TORRUMBARRY WEIR LOCK CHAMBER, STEAM BOILER AND STEAM WINCH COMPLEX

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1 torrumbarry weir complex face of weir

h00993 torrumbarry weir lock chamber steam boiler and steam winch complex torrumbarry detheridge weir trestles she project 2004

h00993 torrumbarry weir lock chamber steam boiler and steam winch complex torrumbarry drop bar hydraulic operated she project 2004

h00993 torrumbarry weir lock chamber steam boiler and steam winch complex torrumbarry lock stream upstream gates she project 2004

h00993 torrumbarry weir lock chamber steam boiler and steam winch complex torrumbarry trestle runway ramp she project 2004

h00993 torrumbarry weir lock chamber steam boiler and steam winch complex torrumbarry view of site she project 2004

h00993 torrumbarry weir lock chamber steam boiler and steam winch complex torrumbarry winch house interior she project 2004

h00993 torrumbarry weir lock chamber steam boiler and steam winch complex torrumbarry winch house she project 2004

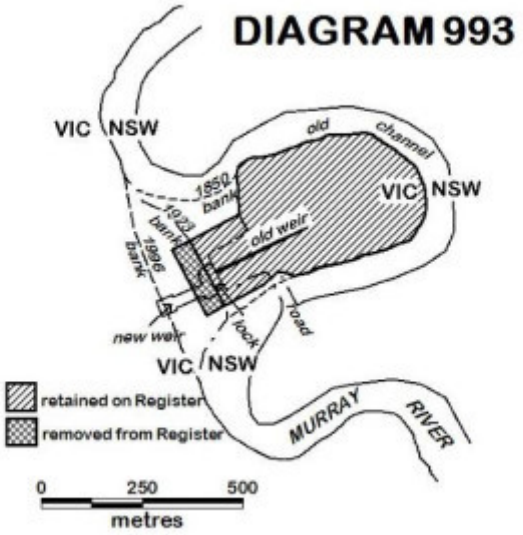

Diagram 993

Location

TORRUMBARRY WEIR ROAD PATHO, CAMPASPE SHIRE

Municipality

CAMPASPE SHIRE

Level of significance

Registered

Victorian Heritage Register (VHR) Number

H0993

Heritage Overlay Numbers

HO202

VHR Registration

November 25, 1993

Amendment to Registration

February 12, 2015

Heritage Listing

Victorian Heritage Register

Statement of Significance

Last updated on - January 8, 1997

What is significant?

The Torrumbarry Weir Complex incorporates the original lock (1924) and a concrete-reinforced rubble wall surviving from the former weir. The old trestles and original steam boiler and winch-house are visible beyond that on the original island created in the bend of the Murray.

History Summary

The Torrumbarry Weir is one of the fourteen weirs and locks built to control the waters of the Murray following the 1915 formal River Murray Agreement. It was the culminating development which gave full effect to the Torrumbarry Irrigation System which was created in the later part of the nineteenth century and the early part of the twentieth century.

The harnessing of water assets in the region began on a small scale on local farms as early as the 1860s, diverting water from local streams and ephemeral lakes. Later local irrigation trusts were empowered to expand these earlier works, link them into larger networks and invest in large scale pumping facilities to take water from the River Murray. In 1886, following a Royal Commission, a new Act enabled concerted action and a series of National Works were sanctioned to consolidate the system. Thus all of the principal features of an extensive irrigation system were in place by the beginning of the 20th century, but the level of the Murray at the mouth of Gunbower Creek was still only sufficient to feed the system by gravity at times of high water.

The Torrumbarry Weir was only constructed when successful negotiations between the State governments of Victoria, New South Wales and South Australia resulted in the 1915 formal River Murray Agreement. This proposed the construction of storage reservoirs in the river's headwaters as well as a series of locks and weirs in South Australia and along the Victoria NSW border. Construction on the Torrumbarry Weir and Lock was started in 1919 and completed in 1924. The removable weir raised the water level enough to provide constant gravitational flow to the system and render the various downstream pump installations redundant.

The original Torrumbarry Weir is no longer in use. In 1992 leaks were noticed coming from the concrete apron of the weir, and after a thorough engineering investigation it was decided to replace it. Work began in June 1994 on a new $36 million construction, and this was operational by August 1996. The old lock was retained and the steam winch and racks of trestles were preserved on the original island created in the bend of the Murray.

Description Summary

The original weir comprised a concrete-reinforced rubble wall incorporating 14 removable steel trestles which were equipped with drop bars and ran on railway lines so they could be winched out of the river in flood times or for maintenance. The wall remains, and the old trestles, steam boiler and winch-house are visible on the original island created in the bend of the Murray. To west of the original weir is a lock chamber which was designed to

enable river traffic to bypass the weir.

A modern concrete weir equipped with large electrically-operated radial gates was constructed in 1996. This required the realignment of the river.

The irrigation system to which the old weir gave effect in 1924 comprises a series of natural watercourses and water bodies connected by artificial channels and infrastructure. This forms a cohesive network along which water from the River Murray can be supplied for irrigation within the Torrumbarry Irrigation Area.

A large interpretive centre has been built on the west bank, close to the western end of the new weir. A section of one trestle is on display in that centre.

This site is on the River Murray, about 9km east of Gunbower and lies amidst the traditional lands of the Wamba Wamba, Barapa Barapa and Wadi Wadi Peoples.

How is it significant?

The Torrumbarry Weir Complex is of historical and scientific significance to the State of Victoria. It satisfies the following criterion for inclusion in the Victorian Heritage Register:

Criterion A Importance to the course, or pattern, of Victoria's cultural history

Criterion D Importance in demonstrating the principal characteristics of a class of cultural places and objects

Criterion F Importance in demonstrating a high degree of creative or technical achievement at a particular period.

The Torrumbarry Weir Complex is historically significant because it gave full effect to half a century of irrigation projects, which together as the 'Torrumbarry Irrigation System', helped to establish the Goulburn Murray Irrigation District as 'Victoria's food bowl'. The opening of Torrumbarry Weir established a gravitation system which signalled the end for the costly pumping stations nearby, as water no longer had to be lifted into the irrigation system. The additional and more reliable irrigation water supply afforded by this gravity-fed system was vital to the region's history of land improvement and economic growth through agriculture, and the system played a pivotal role in the success of resettlement and closer settlement programs in the area, particularly in its early years with Soldier Settlement schemes. The Torrumbarry Weir was only constructed following successful negotiations between the State governments of Victoria, New South Wales and South Australia which resulted in the 1915 formal River Murray Agreement. [Criterion A]

The Torrumbarry Weir Complex is the only combined weir and lock system located entirely in Victoria. It was the second major structure to be constructed to enable regulation of the Murray River, and the first on the river to be constructed with the principal purpose of improving irrigation. It was also the first structure constructed on the Victoria-New South Wales section of the Murray, and, together with the Mildura Weir of similar design, it is the only Australian designed weir and lock on the Murray. The wider Torrumbarry Irrigation System, which was given full effect through construction of the Torrumbarry Weir, is an essentially intact and rare example of an irrigation system comprising a combination of natural and man-made elements and is the major component in the Kerang-Cohuna irrigation system, one of the largest irrigation systems in Victoria. [Criterion D]

The Torrumbarry Weir Complex is scientifically significant because its design demonstrates a new and innovative solution to irrigation requirements on the Murray. It was innovative as a dam which could be entirely removed from the water during high-water to allow dead trees from the Barmah/Millewa Forest to pass down stream, which was a creative response to the peculiar characteristics of this river system. While it had some operational shortcomings, the weir has largely been effective in delivering water to those dependent on it. [Criterion F]

The Torrumbarry Weir Complex is also significant for the following reasons, but not at the State level:

The site has close links the engineer J.S. Dethridge, Commissioner of the Victorian State Rivers and Water Supply Commission who was a major contributor to the original design and implementation of the system for controlling the waters of the Murray. He provided the original design for Torrumbarry Weir and is also famous for designing the Mildura Lock and Weir, the only other lock and weir of similar design. He also designed the Dethridge meter, a volumetric water meter previously widely used across Australia for the measurement of irrigation water.

The Torrumbarry Lock has supported the role of the Murray in providing transportation to inland Victoria and New South Wales. It has important associations with the historic Port of Echuca, allowing boats access to the Echuca slip for restoration, and for private and commercial tourism operations.

Permit Exemptions

General Exemptions:

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

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

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

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

Find out more about heritage permit exemptions here.

Specific Exemptions:

PERMIT EXEMPTIONS (under section 42 of the Heritage Act)

It should be noted that Permit Exemptions can be granted at the time of registration (under s.42(4) of the Heritage Act). Permit Exemptions can also be applied for and granted after registration (under s.66 of the Heritage Act)

General Condition: 1.
All exempted alterations are to be planned and carried out in a manner which prevents damage to the fabric of the registered place or object.

General Condition: 2.
Should it become apparent during further inspection or the carrying out of works that original or previously hidden or inaccessible details of the place or object are revealed which relate to the significance of the place or object, then the exemption covering such works shall cease and Heritage Victoria shall be notified as soon as possible.

General Condition: 3.
All works should be informed by Conservation Management Plans prepared for the place. The Executive Director is not bound by any Conservation Management Plan, and permits still must be obtained for works suggested in any Conservation Management Plan.

General Conditions: 4.
Nothing in this determination prevents the Heritage Council from amending or rescinding all or any of the permit exemptions.

General Condition: 5.
Nothing in this determination exempts owners or their agents from the responsibility to seek relevant planning or building permits from the relevant responsible authority, where applicable.

Specific Exemptions

The following works and alterations are permit exempt:

. Minor works, maintenance and replacement (like with like) not detrimental to the cultural heritage values of the place.

Landscape Exemptions

. The process of gardening, including mowing, hedge clipping, bedding displays, removal of dead shrubs and replanting the same species or cultivar, disease and weed control, and maintenance to care for existing plants

. Removal of dead or dangerous trees and vegetation, works to maintain fire safety and to conserve significant buildings and structures and emergency works, provided the Executive Director is notified within 21 days

. Replanting removed or dead trees and vegetation with the same plant species to conserve the significant landscape character and values

. Management of trees in accordance with Australian Standard; Pruning of Amenity Trees AS 4373-1996

. Management of trees in accordance with Australian Standard; Protection of Trees on Development Sites AS 4970-2009

. Subsurface works involving the installation, removal or replacement of watering and drainage systems on the condition that works do not impact on archaeological features or deposits

. Removal of plants listed as noxious weeds in the *Catchment and Land Protection Act* 1994

. Vegetation protection and management of possums and vermin.

Fire Suppression Duties

The following fire suppression duties are permit exempt:

. **Fire suppression activities such as fuel reduction burns, and fire control line construction, provided all significant heritage features are appropriately recognised and protected.**

Note: Fire management authorities should be aware of the location, extent and significance of historical and archaeological places when developing fire suppression and fire fighting strategies. The importance of places listed in the Victorian Heritage Register and the Victorian Heritage Inventory must be considered when strategies for fire suppression and management are being developed.

Weed and Vermin Control

The following weed and vermin control activities are permit exempt:

. Weed and vermin control activities provided the works do not involve the removal or destruction of any significant heritage features.

Note: Particular care must be taken with weed and vermin control works where such activities may have a detrimental affect on the significant fabric of a place. Such works may include the removal of ivy, moss or lichen from an historic structure or feature, or the removal of burrows from a site that has archaeological values.

Public Safety and Security

The following public safety and security activities are permit exempt:

. public safety and security activities provided the works do not involve the removal or destruction of any significant above-ground structures

. The installation of emergency lighting, hazard signs, guard rails provided that the design and location of these items is considered and their placement is visually neutral

. the erection of temporary security fencing, scaffolding, hoardings or surveillance systems to prevent unauthorised access or secure public safety which will not adversely affect significant fabric of the place

. development including emergency stabilisation necessary to secure safety where a site feature has been irreparably damaged or destabilised and represents a safety risk to its users or the public.

Note: Urgent or emergency site works are to be undertaken by an appropriately qualified specialist such as a structural engineer, or other heritage professional

Signage and Site Interpretation

The following Signage and Site Interpretation activities are permit exempt

. signage and site interpretation activities provided the works do not involve the removal or destruction of any significant above-ground structures

. the erection of signage for the purpose of ensuring public safety or to assist in the interpretation of the heritage significance of the place or object and which will not adversely affect significant fabric including landscape or obstruct significant views of and from heritage values or items

. signage and site interpretation products must be located and be of a suitable size so as not to obscure or damage significant fabric of the place

. signage and site interpretation products must be able to be later removed without causing damage to the significant fabric of the place

Note: The development of signage and site interpretation products must be consistent in the use of format, text, logos, themes and other display materials.

Note: Where possible, the signage and interpretation material should be consistent with other schemes developed on similar or associated sites. It may be necessary to consult with land managers and other stakeholders concerning existing schemes and strategies for signage and site interpretation.

Theme

1. Shaping Victoria's environment 2. Peopling Victoria's places and landscapes 4. Transforming and managing the land 6. Building towns cities and the garden state

Construction dates	1925,
Architect/Designer	Dethridge, JS,
Heritage Act Categories	Registered place,
Other Names	TORRUMBARRY WEIR COMPLEX,
Hermes Number	4624
Property Number	

History

The Torrumbarry Weir is one of the fourteen weirs and locks built to control the waters of the Murray following the 1915 formal River Murray Agreement. It was the culminating development which gave full effect to the Torrumbarry Irrigation System which was created in the later part of the nineteenth century and the early part of the twentieth century.

The harnessing of water assets in the region began on a small scale on local farms as early as the 1860s, diverting water from local streams and ephemeral lakes. Later local irrigation trusts were empowered to expand these earlier works, link them into larger networks and invest in large scale pumping facilities to take water from the River Murray. In 1886, following a Royal Commission, a new Act enabled concerted action and a series of National Works were sanctioned to consolidate the system. Thus all of the principal features of an extensive irrigation system were in place by the beginning of the 20th century, but the level of the Murray at the mouth of Gunbower Creek was still only sufficient to feed the system by gravity at times of high water.

The Torrumbarry Weir was only constructed when successful negotiations between the State governments of Victoria, New South Wales and South Australia resulted in the 1915 formal River Murray Agreement. This proposed the construction of storage reservoirs in the river's headwaters as well as a series of locks and weirs in South Australia and along the Victoria NSW border. Construction on the Torrumbarry Weir and Lock was started in 1919 and completed in 1924. The removable weir raised the water level enough to provide constant gravitational flow to the system and render the various downstream pump installations redundant.

The original Torrumbarry Weir is no longer in use. In 1992 leaks were noticed coming from the concrete apron of the weir, and after a thorough engineering investigation it was decided to replace it. Work began in June 1994 on a new $36 million construction, and this was operational by August 1996. The old lock was retained and the steam winch and racks of trestles were preserved on the original island created in the bend of the Murray.

KEY REFERENCES

Cohuna and District Historical Society 2010 VHR nomination for Gunbower Weir.

East L.R. 1934 Irrigation and Water Supply in Victoria in *One Hundred Years of Engineering in Victoria 1834-1934*, Institution of Engineers, Australia.

Kaufman R. 2011 *Water Heritage Study, Stage 1: Torrumbarry Irrigation Area Including: Thematic Analysis & Summary History; Site Gazetteers,* report for Northern Victorian Irrigation Renewal Project.

Summerton M. & Kellaway C. 2007 *Inventory and Report on Historic Places in the VEAC River Red Gum Forests Investigation Area.*

Assessment Against Criteria

Criterion
The Torrumbarry Weir Complex is of historical and scientific significance to the State of Victoria. It satisfies the following criterion for inclusion in the Victorian Heritage Register:

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Criterion A]
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only Australian designed weir and lock on the Murray. The wider Torrumbarry Irrigation System, which was given full effect through construction of the Torrumbarry Weir, is an essentially intact and rare example of an irrigation system comprising a combination of natural and man-made elements and is the major component in the Kerang-Cohuna irrigation system, one of the largest irrigation systems in Victoria. [

Criterion D]
The Torrumbarry Weir Complex is scientifically significant because its design demonstrates a new and innovative solution to irrigation requirements on the Murray. It was innovative as a dam which could be entirely removed from the water during high-water to allow dead trees from the Barmah/Millewa Forest to pass down stream, which was a creative response to the peculiar characteristics of this river system. While it had some operational shortcomings, the weir has largely been effective in delivering water to those dependent on it. [
Criterion F]

Extent of Registration

NOTICE OF REGISTRATION

As Executive Director for the purpose of the **Heritage Act 1995**, I give notice under section 46 that the Victorian Heritage Register is amended by modifying Heritage Register Number H0993 in the category described as Heritage Place.

Torrumbarry Weir Lock Chamber, Steam Boiler and Steam Winch Complex
Torrumbarry Weir Road
Patho
Campaspe Shire

Retention in the Heritage Register of all of the place shown hatched on Diagram 993 encompassing all of Crown Allotment 35C, Section D, Parish of Patho, part of Crown Allotment 35B, Section D, Parish of Patho, and part of Crown Allotment 2052, Parish of Patho, and removal from the Heritage Register of the area shown cross-hatched on Diagram 993.

Dated 12 February 2015

TIM SMITH
Executive Director

Victoria Government Gazette G 6 12 February 2015 p.348