HERITAGE COUNCIL OF WESTERN AUSTRALIA

REGISTER OF HERITAGE PLACES - ASSESSMENT DOCUMENTATION

11. ASSESSMENT OF CULTURAL HERITAGE SIGNIFICANCE

The criteria adopted by the Heritage Council in November 1996 have been used to determine the cultural heritage significance of the place.

11. 1 AESTHETIC VALUE*

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11. 2. HISTORIC VALUE

Old Burswood Canal was one of the earliest public works projects carried out by the Stirling Administration and represents a commitment to supporting settlement in the Swan River Colony. (Criterion 2.2)

Old Burswood Canal is a relic of Western Australia's transport history and demonstrates the importance of the Swan River as a transport route in the 1830s. In its time, *Old Burswood Canal* was a key transport element servicing the hinterland. (Criterion 2.2)

Old Burswood Canal is the reason Burswood became an island and although it is once again a peninsula, the name Burswood Island is still often used. (Criterion 2.2)

The failure of *Old Burswood Canal* led to the opening of the successful Claisebrook Canal on the opposite side of the Swan River, and is indicative of the experimental nature of early public works in a new colony. (Criterion 2.2)

11. 3. SCIENTIFIC VALUE

Old Burswood Canal may have some scientific value as an archaeological site and as a way of studying the hydrography of the area. (Criterion 3.1)

11. 4. SOCIAL VALUE

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* For consistency, all references to architectural style are taken from Apperly, Richard; Irving, Robert and Reynolds, Peter *A Pictorial Guide to Identifying Australian Architecture: Styles and Terms from 1788 to the Present* , Angus & Robertson, North Ryde, 1989.

To the general public, it would be safe to assume that *Old Burswood Canal* has narrow social value, as it is essentially an engineering structure. *Old Burswood Canal* may be valued by small cultural groups such as historians, drainage engineers and hydrographers. *Old Burswood Canal* is a little known site which may be valuable in its ability to provide cultural and educational information for the wider community. (Criterion 4.1)

12. DEGREE OF SIGNIFICANCE

12. 1. RARITY

The canal is a very early and therefore rare example of public works in Western Australia. (Criterion 5.2)

12. 2 REPRESENTATIVENESS

The place is representative of early public works in Western Australia, carried out under the Stirling administration.

12. 3 CONDITION

The remaining portion of the 1831 canal is in fair condition. The banks are stable and not in danger of collapsing. The water is, in places, polluted by the discharge from Swan Cement.

12. 4 INTEGRITY

The integrity of *Old Burswood Canal* is low. The original intention of the 1831 canal, that of transport has become superseded and is replaced with another use, drainage.

12. 5 AUTHENTICITY

The 1831 canal has been terminated at one end by an earthworks breach and at the other by the railway embankment. However, the authenticity of the remaining fabric is high.

13. SUPPORTING EVIDENCE

The documentary evidence has been compiled by Irene Ham-Sauman, Historian. The physical evidence has been compiled by John Loreck, Architect.

13. 1 DOCUMENTARY EVIDENCE

Old Burswood Canal was constructed across the Burswood peninsula, in 1831, to facilitate transport on the Swan River. It was augmented by dykes in 1834, and in 1839, was superseded by another channel, known as the Claisebrook Canal, on the northern side of the river.

When the Swan River Colony was established in 1829, most land grants had river frontages. This not only gave the settlers access to water for domestic and agricultural use, but also access to transport because the lack of roads in the new colony meant that the rivers were the natural highways. The Swan River provided a transport route from the port at Fremantle to Perth, and on up through Guildford and the fertile Swan Valley area. The importance of river transport is illustrated by the fact that by January 1830, there were estimated to be 40 boats in the colony.[1]

But boating on the Swan River was not without its hazards. Loss of property, and drownings, were common as the colonists lacked experience with boats and few could swim. Many boats were of poor construction and navigation was difficult in places due to low water levels, the worst being around the Heirisson Islands, below the Burswood peninsula. The Burswood peninsula was part of Henry Camfield's grant and took its name from the Camfield family's English estate, Burrswood (sic).[2] Henry Camfield arrived in Western Australia on 12 October 1829, with his brother-in-law, William Henty, on the *Caroline.* Camfield was disappointed with his first grants but succeeded in getting Surveyor General J. S. Roe to grant him 1,000 acres which included the peninsula, previously reserved for Crown purposes. In November 1829, Camfield wrote:

> Between Perth and my grant there is a mud flat of nearly one and a half mile in length. One which a boat must be tracked over even when empty. A flat boat only will carry goods...You must watch your opportunity to carry your things to Perth.[3]

George Fletcher Moore expressed similar sentiments.

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1 Nind, Michael. 'Sails and Oars on the Swan, 1829 to 1849', *Early Days*, Vol. 8 Part 5, 1981, pp. 53-62.

2 Nind, Michael, Henry Camfields Burrswood, *Early Days*, Vol 9, Part 5, 1987, p. 63. Agents, Agett and Stokes, advertising availability to lease of that excellent farm called Burswood, *Perth Gazette and Western Australian Journal*, 28 November 1840, p. 1. Lands Department Geographical Names have the first recorded use of Burswood as a misspelling of the name on the sign for the first railway station on Burswood Island.

3 Letter written by Henry Camfield, 18 November 1829, quoted in Nind, Michael, 'Henry Camfields Burrswood', *Early Days*, Vol 9, Part 5, 1987, pp. 63-78.

> The expense and labour of conveying goods up river, at present is very great; boats in summer must be unloaded and dragged over the Flats...Every settler should have a boat and know how to manage it.[4]

The importance of the Swan River for transport in the new colony prompted Governor Stirling to ask the Civil Engineer, Henry Reveley, to remove the inconvenience of the Flats.[5] The result was a call for tenders for the construction of a canal across Burswood peninsula.

> Sealed Tenders will be received at this office on the 15th March next for cutting through the neck of land which unites Mr. Camfield's grant with the main land, in order to form a canal of communication between the backwater on this side the Islands with the deep part of the river on the other. The entire length of the cut will be 275 Yards, 180 of which will be at four feet deep, and the remainder 95 Yards will average 8 feet deep. The breadth of the Cut will be 12 feet in the clear at the bottom. The land to be cut through consists of clay, the rest is sand. The Tenders may be either for the whole work complete, or by measurement. The Plan to be seen and all information to be obtained by application to the Civil Engineer, Perth.[6]

The work was to be done with shovels, the colony having no other equipment to do the job. The contract was awarded to John Crane, but on 4 June 1831, Crane notified Governor Stirling, through Reveley, that he and his workers intended to strike.[7]

> We, the undersigned, John Crane & Co., do humbly beg your Excellency to take into consideration the state of the case in which we have been deceived in the number of yards in cutting the canal. We have exerted ourselves to the uttermost of our powers and taken out more than the number of yards stated by the engineer and being seven poor men who hope your Excellency will give us satisfactory remuneration for the remainder of the work.[8]

The strike appears to have been settled quickly, if it went ahead at all. The estimated quantity of excavated soil was 3,000 cubic yards, but the actual amount came to 4,255 cubic yards. Governor Stirling allowed payment for the extra amount at two thirds the rate paid for the original work, ie $13^1/_2$ pence per cubic yard against 20 pence.[9] This would make the original price £250 with some £70 for the extra work.

Henry Reveley's report in August 1831, states:

> The canal measured, when complete, 834 ft long by an average top width of 26 ft and with a width of 12 ft at bottom; the depth varied from 2 ft 6 in. to 17 ft 4 in. The excavation amounted to 4255 cubic yards, and it took seven men 107 days to do the work.[10]

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4 Moore, G. F. *Diary of Ten Years of an Early Settler in Western Australia*, quoted in M. Ninds, 'Sails and Oars'. op cit, p. 54.

5 Morison, M. P., 'The Old Burswood Canal', *Western Geographer*, Vol 5, No 1-2, June 1981, pp. 95-98.

6 *Western Australian Chronicle and Perth Gazette*, 26 February 1831.

7 Colonial Secretarys Office file Vol 6/193, quoted by Morison, M. P., op cit, p. 95.

8 Crowley, Bert.. 'Canal job marked WAs first strike', *West Australian*, 3 June, 1964. South suburban section, p. 9.

9 LePage, J.S.H. *Building a State: the story of the Public Works Department of Western Australia 1829-1985*. Leederville, Water Authority of WA, 1986, p. 12.

10 Ibid.

Old Burswood Canal effectively turned the Burswood peninsula into an island. While *Old Burswood Canal* cut off the $3^1/_2$ mile journey around the peninsula, it did little to improve boating conditions over the mudflats and, in May 1832, the Civil Engineer was again asked to make the Swan River more navigable through this area. Reveley's plan was to construct two parallel dykes, 200 feet apart, between *Old Burswood Canal* and Point Fraser to form a navigable channel. The estimated cost for this plan was £1,500 but, as this was beyond the means of the colony at the time, a temporary solution was proposed instead. This involved connecting the islands with short dykes to create a dam which would direct the tide, the result being that the 'rapid and direct flow of the tide both up and down' would scour out the shallows and *Old Burswood Canal*.[11] The *Perth Gazette* reported that 'the inconvenience experienced by settlers during the summer render[ed] this an object of serious importance.'[12]

The dykes were finally constructed in 1834. They were '3 feet high, formed of a double stake-and-wattle fence filled in with clay.'[13] The stronger current that resulted did not produce a channel through the mudflats, but did succeed in widening *Old Burswood Canal*, and its banks were 'partially secured and then flattened on one side to make a tow path.'[14] The following year, a 'spade channel' was dug to assist the current through the flats, and a dyke was built along its length to further direct the flow through *Old Burswood Canal.*[15] Nevertheless, in 1838, Civil Engineer Reveley reported that the flats had still not deepened and he suggested no further work be undertaken to redirect the river.[16]

However, the General Roads Trust, now the responsible body, wanted a permanent solution to the problem. The Trust had a new, deeper channel, known as Claisebrook Canal, cut across the lowland above Point Fraser on the northern bank of the Swan River.[17] While this channel avoided the flats altogether, it also meant that boats had to take the longer route around Burswood Island again. The new channel proved successful and, with the building of larger vessels in the 1840s when river traffic expanded, *Old Burswood Canal* fell into disuse.[18]

Henry Camfield had been pleased when *Old Burswood Canal* was built. He wrote at the time: 'men employed by the Government are cutting a canal through it [Burswood] which if it answers (very doubtful) is much to improve

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11 Morison, M.P. op cit, pp. 95-96; Nind, M. 'Sails and Oars', op cit, p. 60.

12 *Western Australian Chronicle and Perth Gazette*, 16 February 1833.

13 Morison, M. P. op cit, p. 97.

14 Nind, M. 'Sails and Oars', op cit, p. 60.

15 Morison, M. P., op cit, p. 96 - 97. (See supporting material)

16 Colonial Secretarys Office files, Vol 39, 27 April 1835, cited in Nind, M., 'Sails and Oars', op cit, p. 60.

17 Colonial Secretarys Office files, Vol 72, 12 April 1839, cited in Nind, M., 'Sails and Oars', op cit, p. 60-61. The name, Claisebrook Canal, is marked on PWD Plan 28521, 1937, Battye Library.

18 Colonial Secretarys Office files, Vol 72, 12 April 1839, cited in Nind, M., 'Sails and Oars', op cit, p. 60-61.

Burrswood's [sic] value.'[19] Camfield had insufficient funds to develop his grant and hoped to sell to new migrants, but a sale did not eventuate. In 1840, he married and, after a term as Postmaster General, went to Albany as Resident Magistrate (1848-1860) leaving Burswood tenanted. He never returned, developing two other properties in the Albany area instead, before selling Burswood in 1871.

Burswood was gradually broken up and *Old Burswood Canal* became the dividing line between two land titles. Burswood Island itself was owned by Edmund Birch from 1871 to 1875, and by Francis Louis Von Bibra, from 1875 to 1885. The latter ran a dairy herd there before selling to developers for £2,000. Efforts to develop Burswood Island as a residential suburb failed and, from 1895, Burswood Island became, at various times, the site of a golf course, two racecourses (Belmont Park and Goodwood established by Albert Cockram, who owned Burswood Island from 1904 to 1943), a sewage disposal site (1906-1934), a Railways Department cinder dump, a cement works which dredged decayed shell from the bed of the Swan River, and a rubbish dump which operated from 1946 to 1985.[20] The Western Australian Turf Club purchased Belmont and Goodwood after Albert Cockram's death. They kept Belmont Park, but sold the rest of the land to the State Government in 1950.

During this time, changes were taking place in the shape of Burswood and adjacent islands. The Swan River Improvement Act, 1925 was passed to

> authorise the reclamation of land along the shores of the Swan River in the vicinity of East Perth, Maylands, Burswood Island, Victoria Park, and South Perth, the improvement of the river channel near such shores, and the construction of roads along the river fronts of such reclaimed land.[21]

Natural silting and early reclamation followed the line of the old spade channel and dyke, so that *Old Burswood Canal* appears to have grown in length on later maps of the area.[22]

The Public Works Department had kept its options open regarding the future of *Old Burswood Canal*. Early road and rail bridges had spanned the place, and the new road and rail bridges planned in 1927, and opened in the early 1930s, did the same.[23] But when these bridges outlived their time they were not replaced and the upstream end of *Old Burswood Canal* was reduced to a culvert, possibly in the 1950s. Reclamation eventually cut *Old Burswood Canal* from the river at its Heirisson Island end, effectively making Burswood Island a peninsula once more.[24]

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19 Letter from Henry Camfield, 16 May 1831, quoted in Nind, M., 'Sails and Oars' , op cit, p. 71.

20 Nind, M. 'Henry Camfields Burrswood', op cit, pp. 71-76; Gallop, Geoff, 'Know Your Suburb - Burswood', pp. 5-8.

21 *Swan River Improvement Act, 1925*, West Australian Government Statute No 45 of 1925.

22 Improvements to Swan River 1830-1840, from Inaugural address by James Thompson to the WA Institution of Engineers, 1910, reproduced in J. H. S. Le Page, *Building a State*, op cit; Burswood Island Resort: Public environmental report, Riggert Consulting Ecologists P/L, Figure 5.

23 Main Roads Dept, file 843/1927, Public Records Office; PWD plan 25244, 1927; Photograph of bridge over Old Burswood Canal 1899, Battye Library, 1092P.

24 Riggert Consulting Ecologists P/L, op cit. Figure 5.

Between 1985 and 1987, the Burswood Casino and Resort was developed on 100 hectares of land at Burswood. The $350 million resort includes a casino, five-star hotel, convention centre and the Superdome sporting and exhibition centre. It is surrounded by the Burswood Park and Public Golf Course, administered by the Burswood Park Board.

Development at Burswood has impacted adversely on *Old Burswood Canal* The redevelopment of the Swan Portland site, in connection with the Northbridge Tunnel and Burswood Bridge road constructions, threatens what little remains of *Old Burswood Canal*.[25]

13. 2 PHYSICAL EVIDENCE

This physical evidence assessment describes the section of the 1831 canal that is immediately south-west of the railway embankment in Goodwood Parade.

The remaining portion of the 1831 canal is best viewed from the top of the railway embankment north-west of the Goodwood Parade boat ramp. From the railway embankment, looking south-west, one can see the canal that runs in a straight line, from north-east to south west, before it narrows and is obscured by vegetation. To the north-west one can see Belmont Park, and to the west the State Tennis Centre, the Burswood Park Golf Course and the city beyond. To the south is Swan Cement, and beyond is the Burswood Convention Centre and Burswood Superdome. By turning around and looking north-east, one sees, beyond Goodwood Parade, the foreshore and on the opposite side of the river, Maylands Public Golf Course.

The 1831 canal is not visible from the Swan River foreshore and the only evidence of its existence is the culvert which drains water from the canal (and perhaps to the canal in high tide and flood conditions) under the railway embankment and Goodwood Parade, and onto a narrow beach where discharged water winds its way through the sand and into the river.

The 1831 canal varies in width from about five metres to about one metre where it appears to have been terminated in recent times by an earthworks breach, the top of which is about the same level as the top of the banks of the canal. The depth of the canal varies from about two to three metres near the embankment to about half a metre at the breach. These dimensions appear to be in keeping with the *Old Burswood Canal* article on file which states that 'the entire length of the cut will be 275 yards, 180 of which will be 4 feet deep and the remaining 95 yards, will average at 8 feet deep. The breadth of the cut will be 12 feet in the centre at the bottom.'

There is little evidence of the 1831 canal ' as constructed'. There is however, evidence of modifications to a short limestone outcrop which is located on the north-eastern bank. The bank appears to have been both excavated to make way for the canal and also underpinned with limestone and concrete where it may have been in danger of collapsing. It is however difficult to date the work from physical remains.

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25 Letter from Ministry for Planning, 23 March 1995, HCWA File 3570.

Typically, the banks of the canal are lined with grass, weeds, pampas grass, low shrubs and medium sized, sparsely distanced eucalypts. It is difficult to identify with any certainty the dykes constructed in 1834.

13. 3 REFERENCES

No key references.

13.4 FURTHER RESEARCH

Archaeological investigations may help to establish the extent of the 1830s remains of the canal.