, 2010). It was listed on the Tasmanian Heritage Register in September 1999 (THC, 2015).

The setting of the Richmond Bridge is cited in the documentation around its historical value as being a critical component of the historical value of the Bridge. The protection and enhancement of critical views to and from the Bridge is critical to the continued appreciation of this significant historical asset by visitors and locals alike.

## Cultural Context:

The Richmond Bridge is in itself an outcome of the rapid development of the region after land grants were distributed in 1808. The importance of the Coal River valley as 'the granary of the Australian Colonies' and for sheep and cattle grazing meant that a reliable crossing point over the Coal River was required (THC, 2015). The Bridge pre-dates the construction of the Richmond town; its construction was a catalyst for the town's development.

The community values the Bridge structure because it reflects the early development of Richmond and because of its association with the penal system.

Images of the Bridge and its setting have been featured in state, national and international tourism promotions since the 1920s. It is one of the most widely photographed historic sites in Tasmania (THC 2015).

The Richmond Bridge and its surrounds is an important place because of its aesthetic values. It is widely appreciated by locals and visitors alike and features as the subject of many artistic pursuits, especially by painters and photographers.

## Landscape Context:

The contemporary landscape of the Richmond Bridge precinct is an outcome of a range of processes through time, both 'deliberative' and 'accidental'. Whilst there are some remnants of historic plantings (e.g. the Pine trees on the western banks; the Lombardy Poplars either side of the eastern approach to the Bridge), most of the oldest plantings have declined and been replaced by naturalised specimens of the same species. The landscape of the Richmond Bridge has never been a 'designed' landscape and much of its character comes from this 'naturalised' vegetation (DIER, 2010; THC, 2015).

Exotic and native vegetation has become naturalised and the management activities of Council and adjacent landholders has had a large influence on the landscape character of the place now.

It is therefore not considered appropriate to design the landscape of the Richmond Bridge to fine detail. It is appropriate to let the landscape continue to evolve with similar character to the current landscape.

Making strategic interventions over time will shape the structure and character of the future landscape. The Vegetation Management Principles of this Plan (next page) have been developed to guide a coordinated, strategic approach to the long-term evolution of this landscape.

Whilst it is recommended that the vegetation of this landscape be allowed to continue to evolve, there are some elements of the built landscape that require attention, such as path levels and drainage, signage and the location of specific facilities such as rubbish bins, seating, etc. It is recommended therefore that a landscape masterplan and review of 'built elements' in the landscape be undertaken by Council within the next two to 5 years.

See **Site Analysis Plan** for viewshed analysis and further notes on vegetation character.

# Vegetation Management Plan Structure and Principles

## STRUCTURE OF THE VEGETATION MANAGEMENT PLAN

This Plan is designed to guide the actions of Clarence City Council and its works teams, adjacent landholders to the study area and the local community.

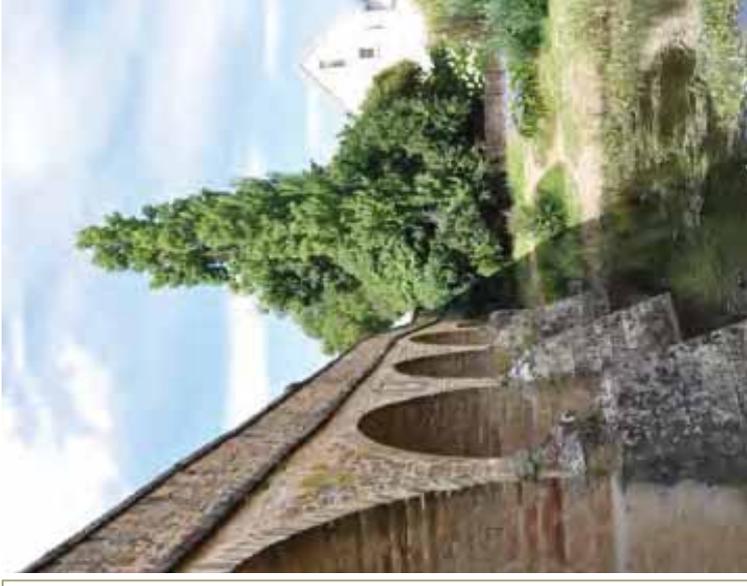
It is presented in six main parts:

1. A description of key 'Management Zones' and the 'objectives' for those zones, which inform decisions about their management.
2. Weed Management Strategy, which outlines a strategic approach to weed management across the site and presents guidelines for the management of key weed species.
3. Planting guide and schedule, which highlights key strategic plantings, recommends species for planting across the site in the future and guides the placement of planted vegetation.
4. A guide to aquatic vegetation/river management.
5. A guide to the long-term management of the 'borrowed' landscape (i.e. the broader landscape of Richmond and surrounds as a visual backdrop to the Richmond Bridge precinct).
6. A Vegetation Management Action Plan, which prescribes priority actions for the short-term (1 to 3 years).

## VEGETATION MANAGEMENT PRINCIPLES:

This Vegetation Management Plan for the Richmond Bridge precinct has been informed by the following principles:

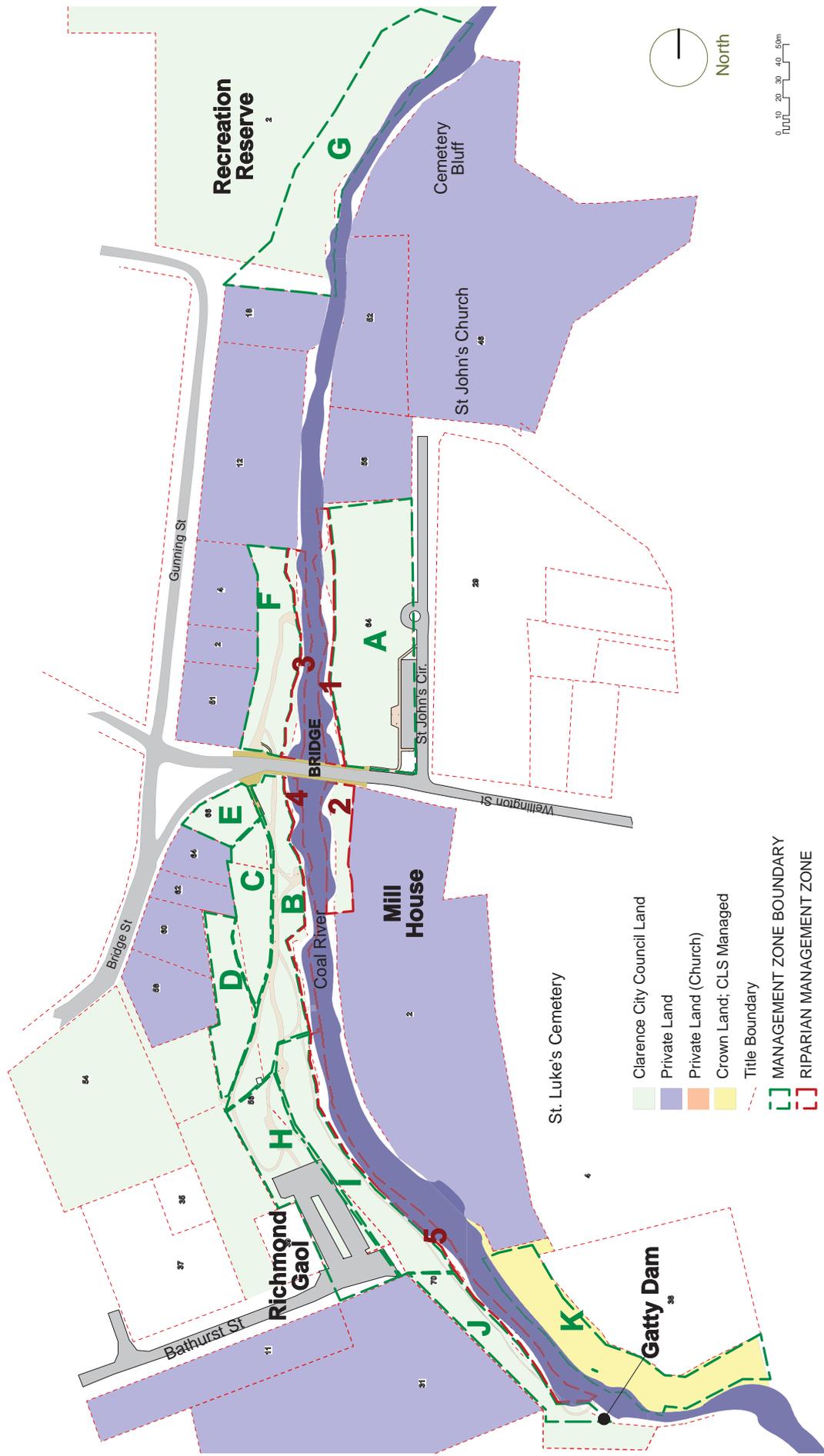
- Preserve historical and cultural values in the landscape, including views to and from the bridge.
- Provide a safe and pleasant environment from which to enjoy the character and ambience of the Richmond Bridge.
- Respect and celebrate the values that combine to make this an attractive and characterful 'place'.
- Ensure a relatively smooth succession of vegetation over time so that drastic or sudden landscape changes are minimised.
- Ensure 'weeds' are not allowed to spread to neighbouring properties.
- Minimise the financial burden of management and maintenance of the landscape to current and future generations.
- The character of the place is to be preserved over time by maintaining, as far as possible, vegetation type and structure similar to the current (2015) landscape.
- Historically important species, which are often now declared weed species, should be replaced with modern cultivars of the same variety to preserve landscape character whilst minimising management costs and damage to historical or cultural assets.



## RATIONALE FOR THE DEFINITION OF MANAGEMENT ZONES

The division of the publicly accessible lands alongside the Coal River upstream and downstream of the Richmond Bridge into 'Management Zones' is based on the rationale that different areas of the precinct have unique landscape characteristics that warrant different approach to landscape management.

# Management Zones Map



NOTE: All title boundaries shown are indicative only. Works by council under this plan will be undertaken on public land only.



# MANAGEMENT ZONES

# Zone A

Priority: High

# North East of Bridge



## OBJECTIVES

Maintain as 'open parkland' landscape to enable views to Bridge from North Easterly aspects.

### CULTURAL VALUES

- Lombardy poplars provide scale and frame many of the key views to the bridge.
- Open lawn has functional and aesthetic value.
- Wide expanses of lawns are enjoyed by visitors and locals alike.

### HERITAGE VALUES

- Lombardy poplars beside bridge are noted on Heritage Register.
- CMP 2010 Priority Works/Actions (7.7.11) reference the suckering of poplars and the potential impact on the bridge structure.

### KEY VEGETATION MANAGEMENT ISSUES

- Succession of Lombardy Poplars beside the Bridge. Arborist reports that the trees are in good health and have a life-expectancy of another 15-40 years.
- However, suckering of Lombardy poplars adjacent to bridge structure is of concern to Department of State Growth. Therefore, a 5 to 10-year succession process is suggested.
- Succession planning for copse of White poplars to north of this Zone.

### MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Commence planning and consultation for the replacement of Lombardy Poplars within the next 10 years. The recommended action is to fell all of the mature poplars and replace with the same species (*Populus nigra 'Italica'*) but propagated from minimal-suckering root stock (e.g. Flemings Nursery). Felling all of the trees will enable removal of 'old' root stock to prevent future suckering, and enable the installation of a root barrier between the trees and the bridge buttress.
- Gradually replace white poplars along northern boundary with *P. canadensis* or *U. procera*. *Zelkova serrata* is also recommended (see planting palette).
- Removal of selected trees as per the Action Plan (Appendix 2).

# Zone B

Priority: High

# South West of Bridge



## OBJECTIVES

**Maintain vista to bridge from south-westerly vantages. Maintain an open 'parkland' landscape.**

### CULTURAL VALUES

- Has a long history as public open space, although subsequent land grants reduced that for a period (1830s to early 1900s).
- Is one of the key areas for photographic opportunities to the bridge.

### HERITAGE VALUES

- Medium archaeological potential due to historical record of Buscombe's Mill – the site of which is marked by a mature pine tree (THR#1101)
- Mature pine tree is one of the older planted specimens in the precinct.

### KEY VEGETATION MANAGEMENT ISSUES

- Succession of trees, particularly the single *Pinus radiata*. However, arboricultural assessment is that this tree is likely to have a long life ahead of it, if looked after.
- Mowing/grounds maintenance impeded by stumps, uneven ground.

### MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Remove dead wood >50mm dia. from pine tree (Arborists Report ref. 53) in accordance with sound arboricultural practice.
- Remove stumps throughout this zone by grinding. Works are to be undertaken with reference to Heritage Tasmania's guidelines as there is 'medium' archaeological value to this site.
- Pruning of dead wood from pine tree.
- See also specific Actions listed in Action Plan (Appendix 2).

Note: THR = Tasmanian Heritage Register

# Zone C

Priority: High

# Orchard, South West of Bridge



## OBJECTIVES

Maintain as an 'orchard'

### CULTURAL VALUES

- Locals and visitors enjoy the ability to pick fruit from the orchard.
- Autumn colour.
- Flowering and fruiting provides seasonal colour and interest.

### HERITAGE VALUES

- 'Almond orchard' cited in CMP and THR as being of cultural significance (marked a path leading from bridge to Buscombe's Mill).

### KEY VEGETATION MANAGEMENT ISSUES

- The older original almond trees have almost all died or been removed. New (last 10 years) plantings of mixed species (including apple, pear, apricot) have been undertaken by Council and the community.
- Stumps of old trees are impeding maintenance/mowing.
- Silver wattle at the 'back' of the orchard has a limited life-span and should be removed.

### MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Form prune (in accordance with sound arboricultural and horticultural practices) all existing trees.
- Remove stumps.
- Remove silver wattle and grind stump.
- Complete orchard by filling gaps in 'grid' structure.
- Replace old almond trees along the path with almonds to replicate historical references to almond orchard.
- See also specific Actions listed in the Action Plan (Appendix 2).

# Zone D

Priority: High

# Steep Bank to East of Village Green



## OBJECTIVES

Maintain a visually appealing backdrop to views from the bridge and from the North-East, whilst enabling views from the top of the bank to the SW of the site.

## CULTURAL VALUES

- Important photo point/vantage point is located above this bank, to the NE edge of the 'village green'

## HERITAGE VALUES

- Forms a backdrop to the bridge so is important as part of the heritage precinct of the bridge.

## KEY VEGETATION MANAGEMENT ISSUES

- Bank is too steep to mow and brush-cut.
- Annual grasses and weeds dominate the site, including some suckers of Elm and some boxthorn and hawthorn saplings.
- Will become over-run with woody weeds over time due to difficulties mowing/slashing due to steep slope.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Remove annual grasses, weeds.
- Remove briar roses, pine seedlings, elm suckers and 2-3 dead or dying wattles at base of slope.
- Install hessian mulch/weed mat.
- Plant native grasses - wallaby grass (*Austrodanthonia spp.*) and kangaroo grass (*Themeda triandra*) – across the whole slope.
- Plant *Brusaria spinosa* (native box) in informal 'copses' along the eastern border of this zone to the toe of the bank as shown on the planting plan.
- See also specific Actions listed in the Action Plan (Appendix 2).

# Zone E

Priority: Low

## Top of Bank between Bridge Street and Stone Steps



### OBJECTIVES

Maintain as 'parkland' transition from Bridge Street streetscape to 'orchard'.

#### CULTURAL VALUES

- 'Transitional landscape' from the Bridge Street streetscape to the 'orchard' area to the South.
- Has a parkland character.

#### HERITAGE VALUES

- Peppercorn trees are a key species within this cultural landscape.

#### KEY VEGETATION MANAGEMENT ISSUES

- Existing wattles (*Acacia saligna*) and *Photinia* along footpath are out of character and should be removed to enable views to bridge/river.

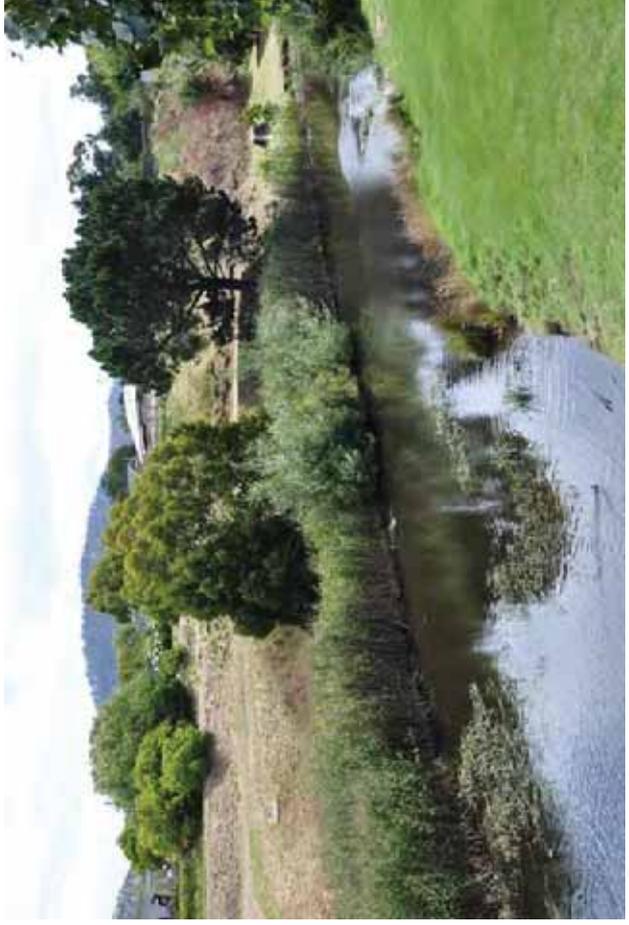
#### MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- It is recommended to replace wattles and photinia along Bridge Street with ornamental pear (e.g. *Pyrus calleryana* x *betulaefolia* 'Edgedell' ).
- Form prune blackwood and peppercorn trees in the middle of this zone to lift the canopy and enable views from Bridge St footpath to the river. Ensure adherence to best practice arboricultural techniques.

# Zone F

Priority: High

# Steep Bank to North West of Bridge



## OBJECTIVES

Maintain a visually appealing backdrop with low maintenance requirements.

### CULTURAL VALUES

- Important background to photographs taken from the Eastern banks of the Coal River (i.e. Zone A and beyond).
- Neighbouring landholders are undertaking much of the vegetation management on the steep slopes of this zone.

### HERITAGE VALUES

- This area was purchased from the adjoining landholders in the 1973.
- Medium archaeological potential due to due to historical record of fords in this area (THR#1101)

## KEY VEGETATION MANAGEMENT ISSUES

- The bank along the western section of this Zone is too steep to mow and brush-cut.
- Annual grasses and weeds dominate the site, including marshmallow, fennel, hawthorn, boxthorn and other weeds.
- Vegetation management difficulties have resulted in the perceived need to burn off large parts of the bank, which is not well received by some residents.
- Will become over-run with woody weeds over time due to difficulties mowing/slashing due to steep slope.
- Toe of bank along track needs stabilisation.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Remove annual grasses, weeds. Install hessian mulch/weed mat to all slopes steeper than 1:3 (18°). Plant native grasses - wallaby grass (*Austrodanthonia spp.*) and kangaroo grass (*Themeda triandra*). Plant *Bursaria spinosa* (native box) in informal 'copses' as shown on the planting plan.
- Remove boxthorn, marshmallow, hawthorn, gorse, yucca, blackberry and other weeds as per 'Weed Management Guidelines'.
- See also specific actions listed in the Action Plan (Appendix 2).
- See also Riparian Zone 3 for actions relating to riverbank management.



# Zone G

Priority: Low

# Recreation Reserve

## OBJECTIVES

Maintain as a low maintenance, predominantly 'bushland with open grass' landscape as a transition between the Recreation Reserve and the Coal River.



## CULTURAL VALUES

- Used for passive recreation by the local community (e.g. dog walking etc.).
- Not seen from the bridge and views to the bridge from this zone are blocked by current vegetation structure.

## HERITAGE VALUES

- Not visually significant area from bridge landscape perspective.
- Archaeological values not ascertained.

## KEY VEGETATION MANAGEMENT ISSUES

- Ongoing mowing/slashing of grassed areas.
- Ongoing weed management (particularly fennel, thistles and blackberry).
- Broad plantings of largely indigenous trees and shrubs are healthy, well established and appropriate in form.
- Management of riparian vegetation to ensure bank stability and maintain/improve water quality.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Ongoing weed management throughout this management zone, but particularly the riparian zone.
- Annual monitoring and control of gorse, crack willow, fennel, thistles, blackberry, hawthorn and other weeds along the riparian zone. Apply the methods described in the DPIPWE publication 'Guidelines for Safe and Effective Herbicide Use Near Waterways' (see Weed Control Strategy herein).
- Additional weed control required upstream of Recreation Reserve on Crown Land to minimise re-introduction of weeds to the Richmond Bridge precinct.



# Zone H

Priority: Low

# Picnic Area



## OBJECTIVES

Provide a pleasant micro-climate for picnics/BBQs that is not visually intrusive from key vantage points from the bridge or key bridge views.

## CULTURAL VALUES

- Widely used by locals and visitors, but this could be enhanced by improving the quality of the landscape setting.

## HERITAGE VALUES

- Not visually significant area from bridge landscape perspective.
- Archaeological values not ascertained.

## KEY VEGETATION MANAGEMENT ISSUES

- Maintain trees in good condition to ensure public safety and high aesthetic appeal.
- Some grading and top-dressing of lawn areas to improve trafficability for mowing.
- 'Garden bed' area beside the concrete steps to the north west of this zone needs re-designing to ensure a better 'fit' with the locality.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Feb 2015 arboricultural assessment identified no general issues with the trees in this area.
- Stump removal and re-grading/topdressing of lawn areas.
- This area would benefit from a re-design of 'hard' landscape elements to rationalise paths and other facilities. This would facilitate better vegetation management, particularly of lawns.
- Remove ivy from central garden bed to carpark area and replace (in the long term, after ivy control has been complete) with *Correa alba* or similar.

# Zone I

Priority: High

# Woodland of Elms and White Poplars



## OBJECTIVES

Maintain 'English woodland' character and seasonal colour backdrop to views from the Bridge.

## CULTURAL VALUES

- Enjoyed by visitors and locals (especially children) as a 'wild' place to explore.
- Provides an important backdrop to views from the north of the Bridge.

## HERITAGE VALUES

- Elms and White Poplars are 'naturalised' from historical plantings. The original plantings are no longer in existence.
- Forms an important part of the landscape character of the whole precinct.

## KEY VEGETATION MANAGEMENT ISSUES

- Arborist recommends removal of specific white poplar specimens which are structurally defective (Tree Ref's: 25, 27, 28, 29, 30, 36, 37, 38).
- The elms are currently in good condition and should be allowed to continue to form 'natural' copses through suckering.
- Over the long-term, the gradual removal of the white poplars and the extension of elms (with some planting of oaks) is recommended. This will preserve the character of this zone whilst minimising maintenance.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Removal of specified trees identified in Arboricultural Assessment (Feb. 2015).
- Every 5 years, remove 3-4 white poplars, working from each of the northern and southern ends of the white poplar copse, and replace with oak and elm trees, as per the Planting Schedule.
- Locals enjoy the informality of the pathways through this area. It is recommended that they are kept informal.
- Specific stump grinding and other actions as per the Action Plan (Appendix 2).

# Zone J

Priority: High

# Bathurst St to Gatty Dam



## OBJECTIVES

Design a 'transitional' landscape between the exotic-dominated landscape of zone J and the more 'natural' riparian zone downstream of Gatty Dam.

### CULTURAL VALUES

- Largely open as the result of clearing of willows over the past decade.
- Not seen from the Bridge or from key viewpoints of the bridge.
- Plantation of *Callistemon* shrubs along the upper bank was planted by Richmond Primary School students.

### HERITAGE VALUES

- Gatty Dam was constructed in 1935. Construction of the dam ensured standing water in the Coal River through the town.
- Not seen from the Richmond Bridge or from key viewpoints of the bridge.

### KEY VEGETATION MANAGEMENT ISSUES

- The recently planted (last 5 years) Turkish oaks are not representative of species found elsewhere in the study area and therefore have no historic reference. However, oaks were commonly planted through the district historically, and their form and colour is complimentary to this setting. They should be retained and this species adopted for other plantings in the precinct as a succession strategy. Relying too heavily on Elms could place the landscape at risk in the future should Dutch Elm Disease or Elm Leaf Beetle take hold in the future.
- Transform the upper track along the western boundary into an 'avenue' by planting a row of blackwood between the track and boundary fence.

### MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Remove dead and dying silver wattles at southern end of this zone.
- Re-vegetate southern areas with blackwood and drooping she-oak (see Planting Schedule).
- Plant an avenue of blackwoods to western boundary. Prune *Callistemon* plantation into an informal hedge, less than 1 m high.



# Zone K

Priority: Mod

# South Eastern Banks near Gatty Dam



## OBJECTIVES

Provide a low-maintenance 'parkland' landscape and a backdrop to views from the western banks of the Coal River.

## CULTURAL VALUES

- Mainly used as a pedestrian thoroughfare and for access to neighbouring private land.
- Landscape contribution is mainly as a backdrop to views over the Coal River from westerly vantages.

## HERITAGE VALUES

- Gatty Dam was constructed in 1935. Construction of the dam ensured standing water in the Coal River through the town.
- Not seen from the Richmond Bridge or from key viewpoints of the bridge.

## KEY VEGETATION MANAGEMENT ISSUES

- Relatively young blackwoods are becoming well established along the banks.
- Is an 'open canvass' in terms of landscape development opportunities, however such redevelopment would require consideration of access requirements and resourcing for both establishment and management.
- Additional planting along the banks and riparian zone would enhance the landscape character of the views from western vantages by screening residences in the background.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Ongoing weed monitoring and management.
- Planting of more indigenous trees and shrubs along bank and riparian zone.
- Planting of indigenous reeds and rushes on lower bank.



# Zone R1

Priority: High

## Riparian strip, NE Bank

### OBJECTIVES

Ensure views to the Bridge from the North-East are maintained and enhanced.  
Protect bank from erosion.



### CULTURAL VALUES

- Forms an important foreground to views of the Bridge from north-eastern vantages.

### HERITAGE VALUES

- Important part of views to and from the bridge.
- Some historically planted trees and shrubs have become naturalised but are not considered significant from a heritage perspective.

### KEY VEGETATION MANAGEMENT ISSUES

- Environmental weeds including boxthorn, fennel, blackberry, gorse are interspersed with indigenous riparian vegetation and could continue to spread and eventually dominate if not controlled.
- Some hawthorn trees have volunteered, which may form a barrier to views if allowed to grow too big or become too dense.
- *Phragmites australis* (Common Reed) dominates the lower bank and rivers edge. This provides protection from erosion and creates a low-maintenance, attractive edge to the river bank and lawns.

### MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Southern-most bank: re-establish indigenous reeds and rushes (see Species list) to protect bank and maintain 'edge' consistency in the landscape.
- Ongoing weed control: manual removal of hawthorn, boxthorn, gorse and fennel, etc.
- Monitor for introduction of other weed species (willow, cumbungi, etc.) and control as necessary.



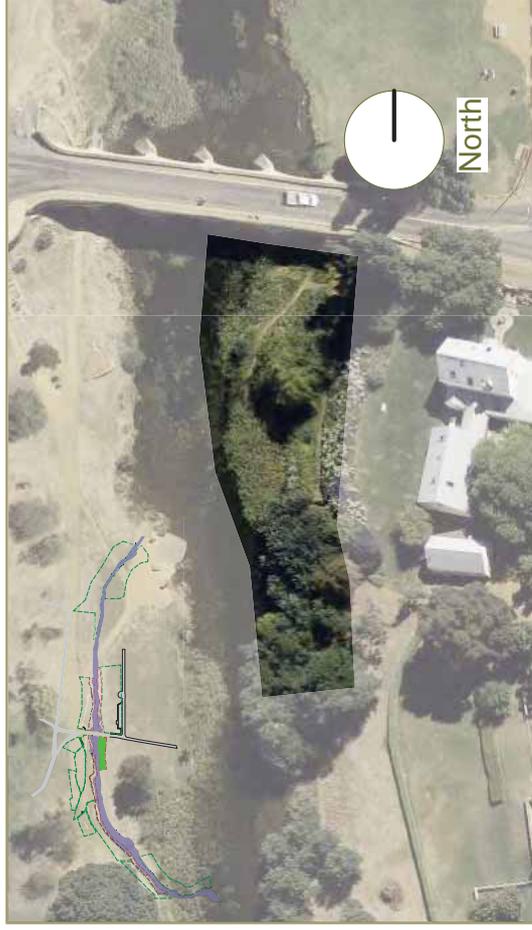
# Zone R2

Priority: High

# Mill Bank

## OBJECTIVES

Maintain a high quality landscape that transitions between the gardens of the Mill and the Coal River.



## CULTURAL VALUES

- Forms an important foreground to views of the Bridge from south-eastern vantages.
- Is an important component of views from the bridge.

## HERITAGE VALUES

- Old boiler tank is 'hidden' under the shallow bank in the centre of this zone.
- Weeping willow is one of the only remaining willows in the area; a relic of older plantings.

## KEY VEGETATION MANAGEMENT ISSUES

- Ivy is growing on bridge buttress and must be removed.
- Ongoing control of suckers/seedlings of White Poplar, Lombardy Poplar, peppercorn and various prunus species is required.
- Parts of the banks are eroding due to high volumes of pedestrian access to this area with only an informal, unformed path network.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Remove ivy from Bridge structure. Liaise with adjacent landholder to negotiate an eradication program to minimise future maintenance.
- Remove white poplar suckers/young trees.
- A formed path to define pedestrian access points would assist minimise current bank erosion due to uncontrolled access.



# Zone R3

Priority: High

# North West Bank



## OBJECTIVES

Maintain key views from north-western vantages and provide a pleasant background to views from the eastern bank.

## CULTURAL VALUES

- Forms an important foreground to views of the Bridge from northern and eastern vantages.
- Is an important component of views from the bridge.

## HERITAGE VALUES

- Old fords across the river that pre-date the bridge.

## KEY VEGETATION MANAGEMENT ISSUES

- Crack willow suckers/re-growth from previously controlled trees is occurring through this site.
- Large expanses of *Phragmites* could spread as sedimentation up-stream of the bridge continues.
- Isolated specimens of weed such as boxthorn, gorse, marshmallow, blackberry, fennel.
- Good regeneration of blackwood (*Acacia melanoxylon*) on banks. This may need to be thinned and/or some trees removed if their density increases to the extent that views are blocked.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Some trimming of *Phragmites* is required to 'open up' views to the bridge from the bank near the old Cypress tree (a key vantage point for views to the bridge).
- Weed control required including boxthorn, gorse, marshmallow, blackberry, fennel.
- Thinning of Blackwood seedlings.

# Zone R4 Priority: High

# South West Bank – Duck Feeding Area

## OBJECTIVES

Maintain key views from south-westerly vantages and protect the river banks from erosion.



## CULTURAL VALUES

- Forms an important foreground to views of the Bridge from southern and eastern vantages.
- Is an important component of views from the bridge.

## HERITAGE VALUES

- 

## KEY VEGETATION MANAGEMENT ISSUES

- Banks are heavily impacted by pedestrian traffic and duck population and are exposed and prone to erosion.
- Suckering *Prunus* spp. and other woody weeds in the northern half of this zone will impact on views through and under the bridge arches.

## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Design and construct 'hardstand' (rock beaching) areas for ducks and waterfowl and plant out banks between these ramps with indigenous reeds and rushes.
- Control weeds and suckering *Prunus* spp. through manual removal.



# Zone R5

Priority: Mod



# South-Western Riparian Zone

## OBJECTIVES

**Maintain river and river-bank function and minimise flood impacts of fallen white poplar branches whilst maintaining essentially 'exotic' landscape.**

## CULTURAL VALUES

- Branches/trunks of white poplars that fall/lean into the river course are of concern to locals because of their impact on recreational users of the river (paddle boats and canoeists) and concerns over flood management.

## HERITAGE VALUES

- White poplars are naturalised from historical plantings.
- The landscape of the riparian zone is characterised by the deciduous trees along the banks.

## KEY VEGETATION MANAGEMENT ISSUES

- Low overhanging branches of white poplar impede use of the river by paddle boats and canoes.
- Low overhanging branches may cause a build up of debris and exacerbate flooding and flood impacts both upstream and downstream.
- Ducks are impacting on grass cover on some areas of the banks, contributing to erosion.
- Some isolated crack willow suckers are establishing themselves.

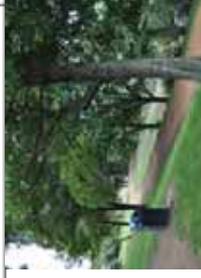
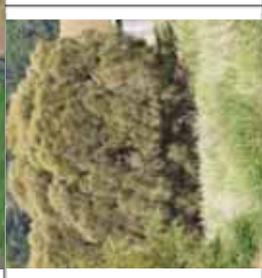
## MAIN VEGETATION MANAGEMENT PRESCRIPTIONS

- Gradual removal of all white poplars from the riparian zone.
- Allow the gradual replacement of white poplars with Elm suckers.
- Adjacent to Zone J, plant new Elm and Oak trees (to continue the 'English woodland' theme of Zone J).
- Adjacent to Zones B and K, establish indigenous reeds and rushes on banks to minimise erosion.
- Control suckers of white poplars.
- Ongoing weed control throughout this Zone, prioritising the control of crack willow, gorse, hawthorn, prunus sp., fennel, blackberry.



## RECOMMENDED PLANTING PALETTE

## Planting Schedule

Photo	Botanical Name	Common Name	Size at maturity (h x w) in m.	Notes
	Acacia melanoxylon	Blackwood	20 x 10 Evergreen	Indigenous to the locality. Several planted and regenerated specimens occur across the precinct. Susceptible to damage by brushcutters, mowers etc. and this can negatively impact their health and form. The dark foliage complements the predominantly exotic trees within this precinct.
	Allocasuarina verticillata	Drooping She-Oak	12 x 10 Evergreen	Indigenous to the site. Useful for screening, suppresses grass/weed growth under the canopy and attracts native birds and insects.
	Eucalyptus viminalis spp. Viminalis	Manna Gum, white gum	20 x 12 Evergreen	An indigenous tree well suited to the site. Several specimens have been planted (within the last 10-15 years) along the river banks (Zone A in particular) and are thriving. Useful as an evergreen backdrop to screen out the fences etc. of adjacent properties, but should not be planted within 20m of a building or property boundary.
	Quercus cerris	Turkish Oak	30 x 20 Deciduous	No remnants of historical plantings exist on site. However, Council has planted Turkish Oak in Zone K and it is deemed an appropriate large tree for this area. Oaks of many varieties were commonly planted by settlers in the region. The form, colour and texture of these trees is complimentary to the character of the precinct. Diversifying the range of large deciduous trees means the landscape is less susceptible to possible drastic change if Elm-leaf Beetle or Dutch Elm Disease impacts the Elm trees in the region in the future.

## RECOMMENDED PLANTING PALETTE...

Photo	Botanical Name	Common Name	Size at maturity (h x w) in m.	Notes
	Schinus molle	Peppercorn Tree	15 x 12 Evergreen	Remnants of historical plantings occur on site. A prolific seeder, this species is volunteering across the site and throughout the town (according to locals). Its continued use as a shade and specimen tree is warranted as it is a hardy specimen tree well suited to the locality and the place.
	Ulmus procera	English Elm	18 x 12 Deciduous	Remnants of historical plantings occur on site. These old varieties are more prone to suckering than modern nursery-raised stock, which are often grafted onto low-suckering root stock. Formative pruning often required as the tree grows, so a biennial pruning program for new plantings is recommended. Integrated pest management for Elm Leaf Beetle should be practiced to ensure that existing and newly planted trees are protected. Genetic variety in Ulmus procera is considered limited so disease resistant varieties of this species are unlikely to be developed. Interspersing <b>Zelkova</b> (see below) among new plantings of Elms will ensure that the long-term structure of the landscape should Dutch Elm Disease ever enter Tasmania.
	Populus nigra 'italica'	Lombardy Poplar	30 x 10 Deciduous	The Lombardy poplars flanking the Eastern approach to the bridge are important historical and cultural plantings that provide a strong vertical element to photographers and artists impressions of the Bridge. Further plantings of this tree at other key points in the landscape, where a strong vertical accent is needed, is appropriate. Within the next 5-10 years the existing Lombardy Poplars adjacent to the bridge will need to be replaced. Any future plantings should be grown from low-suckering root stock.

## RECOMMENDED PLANTING PALETTE...

Photo	Botanical Name	Common Name	Size at maturity (h x w) in m.	Notes
	Zelkova serrata 'Green Vase'	Zelkova	14 x 10 Deciduous	From the Ulmaceae family (Elms), the Zelkova is an excellent substitute for other traditionally planted deciduous parkland trees because of its high resistance to pests and diseases and its non-suckering roots. It does not tolerate waterlogging. Should be considered as a substitute for Elm and white poplars on this site, particularly along pathways, roads and property boundaries where good upright form is required. Does not sucker.
	Leptospermum lanigerum	Woolly Tea-Tree	8 x 3 Evergreen	An indigenous species suitable for river bank stabilisation and weed suppression.

## RECOMMENDED PLANTING PALETTE – Shrubs and Grasses

Photo	Botanical Name	Common Name	Size at maturity (h x w) in m.	Notes
	Austrodanthonia spp.	Wallaby grass	Grass	Indigenous grasses recommended for revegetating the steep banks of the precinct because they requires no mowing.
	Bursaria spinosa	Prickly Box, Sweet Bursaria	2 x 1 Evergreen	This ubiquitous Tasmanian evergreen small tree/shrub would make a useful contribution to the dryer banks and steeper slopes of the precinct, where it will assist in the suppression of exotic grasses and weeds, provide habitat for birds and insects (particularly butterflies) and screens fences and other 'hard' elements in the landscape.
	Correa alba	White Correa	1.5 x 1.5 Evergreen	A useful native shrub where structured planting is required to border pathways and/or screen or contain views. Existing plantings of C. alba are performing well on site and the form and colour of this native compliments the 'English' landscape character of the site.
	Themeda triandra	Kangaroo grass	Grass	An indigenous grass that is recommended for revegetating the steep banks of the precinct because it requires no mowing.

# Waterway Management

## AQUATIC VEGETATION

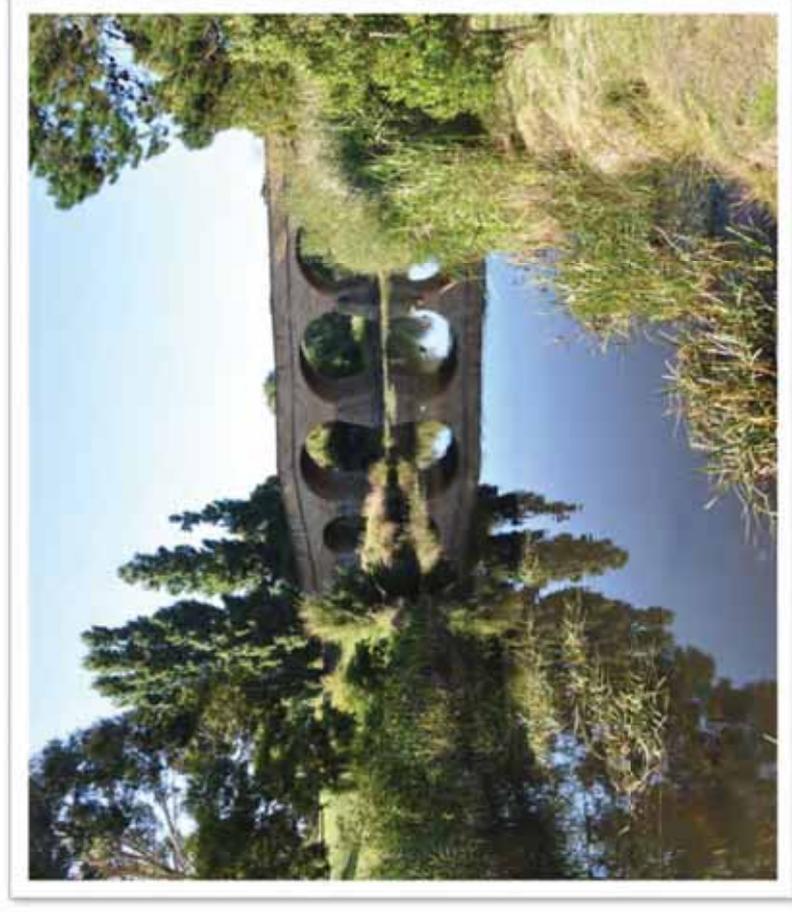
Whilst an exhaustive survey of aquatic plants has not been undertaken as part of this Vegetation Management Plan, it appears that the majority of aquatic plants within the Coal River are native.

The *Phragmites australis* (common reed) that dominates much of the northern section of the Coal River is valuable in protecting banks from erosion and filtering high nutrient-load runoff from adjacent lawns. It may be spreading through the bed of the river, but this is a result of shallowing of the riverbed due to sedimentation. Whilst 'drowning' by cutting the reeds off below water level may stop its spread and control the reed in the short term, continuing sedimentation will exacerbate this 'problem' in the long term. *Phragmites* does not pose a problem to flooding, unlike the introduced bull-rush (*Cumbungi*), because it lies down under floodwater (and protects banks in doing so).

Rushes (*Juncus* spp., *Eleocharis gracilis*, etc.) play a similar role in protecting the riverbanks from erosion and withstand much of the impacts of the high duck population in Bridge precinct.

Ribbon weed (*Triglochin procera*) is a dominant aquatic plant within the Coal River that is also likely to be 'spreading' into the main channel of the river due to sedimentation.

A long-term strategy for continued use of the river by boats and canoes would be to reverse the sedimentation process. However, this would most likely require the removal or modification of Gatty Dam and/or mechanical modification of the river bed (i.e. dredging). A major flood may also have the effect of scouring out the riverbed, deepening it in places. These scenarios should be the subject of a separate and detailed hydrological and fluvial geomorphological investigations.



# Weed Strategy

## INTRODUCTION

As well as the usual array of garden escapees and agricultural weeds common across the region, many of the 'weeds' within the study area are naturalised specimens of historical plantings on or adjacent to the study area.

Some 'weeds' of this site are therefore important elements of the character of this landscape.

It is therefore appropriate that a balance between preserving cultural landscape values whilst minimising environmental and economic impacts of weeds.

Due to the long history of European settlement on this site, the Richmond Bridge and environs is largely a 'European' landscape. Maintaining this character is appropriate given the historical significance of the site.

The 'landscape principles' set out on Page 6 of this report include reference to the management of weed species in the overall landscape context. The overriding principles relating to 'weed' management are that:

- 'Declared weeds' be controlled and eradicated from the site within 5 years.
- Weeds are not to be allowed to spread to adjacent properties.
- Where feasible, exotic species that are profuse suckering varieties be replaced with modern cultivars and/or specimens grafted on to low-suckering root stock.

## STRATEGY

The recommended strategic approach to weed management recommended for the site is based on the 'Bradley Method' of weed control. The basic principles of that method are:

- Work from good to bad areas.
- Disturb the soil as little as possible.
- Allow the rate of regeneration to dictate the rate of clearing.

In the case of the Richmond Bridge precinct, this can be applied by:

1. Bimonthly monitoring each Management Zone for isolated specimens of priority weed species (see next page).
2. On-the-spot (i.e. at inspection time) manual removal of small specimens of priority weeds.
3. Using GPS tagging of larger priority weed specimens and scheduling a follow-up removal works request to be actioned within one month.
4. In the Riparian Management Zones, start weed control works up-stream. Ensure all weed debris is removed from the site to a Council nominated location and treated in accordance with Council's weed management policy.

5. The selected method of eradicating each weed specimen/clump will be site and species specific<sup>^</sup>. The objective (in line with the Bradley Method) is to minimise disturbance of surrounding vegetation at all times and to 'work in from the edges' of larger infestations.
6. Sow/plant desirable species where larger areas of 'bare ground' have been exposed. This will be site-specific (refer to the Planting Plan).

<sup>#</sup>Bradley, J. 2002. Bringing Back the Bush: The Bradley Method of Bush Regeneration. New Holland.

<sup>^</sup>Refer to the DPIPW publication Guidelines for Safe and Effective Herbicide Use Near Waterways as a guide to herbicide use within the area defined by this Vegetation Management Plan. available at: [http://dipjpw.tas.gov.au/Documents/herbicide\\_guidelinesFINAL2012.pdf](http://dipjpw.tas.gov.au/Documents/herbicide_guidelinesFINAL2012.pdf)

## Definition of Weed

A weed is any plant growing out of place, causing adverse economic, environmental and/or social impacts.

Weeds 'Declared' under the *Weed Management Act* (1999) pose a significant threat to Tasmania's environmental and/or agricultural values. Land owners/managers have a legal responsibility to control declared weeds on their land.

# Priority Weed Species

Photo	Botanical Name	Common Name	Notes*
	Lycium ferocissimum	African Boxthorn	Declared weed. Prickly and incompatible with public open space.
	Ulex europaeus	Gorse	Declared weed. Very invasive and not compatible with the objectives of public open space. 'High threat' weed (TASVEG).
	Crataegus momgyna	Hawthorn	Not a declared weed in Tasmania, and has cultural/historic value. However, can be invasive.
	Malva spp.	Mallow	Not a declared weed and currently limited to the NW corner of Zone F. However, timely control will prevent long-term infestation.
	Asparagus officinalis	Asparagus	Garden escapee. Need to be vigilant for the more invasive declared weed variety A. scandens

Photo	Botanical Name	Common Name	Notes*
	Foeniculum vulgare	Fennel	Declared weed.
	Salix alba X fragila	Crack Willow	The 'Crack' willow is of particular concern. Existing weeping willows have historical/cultural value and are less prone to spread than other species.
	Rubus fruticosus Image © DPI/PWE Tasmania	Blackberry	Declared weed. 'High threat' weed (TASVEG).

## Other Priority 'weed' species

**Pine (*Pinus radiata*)** seedlings are volunteering in areas (e.g. Zone F). Requires ongoing monitoring and manual removal of seedlings. **Yucca (*Yucca spp.*)** some of which are planted specimens; can be invasive. **Agapanthus (*Agapanthus africanus*)** is useful and traditionally planted in and around the site. However, it can spread in some circumstances so monitoring is required to contain it. **Briar Rose (*Rosa spp.*)** isolated occurrences along the riparian zones of each Management Zone. Particularly prevalent in Zone H.

**NOTE:** This is **not** intended to be a comprehensive list of weeds occurring on site. This list represents some of the more prevalent weed species that are having an impact on the visual character of the site and the management of vegetation generally in the study area.

## INTRODUCTION

Many of the best views of the Richmond Bridge are framed by vegetation from the 'borrowed landscape' (the broader landscape around the study area).

The mature blue gums in front of St Johns Church; the pine and cypress trees on private land to the north of the study area; the silver poplars in the traffic island on Bridge Street to the west of the bridge; and the white poplars along the banks of the Coal River south-east of the bridge are key examples.

The succession of this vegetation is important to maintaining the cultural landscape of the Richmond Bridge and its surrounds.

## SUCCESSION PLANTING

It is recommended that Council take a proactive approach to ensuring the smooth transition of the broader landscape so that drastic changes to the skyline, near and middle-distant views are not disrupted when the existing vegetation declines and has to be removed.

In some instances, there is room around the existing vegetation to enable new plantings to occur now and for that vegetation to become established in time for the eventual decline of the existing trees. In other cases, removal of the existing trees will be required before new plantings can be undertaken.

# The 'borrowed' landscape

## Cypress and Pines, 12 Gunning St & 56 & 52 St John Circle.

The old pine and cypress (*Pinus radiata* & *Cupressus macrocarpa*) on private land north of the main Richmond Bridge precinct form an important backdrop to the cultural landscape of the Bridge environs. These trees have not been assessed by an arborist as part of this Vegetation Management Plan, however, due to their age there is a need to commence succession planning for their eventual demise. There are two main options a) negotiate with the current landholders to discuss options for replacing these trees over time; or b) plant pine and/or cypress trees at the northern end of Zone F. A factor in deciding which option is most appropriate is the fact that it is likely that access for removal of the existing trees on 12 Gunning St might have to occur through Crown land (Zone F).

## White Poplars, Bridge Street.

The two large white poplars to the western side of the 'traffic island' to Bridge Street/Gunning Street form an important focal point and backdrop to the Bridge as it is approached from the east. Although currently healthy and with a likely long life ahead of them, succession planning for these specimens is important. There is room to the East of these trees to establish new plantings. White poplars should be re-planted.

Regardless of the approach to succession planting, it is important that the community is well informed of the plans for succession of large trees. If the community is assured that the works are part of a long-term replacement program and that the disruption to the landscape will be temporary, they will be more accepting of the need to remove old trees.

The priority areas of the 'borrowed' landscape where succession plantings are particularly required are:

## St Johns Church, Blue Gums.

The mature blue gums form an important backdrop and skyline to views of the Bridge, particularly from the south west. Removal of a senescent tree to the south east of the church occurred relatively recently. This tree was replaced with an oak tree. This specimen can remain, but it is recommended that blue gums be replanted in other areas along the southern boundary of the church, making allowance for the safe removal of the existing trees. The more open canopy of eucalyptis, and the reference to historic trees, it is suggested, is a preferable solution to oak trees. Detailed site design is recommended to ensure new trees are located appropriately so as not to impact on the structure of the church or other infrastructure.

## The 'borrowed' landscape...

### **Poplars on private land, 'The Mill'.**

The Lombardy poplars to the south of the eastern buttresses of the Bridge are key landmarks and historically and culturally significant plantings. Negotiations with this landholder are required to start planning for the succession of these trees. The white poplars along the banks of the Coal River south-east of the Bridge are also important determinants of landscape character. Their gradual replacement with elms is recommended (as per the opposite (Zones I, J and 5). Many of the mature trees throughout The Mill property are important in the overall context of the Bridge landscape.

### **Mature eucalypt, she-oak and peppercom trees to rear of 62 and 64 Bridge Street.**

The mature eucalypt, she-oak and peppercom trees in the rear yards of these two addresses perform important roles in the landscape by screening buildings. Negotiations with the landowner(s) is required to highlight the role these trees play in the landscape and come to an arrangement for their long-term replacement.

### **Eucalypts West of St Luke's Cemetery**

The mature blue gums to the west of the cemetery form a backdrop to the views from the high vantage point on the edge of the bank of the Coal River to the east of the Village Green. There is space on that site to plant eucalypts of the same species (*E. globulus*) to eventually replace these mature

trees. Detailed site planning and negotiations with the landowner are required to ensure future plantings are compatible with surrounding land uses and infrastructure.

### **Poplars, 51 Bridge Street (Cnr Gunning St).**

The Lombardy poplars at 51 Bridge St. form a focal point to views as the Bridge is approached from the east. Negotiations with this landholder should be undertaken to determine their intentions and the likelihood of succession planting being possible in this location. If it is not, an alternative site in the vicinity should be selected for new Lombardy poplars (low-suckering stock) to be planted.



# Implementation Guide

Many of the recommendations of this Vegetation Management Plan relate to routine land management and arboricultural practices.

Effective weed management requires strategic, timely and regular works to be carried out by trained staff. Regular weed management should be included in all programmed maintenance for the whole site.

Tree removal and replacement in historic precincts may be controlled under various State, National and Local legislation. The specific National, State and Local Government legislative frameworks within which the proposed actions are to be guided are discussed below.

## National

The National Heritage listing includes the Bridge, and the north west and south west riverbanks that are in public ownership (but not its setting). Commonwealth approval will be required where an action has, will have or is likely to have a significant impact on the National Heritage values of the place. An action is likely to have a significant impact under the impact guidelines (p.20) if there is a real chance or possibility that it will cause:

- one or more of the National Heritage values to be lost

- one or more of the National Heritage values to be degraded or damaged, or
- one or more of the National Heritage values to be notably altered, modified, obscured or diminished.

The recommended vegetation management works are not considered to result in a significant impact on the identified heritage values of the Richmond Bridge.

## State

Implementation of Actions suggested within this Vegetation Management Plan are to be guided by the Heritage Tasmania Practice Notes – Historic plantings and landscapes (Heritage Tasmania, 2015).

Heritage Tasmania will generally issue a certificate of exemption for general maintenance of landscapes including actions such as:

- General mowing; seeding, top-dressing, aeration/coring of lawns; removal of dead plants; disease control; mulching; spraying etc.
- Removal of dead or dying minor shrubs; herbs, perennials etc. or plants of no significance.
- General weed control, noting that some heritage species are environmental weeds, in which case a works application will be required.

Tree surgery, hedging, pruning and trimming are also generally eligible for a certificate of exemption if the works are carried out by qualified arborist(s) or horticulturalists with an appreciation of the heritage value of the vegetation under treatment.

Therefore, the majority of the works recommended in this Vegetation Management Plan will require a permit from Heritage Tasmania.

Approval will be required for:

- Stump grinding, in areas within moderate and high archaeological interest (as noted in the Management Zones descriptions) if the grinding is deeper than 30cm.
- Tree removal.
- Replacement of trees where the new trees are not of the same species as those removed.
- New plantings (i.e. tree or shrub plantings in areas where no planting has been present historically, but may impact on views to or from historically significant features or landscapes).

## Implementation...

Once the consultation on this Draft Vegetation Management Plan has been completed, discussions with Heritage Tasmania will be finalised and a staged process of approvals for the agreed works determined.

An overarching permit for works prescribed in this Vegetation Management Plan may be able to be negotiated. The extent of soil disturbance (e.g. stump grinding and root control barrier installation) will be one of the key issues that Heritage Tasmania will consider in issuing permits for vegetation management.

### Local

The Richmond Bridge and Surrounds are identified as a heritage listed place under Table E13.1 of the Historic Heritage Code, Clarence Interim Planning Scheme 2015. The planting, clearing or modification of vegetation for landscaping or management of vegetation purposes within the Richmond recreational area is exempt from the Code.

### Succession Planting on Private Land

It is recommended that Clarence City Council investigate the potential for developing partnerships with adjacent landowners to further the vegetation management principles through succession plantings on private land.



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# Appendices

1. Action Plan
2. Plans (A3 SET)
  - Site Analysis Plan
  - Management Zones
  - Planting Plan (North)
  - Planting Plan (South)
  - Borrowed Landscape Notes
3. Vegetation Condition as at February 2015 (Aboricultural Survey Report)

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## ACTION PLAN

The Arboricultural Assessment of February 2015 recommends the following specific remedial actions:

PRIORITY	MANAGEMENT ZONE	ACTION	RESPONSIBILITY
High	Zone A	REMOVAL of trees 95 & 96.	CCC
Mod	Zone A	REMOVAL of trees 104 & 105.	CCC
High	Zone B	Remove <i>A. melanoxylon</i> (Tree 75) and replace with a new better-formed specimen.	CCC
High	Zone B	Pruning of pine (tree 53) to remove large diameter dead wood.	CCC
Mod	Zone B	Pruning of peppercorn (tree 61) to remove large diameter dead wood.	CCC
Mod	Zone C	Pruning of almond (tree 68) to remove large diameter dead wood.	CCC
Mod	Zone E	Pruning of peppercorn (tree 69) to remove dead wood.	CCC
High	Zone F	Pruning of pine (tree 79) to remove large diameter dead wood.	CCC
High	Zone I	REMOVAL of trees 25, 27, 28, 29, 30, 36, 37 and 38	CCC
High	Zone I	Minor works to trees 22 & 23; 31-35 inclusive; 39.	CCC
Mod	Zone J	REMOVAL of trees 4, 5 & 6 (dead or dying <i>Acacia dealbata</i> ).	CCC

### NOTES FOR TABLES:

#### PRIORITY:

HIGH: Within 6 months.

MOD: 6 to 18 months.

LOW: 18 months to 3 years.

Refer to Arboricultural report for GPS Coordinates of above-mentioned trees.

#### RESPONSIBILITY:

CCC: Clarence City Council

State Growth: Department of State Growth

DPIPWE CLS: Department of Primary Industries, Parks, Water and Environment, Crown Land Services.

Prioritised Vegetation Management Actions:

Photo	Priority	Zone	Description of Issue	Notes	Responsibility
	High	A	<ul style="list-style-type: none"> <li>Remove all Lombardy Poplar suckers within 2m of the bridge structure.</li> </ul>	<ul style="list-style-type: none"> <li>Arborist recommends not using herbicides on suckers.</li> <li>Manual removal is recommended.</li> <li>Avoid damage to bridge structure itself.</li> <li>Scheduled program of manual removal every 6 months is recommended.</li> </ul>	State Growth
	Mod	A	<ul style="list-style-type: none"> <li>Remove Pinoak</li> </ul>	<ul style="list-style-type: none"> <li>Is performing poorly (perhaps waterlogged?).</li> <li>Is not a species found elsewhere in the Richmond Bridge precinct.</li> <li>Replace with Turkish oak or elm.</li> </ul>	CCC
	Low	A	<ul style="list-style-type: none"> <li>Remove stumps of old white poplars along northern boundary of Zone A.</li> </ul>	<ul style="list-style-type: none"> <li>Complete removal will facilitate ongoing management of grass and enable replacement trees to be established.</li> </ul>	CCC
	Mod	B	<ul style="list-style-type: none"> <li>Remove exotic shrubs and small trees from the garden bed below the concrete steps and mass plant with <i>Correa alba</i>.</li> </ul>	<ul style="list-style-type: none"> <li>The existing <i>Correa alba</i> within this bed are performing well and have an appropriate form and colour for this site.</li> <li>The taller shrubs are blocking views to the bridge and river and enclose the pathway too heavily.</li> </ul>	CCC
	Mod	C	<ul style="list-style-type: none"> <li>Remove stumps throughout the orchard area.</li> </ul>	<ul style="list-style-type: none"> <li>Stumps are impeding mowing and other maintenance operations.</li> <li>Area has medium archaeological value so an observer is to be present to ensure any artefacts disturbed during works are identified and the site protected if significant quantities/qualities of artefacts are discovered.</li> </ul>	CCC

## Richmond Bridge Vegetation Management Plan – Appendix 2

Photo	Priority	Zone	Description of Issue	Notes	Responsibility
	High	D	<ul style="list-style-type: none"> <li>Remove elm suckers at toe of bank in Zone D.</li> </ul>	<ul style="list-style-type: none"> <li>Use 'cut and paint' method or manual remove, ensuring as much of the parent root material is also removed.</li> </ul>	CCC
	Mod	D	<ul style="list-style-type: none"> <li>Remove <i>Acacia dealbata</i> between concrete steps and the picked fence on top of the embankment of Zone D.</li> </ul>	<ul style="list-style-type: none"> <li>Will start to decline in health and should be removed to enable the re-planting of this bank.</li> </ul>	CCC
	Mod	D	<ul style="list-style-type: none"> <li>Remove wattles.</li> <li>Retain eucalypt.</li> </ul>	<ul style="list-style-type: none"> <li>Specimens are 'leggy' and their removal will enable the revegetation of the adjacent bank with indigenous grasses.</li> <li>Replace with <i>Bursaria spinosa</i> as per the planting plan.</li> </ul>	CCC
	Low	D	<ul style="list-style-type: none"> <li>Revegetate the steep banks of Zone D with indigenous grasses.</li> </ul>	<ul style="list-style-type: none"> <li>Control existing grass and weed cover using a knock-down, broad-spectrum herbicide.</li> <li>Leave residue in situ.</li> <li>Lay hessian weed mat downslope to cover the entire slope.</li> <li>Establish wallaby grass (<i>Austrodanthonia spp.</i>) and kangaroo grass (<i>Themeda triandra</i>).</li> <li>Options for establishment include: hydroseeding or planting seedlings. The latter would be more expensive and take longer to establish a thick enough cover to suppress weed incursions. Hydroseeding is therefore the preferred option.</li> </ul>	CCC
	High	F	<ul style="list-style-type: none"> <li>Remove yucca, pine seedlings and boxthorn throughout this zone.</li> </ul>	<ul style="list-style-type: none"> <li>Manual removal of these plants will be required.</li> <li>Yucca re-growth will need to be monitored and herbicide treatment may be necessary. Eradication of Yucca is recommended before attempting revegetation of banks with indigenous grasses.</li> </ul>	CCC

## Richmond Bridge Vegetation Management Plan – Appendix 2

Photo	Priority	Zone	Description of Issue	Notes	Responsibility
	Mod	F	<ul style="list-style-type: none"> <li>Stump of old cypress tree.</li> </ul>	<ul style="list-style-type: none"> <li>Grind to fully remove.</li> <li>Medium archaeological value site: follow Heritage Tasmania guidelines.</li> </ul>	CCC
	Low	F	<ul style="list-style-type: none"> <li>Revegetate the steep banks of Zone D with indigenous grasses.</li> </ul>	<ul style="list-style-type: none"> <li>See prescription for Zone D.</li> </ul>	CCC
	Mod	I	<ul style="list-style-type: none"> <li>Grind stump of old elm tree and remove suckering regrowth.</li> </ul>	<ul style="list-style-type: none"> <li>Re-plant <i>Ulmus</i> sp.</li> </ul>	CCC
	Mod	I	<ul style="list-style-type: none"> <li>Grind stump of old peppercorn tree.</li> </ul>	<ul style="list-style-type: none"> <li>Low archaeological value site but an observer should be present when grinding to ensure works can cease if any historical/cultural artefacts are uncovered.</li> </ul>	CCC
	High	R1	<ul style="list-style-type: none"> <li>Remove all boxthorn from riparian zone</li> </ul>	<ul style="list-style-type: none"> <li>Will need quarterly monitoring for regrowth and follow-up control.</li> </ul>	CCC
	High	R2	<ul style="list-style-type: none"> <li>Remove ivy from Bridge face.</li> </ul>	<ul style="list-style-type: none"> <li>Remove ivy from stone work.</li> <li>Work with landowner to eradicate ivy from this site to prevent future maintenance burden and ensure integrity of the bridge in the future.</li> </ul>	State Growth
	High	R3	<ul style="list-style-type: none"> <li>Remove all boxthorn from riparian zone</li> </ul>	<ul style="list-style-type: none"> <li>Will need quarterly monitoring for regrowth and follow-up control.</li> </ul>	CCC
	High	R4	<ul style="list-style-type: none"> <li>Remove willow suckers/saplings.</li> </ul>	<ul style="list-style-type: none"> <li>Follow 'Guidelines for Safe and Effective Herbicide Use Near Waterways'.</li> </ul>	CCC
	Mod	R4	<ul style="list-style-type: none"> <li>Remove <i>Prunus</i> sp. sucker from bank.</li> </ul>	<ul style="list-style-type: none"> <li>Follow 'Guidelines for Safe and Effective Herbicide Use Near Waterways'.</li> </ul>	CCC

## Richmond Bridge Vegetation Management Plan – Appendix 2

Photo	Priority	Zone	Description of Issue	Notes	Responsibility
	High	R5	<ul style="list-style-type: none"> <li>Elm suckers.</li> </ul>	<ul style="list-style-type: none"> <li>Remove Elm suckers through this area to enable view lines to remain open from this zone and the adjacent areas.</li> <li>Follow 'Guidelines for Safe and Effective Herbicide Use Near Waterways'.</li> </ul>	CCC
	High	R5	<ul style="list-style-type: none"> <li>Remove boughs of white poplars 'falling' across th Coal River.</li> </ul>	<ul style="list-style-type: none"> <li>These branches and stems are causing problems with access to the waterway and could potentially contribute to flooding issues up- and down-stream.</li> </ul>	DPIPWE CLS

### RECOMMENDED TREE GUARDING METHOD WITHIN RIPARIAN ZONES

Within the riparian zone, it is recommended that any planting of tube-stock seedlings be protected from vermin and accidental damage by mowers etc. with plastic or steel mesh guards, NOT plastic sleeve guards. This will minimise potential losses due to flooding.

Exotic or specimen trees that are planted as 'advanced' stock should be staked with 3 hardwood stakes and well tied to minimise losses from flooding.

# LEGEND

-  Key views TO Richmond Bridge
-  Title boundary

-  Clarence City Council Land
-  Private Land
-  Private Land (Catholic Church)
-  Crown Land; CLS Managed

-  Vegetation on Private Land forming background to views
-  Exotic deciduous vegetation
-  Existing Native vegetation
-  Evergreen exotic vegetation



# SITE ANALYSIS PLAN

Date: 15 October 2015  
 Drawn: DT  
 Scale: 1:2000  
 Sheet Size: A3  
 Project No. 0183  
 Drawing No: 0183.B.1  
 Sheet 1 of 5



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## Richmond Bridge Vegetation Management Plan



# MANAGEMENT ZONES

Date: 15 October 2015  
 Drawn: DT  
 Scale: 1:2000  
 Sheet Size: A3  
 Project No. 0183  
 Drawing No: 0183.B.1  
 Sheet 2 of 5



## Richmond Bridge Vegetation Management Plan

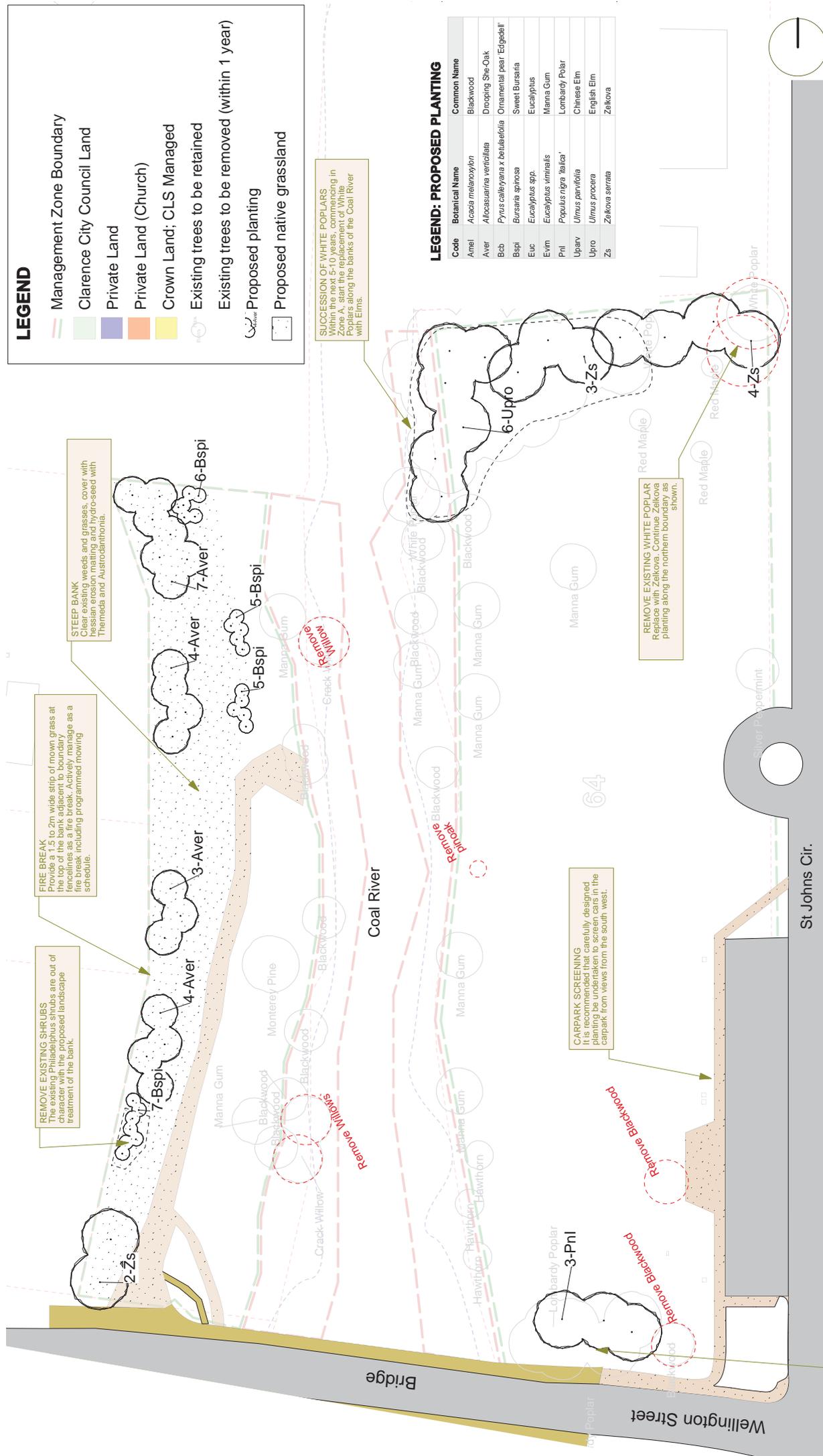
**LEGEND**

- Management Zone Boundary
- Clarence City Council Land
- Private Land
- Private Land (Church)
- Crown Land; CLS Managed
- Existing trees to be retained
- Existing trees to be removed (within 1 year)
- Proposed planting
- Proposed native grassland

**SUCCESSION OF WHITE POPLARS**  
 In the White Poplar Succession Zone, the replacement of White Poplars along the banks of the Coal River with Elms.

**LEGEND: PROPOSED PLANTING**

Code	Botanical Name	Common Name
Amel	<i>Acacia melanoxylon</i>	Blackwood
Aver	<i>Allocasuarina verticillata</i>	Drooping She-Oak
Bcb	<i>Pyrus calleryana x betuloides</i>	Ornamental pear 'Edgesell'
Bspi	<i>Bursaria spinosa</i>	Sweet Bursaria
Euc	<i>Eucalyptus</i> spp.	Eucalyptus
Evim	<i>Eucalyptus viminalis</i>	Manna Gum
Pnl	<i>Populus nigra 'italica'</i>	Lombardy Poplar
Uparv	<i>Ulmus parvifolia</i>	Chinese Elm
Upro	<i>Ulmus procera</i>	English Elm
Zs	<i>Zelkova serrata</i>	Zelkova



**REMOVE EXISTING SHRUBS**  
 The existing *Philadelphus* shrubs are out of character with the proposed landscape treatment of the bank.

**FIRE BREAK**  
 Provide a 1.5 to 2m wide strip of mown grass at the top of the bank adjacent to boundary fence-lines as a fire break. Actively manage as a fire break including programmed mowing schedule.

**STEEP BANK**  
 Clear existing weeds and grasses, cover with hessian erosion matting and hydro-seed with *Themeda* and *Austrodanthonia*.

**CARPARK SCREENING**  
 It is recommended that carefully designed planting be undertaken to screen cars in the carpark from views from the south west.

**REMOVE EXISTING WHITE POPLAR**  
 Replace with Zelkova. Continue Zelkova planting along the northern boundary as shown.

**SUCCESSION OF LOMBARDY POPLARS**  
 The Arborists report (Feb. 2015) estimates the life-span of these trees to be another 15-40 years. However, Dept. State Growth are concerned about the impacts of poplar roots on the bridge structure. It is therefore recommended that existing poplars be replaced with low-suckering stock. Complete removal of existing trees and existing roots is recommended prior to re-planting. Install root control barrier, 1.5m from edge of bridge continuously from edge of St Johns Cir. to the Coal River banks.

North  
 Date: 15 October 2015  
 Drawn: DT  
 Scale: 1:500  
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 Project No. 0183  
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 Sheet 3 of 5

# PLANTING PLAN - Northern Section

Richmond Bridge  
 Vegetation Management Plan



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**LEGEND: PROPOSED PLANTING**

Code	Botanical Name	Common Name
Amel	<i>Acacia melanoxylon</i>	Blackwood
Aver	<i>Alocasuarina verticillata</i>	Drooping She-Oak
Bcb	<i>Pyrus calleryana x betulae-folia</i>	Ornamental pear 'Edgemoil'
Bspi	<i>Bursaria spinosa</i>	Sweet Bursaria
Euc	<i>Eucalyptus spp.</i>	Eucalyptus
Evim	<i>Eucalyptus viminalis</i>	Manna Gum
Pril	<i>Populus nigra 'italica'</i>	Lombardy Poplar
Upavv	<i>Ulmus parvifolia</i>	Chinese Elm
Upvo	<i>Ulmus procera</i>	English Elm
Zs	<i>Zelkova serrata</i>	Zelkova

**IVY CONTROL IN CARPARK MEDIUM STRIP**  
 Eradicate ivy from the carpark and surrounding areas as part of the campaign. A combination of manual removal and herbicide application will be required. Eradication will minimise resource allocation in the long-term, particularly if the ivy escapes into the rest of the reserve.

**PRUNE EXISTING CALLISTEMON PLANTATION**  
 This is to be done in conjunction with the work by the local school. Although the species selected is suitable for the site, the linear nature of the plantation means that a more formal landscape will result. The recommended approach is therefore to work with that formally to keep this as a hedge and remove Callistemon with ivy along the fence line.

**REVEGETATION OF STEEP BANK WITH NATIVE GRASSES**  
 To maintain an open view from the top of the river bank, it is recommended that this steep bank be revegetated with local indigenous grasses (Thevetia & Austrodanthonia spp.).

**REMOVE WATTLE**  
 Old, large black wattle is recommended for removal to enable native grassland establishment.

**REVEGETATION UNDER MATURE TREES**  
 The steep bank under the mature Blackwoods behind the BBQ shelters is subject to erosion and is located using this bank as a slide, which exacerbates the problem. REVEGETATION with shade-tolerant species (e.g. ferns) is an option that needs further consideration.

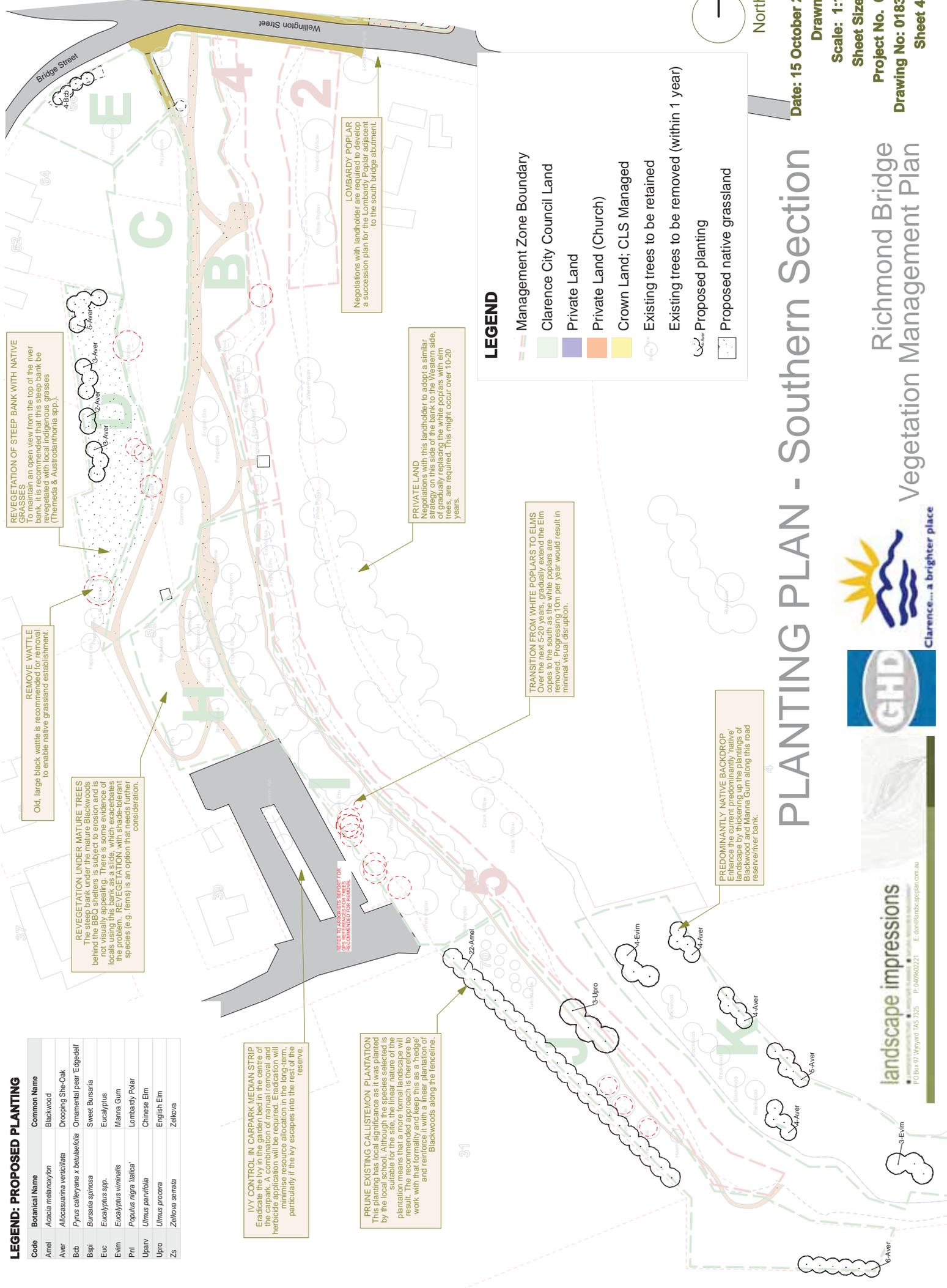
**SETBACK NECESSARY FOR ONE METRE FROM FENCE RECOMMENDED FOR REDWOOD**

**PRIVATE LAND**  
 Negotiate with this landholder to adopt a similar strategy on this side of the bank to the Western side, of gradually replacing the white poplars with elm trees, are required. This might occur over 10-20 years.

**LOMBARDY POPLAR**  
 Negotiations with landholder to develop a succession plan for the Lombardy Poplar adjacent to the south bridge abutment.

**TRANSITION FROM WHITE POPLARS TO ELMS**  
 Over the next 5-20 years, gradually extend the Elm copes to the south as the white poplars are removed. Progressing 10m per year would result in minimal visual disruption.

**PREDOMINANTLY NATIVE BACKDROP**  
 Enhance the current predominantly 'native' landscape by thickening up the plantings of Blackwood, Blackbeard, and Manna Gum along this road reserve/river bank.



**LEGEND**

- Management Zone Boundary
- Clarence City Council Land
- Private Land
- Private Land (Church)
- Crown Land; CLS Managed
- Existing trees to be retained
- Existing trees to be removed (within 1 year)
- Proposed planting
- Proposed native grassland



Date: 15 October 2015  
 Drawn: DT  
 Scale: 1:1000  
 Sheet Size: A3  
 Project No. 0183  
 Drawing No: 0183.B.1  
 Sheet 4 of 5

# PLANTING PLAN - Southern Section

## Richmond Bridge Vegetation Management Plan



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# LEGEND

- Clarence City Council Land
- Private Land
- Private Land (Church)
- Crown Land; CLS Managed

Vegetation on Private Land forming background to views

**WHITE POPLARS, BRIDGE ST**  
Form a key backdrop from eastern side of the Richmond Bridge.

**EUCALYPTUS, SHE-OAK and PEPPERCORN**  
Trees at the rear of 62 and 64 Bridge Street are important background trees. Planning for their succession is required.

**LOMBARDY POPLAR**  
At 51 Bridge St (Cnr Gunning St) forms an important focal point and backdrop to views from the north-east. Succession planning required.

Succession planting for the mature cypress and pine (Cupressus macrocarpa and Pinus radiata) to the north-western banks of the Coal River (on private land) is required as these trees form an important backdrop to views from the south.

## Recreation Reserve

Succession planting for the mature cypress (Cupressus macrocarpa) to the North-eastern banks of the Coal River (on private land) is required as these trees form an important backdrop to views from the south.

**MILL HOUSE**  
Lombardy poplars adjacent to bridge, white poplars along south east bank of the Coal River, cypress and peppercorn tree along Bridge St boundary and various other trees through the property form an important backdrop to the Richmond Bridge landscape. Consultation with landowner to plan succession of these trees is a priority.

**St John's Church**  
A succession planting for the large blue gums in front of the church is a very high priority. These trees form an important backdrop to the key views of the Bridge from the south west.

**St John's School**  
Peppercorn and white poplar trees in school yard are starting to block views to St John's from the Bridge. White poplar should be removed. Peppercorns may need pruning.



North

# BORROWED LANDSCAPE

**Date:** 15 October 2015  
**Drawn:** DT  
**Scale:** 1:2000  
**Sheet Size:** A3  
**Project No.:** 0183  
**Drawing No.:** 0183.B.1  
**Sheet 5 of 5**

## Richmond Bridge Vegetation Management Plan



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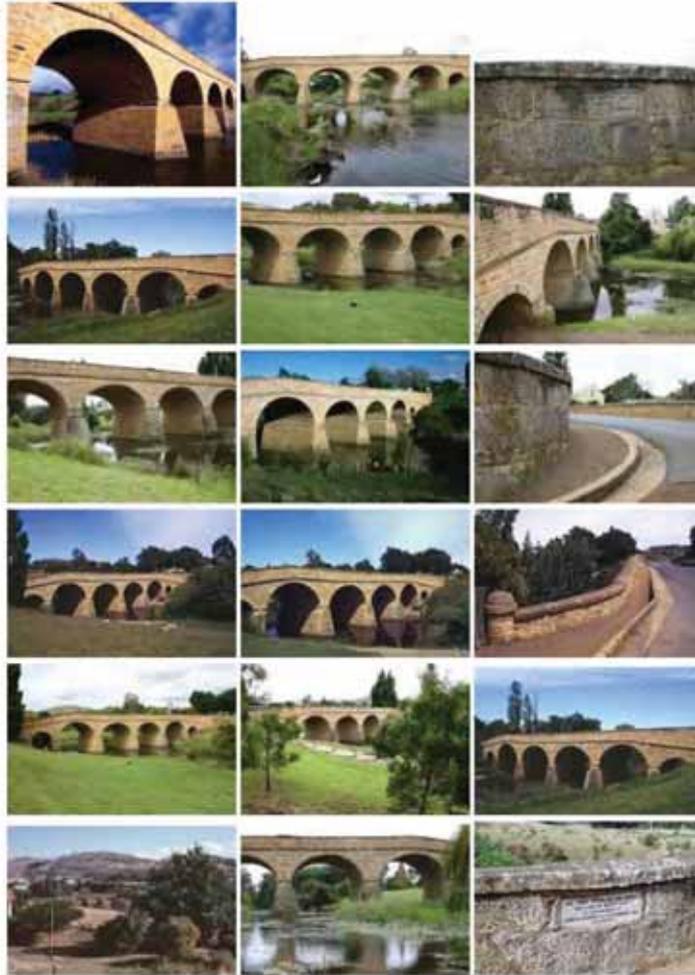
## Appendix 3: Heritage Listings

## Place Details

[Send Feedback](#)

### Richmond Bridge, Bridge St, Richmond, TAS, Australia

#### Photographs



**List** National Heritage List

**Class** Historic

**Legal Status** *listed place* (25/11/2005)

**Place ID** 105724

**Place File** 6/01/093/0044

**No**

#### Summary Statement of Significance

Richmond Bridge, completed in 1825, is a rare place as the earliest, Australian large stone arch bridge and it has had few significant changes to it since it was first constructed so it also has high integrity. Richmond Bridge is seen as being of outstanding heritage value to the nation because of its rarity.

The aesthetic significance of Richmond Bridge is appreciated locally, within Tasmania and nationally. Its picturesque image has been used widely in national and international tourism promotions since the 1920s and has inspired the work of major Australian artists.

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#### Official Values

##### Criterion B Rarity

Richmond Bridge, built by convict labour in 1823 to 1825, is the oldest, surviving, large, stone arch bridge in Australia with a high degree of integrity.

##### Criterion E Aesthetic characteristics

The aesthetic significance of Richmond Bridge is appreciated locally, within Tasmania and nationally. Its picturesque image has been used widely in national and international tourism promotions since the 1920s and has inspired the work of major Australian artists.

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#### Description

The Richmond Bridge is a stone arched road bridge. The bridge is set in the Coal River Valley and links escarpments on the east and west at the town of Richmond. The present course of the Coal River at Richmond is delineated by a minor valley of up to 80m wide, narrowly incised into unconsolidated Tertiary sediments, that is, the floor of the greater Coal River Valley. Richmond Bridge crosses the Coal River at a point where this incision is about 55m wide.

The bridge is constructed of local (reportedly derived from the nearby Butcher's Hill), brown, (Triassic) sandstone in random coursed, rough ashlar work (with some tool marks evident), on smooth-dressed, inclined piers over the river. The bridge consists of four main semi-circular arches with a smaller arch on each side (six in all), and a stone parapet (terminating in round stone bollards/columns) above a string course. The arches spring from piers which have sloping fins with angular leading edges aligned with the flow of the river. These three large, sloping 'cutwaters' encase the original vertical cutwaters.

It is a working, two lane road bridge with a load limit of 10 tonnes. The original roadbed is 25 feet wide (7.2m between parapets) and the length is 135 feet (41m). The six spans are of 4.3, 8.1, 8.3, 8.5, 8.3 and 4.1m.

The bridge is founded on the river bed at unknown depth. The undulating outline, which is characteristic of the bridge today, is due to uneven settlement of the piers and appeared early in its life.

The archival evidence suggests that a cross section through the bridge would show longitudinal walls built 600mm apart thereby affording the structure a robust stiffness. The fill is basalt and sandstone gravel of loose to medium density with sandy clay fines.

The immediate visual image is of a wide, Medieval footbridge.

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#### History

#### The establishment of the bridge and the township

The Coal River district was first explored by Europeans in 1803; in 1819 Macquarie granted Lieutenant-Governor Sorrell land at 'the crossing point of the Coal River'. As settlement and cultivation of Richmond developed (from about 1820 it was known as 'the granary of Australia' and all available land in the district was being cultivated with wheat commanding high prices), increased road traffic made a bridge over the Coal River a necessity. The crossing place where the wagons could ford the river, south of where the bridge now stands, was frequently flooded in winter and spring, creating delays or posing a risk of carts and stock being washed away, and the Pittwater estuary was tidal.

By 1820 road construction to Richmond had commenced, following a route south, through Cambridge. The necessity for a bridge was pointed out (it is claimed) by the Royal Commissioner John Thomas Bigge when he visited in 1820 as part of his Commission of Inquiry on the state of Agriculture and Trade. (So, initially, the bridge was known as Bigge's Bridge.) The Coal River was forded at what became Richmond, this being the nearest convenient crossing point from where the river narrowed about a kilometer upstream of the tidal flow. The relatively low height of the river escarpment at this point provided an ideal approach for a bridge and thus the bridge later provided a focus for town development.

Built by convict labour it was probably under the superintendence of Major Bell of the 49th Regiment, who was Acting Engineer and Inspector of Public Works, and William Wilson, who was superintendent of Stonemasons. David Lambe, Colonial Architect, visited the site before it was completed. The attribution of the designer is not certain – both Thomas Bell and David Lambe have been attributed with the design but it seems more likely that it was Bell who had six years experience as Acting Colonial Engineer and overseer of several building constructions rather than Lambe who would have had to design the bridge as a twenty year old just arrived from England, site unseen, and at least eight months before his own appointment as Colonial Architect by the Lieutenant-Governor, and indeed the latter's own appointment.

The building of the bridge meant that heavy traffic was able to proceed without delay between Hobart and the East Coast, and Tasman Peninsula, when the Coal River was in flood, though the two Pittwater ferries still continued to operate for people.

*The Hobart Town Gazette* of 13 December 1823 announced that the first stone had been laid (11 December 1823) in the presence of James Gordon and George Western Gunning and 'a number of the respectable settlers of the vicinity'. The construction of the bridge and the establishment of the Richmond township are closely linked events. Within two months of the bridge work starting, the township of Richmond was named.

The bridge was opened, possibly in 1825. (Various completion dates are cited – September 1824, 1 January 1825, 1 April 1825, and 4 April 1825.) This early date, according to O'Connor, ensures that it is the oldest, existing, Australian bridge.

The bridge served to consolidate Richmond as a focus for commercial and institutional development. The township developed to the south-west of the new works, being along the road to Kangaroo Point where a ferry/punt connected with Hobart. The early town layout is shown on two undated plans from the mid-1820's. The first buildings constructed in the new town were part of the police and penal systems – a court house, gaol, gaoler's quarters and residence for the Police Magistrate. Several private houses soon appeared and within ten years two inns were catering for local trade.

#### The setting

The nomination is only for the bridge and not for its setting. However, it is important to present the history of the

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immediate context for the bridge to provide information on local environment changes that might affect the bridge itself and to allow for an appreciation of changes to the way the bridge has been viewed over time.

In 1825, Henry Melville mentions Richmond Township showing evident signs of improvement. In 1827, however, the township was still considered an outstation, and received supplies of fresh meat and flour from the Commissariat Office. George Augustus Robinson visited Richmond in October 1829 and described the town 'as being pleasantly situated on an eminence, and the buildings mostly constructed of brick or stone, comprising several neat villas, a courthouse (also used as a place of worship), a gaol and a windmill, the place somewhat resembling a country village in England, the serpentine course of the Coal River giving a picturesque effect.'

The windmill mentioned by Robinson, was presumably the unfinished structure belonging to James Buscombe, under construction on the western escarpment on the bank of the Coal River. Buscombe's allotment, is shown on a plan of c1825, which also shows, between Buscombe and the bridge, the house of Turnbull, overseer of the bridge construction. In September 1824, Government Miller, John Walker, had gained an allotment and erected a water mill in Mill Field (north of the later Burns/Eldershaw mill) with a dam fifty feet upstream of the bridge. A slight depression on the eastern bank is said to indicate the old mill race.

River Place, the township reserve beside the Coal River and bridge, is an example of early town planning, with lands set aside for public use in 1831.

Two early churches provided major landmarks at the extremities of Richmond in the south and north. The foundation stone for St Lukes Church of England, in the south, was laid in 1834 and the church was consecrated in 1838. The Catholic church of St John's, to the north, was opened in 1837, and a spire, chancel and sacristy were added in 1859. A lower spire with dormers was erected in 1893 to replace the original spire; with the present spire being added, to the general design of the 1859, spire in 1972.

The Catholic church utilized the dramatic cliff to the north of the church above the river as a burial ground, while, for its cemetery, the Church of England used ground on a prominence east of the river, downstream from the bridge.

In the 1830's access to the water was an issue as an owner of the land around the western abutment of the bridge, had erected a barrier on the north west side (the side where access was easiest because the descent here was less steep than on the other side) and was imposing a toll for access to the then 'perennial stream' for water. Following complaint against this person's illegal collection of revenue, a right of way was explicitly delineated here on plans after 1840 to formalise the surveyor general's advice that seventy feet was available, or publicly -owned here, for the roadway and bridge.

Early accounts of the Coal River Valley stress picturesque qualities and draw on painterly and literary allusions (and their vocabulary) to evoke the special qualities of the place. Even the name Richmond - from the namesake of Yorkshire-born David Lord's estate Richmond Park - contrasted with Bowen's naming of the Coal River. Picturesque English qualities were found at Richmond in the combination of Georgian buildings of warm local stone, the small size of the township, the close proximity of farmhouses, the valley setting, the spare tree cover and the focus of the bridge.

The 'picturesque effect' described by Robinson in 1829 was clearly demonstrated in the sketches and watercolours of Thomas Chapman. They were executed in c1840 and form the earliest known images of the Richmond Bridge.

The bridge was naturally a focus for the noted ornamental and picturesque quality of Richmond, its vernacular character drawing on centuries of precedents in England and Europe, sharply contrasting with the crisp urbanity of the Ross Bridge or the machine-age precision of the Red (brick) Bridge at Campbell Town.

In August 1832, Quaker visitor James Backhouse recorded in his diary that Richmond consisted of the Court House, a gaol, a windmill and about thirty dwelling houses, three of which were inns. In February 1834, he again visited the Richmond, and commented that the township had nearly doubled in size. Also in 1834, the *Van Diemen's Land Annual* described the bridge as 'considered to be the best and most substantial in the colony'.

By 1835, Richmond had the largest district population in Van Diemen's Land and Richmond was the third largest town in Van Diemen's Land.

In 1837, the renowned and long serving colonial chaplain Robert Knopwood wrote the following in his diary: 'This morn I rode to Richmond for the first time since the Township was begun... It is much admired by every one, all the houses built with white stone and some very good houses... A most beautiful bridge of 6 or 7 arches...the greatest ornament that can be to the Town of Richmond...'

A slowing of growth and increased tourism and heritage interest

The main East Coast road went via Richmond until after the Pittwater causeway was completed in 1872. In 1872, the Sorrell Causeway opened providing a more direct link between Hobart and Port Arthur. Traffic no longer had to pass through Richmond and it was left entirely as a rural community. The concurrent opening of the mainline railway through Brighton, Tea Tree, Campania and Colebrook was a second blow to Richmond. Suburban development continued slowly, the township was declared a municipality in 1861 (and the 1825 court house was used for municipal purposes), and the Burns' mill on the south-east side of the bridge was erected c1864, and an extension to the township was gazetted in 1878. The change of emphasis is highlighted by the population figures. In its heyday in 1862, the municipality had 1,608 residents, but almost one hundred years later in 1957, the population was 1,680.

In 1923 a stone was set in the west end, north parapet, of the bridge to commemorate the centenary of its foundation. By this time, postcard views featuring the bridge were being published, attesting to a growing interest in the bridge by tourists. The bridge was featured in c1927 publication promoting Tasmania, and also in a 1934 glossy, *Australian travel magazine* in the bridge's first colour photograph. There followed paintings (such as by John Eldershaw, c1930), sketches (eg Morton Herman, 1954) and photographs (eg Max Dupain, 1965; Michael Sharland, 1952) in exhibition and books.

In 1960 the National Trust of Australia (Tasmania) was formed and the Richmond Bridge was an early classification on their Register of significant heritage.

In the 1960s and 1970s Richmond witnessed a revival motivated by an interest in folk heritage, historic buildings and arts and crafts, combining to utilize the town's building stock. In all of this, the Richmond Bridge remained an icon in the township, readily identifiable from postcards and souvenirs.

Also in the 1960s and 1970s many key national and Tasmanian architectural heritage publications stressed the significance of Richmond, especially its bridge. The bridge was even featured on an Australian five cent stamp in 1976 and on another stamp in 2004.

In 1978 Richmond Bridge was entered into the Register of the National Estate.

Richmond Bridge is a very popular subject for amateur and professional photographers alike; it features on many postcards and its inclusion in composite views depicting Tasmania is almost mandatory. Its image has been used to promote tourism nationally and internationally.

The bridge is surrounded on three sides of the river by walking tracks and park lands which attracts thousands of

visitors each week. It is a popular destination to appreciate the bridge from the river banks or to walk beneath the smaller arch on the township side to appreciate its craftsmanship.

#### Vegetation

From the earliest known depictions (1840s) of the Richmond landscape, the surrounding hills have a light tree cover but the Coal River Valley is bare. Around the 1840s Blue Gums, *Eucalyptus globulus*, were planted around St John's Church (with a row to the east and others to the west) and in St Like's Cemetery.

Indigenous reeds, Common Rush, *Phragmites australis*, and Native Rush, *Juncus* sp., can be seen in an 1870-84 photograph of the bridge along with woody plants, either Boxthorn or the indigenous Woolly Tea Tree, *Leptospermum lanigerum*.

Major early trees are seen in an 1890s photograph. Along the river bank, hanging over the river are large White Gum, *Eucalyptus viminalis*, and also low scale woody shrubs of possibly Boxthorn or Woolly Tea Tree. The grassy slopes appear to be exotic pasture and around the windmill another photograph of the same date reveals Boxthorn.

A bridge photograph of c1905 shows indigenous Water Ribbon, *Triglochin procera*, in the water and Native Rush on the bank with possibly native grasses, *Poa* sp. also *Themeda danthomia*.

A c1920s bridge photograph shows the river bank still with regrowth of Woolly Tea Tree and White Gum.

Willows had extended along the river bank by the late 1920s or early 1930s and one remaining White Gum was on the east bank upstream from the bridge. After 1920 the initial planting of *Cupressus macrocarpa* along Wellington Street and returning along the river can be seen to enclose Burns Mill, now owned by Eldershaw, from the river escarpment. Also seen are *Pinus* sp. at the northwest corner of this mill property and two poplars. A 1940's photograph shows large Lombardy poplars, *Populus nigra*, near the south-east abutment of the bridge and widespread Native Rush in a healthy state, apparently due to changed conditions after the weir was constructed.

The current vegetation includes Common Rush, which is now extensive along the banks, in particular a healthy section below the former Eldershaw mill. Native Rush, is extensive on the western bank downstream, in great numbers near the weir and both sides upstream. (The area below Santa Fe and Yew Tree Cottage is particularly dense.) Water Ribbon is particularly healthy up and downstream near the bridge. Lombardy poplar against the northern abutment of the bridge date from the 1950s as do poplar seedlings along the mill race, downstream of the bridge. Various specimens of *Pinus radiata* are found upstream, on the west bank, and one large specimen on Buscombe's mill site. A small orchard is found on the western escarpment, just downstream from the bridge. This is apparently located on River Place, and a row of almond trees mark the boundary of a long-established path along River Place.

#### Repairs and changes to the bridge and its setting

Almost immediately after the bridge was opened, the settling of the foundations began to give trouble that was to plague the engineers for some time. It was reported in September 1826 that the piers had developed cracks and it was suggested that it was to be pulled down and rebuilt elsewhere. This damage may have been caused by water from a mill dam fifty feet upstream undermining the piers – all but one had settled.

The Colonial Architect, John Lee Archer, reported in 1828, that one of the piers was in a bad state, and he rebuilt two of them the following year.

The bridge was constructed as a symmetrical structure. However, the approach road level on the town side was (and still is) about one metre higher than on the away side. As a consequence the parapet wall, designed to prevent falling into the river was having little effect on the town side. In 1835 corrections were carried out by raising the parapet wall and extending the terminating columns at the end of the bridge.

In October 1844 heavy rains and floods severely damaged the bridge. The bridge was 'in part destroyed, leaving just room, however, for a gig to pass.' The bridge had been repaired, as well as considerably improved (with a stone parapet on one side and a 'stout' fence on the other), by January 1845. The bridge also had substantial repairs in 1883.

The Engineer of Roads reported to Parliament (in 1888), that only from 1885, had there been annual provision for the repairs and maintenance for such main and large bridges: 'For the repairs of stone bridge over Coal River at Richmond, Prosser's River Bridge, Orford, and the Main Road Bridge at Brighton, special provision was made barely in time to save these structures from total ruin.'

Part of the 1884 work was undermined by flood waters in 1924 and the eastern abutment was seen to be at risk. Repairs were funded in 1928 and included a masonry reinforcement of one of the piers which has been interpreted as the stepped foundation masonry on the pier base between the first and second arches on the western end.

Another change to the bridge and its setting occurred with the construction, in c1939-40, of a downstream weir, originally called Gatty Weir, raising the water level. This was motivated by both town water and recreation needs. Weir construction raised the water level so that the access road under the main west arch and spillways under the main arches were permanently inundated. Erosion of the river bank has also meant that the classic views of St John's framed by the bridge arch is no longer possible from the bank. The weir also provided access across the river but was not used for irrigation.

Repairs have also occurred in 1973, 1979, 1980, 1987, and 1988. The bridge stonework was cleaned and a fungicide applied in 1981.

Cars have caused collision damage to the parapet walls on a number of occasions and the 1988 repair related to such damage.

However, the only major changes to the bridge since original construction have been raising the western parapet (1835) and the addition of cutwaters (1884), the latter, especially, was dramatic in changing the appearance of the bridge.

The bridge continues to be a focus for tourists. Attempts have been made to enhance and protect the bridge, including by public acquisition of land on the west bank of the river (in 1925, allowing the formalisation of a public walkway downstream of the bridge permitting unambiguous public access to the river, and 1973), enhanced access up and downstream to the river banks, the construction of a stone viewing platform and staircase to the south west of the bridge (1989), and speed and load restrictions on the bridge.

The Richmond Bridge has been in continuous use for vehicular and pedestrian traffic since 1825 from the 1990s there been community campaigns proposing the construction of a northern bypass road motivated by concerns both over the damaging effects of continued vehicular collisions with the bridge and the strain to the structure caused by heavy vehicles.

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#### Condition and Integrity

In April 1997 it was reported that, generally the stonework was found to be in sound condition and not in need of repair or replacement. Although, the pointing was in poor condition in certain large areas and would require redoing within the next ten years.

A structural analysis was done at this time showing that to prevent damage to the structure the load limit of 25 tonnes should be reduced to 15 tonnes.

Also the deck should be waterproofed and roadway grades modified to improve watershedding.

Following hydraulic analysis, the bridge was judged to be stable in various adverse flooding conditions such as floods with a 90 year return and greater than 1000 year return period flood events.

The removal willows and other dense growth from the river banks would reduce hydraulic pressure on the bridge structure.

The current water height related to the construction of the c1939-40 downstream weir is a relatively recent physical and visual alteration to the fabric of the place.

It was also noted that the river bank is eroded and fragile.

There is (in 2005) continuing local concern for the probability of vehicles colliding with, and heavy vehicles damaging, the bridge and so there have been proposals for the construction of a northern bypass.

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**Location**

Bridge over Coal River, Bridge Street, Richmond.

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**Bibliography**

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Green, Alex, October 2004 '[Note on historic repairs to] Richmond Bridge'

Report Produced Fri May 5 16:31:57 2017

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## Place Details

Scale 1:2500

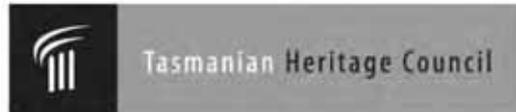


<b>Place Name:</b>	Richmond Bridge
<b>Place ID:</b>	105724
<b>Heritage List:</b>	National Heritage List
<b>Class:</b>	Historic
<b>Status:</b>	Listed place
<b>Street Name:</b>	Bridge St
<b>Suburb or Town:</b>	Richmond
<b>State</b>	TAS
<b>Postcode:</b>	7025

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# Tasmanian Heritage Register Datasheet



103 Macquarie Street (GPO Box 618)  
Hobart Tasmania 7001  
Phone: 1300 850 332 (local call cost) | 6233 2037  
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**Name:** Richmond Bridge  
**Status:** Permanently Registered  
**Tier:** State

**THR ID Number:** 1101  
**Municipality:** Clarence City Council  
**Date Listed:** 22-September-1999

### Location Addresses

Bridge ST, Richmond 7025 TAS

### Title References

### Property Id



Richmond Bridge  
DPIPWE 2013

Richmond Bridge and  
Mill 1855  
TAHO (NS1013126)

Richmond Bridge from  
south west bank  
DIER 2010

South east bank and  
Mill House  
DIER 2010



Richmond Bridge from  
north west bank  
DIER 2010

The Gatty Dam in  
2008  
DIER 2010

Richmond Bridge from  
north east bank  
DPIPWE 2013

St John's Church  
through Richmond  
Bridge  
TAHO (NS1651370)

**Setting:** The Richmond Bridge spans the Coal River at Richmond and is a major aesthetic and tourist focal point of the town. It is Australia's oldest large stone arch bridge still in use today, and has remained essentially unchanged since it was constructed. The east and west banks of the river adjacent to the Bridge are freely accessible to the public, affording clear views of the Bridge and its picturesque setting. St John's Church, the oldest Catholic Church in Australia (1836, THR #1128), can be viewed through the arches of the Richmond Bridge and together, the Bridge and Church form one of Tasmania's most iconic heritage images.

**Description:** **Richmond Bridge:** Construction began on the Richmond Bridge in 1823 and was completed by 1825. It is a coursed sandstone ashlar structure with smooth dressed inclined piers. The Bridge has six spans of 4.3, 8.1, 8.3, 8.5 and 4.1 metres respectively, with four main semi-circular arches founded in the river bed and two smaller arches founded on the east and west banks (six arches in all) (Department of Infrastructure, Energy and Resources (DIER) 2010, p. 8). A string course in darker stone runs above the arches and a coursed sandstone rubble parapet above the stringcourse forms the sides of the Bridge. John Lee Archer carried out stabilisation works in 1829 and the western parapets were raised in 1835. There are circular bollards at each end. The original road bed is 7.2 m wide and the Bridge itself is 41 m in length. The cut waters were added to the piers in 1884 and the river paving, designed to improve water flow, also possibly dates from this time (DIER 2010, pp. 8, 63). The Richmond Bridge continues to be used by both vehicles and pedestrians and in 2009 the load limit was 25 tonnes (DIER 2010, p. 93). The Bridge retains a high degree of structural and visual integrity.

Tuesday, April 19, 2016

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**Comparative Analysis:** There are several stone arch bridges on the Tasmanian Heritage Register, including the Ross Bridge (1836, THR# 5289), the East Risdon Road Bridge (1838, THR# 1143), the Spikey Bridge near Swansea (1843, THR# 1567), and the Three Arch Bridge near Little Swanport (1845, THR# 1522). The Red Bridge at Campbell Town was constructed of brick and sandstone in 1836-38 (THR #4941). Nineteenth century masonry bridges are rare in Tasmania and nationally, and the Richmond Bridge is the earliest of its type in the state. For a period of 11 years it had the longest bridge span in Australia, and the construction methods and materials are also distinct in comparison to the refined engineering of the Ross and Campbell Town bridges. The rubble stone of the Richmond Bridge drew on vernacular traditions practised in England and Europe during the preceding centuries, and in contrast, the Ross and Campbell Town Bridges were constructed from crisp ashlar sandstone and regular bricks (DIER 2010, p. 116).

In 2014, the Richmond Bridge is the only bridge in Tasmania on the National Heritage List. The Sydney Harbour Bridge is the only other bridge in Australia on the National Heritage List.

#### **The Riverbanks:**

The north eastern section of the riverbank was acquired by the Roman Catholic Church in 'early years', possibly the 1830s, as St John's Church nearby was built in 1836. It was used as pastoral land until acquired by the Council and is now a recreation reserve (DIER 2010, p. 299). This area is assessed as having low archaeological potential due to its history of previous use.

The south eastern bank originally contained a mill race which ran from Burns Mill (Mill House, THR # 1136) to the river. This section was acquired by the Municipality of Richmond in 1977 and is managed as a Crown Reserve. Public access to this section is restricted (DIER 2010, p. 299). It is assessed as having medium archaeological potential due to the historical record of a mill race in the area.

The north western section of the riverbank formed part of a land grant to Surveyor George Evans in 1815 and was later subdivided (DIER 2010, p. 303). Following the settlement of Richmond in the 1820s, the public still had access to the northwest riverbank and a pathway is evident on an 1840s plan of the area. This was later formalised as a right of way and is now marked by a row of mature pines (DIER 2010, p. 303). Prior to the construction of the Bridge, several fords were constructed across the river from the north west bank and accessed via the right of way (DIER 2010, pp. 22, 32). This section of the riverbank was acquired by the Crown in 1973 and is still accessible to the public. It is assessed as having medium archaeological potential due to the historical record of fords in this area.

The south western bank was intended for use as a recreation reserve from as early as 1831, however subsequent land grants reduced its size significantly. Milling took place in the area and Buscombe's Mill was established in the 1830s. It was demolished in the early 1900s and a large pine tree marks its location today (DIER 2010, p. 308). A row of almond trees mark an historic pathway which possibly connected to the stone steps (on the south west wing wall) and continued under the bridge. This section of the riverbank provides the greatest level of public access to the river near the Bridge today (in 2014) with walking tracks, viewing platforms, parking and barbeque facilities (DIER 2010, p. 34). Another ford may have been constructed south of the Bridge near the site of the Gatty Dam (DIER 2010, pp. 31-32). The south west riverbank is assessed as having medium archaeological potential due to the historical record of a ford and Buscombe's Mill being located in this area.

There are two sets of sandstone steps on the western end of the Bridge. On the north west embankment, narrow sandstone steps lead off the 1840s right of way. These steps return to enter the western arch. On the south west embankment, narrow sandstone stairs follow the curve of the wing wall to enter the western arch. It is possible that these steps follow the original roadside reservation to the water edge (DIER 2010, p. 290). In 1925 the Richmond Council acquired a narrow strip of riverbank land, connecting the stairs and providing public access under the western arch. A modern metal handrail has been installed. The stairs are in a fair condition (DIER 2010, p. 290).

#### **The Gatty Dam:**

Constructed in 1935, the Gatty Dam significantly altered the setting of the Richmond Bridge. Previously, water levels within the Coal River were dependant on rainfall alone, and the river bed was usually dry during summer, yet prone to flooding after high rainfall (DIER 2010, pp. 3, 31). Following construction of the Gatty Dam, the water level was consistently above the piers of the Bridge, permanently inundating access under the main west arch and also preventing access to the iconic vantage point for viewing St John's Church through the arch of the Bridge (DIER 2010, p. 31). The Gatty Dam was built to create both a swimming pool in the river, and a footbridge across it, however, the increased water levels caused erosion of the riverbanks, in particular the south west bank. The Coal River continued to flood periodically until 1986 when the Craighourne Dam was built as part of the South Eastern Irrigation Scheme. It both regulates the flow of water into the Coal River south of its location near Colebrook, and supplies water to farmers in the surrounding districts (DIER 2010, pp. 3, 31). The Gatty Dam was also incorporated into the South Eastern Irrigation Scheme in 1986 (DIER 2010, p. 31). (For further reading on the Gatty Dam, refer to A.

Green, 'Gatty Dam and Swimming Pool', *Coal River Valley Historical Society Inc. Journal* No.3, 2005, pp. 67-73).

This registration covers the Richmond Bridge, the sandstone steps and the riverside reserves on the east and west banks of the Coal River adjacent to the Bridge extending south to the Gatty Dam. For a more detailed history of the recreation reserves, visual assessments and conservation management recommendations, refer to the *Richmond Bridge Conservation Management Plan* (DIER 2010). This plan also identified the need for further archaeological investigations which at present (in 2014) have not been carried out. Therefore, before any works within the listed area which are likely to involve ground disturbance and potentially impact upon the archaeological values of the site are undertaken, Heritage Tasmania should be consulted.

#### History:

The area of Richmond was explored by Europeans soon after first settlement, and land grants were being distributed from as early as 1808. Subsequently, the region was rapidly settled and cultivated, and Richmond became a rich agricultural area (Snowden 2005, p. 308). It was particularly suited to wheat farming, and by 1820 the Coal River Valley was already known as 'the granary of the Australian colonies' (Commonwealth of Australia 2014). Sheep and cattle farming were also popular, and carts and cattle crossed the Coal River at a ford south of where the bridge now stands (Commonwealth of Australia 2014). The resulting increased traffic, along with the need for a road accessible in all weather through to the east coast, made a bridge over the river essential.

This need was also recognised by Commissioner John Thomas Bigge, when he visited the area in 1820 as part of the Commission of Inquiry into the State of Agriculture and Trade (Commonwealth of Australia 2014; DIER 2010 p. 70). The site was selected and construction of a stone bridge began in December 1823. It was most likely designed by William Wilson, Superintendent of Stonemasons. Wilson was an untrained yet highly skilled stonemason who also acted as unofficial Colonial Architect and was involved in the construction of many early buildings (DIER 2010, p. 72). The design of Richmond Bridge has occasionally been attributed to David Lambe, however official correspondence from Lt-Governor Arthur to Lord Bathurst dated between May 1824 and September 1825 states that Lambe was not appointed as Colonial Architect until 3 June 1824, more than six months after construction of the bridge began (Anon., *Coal River Valley Historical Society Inc.* 1999, p. 3; Wilson 1999, p. 16). It appears Wilson resigned in May 1824, and as it was 'impossible to proceed with the Works unless some competent Person designs and directs them ...', Lambe was promptly appointed as his successor (Wilson 1999, p. 16). It is therefore highly likely that Wilson, whilst acting in the capacity of Colonial Architect through both designing and directing public works, may also have designed the Richmond Bridge.

Construction of the new bridge over the Coal River was supervised by the Acting Colonial Engineer and Inspector of Public Works, Major Thomas Bell (ADB 1966). Bell was also responsible for construction of the causeway to Hunter Island in 1820 and by the time he left the colony in 1824, had overseen construction of many public buildings and roads in Hobart and the Southern Midlands (ADB 1966; DIER 2010, p. 111). His duties also included selecting men who were fit for work on public infrastructure, and allocating them to gangs (DIER 2010, p. 73). At Richmond, convict labour was used to quarry the sandstone at Butcher's Hill, transport it to site by hand cart, and place the stone in construction (DIER 2010, p. 73; Commonwealth of Australia 2014). This was directly overseen by Mr John Turnbull, Superintendent of the Coal River Bridge (*Hobart Town Gazette*, 12 November 1825, pp. 1-2). At this time, plans were also made to reserve large areas of land on both banks of the Coal River near the Bridge (DIER 2010, p. 112). This did not eventuate until the following century however, when the surrounding riverbanks were finally acquired by local and state governments (DIER 2010, p. 112).

The site of the new bridge was a natural stopping place en-route to the east coast, and the population of the area grew rapidly (Snowden 2005, p. 308). Just two months after construction began, the township of Richmond was proclaimed by Lt-Governor Sorell, in February 1824 (*The Heritage of Australia* 1981, p. 7/64). The Bridge was completed in September 1824 and open for traffic in January 1825 (Anon., *Coal River Valley Historical Society Inc.* 1999, p. 5). It was originally known as the Coal River Bridge and also as Bigge's Bridge, after Commissioner Bigge (*Hobart Town Gazette and Van Diemen's Land Advertiser*, 13 December 1823, p. 2). For eleven years after its construction, Richmond Bridge had the longest span of any Bridge in Australia until Lansdowne Bridge was erected in New South Wales (DIER 2010, p. 111). Richmond's new Bridge not only 'secured a passage in all seasons' for heavy traffic, it also heightened the town's commercial and institutional prominence (*Hobart Town Gazette and Van Diemen's Land Advertiser*, 13 December 1823, p. 2; Commonwealth of Australia 2014). By 1835 Richmond was the third largest town in the Colony (*The Heritage of Australia* 1981, p. 7/64).

When the Sorell causeway opened in 1872, much of the traffic bypassed Richmond as there was now a more direct link between Hobart, the east coast and the peninsula (*The Heritage of Australia* 1981, p. 7/64). The town and its population of approximately 1600 therefore remained much the same between 1862 and 1957 (Snowden 2005, p. 308). However, Richmond and its surrounding picturesque landscape continued to draw visitors. The Bridge had been the subject of paintings and prose from as early as the 1840s, and its earliest known depiction is a watercolour by Thomas Chapman completed in 1843 (DIER 2010, p. 23). By

the 20th century the village had become a popular destination and the Bridge was a major attraction for photographers, artists, authors and tourists alike (DIER 2010, p. 25). The Bridge was featured on postcards from as early as the 1920s, and the Centenary of the Richmond Bridge was celebrated in 1923 (*The Mercury*, 5 October 1923, p. 6).

Since its construction, periodic repairs have been necessary to preserve 'one of the most beautiful and historic pieces of work in the State' (*The Mercury*, 4 March 1938, p. 10; see also *The Mercury*, 20 March 1947, p. 5). Structural problems occurred almost as soon as the bridge had been completed, when all but one of the piers 'settled' as a result of water from the nearby mill dam upstream undermining their foundations (DIER 2010, p. 74). The issue was further exacerbated by a flood in 1828. Extensive repair works were carried out in 1829 and two of the piers were re-built to a design by John Lee Archer (DIER 2010, p. 74). The western parapets were raised in 1835 and in 1859 it was recommended the bridge be underpinned. The cutwaters and river paving were completed in 1884. Repairs were again undertaken in 1927-28 and in later years the most substantial damage requiring repair work occurred as a result of vehicular collisions (DIER 2010, pp. 62, 93). From the 1960s the Richmond Bridge became more widely recognised for its architectural and historical significance. As a result, the speed limit on the Bridge was reduced to 30 km/hr in 1977 and the weight limit reduced to 25 tonne in 1985 (DIER 2010, p. 93). The riverbank areas adjacent to the Bridge were also acquired by State and Local Governments throughout the 20th century and managed as recreation areas for the public (DIER 2010, p. 112).

By 1970 Richmond's heritage was widely appreciated and the Tourist Council was playing a major role in the development of the town (DIER 2010, p. 99). A plan was devised which aimed to preserve and restore historic places and services, galleries and various other attractions all developed in response to the increased tourism. The town generally welcomed visitors and took an active interest in the conservation of its heritage, and were justifiably concerned about over-enthusiastic tourists who trespassed and damaged property in order to take photographs of the Bridge (DIER 2010, p. 99). Richmond has numerous historical attractions, yet in 1997 the Bridge was still considered the most important structure in the town, providing the community with a special sense of identity and pride (DIER 2010, p. 29). Richmond Bridge and its picturesque setting are highly significant to the local community and continue to attract tourists, artists and photographers from throughout Tasmania, Australia and around the world.

#### References

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<http://adb.anu.edu.au/biography/bigge-john-thomas-1779/text1999>, accessed online 11 June 2014.

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*The Heritage of Australia: The Illustrated Register of the National Estate*, The Macmillan Company of Australia Pty Ltd, Melbourne, 1981.

*The Hobart Town Gazette and Van Diemen's Land Advertiser*, 13 December, 1823.

*The Hobart Town Gazette*, 12 November 1825.

*The Mercury*, 5 October 1923; 4 March 1938; 20 March 1947.

Wilson, L., 'Of Chapels and Bridges', *Coal River Valley Historical Society Inc. Journal* No. 1, 1999, pp. 8-17.

#### Further Reading:

Green, A., 'Gatty Dam and Swimming Pool', *Coal River Valley Historical Society Inc. Journal* No.3, 2005, pp. 67-73.

**Statement of Significance:**  
(non-statutory summary)

Richmond Bridge is of historic cultural heritage significance as it demonstrates early 19th century growth and development of transport infrastructure in the colony. It provided permanent access to the East Coast and later the Tasman Peninsula and reflects the resources available to the colonial administration for infrastructure projects. It was constructed prior to the establishment of Richmond township and demonstrates some of the earliest settlement patterns of colonial Tasmania.

Richmond Bridge is representative of the large-scale public infrastructure developed in Tasmania during the early colonial period and has the potential to provide insight into early bridge design and construction methods in Tasmania, as well as responses to changing conditions over time. The setting of the Bridge also has the potential to yield information relating to the early uses of the Coal River and riverbanks including fords, mills and their associated infrastructure. The Bridge retains a high level of integrity despite constant use, and demonstrates a high degree of technical achievement in early Tasmanian bridge design and construction. The Richmond Bridge is associated with a range of individuals and groups whose lives and work were important in Tasmania's history, including Commissioner Bigge, Lieutenant-Governor Sorell, Major Thomas Bell and John Lee Archer.

Richmond Bridge is valued by the community as a key structure which reflects the early settlement of Richmond and its association with the penal system in Tasmania. During the 20th century, Richmond's Bridge acquired the status of a heritage icon. It is the oldest surviving large stone arch bridge in Australia and the first multiple arched bridge to be constructed in Tasmania. It has remained largely unchanged since its construction in 1823 and is still in use today (2014). Picturesque images of the Bridge and its riverbank setting have been used widely in state, national and international tourism promotions since the 1920s, and the scene has inspired the work of major Australian artists. It is appreciated and valued by locals and visitors alike, and is an integral destination for cultural tourism and promotion in Tasmania.

**Significance:**

The Heritage Council may enter a place in the Heritage Register if it meets one or more of the following criteria from the Historic Cultural Heritage Act 1995:

**a) The place is important to the course or pattern of Tasmania's history.**

Richmond Bridge demonstrates the early 19th century development of transport infrastructure in colonial Tasmania. It provided permanent access to the East Coast and later the Tasman Peninsula and the scale and permanency of its masonry construction reflects the resources available to the colonial administration for infrastructure projects prior to responsible Government in 1856.

The Richmond Bridge is an outstanding example of very early and substantial public works which demonstrates the evolution of the British penal system and the dependence on unpaid convict labour in the construction of major civil infrastructure which was unique to Tasmania. The Bridge was constructed prior to the establishment of Richmond township and demonstrates some of the earliest settlement patterns of colonial Tasmania.

**b) The place possesses uncommon or rare aspects of Tasmania's history.**

Richmond Bridge is the oldest surviving large stone arch bridge in Australia. It has remained largely unchanged since its construction in 1823 and is still in use today (2014). The Richmond Bridge was the first multiple arched bridge to be constructed in Tasmania and the first to have piers founded in the river itself. For a period of 11 years after its construction the Bridge had the longest span of any bridge in Australia.

**c) The place has the potential to yield information that will contribute to an understanding of Tasmania's history.**

Richmond Bridge has research potential because of its high degree of integrity and offers insight into very early bridge design and construction methods in Tasmania between the years 1823 and 1884. The continued operation of the Bridge, and changing vehicular use and water flow conditions, provides an opportunity to understand structural stability, and hydraulic and structural stresses.

The setting of the Bridge also has the potential to yield information relating to the early uses of the Coal River and riverbanks. It is known that several fords were previously constructed, and these have archaeological potential to provide new information on the earliest European crossing points of the Coal River. Flour milling has also figured prominently on the riverbanks. The remains of mills with associated water races and dams have archaeological potential to provide new information on industrial activities in the area.

**d) The place is important in demonstrating the principal characteristics of a class of place in Tasmania's history.**

Richmond Bridge is representative of the large-scale public infrastructure developed in Tasmania during the early colonial period built under supervision of the Royal Engineers by a convict workforce, with permanent materials on major strategic road transport routes.

**e) The place is important in demonstrating a high degree of creative or technical achievement.**

Richmond Bridge demonstrates a high degree of technical achievement in Tasmanian bridge design and construction. Before steel, masonry bridges were the only means of permanent bridge construction and the Bridge retains a high level of integrity, with the last major alteration occurring in 1884 (the installation of the cutwaters). The continued operation of the Bridge since 1825 demonstrates the technical achievement of its design and construction.

**f) The place has a strong or special association with a particular community or cultural group for social or spiritual reasons.**

Richmond Bridge is valued by the community as a key structure which reflects the early settlement of Richmond and its association with the penal system in Tasmania. It has special meaning to the community as the oldest surviving large stone bridge in Australia, and also as one of many convict era structures which contribute to Richmond's overall historical streetscape. High visitor numbers and use of the riverbanks both for viewing the Bridge and recreation reflect the substantial social value of the Bridge and its surrounds.

**g) The place has a special association with the life or works of a person, or group of persons, of importance in Tasmania's history.**

Richmond Bridge is associated with a range of individuals and groups whose lives and work was important in Tasmania's history. The Bridge was recommended by Commissioner Bigge as part of his investigations into the state of colonial agriculture. Bigge's work was important to the development of Van Diemen's Land, including the recommendation that the island be granted separation from New South Wales. The Bridge was constructed at the direction of Lieutenant-Governor Sorell who, during his time in office, encouraged the restoration of law and order, the encouragement of British settlement, and the development of agriculture and pastoralism.

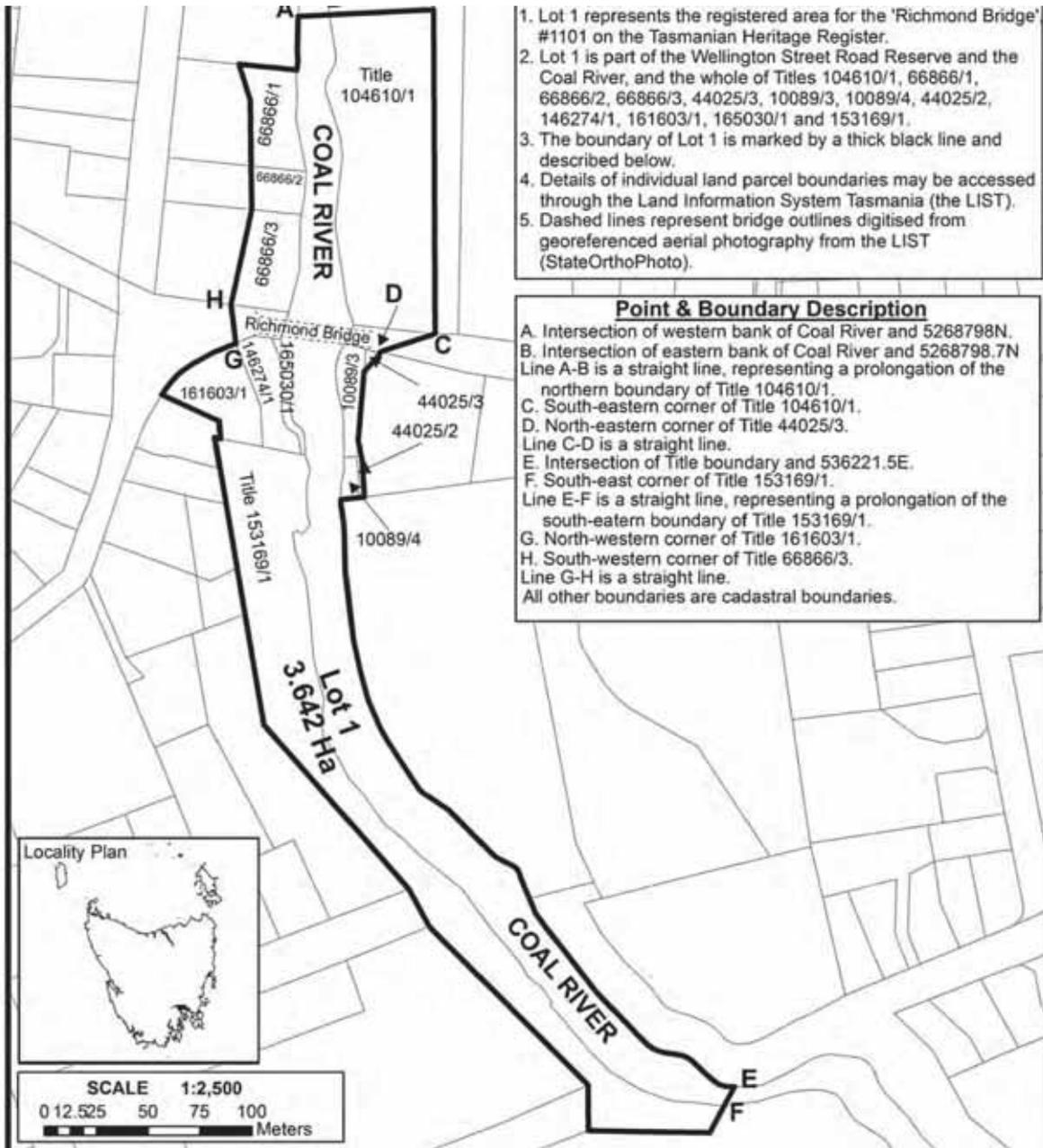
The works on the Richmond Bridge were overseen by Major Thomas Bell, Acting Engineer and Inspector of Public Works, who was responsible for many public buildings and roads in Hobart and the Southern Midlands, including: the Wellington Bridge, Hobart, the sandstone causeway to Hunter Island, and a new brick bridge across the Hobart Rivulet in Argyle Street.

Soon after its completion, the Richmond Bridge required major stabilisation which was carried out by John Lee Archer, Civil Engineer and Architect, in 1829. Archer is widely acknowledged as one of Tasmania's most important architects of the 19th century. For a period he was responsible for the design of all government buildings, including those for penal and military purposes. Buildings designed by Archer include Parliament House (former Customs House), the Public Offices, the Ordnance Stores and numerous churches. His engineering achievements include the Ross Bridge, plans for improvements to Sullivan's Cove and designs for the Bridgewater Causeway.

**h) The place is important in exhibiting particular aesthetic characteristics.**

Picturesque images of the Bridge and its riverbank setting have been used widely in state, national and international tourism promotions since the 1920s, and the scene has inspired the work of major Australian artists. Second to Port Arthur, the Bridge is believed to be the most photographed and publicised historic structure in Tasmania. Views of St John's Church through the arches of the Bridge are iconic heritage images, and the relationship between the Bridge, river and the broader townscape demonstrate an historic landscape of a nineteenth century rural village. The aesthetic value of Richmond Bridge is appreciated by locals and visitors alike, and is an integral part of cultural tourism and promotion in Tasmania.

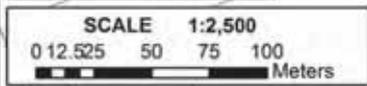
**PLEASE NOTE** This data sheet is intended to provide sufficient information and justification for listing the place on the Heritage Register. Under the legislation, only one of the criteria needs to be met. The data sheet is not intended to be a comprehensive inventory of the heritage values of the place, there may be other heritage values of interest to the Heritage Council not currently acknowledged.



1. Lot 1 represents the registered area for the 'Richmond Bridge' #1101 on the Tasmanian Heritage Register.
2. Lot 1 is part of the Wellington Street Road Reserve and the Coal River, and the whole of Titles 104610/1, 66866/1, 66866/2, 66866/3, 44025/3, 10089/3, 10089/4, 44025/2, 146274/1, 161603/1, 165030/1 and 153169/1.
3. The boundary of Lot 1 is marked by a thick black line and described below.
4. Details of individual land parcel boundaries may be accessed through the Land Information System Tasmania (the LIST).
5. Dashed lines represent bridge outlines digitised from georeferenced aerial photography from the LIST (StateOrthoPhoto).

**Point & Boundary Description**

A. Intersection of western bank of Coal River and 5268798N.  
 B. Intersection of eastern bank of Coal River and 5268798.7N  
 Line A-B is a straight line, representing a prolongation of the northern boundary of Title 104610/1.  
 C. South-eastern corner of Title 104610/1.  
 D. North-eastern corner of Title 44025/3.  
 Line C-D is a straight line.  
 E. Intersection of Title boundary and 536221.5E.  
 F. South-east corner of Title 153169/1.  
 Line E-F is a straight line, representing a prolongation of the south-eastern boundary of Title 153169/1.  
 G. North-western corner of Title 161603/1.  
 H. South-western corner of Title 66866/3.  
 Line G-H is a straight line.  
 All other boundaries are cadastral boundaries.



TASMAP: RICHMOND - 5226		GRID: MGA94 / ZONE 55		DATUM: AHD		CONTOUR INTERVAL: N/A	
No.	PRODUCTION / AMENDMENT	AUTHORITY	REFERENCE	DRAWN	APPROVED	DATE	
1	Production	THC	1101	JS			
<b>Richmond Bridge</b> Wellington Street, Richmond			<b>CENTRAL PLAN REGISTER</b> Surveyor General: _____			 <b>CPR</b> 2222	

Appendix 4: Aboriginal Heritage  
Unanticipated Discovery Plan

# Unanticipated Discovery Plan

Procedure for the management of unanticipated discoveries of Aboriginal relics in Tasmania

For the management of unanticipated discoveries of Aboriginal relics in accordance with the *Aboriginal Heritage Act 1975* and the *Coroners Act 1995*. The Unanticipated Discovery Plan is in two sections.

## Discovery of Aboriginal Relics other than Skeletal Material

### Step 1:

Any person who believes they have uncovered Aboriginal relics should notify all employees or contractors working in the immediate area that all earth disturbance works must cease immediately.

### Step 2:

A temporary 'no-go' or buffer zone of at least 10m x 10m should be implemented to protect the suspected Aboriginal relics. No unauthorised entry or works will be allowed within this 'no-go' zone until the suspected Aboriginal relics have been assessed by a consulting archaeologist, Aboriginal Heritage Officer or Aboriginal Heritage Tasmania staff member.

### Step 3:

Contact Aboriginal Heritage Tasmania on **1300 487 045** as soon as possible and inform them of the discovery. Documentation of the find should be emailed to **aboriginal@heritage.tas.gov.au** as soon as possible. Aboriginal Heritage Tasmania will then provide further advice in accordance with the *Aboriginal Heritage Act 1975*.

## Discovery of Skeletal Material

### Step 1:

Call the Police immediately. Under no circumstances should the suspected skeletal material be touched or disturbed. The area should be managed as a crime scene. It is a criminal offence to interfere with a crime scene.

### Step 2:

Any person who believes they have uncovered skeletal material should notify all employees or contractors working in the immediate area that all earth disturbance works cease immediately.

### Step 3:

A temporary 'no-go' or buffer zone of at least 50m x 50m should be implemented to protect the suspected skeletal material. No unauthorised entry or works will be allowed within this 'no-go' zone until the suspected skeletal remains have been assessed by the Police and/or Coroner.

### Step 4:

If it is suspected that the skeletal material is Aboriginal, Aboriginal Heritage Tasmania should be notified.

### Step 5:

Should the skeletal material be determined to be Aboriginal, the Coroner will contact the Aboriginal organisation approved by the Attorney-General, as per the *Coroners Act 1995*.

Aboriginal Heritage Tasmania  
Department of Primary Industries, Parks, Water and Environment



## Guide to Aboriginal site types

### Stone Artefact Scatters

A stone artefact is any stone or rock fractured or modified by Aboriginal people to produce cutting, scraping or grinding implements. Stone artefacts are indicative of past Aboriginal living spaces, trade and movement throughout Tasmania. Aboriginal people used hornfels, chalcedony, spongelite, quartzite, chert and silcrete depending on stone quality and availability. Stone artefacts are typically recorded as being 'isolated' (single stone artefact) or as an 'artefact scatter' (multiple stone artefacts).

### Shell Middens

Middens are distinct concentrations of discarded shell that have accumulated as a result of past Aboriginal camping and food processing activities. These sites are usually found near waterways and coastal areas, and range in size from large mounds to small scatters. Tasmanian Aboriginal middens commonly contain fragments of mature edible shellfish such as abalone, oyster, mussel, warrener and limpet, however they can also contain stone tools, animal bone and charcoal.

### Rockshelters

An occupied rockshelter is a cave or overhang that contains evidence of past Aboriginal use and occupation, such as stone tools, middens and hearths, and in some cases, rock markings. Rockshelters are usually found in geological formations that are naturally prone to weathering, such as limestone, dolerite and sandstone.

### Quarries

An Aboriginal quarry is a place where stone or ochre has been extracted from a natural source by Aboriginal people. Quarries can be recognised by evidence of human manipulation such as battering of an outcrop, stone fracturing debris or ochre pits left behind from processing the raw material. Stone and ochre quarries can vary in terms of size, quality and the frequency of use.

### Rock Marking

Rock marking is the term used in Tasmania to define markings on rocks which are the result of Aboriginal practices. Rock markings come in two forms; engraving and painting. Engravings are made by removing the surface of a rock through pecking, abrading or grinding, whilst paintings are made by adding pigment or ochre to the surface of a rock.

### Burials

Aboriginal burial sites are highly sensitive and may be found in a variety of places, including sand dunes, shell middens and rock shelters. Despite few records of pre-contact practices, cremation appears to have been more common than burial. Family members carried bones or ashes of recently deceased relatives. The Aboriginal community has fought long campaigns for the return of the remains of ancestral Aboriginal people.

*Further information on Aboriginal Heritage is available from:*

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Natural and Cultural Heritage Division  
Department of Primary Industries, Parks, Water and Environment  
GPO Box 44 Hobart TAS 7001

Telephone: **1 300 487 045**

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Web: **[www.aboriginalheritage.tas.gov.au](http://www.aboriginalheritage.tas.gov.au)**

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Appendix 5: 1997 & 2010 Conservation  
Policy Implementation

## Introduction

The following two tables contain the policies and actions from the previous 1997 and 2010 Conservation Management Plans. Each policy has been reviewed and noted if it has been completed, is an ongoing management requirement, or if it has not been complied with. Some policies or actions have not been implemented because of lack of resources, low priority or following new and important information coming to hand. Policies and actions which are considered to remain relevant are repeated in this CMP.

### 1997 Conservation Plan

1997 Recommended Policy/Action	Implementation
The unsatisfactory mortars of the upstream and downstream facades should be removed using appropriate pointing mixes and techniques.	The unsatisfactory mortars on the north and south faces of the bridge had mostly been removed by 2010, improving the aesthetic qualities of the place.
Removal of graffiti from the underside of the flanking spans and application of an anti-graffiti coating. Provision of lighting on both sides of the river.	See also 2010 CMP policy recommendation below.  Some graffiti on the stones has been removed since 2010, however most of the graffiti is located on the mortar joints.  Some lighting has been installed, but care is required to avoid the introduction of further infrastructure which is intrusive on the character of the place, and disproportionate to anti-social behaviour.
Installation of a 15 tonne load limit on the bridge.	The load limit has not been reduced. The results of the vibration monitoring indicate that the existing load limit of 25 tonnes is acceptable. However, this should be continually assessed through the use of the vibration monitor which is currently not operating.
Waterproofing of the bridge deck and modification of the roadway grades to improve the water shedding.	The bridge deck has been waterproofed and resealed in 2013. The paths were re-gravelled as part of these works but not waterproofed.
The depression on the southern side of the eastern abutment should be filled in and graded to direct surface run-off into the river.	These works were completed in 2013 along with the resealing of the road surface and repair of the potholes.
Removal of willows and other dense growth from the river banks.	Crack willows have been removed but require ongoing monitoring and management in accordance with the Vegetation Management Plan.  The Weeping willow on the south east bank has been retained and has heritage value. The remaining dense growth is to be managed in accordance with the Vegetation Management Plan, noting that some 'natural' copse should be retained and managed.
Replace intrusive tourist infrastructure (paths and steps).	These works have partially occurred at stage between 2010 and 2016 with the removal of the steps adjacent to north east abutment. However, the works were carried out without fencing or landscaping the area immediately adjacent to the abutment, resulting in an informal track being developed by foot traffic, along with erosion of the bank.  Other intrusive infrastructure, most notably on the south-west abutment has not been removed.
Screen car parks using low level landscape planting or relocate car parks away from visual catchment of the bridge.	These works have not occurred.

1997 Recommended Policy/Action	Implementation
As part of the ongoing maintenance, the bridge should be inspected annually for pointing and stormwater defects, flood damage and cracking movements.	State Growth makes annual inspections of the condition of the bridge.
As part of the ongoing maintenance, terrestrial photogrammetrical plotting should be carried out on a 5 year basis to monitor long term settlement of the arches and foundations.	State Growth has undertaken laser scanning of the bridge which provides a more accurate recording than terrestrial photogrammetrical plotting.
As part of the ongoing maintenance, regular police surveillance of the bridge.	It is unknown whether surveillance occurs.

### *2010 Conservation Management Plan*

2010 Recommended Policy/Action	Implementation
<i>General Conservation Policies</i>	
<p>7.2.1 General Policy</p> <p>That the Richmond Bridge and its setting must be conserved as a place of exceptional cultural significance to the nation, Tasmania, and the local community.</p> <p>All elements of cultural significance that form part of the Richmond Bridge and its setting should be retained and conserved.</p> <p>The place is to be managed in accordance with the policies of this Conservation Management Plan and the guidelines and philosophy of the Australia ICOMOS Burra Charter (the Burra Charter).</p>	Ongoing. The cultural significance of the place has been maintained.
<p>7.2.2 Managing the National Heritage Values</p> <p>That the National Heritage Values of the Richmond Bridge be managed in accordance with the National Heritage Management Principles and the provisions of the EPBC Act 1999.</p>	Ongoing. The National Heritage Values of the place have been maintained.
<p>7.2.3 Cultural Significance</p> <p>That the cultural significance of the Richmond Bridge is comprised in the place itself, its fabric, setting, use, associations, meanings, and related places.</p> <p>The cultural significance of the fabric of the bridge is recognised as being demonstrated by its evolution to 1923. The fabric of the bridge post-1923 is of no appreciable cultural significance.</p> <p>That the cultural significance of the place beyond the bridge is embodied in certain elements of fabric, the setting, use, associations and meanings.</p>	Ongoing.
<p>7.2.4 Levels of Cultural Significance</p> <p>That the various elements that form the place have different levels of cultural significance (see also policy 7.2.5).</p>	Ongoing
7.2.5 Applying Levels of Cultural Significance in	Ongoing.

2010 Recommended Policy/Action	Implementation
<p>Conservation Processes</p> <p>Elements of high cultural significance must be conserved.</p> <p>Elements of moderate cultural significance should be conserved wherever possible.</p> <p>Elements of low cultural significance may be retained, modified or removed provided a conservation benefit can be demonstrated by the action (see also policy 7.2.6).</p> <p>Preservation, restoration and reconstruction (in that order) are the preferred conservation processes for elements of cultural significance.</p> <p>Elements intrusive to the cultural significance of the place should be removed or modified in a sensitive manner that enhances the cultural significance of the place.</p> <p>Neutral elements neither contribute nor have an adverse impact on the cultural significance of the place and may be retained or removed.</p>	
<p>7.2.6 Removal of Elements of Low Cultural Significance</p> <p>Demonstrating the conservation benefit from the removal of elements of low cultural significance can be established where:</p> <p>It will further reveal the cultural significance of the place; and</p> <p>It will not have an adverse impact on cultural significance of the place.</p>	Ongoing.
<p>7.2.7 Removal of Intrusive Elements</p> <p>That elements intrusive to the cultural significance of the place should be removed.</p>	Ongoing. Some intrusive elements such as drainage infrastructure near the bridge abutments has been removed.
<p>7.2.8 Reconstruction of Missing Fabric</p> <p>That reconstruction of missing fabric should only be permitted where:</p> <p>Interpretation of the bridge and its setting would be considerably enhanced; and</p> <p>This would not cause an unacceptable impact or undue anachronism to its immediate surrounds/context; and</p> <p>There is appropriate documentary or physical evidence.</p>	Ongoing. Reconstruction opportunities have yet to be identified.
<p>7.2.9 Maintenance &amp; Works Program</p> <p>That a detailed cyclical maintenance and works program be prepared establishing the priorities and timeframes for implementing the policies of this plan.</p>	<p>State Growth (responsible for the bridge) and CCC (responsible for the setting) carry out regular maintenance and works at the place.</p> <p>However, these programs should be documented.</p>
<p>7.2.10 Works Approvals</p> <p>All actions, works, or development undertaken at the place should comply with relevant legislation, including the provisions of the EPBC Act 1999, the HCH Act 1995, and the Clarence Planning Scheme 2007.</p>	Ongoing.
Management System of the Richmond Bridge and Setting	
7.3.1 Review of Draft Conservation Plan	Stakeholder and general consultation occurred as part of

2010 Recommended Policy/Action	Implementation
That the Draft Conservation Management Plan is provided to key organisations and the general community for review and comment.	the 2010 CMP.
<p>7.3.2 Endorsement</p> <p>That DIER, THC and the CCC should endorse this Conservation Management Plan as a guide for the management of the Richmond Bridge and its setting.</p>	State Growth and CCC have endorsed the CMP as a guide for management. It is understood that the THC does not endorse or approve CMPs, but rather has regard to such documents as required.
<p>7.3.3 Review of Tasmanian Heritage Register Entry</p> <p>That the THC review and amend the current entry in the Tasmanian Heritage Register for the Richmond Bridge in accordance with this Conservation Management Plan.</p>	The THC substantially amended the Tasmanian Heritage Register entry in 2014.
<p>7.3.4 Review of Planning Scheme Listing</p> <p>That the Clarence City Council amend the Clarence Planning Scheme 2007 to include the Richmond Bridge and its setting as a place of cultural significance in accordance with this Conservation Plan.</p>	<p>The Clarence Interim Planning Scheme 2015 did expand the Richmond Bridge Heritage Code entry to include some of the riverbank setting.</p> <p>The Tasmanian Planning Scheme State Planning Provisions and resulting Local Provisions Schedules are yet to come into effect in Clarence. Places which are currently included as Local Heritage Places under interim schemes will be brought across into the new Local Provisions Schedules. However, where that place is also included on the Tasmanian Heritage Register (as with the Richmond Bridge), the Heritage Place provisions of the Heritage Code will not apply, except for mutually exclusive parts of the same lot or lots. This removes the need for dual management and approvals between the Tasmanian Heritage Council and the Planning Authority. Other mechanisms providing for local involvement in heritage management do exist, and it would be desirable for these to be considered by Clarence City Council.</p>
<p>7.3.5 Coordinated Response to Management</p> <p>To ensure the conservation of the place, the: DIER, THC, HT, CCC, WRD, and Australian Government DEWHA and any other necessary groups or individuals, including community representatives, should adopt a cooperative approach to the management and conservation of the Richmond Bridge.</p>	Ongoing, but evidence of cooperation, communication etc should be documented.
<p>7.3.6 Community Involvement</p> <p>That methods of involving the community in the ongoing management of the Richmond Bridge and its setting be explored, including participation in a management committee.</p>	<p>Community consultation was carried out during the participation of the Vegetation Management Plan.</p> <p>Since 2010, the complex ownership of the place has been simplified to State Growth (for the bridge itself) and Clarence City Council for the public riverbanks. The need for a specific bridge management committee would appear to have been lessened.</p> <p>Regular consultation and engagement with the Richmond Advisory Committee may be a more useful forum for community involvement, and should be pursued by State Growth and Clarence City Council.</p>
<p>7.3.7 Management of Heritage Character of Richmond</p> <p>That the Clarence City Council has primary responsibility for managing the cultural significance of Richmond as a place.</p> <p>That due consideration is given to potential impacts on the cultural significance of the Richmond Bridge from</p>	<p>Ongoing under the Clarence Interim Planning Scheme 2015 and the Tasmanian Planning Scheme State Planning Provisions (yet to come into effect).</p> <p>The Richmond Cultural Resource Management Plan should be implemented as part of current and future planning mechanisms.</p>

2010 Recommended Policy/Action	Implementation
adjacent development, or development that may have an impact on important public views to the Richmond Bridge and its setting. The Richmond Cultural Resource Management Plan should be implemented to assist in the management of the heritage character of Richmond.	
<b><i>Use of the Richmond Bridge and Setting</i></b>	
7.4.4 Use of the Bridge That the Richmond Bridge continues to be used for vehicular and pedestrian use.	Ongoing.
7.4.5 Use of the Bridge: Structural Capacity That a vibration meter be installed on the Bridge and monitored for early warning of problems resulting from the basic weaknesses of the bridge (see policy 7.5.5). Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue. The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework (see policy 7.5.22).	Ongoing. The vibration meter has been installed and proven to be a valuable management tool for providing ongoing data as to the capacity of the bridge. However, the meter is not currently operating and should be fixed as a priority.  The vibration monitoring results have shown that the existing load and speed limit are adequate, however excessive speeding and braking on the bridge crest results in greater risks of vibration damage. Enforcement of the speed limit through either regular mobile speed camera operations or the installation of a fixed speed camera is recommended.  Inspection of the bridge for defects, damage and general condition occurs routinely.
7.4.6 Use of the Riverbank Setting That the riverbanks continue to be used for recreational purposes.	Ongoing.
7.4.7 Visitor Management and Interpretation Plan for the Setting That consideration be given to developing a Visitor Management and Interpretation Plan for the Richmond Bridge and its setting. The Visitor Management Plan should consider the needs of the mobility impaired and access to the bridge and setting. For consistency in approach and strategies, it would be useful to consider a Visitor Management and Interpretation Plan for Richmond as a whole, inclusive of the bridge and riverbank setting. The Visitor Management Plan should also consider tourist vehicle and pedestrian movements/routes through Richmond.	This plan has not been prepared. However, the Vegetation Management Plan is likely to assist with this work.
7.4.8 Use of the Coal River That the Coal River continue to be used for water supply as a compatible use.	Ongoing.
<b><i>Policies for the Prevention of Further Damage to the Richmond Bridge</i></b>	
Policy 7.5.5 Vibration Monitoring That a vibration meter be installed on the bridge and monitored for early warning of problems resulting from the basic weaknesses of the bridge. Should vibration problems be detected, the load and speed limit will need to be reviewed to address the issue.	The vibration meter was installed in 2010 and has proven to provide important, real time data. There has been periodic exceedances of trigger limits from heavier vehicles. The triggers of these excessive vibrations may possibly be the result of high speeds and braking actions over the crest of the bridge.  Unfortunately, operational issues have occurred on two separate occasions and the monitoring system is currently

2010 Recommended Policy/Action	Implementation
	<p>not functioning.</p> <p>The importance of the monitoring has been established and it should be returned to operations as a priority.</p> <p>Actions to minimise the risks from excessive vibration should be pursued by State Growth and Clarence City Council.</p>
<p>Policy 7.5.6 Load Limit</p> <p>The vibration meter should be linked to a camera which will indicate whether load or speed is excessive for a recorded vibration.</p>	<p>These works were completed in 2010. As above, some operational/maintenance issues have emerged with the vibration monitor.</p>
<p>7.5.7 Conservation of Bridge Stonework</p> <p>That as required, an appropriately skilled stonemason with experience in working on historic structures undertakes conservation works to the stonework in accordance with the General Policy.</p>	<p>Qualified stone masons have been engaged through the maintenance contractor.</p>
<p>7.5.8 Replacement of Badly Decayed Stones</p> <p>That as required, an appropriately skilled stonemason with experience in working on historic structures replace badly decayed stones when subject to a 50mm surface loss. New stones should use 100mm thick inserts of a better quality stone, with the works carried out in accordance with policy 7.5.7.</p>	<p>These works occur as required as part of maintenance.</p>
<p>7.5.9 Stone Decay in east Arch</p> <p>Seek specialist advice on the structural capacity of the decayed stones under east arch.</p> <p>Maintenance, preservation, and restoration are preferred approaches to reconstruction. The replacement of stones should only occur where they have decayed to the point of no longer serving their structural purpose (see also policies 7.5.7 and 7.5.8).</p>	<p>These works have been completed and continue to be monitored.</p>
<p>7.5.10 Replacement of Lost Bedding</p> <p>That as required, an appropriately skilled stonemason should replace lost bedding with a quicklime grout to make loose stonework solid.</p>	<p>These works occur as required.</p>
<p>7.5.11 General Repointing</p> <p>That as required, the repointing of mortar joints be undertaken by an appropriately skilled stonemason using a permeable quick lime based mortar coloured to match the recent repointing work. Repointing works should have a weather struck finish.</p>	<p>These works occur as required.</p>
<p>7.5.12 Repointing Works</p> <p>That an appropriately skilled stonemason undertake repointing works using a lime based mortar coloured to match the recent repointing work at the following areas:</p> <p>The parapet coping, particularly on the northern parapet;</p> <p>The parapet end walls adjacent to the bollards; and</p> <p>Any other area requiring repointing as identified in the condition assessment of the pointing (see policy 7.5.22).</p>	<p>These works occur as required.</p>

2010 Recommended Policy/Action	Implementation
<p>7.5.13 Removal of inappropriate Pointing</p> <p>That an appropriately skilled stonemason remove the cement-rich mortars to be replaced with lime mortars.</p>	<p>These works have been completed.</p>
<p>7.5.14 Ponding &amp; Drainage under east Arch</p> <p>That specialist advice be sought on preventing water from ponding under the south east arch.</p>	<p>These works have been completed, but ponding under the east arch continues to occur.</p>
<p>7.5.15 Damp Problems, south west wing wall</p> <p>That specialist advice be sought on identifying the cause of damp on the south west wing wall and appropriate means of addressing the problems.</p>	<p>It is unclear if these works have occurred.</p>
<p>7.5.16 Repair of Road Surface</p> <p>That the potholes on the right hand side of the road surface adjacent to the gutters and the diagonal crack be repaired (see also policy 7.5.25).</p>	<p>These works have been completed.</p>
<p>7.5.17 Waterproofing Footpaths</p> <p>That the footpaths be waterproofed by expert specialists to prevent the transfer of water into the structure of the bridge.</p>	<p>These works have not occurred.</p>
<p>7.5.18 Capacity of Drains</p> <p>That specialist advice is sought on the current capacity of the drainage infrastructure to remove water from the bridge.</p> <p>Specific attention should be given to ensuring drains are not resulting in ponding or erosion of soil around the bridge abutments.</p>	<p>These works have been completed.</p>
<p>7.5.19 Salt Efflorescence in east Arch</p> <p>That specialist advice be sought on treating the salt efflorescence under the east arch.</p>	<p>These works have been completed.</p>
<p>7.5.20 Traffic Impacts on Parapet Walls</p> <p>That the prevention of excessive speeding over the bridge be pursued as a means of preventing damage to the parapet walls caused by vehicular accidents (see also policy 7.9.3).</p>	<p>Compliance with the speed limit over the bridge remains an ongoing issue, both in terms of the vibration caused by speeding, and the risk of increased damage to the parapet walls from collisions.</p> <p>Enforcement of the speed limit requires the cooperation of the Tasmanian Police, through either the regular use of mobile speed cameras at the location, or the installation of a fixed camera.</p>
<b><i>Management, Maintenance, Inspection, Recording and Aesthetic Policies</i></b>	
<p>7.5.21 Managing the National Heritage Values</p> <p>That the fabric of the Richmond Bridge be managed to protect, conserve, present and transmit to all generations the National Heritage Values of the place.</p>	<p>Ongoing.</p>
<p>7.5.22 General Monitoring</p> <p>The bridge should be inspected annually for pointing and stormwater defects, flood damage, cracking movements and general condition of stonework.</p>	<p>These works occur as required.</p>

2010 Recommended Policy/Action	Implementation
<p>7.5.23 3D Laser Recording</p> <p>That the 3D laser scanning of the bridge is used as the basis for understanding the fabric of the bridge.</p>	<p>The laser recording was completed in 2006, it is unclear if the resulting data is used for conservation works.</p>
<p>7.5.24 Recording Changes to the Bridge</p> <p>That all actions, works or development affecting the fabric of the bridge are appropriately recorded and copies lodged with State Growth and HT.</p>	<p>Requires ongoing monitoring to ensure records are made and archived.</p>
<p>7.5.25 Ongoing Maintenance of Road Surface</p> <p>That the road surface should be subject to ongoing maintenance.</p>	<p>These works occur as required.</p>
<p>7.5.26 Maintenance of Footpaths</p> <p>The footpaths should be maintained including the continued use of the gravel surface.</p>	<p>These works occur as required.</p>
<p>7.5.27 Maintenance of Gutters</p> <p>That the gutters be maintained to a condition that ensures their functionality for the removal of water.</p>	<p>These works occur as required.</p>
<p>7.5.28 Reconstruction of Gutters</p> <p>That consideration be given to replacing the current concrete bridge gutters with infrastructure that is of a material that is more sympathetic to the cultural significance of the place.</p>	<p>These works have not occurred, but are a low priority.</p>
<p>7.5.29 Inspection &amp; Maintenance of Drains</p> <p>That the drains be regularly inspected and maintained to ensure their continued functioning.</p>	<p>These works occur as required.</p>
<p>7.5.30 Visual Impact of Drains</p> <p>That works are undertaken to minimise the visual impact of those drains that are intrusive on the cultural significance of the bridge (in particular the drains on the north east, north west and south west riverbanks).</p>	<p>The pipe near the north east abutment has been buried in the batter leading to the river. Works on the drainage infrastructure on the north west and south west banks was completed in 2015.</p>
<p>7.5.31 Sandstone Stairs, West end of Bridge</p> <p>That the sandstone stairs on the west end of the bridge abutments be conserved as elements of cultural significance.</p> <p>The sandstone stairs should continue to function for their original use and all maintenance work should follow professional standards and be undertaken by suitably qualified personnel.</p>	<p>The loose steps on the west end of bridge have been rectified.</p> <p>State Growth will manage the south west stair connected to the bridge parapet and the north west stairs leading to the underside of the 1st (western) arch.</p> <p>The stairs at the western end are not compliant to current standards and is not possible to upgrade without considerable modifications which would substantially alter the appearance of the bridge and stairs. Re-packing and grouting of the bedding for the steps was carried out in 2014/15. Repairs will be required approximately every 5 years.</p>
<p>7.5.32 Removal of Graffiti</p> <p>That specialist advice be sought on the removal of graffiti from the bridge.</p>	<p>Some graffiti from some stones has been removed. Removal is required approximately every 3 years.</p>
<p>7.5.33 Anti-Graffiti Treatments</p>	<p>These works have not occurred following specialist</p>

2010 Recommended Policy/Action	Implementation
That specialist advice be sought on the suitability of anti-graffiti treatments to allow for easier removal of graffiti.	advice.
<p>7.5.34 Conservation of Centenary Stones</p> <p>That the lettering of the date stones on the north and south face of the bridge, and the commemorative centenary stones on the inside of the northern parapet are conserved.</p>	<p>The inscriptions remain legible and re-lettering is not currently required.</p> <p>Ongoing monitoring to occur.</p>
<p>7.5.35 Maintenance of Sheathing Cramps</p> <p>That the cramps holding the top course of the sheathing stones be monitored and maintained to ensure that they continue to function.</p>	It is unclear if the sheathing cramps have been monitored.
<p>7.5.36 Cleaning the Bridge</p> <p>That as required, organic growth is cleaned from the bridge. Care should be taken to ensure that the contractor is skilled in working on historic structures and that the methods and materials are appropriate to the cultural significance of the bridge and any necessary environmental considerations.</p> <p>Trial cleaning methods should be conducted on discreet parts of the bridge to ensure correct and non-invasive process.</p>	These works occur as required.
<b><i>Management of Public Riverbank Land and Infrastructure</i></b>	
<p>7.6.1 Management</p> <p>That land managers of the public open space apply the relevant policies of this Conservation Management Plan (see also General Policy 7.2.1)</p>	Ongoing. This policy should now be read in conjunction with the Vegetation Management Plan which has since been completed.
<p>7.6.2 Maintaining Existing Character</p> <p>That the existing nature of each of the publicly accessible riverbanks be maintained in accordance with their distinct character.</p>	Ongoing. This policy should now be read in conjunction with the Vegetation Management Plan which has since been completed.
<p>7.6.3 Walking Track Maintenance</p> <p>That the existing walking tracks are maintained in the existing form and materials. The construction of new tracks is to be avoided.</p>	Ongoing.
<p>7.6.4 Removal and Consolidation of Tracks</p> <p>The unofficial dirt bike tracks on the CCC Reserve on the north west bank are incompatible with the cultural significance of the place and should be removed.</p> <p>That the walking tracks at the south west end of the bridge be consolidated into a single track providing access to the stairs and under the western arch.</p>	<p>Ongoing.</p> <p>There has been improvement in consolidating the tracks on the south west end of the bridge, although grass loss and erosion appears to remain an issue.</p>
<p>7.6.5 Cement Block Stair, South West Bank</p> <p>That the cement block stair on the south west bank be removed.</p> <p>Should it be established that stair infrastructure is required at this point, any new stair should be designed to be sympathetic to the cultural significance of the bridge</p>	The stair has not been removed and remains an intrusive element.

2010 Recommended Policy/Action	Implementation
and its setting.	
<p>7.6.6 Introduction of new Visitor Infrastructure</p> <p>The introduction of new visitor infrastructure such as seating, rubbish bins, walking tracks, shelters, toilets etc should be avoided.</p>	<p>Ongoing.</p> <p>The Vegetation Management Plan recommends the preparation of a landscape masterplan and review of built elements to address such items.</p>
<p>7.6.7 Car Parks</p> <p>That the size of the car parks on St Johns Circle and off Bathurst Street should not be increased in size. New car parking spaces should avoid potential visual impacts to the Richmond Bridge and its setting.</p>	<p>Ongoing.</p>
<p>7.6.8 Screening of North East Bank car park</p> <p>That the car park on St Johns Circle be screened by low height plants.</p>	<p>This has not occurred. The Vegetation Management Plan repeats the policy recommendation for “carefully designed planting to be undertaken to screen cars in the carpark from views from the south west”.</p>
<p>7.6.9 Gatty Dam</p> <p>That the Gatty Dam be maintained to continue to function.</p>	<p>Ongoing</p>
<p>7.6.10 North East Timber Stair</p> <p>That the timber stair on the north east bank be relocated away from the north east abutment of the bridge.</p>	<p>The stair has been removed but without relocation to a more sympathetic location. The result is informal pedestrian access along the north east abutment causing erosion.</p>
<p>7.6.11 Management of CCC Reserve, North West Bank</p> <p>That effort is made to control the illegal dumping of rubbish at the CCC Reserve. Rubbish should be regularly collected from the area and the dumping of fill on the steep escarpment should cease.</p>	<p>Ongoing.</p>
<b><i>Vegetation Management Policies</i></b>	
<p>7.7.1 Recognition of Significance</p> <p>That the vegetated setting of the bridge including individual and groups of trees, open grassed areas and riparian vegetation should be conserved.</p>	<p>The setting of the bridge has been subject to a comprehensive and detailed Vegetation Management Plan (VMP) (6 November 2015). The policies and strategies of the VMP should be applied.</p>
<p>7.7.2 Management of Significance</p> <p>That land managers of the public open space apply the relevant policies of this Conservation Management Plan (see also policy 7.2.1).</p>	<p>Ongoing.</p>
<p>7.7.3 Processes for Works</p> <p>When proposing works that will impact on significant plantings, the THC Practice Notes:</p> <p>Practice Note 13: The Approval Process for Historic Plantings; and</p> <p>Practice Note 14: The Long Term Maintenance of Historic Plantings</p> <p>should be followed.</p>	<p>Works impacting on significant plantings are to be in accordance with the VMP and the Heritage Council's Works Guidelines for Historic Heritage Places (November 2015).</p>
<p>7.7.4 Assessment of Vegetation</p> <p>That a vegetation management plan be prepared for the</p>	<p>The VMP was completed 6 November 2015, inclusive of an arboricultural assessment.</p>

2010 Recommended Policy/Action	Implementation
<p>Richmond Bridge setting. The plan should consider weed management, and the cultural heritage value of plantings.</p> <p>Recognising the finite lifespan of plantings, an arborist should be engaged to assess the current health and estimated lifespan of the historic plantings as part of the vegetation management plan.</p>	
<p>7.7.5 Long term Management of Historic Plantings</p> <p>Recognising the finite lifespan of plantings, the vegetation management plan should address long term and ongoing management to conserve the setting of the place.</p>	Addressed in the VMP.
<p>7.7.6 New Plantings</p> <p>New plantings should consider species and planting patterns that are sympathetic to the cultural significance of the place.</p>	Addressed in the VMP.
<p>7.7.7 Managing Crack Willows</p> <p>Crack Willows are a declared weed. Ongoing monitoring, and management of Crack Willows should occur in accordance with the Willows – Weed Management Plan (DPIW, 30 August 2003).</p>	Addressed in the VMP.
<p>7.7.8 Managing Weeping Willows</p> <p>Weeping willows are not a declared weed. The group of weeping willows on the south west bank should be conserved.</p>	<p>Crack willows have been removed but require ongoing monitoring and management in accordance with the Vegetation Management Plan.</p> <p>The willows on the south west riverbank were incorrectly identified in the 2010 CMP and have been removed. One weeping willow exists on the southeast riverbank and should be managed in accordance with the VMP.</p>
<p>7.7.9 Managing the Copse of Poplars and Elms</p> <p>The form and area of the copse of Poplars and Elms as a collection of trees on the south west bank should be maintained.</p>	Addressed in the VMP.
<p>7.7.10 Managing the Riparian Vegetation</p> <p>That the riparian vegetation in the Coal River and on the riverbanks should be conserved.</p>	Addressed in the VMP.
<p>7.7.11 Potential Damage to Bridge from Lombardy Poplars</p> <p>An arborist and structural engineer should be engaged to assess the potential structural damage to the bridge being caused by the Lombardy Poplars at the eastern bridge abutments.</p>	Addressed in the VMP with succession planting using more appropriate species recommended.
<p>7.7.12 Removal of Planting under east Arch</p> <p>That the small tree growing within the east arch of the bridge be removed.</p>	Completed.
<p>7.7.13 Removal of Ivy from South East End of Bridge</p> <p>That the ivy growing on south east end of the bridge should be removed.</p>	Completed, but ivy has regrown. Requires regular maintenance/removal.

2010 Recommended Policy/Action	Implementation
<i>River Management Policies</i>	
7.8.1 General Management of Coal River That the Coal River be managed as an element of cultural significance (see also General Policy 7.2.1).	Ongoing.
7.8.2 Health of Coal River That the water quality of the Coal River be enhanced.	Ongoing.
7.8.3 Flood Management Plan That a flood management plan be prepared to assist in preventing damage to the bridge.	Has not been completed.
7.8.4 Removing Flood Risks That debris is removed from upstream of the bridge, which could pose a risk during times of flood.  That support and encouragement be given to the work of Landcare in removing crack willow and debris from upstream of the bridge.	As required. Stream clearance of debris occurs approximately every 2 years.
7.8.5 Removing Flood Risks: Other Elements That during times of extreme flood, the fences on the downstream side of the floodway across Wellington Street may need to be removed to allow the floodway bypass to function.	As required.
7.8.6 Mitigating Impacts during times of Flood That during times of flood, an excavator be made available to prevent the build up of debris against the north face of the bridge.	As required.
7.8.7 Managing Riverbank Erosion That the riverbanks be monitored for erosion and remediation works be carried out as necessary.	Addressed as -part of the VMP.
7.8.8 Managing Water Fowl That the population of ducks and geese is managed at a sustainable level to prevent adverse pollution of the Coal River.	Ongoing. The VMP includes recommendations for managing erosion caused by water fowl.
<i>Traffic and Road Management Policies</i>	
7.9.1 Load Limit That DIER reconsider the reduction of the current load limit for the bridge.	The load limit has not been reduced. The results of the vibration monitoring indicate that the existing load limit of 25 tonnes is acceptable. However, this should be continually assessed through the use of the vibration monitor which is currently not operating.
7.9.2 Monitoring and Enforcement of Load Limit Monitor the weight of vehicles to ensure compliance with the load limitation by monitoring vibration.  Intelligent Access Recording (IAR) should be considered as a means of monitoring permit vehicle movements over the bridge.  The drivers of vehicles exceeding the load limit should be	Not carried out.

2010 Recommended Policy/Action	Implementation
prosecuted.	
<p>7.9.3 Monitoring and Enforcement of Speed Limit</p> <p>That DIER liaise with the Tasmanian Police regarding speed management at the crossing. Investigations should occur on the possibility of installing a permanent speed camera at the crossing point.</p>	<p>Not carried out. The vibration monitoring results show the risks caused from excessive speed and braking on the crest of the bridge.</p> <p>Enforcement of the speed limit through either regular mobile speed camera operations or the installation of a fixed speed camera is recommended.</p>
<p>7.9.4 Maintaining Road Approaches</p> <p>That the gravel road verges on the Wellington Street approach to the bridge be maintained.</p>	<p>The gravelled road verges on the Wellington Street (eastern) approach to the bridge have been replaced with standard concrete guttering and kerbs to the intersection of St Johns Circle.</p> <p>As a minimum, a concrete colour more sympathetic to the place should have been considered.</p>
<b>Interpretation Policies</b>	
<p>7.10.1 Interpretation</p> <p>That the cultural significance of the Richmond Bridge and its setting should be adequately interpreted to managers, users and visitors. Interpretation should consider a variety of forms and be based upon a sound and authentic interpretation of the history of the place and its cultural significance. Interpretation of geoheritage, natural and indigenous values would complement the interpretation of the historic cultural heritage values of the bridge and setting.</p>	<p>Interpretation of the place occurs at two locations, the viewing platform on the south-west abutment with a 'Historic Engineering Marker' (installed in 1991), and a new free standing panel located on the north east riverbank near the car park. Further interpretive devices should not be installed until the development of an interpretation plan.</p>
<p>7.10.2 Development of an Interpretation Plan</p> <p>That an interpretation plan be developed that authentically presents and explains the history of the place.</p> <p>An interpretation plan should consider all the values of the place: National, State and Local.</p>	<p>Not carried out.</p>
<p>7.10.3 Interpretation</p> <p>That future interpretation of the place should not compromise its heritage significance and character.</p>	<p>Ongoing.</p>
<b>Further Work Policies</b>	
<p>7.11.1 Heritage Training</p> <p>That ongoing heritage management and conservation training be made available to managers, contractors and staff working on the bridge and setting.</p>	<p>Ongoing. The CMP should be made free available.</p>
<p>7.11.2 Historical Archaeology Assessment</p> <p>That a suitably qualified historical archaeologist should prepare an archaeological assessment of the Richmond Bridge and its setting. Such an assessment should provide an understanding of the archaeological values of the place (the bridge, river and riverbanks); including its potential to contain significant archaeological features; and provide guidance on the conservation of those values. The results of the assessment should be included in the next review of this CMP.</p>	<p>Has not occurred.</p>

2010 Recommended Policy/Action	Implementation
<p>7.11.3 Historical Archaeology during Works</p> <p>In the absence of an archaeological assessment, HT should be consulted with for any works within the place which are likely to involve subsurface disturbances.</p>	<p>Ongoing in the absence of an archaeological assessment.</p>
<p>7.11.4 Aboriginal Heritage</p> <p>That an Aboriginal Heritage assessment of the Richmond Bridge and its setting be an undertaken. Such an assessment should provide an understanding of the Aboriginal heritage values of the place and provide guidance on the conservation of those values. The results of the assessment should be included in the next review of this CMP.</p>	<p>Has not occurred. Aboriginal Heritage Tasmania, DPIWWE has advised that there are no Aboriginal heritage sites recorded within the immediate area and that the area has a low probability of Aboriginal heritage being present, and therefore no requirement for a separate Aboriginal heritage assessment.</p> <p>The provisions of the <i>Aboriginal Heritage Act 1975</i> will apply should Aboriginal heritage be discovered or suspected during works. An Unanticipated Discovery Plan should be implemented should Aboriginal Heritage be discovered or suspected during ground disturbance works. And this Unanticipated Discovery Plan is included in the Appendix.</p> <p>This CMP considers that such an Aboriginal Heritage assessment would assist in understanding if Aboriginal heritage items or values exist at the place and how they should be appropriately managed. Such an assessment is also consistent with the National Heritage Management Principles.</p>
<b>Review and Reporting Policies</b>	
<p>7.12. 1 Review of Conservation Management Plan</p> <p>That this Conservation Management Plan be reviewed on a regular basis, at least once every five years, or when new evidence is discovered that has the potential to impact on the present policies.</p> <p>DIER and CCC should have primary responsibility for implementing any review.</p>	<p>Completed with the production of the current CMP.</p>
<p>7.12.2 Making the CMP Publicly Available</p> <p>On endorsement, the CMP should be made publicly available at a variety of locations, for example, DIER, CCC, HT, and the State Library of Tasmania. It should also be made available to staff or contractors undertaking works at the place.</p>	<p>Completed.</p>
<p>7.12.3 Reporting</p> <p>That an annual report be made publicly available that details the conservation of the cultural significance of the place and progress in implementing policies, or other works related to the Richmond Bridge and its setting.</p>	<p>This does not appear to have been carried out. It would be desirable for a report to be prepared by State Growth and Clarence City Council.</p>