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.

PRINCIPAL AUSTRALIAN HISTORIC THEME(S)

- 2.85 Promoting settlement
- 3.5.3 Developing agricultural industries
- 3.8.5 Moving goods and people on land
- 3.9 Farming for commercial profit
- 3.14.1 Building to suit Australian conditions
- 3.14.2 Using Australian materials in construction
- 3.17 Inventing devices
- 3.23 Catering for tourists
- 8.14 Living in the country and rural settlements

HERITAGE COUNCIL OF WESTERN AUSTRALIA THEME(S)

- 107 Settlements
- 112 Technology and technological change
- 202 Rail and light rail transport
- 301 Grazing, pastoralism and dairying

11. 1 AESTHETIC VALUE*

Wubin Wheatbin (fmr) is highly valued by the Wubin community as an identifiable structure that represents the significance of the bulk storage innovation of the 1930s, and associated railways that were pivotal to the wheat industry and existence of the town. (Criterion 1.1)

Wubin Wheatbin (fmr) has a landmark setting in the Wubin town, supported by the loading ramp, crane, and railway station. It is an integral part of the Wubin townsite and contributes to its historical character. (Criterion 1.4)

---

* For consistency, all references to architectural style are taken from Apperly, R., Irving, R., Reynolds, P. *A Pictorial Guide to Identifying Australian Architecture. Styles and Terms from 1788 to the Present,* Angus and Robertson, North Ryde, 1989.
For consistency, all references to garden and landscape types and styles are taken from Ramsay, J. *Parks, Gardens and Special Trees: A Classification and Assessment Method for the Register of the National Estate,* Australian Government Publishing Service, Canberra, 1991, with additional reference to Richards, O. *Theoretical Framework for Designed Landscapes in WA*, unpublished report, 1997.

11. 2. HISTORIC VALUE

Wubin Wheatbin (fmr) demonstrates the wheat industry's important contribution to the economic development of Western Australia. (Criterion 2.2)

Wubin Wheatbin (fmr) is significant for its associations with the small dedicated group of Wubin locals who established, developed and managed the museum in the wheatbin since the 1970s, under the auspices of the Wubin Progress Association. (Criteria, 2.2, 2.3)

Wubin Wheatbin (fmr) is associated with the establishment of Co-operative Bulk Handling Limited in 1933, which brought technological and economic improvements to the handling and transportation of wheat grain in the state, using a storage system that was developed by local engineers to suit Western Australian conditions. (Criterion 2.4)

11. 3. SCIENTIFIC VALUE

Wubin Wheatbin (fmr) a 'H' type CBH wheatbin, built in 1939, was a technical innovation of considerable significance in bulk handling that revolutionised the Wheatbelt region in the 1930s. (Criterion 3.3)

11. 4. SOCIAL VALUE

Wubin Wheatbin (fmr) is highly valued by the local and wider community for its associations with the history of the railway and grain growing industry of the region in the 1930s. (Criterion 4.1)

Wubin's Wheatbin Museum is visited by thousands of visitors annually who travel through Wubin, and provides an informative interpretation of the history of the wheatbin and all it represents for the region, and the pride and sense of place for the Wubin community. (Criteria 4.1 & 4.2)

12. DEGREE OF SIGNIFICANCE

12. 1. RARITY

Wubin Wheatbin (fmr) is one of only three remaining examples of a 1930s 'H' type CBH wheatbin that features a series of curved iron walls supported by vertical bush timber posts. (Criterion 5.1)

Wubin Wheatbin (fmr) is a rare example of an 'H' type CBH wheatbin, a structure that was once a quintessential and common feature of Western Australia's rural landscape. (Criterion 5.1)

12. 2 REPRESENTATIVENESS

Wubin Wheatbin (fmr) is representative of the CBH innovations in bulk handling that revolutionised the agricultural industry and sustainability in the 1930s, in association with the expansion of the railway network. (Criterion 6.1)

Wubin Wheatbin (fmr is a representative example of a 'H' type CBH wheatbin that was once a common feature of Western Australia's rural landscape. (Criterion 6.2)

12. 3 CONDITION

Wubin Wheatbin (fmr) is overall well maintained and in good condition.

12. 4 INTEGRITY

Wubin Wheatbin (fmr) has been a Museum since the 1970s, showcasing the agricultural history of the area. Although *Wubin Wheatbin (fmr)* will never be a bulk wheat storage facility again, the interpretation and conservation of the place demonstrates a high degree of integrity.

12. 5 AUTHENTICITY

Wubin Wheatbin (fmr) shows minimal evidence of changes to the fabric, and demonstrates a high degree of authenticity, and, although the front addition is intrusive, it has minimal impact on the original fabric.

13. SUPPORTING EVIDENCE

The documentation for this place was updated from the 1992 Interim Register entry for *Wubin Wheatbin (fmr)* by Office of Heritage staff. An update of the physical evidence was completed by Laura Gray in May 2011, with amendments and/or additions by the Office of Heritage and the Register Committee.

The machinery annexe is outside the curtilage for this place.

13. 1 DOCUMENTARY EVIDENCE

Wubin Wheatbin (fmr) (1939), comprises an 'H' type wheatbin of bush timber and corrugated iron construction with curved bay walls, located in the railway reserve adjacent to Great Northern Highway in Wubin.

The expansion of the wheat industry in Western Australia fluctuated during the first half of the twentieth century, lagging behind its development elsewhere in Australia. The industry's two periods of geographical expansion in 1903 to 1914 and 1920 to 1930, were impacted by periods of adversity, war, drought and depression. The first phase of development of the industry was firmly supported by the state government through the construction of a rural railway network and the provision of finance through the Agricultural Bank. However, in 1914 expansion was halted by a severe drought and the outbreak of World War One.[1]

By 1920, the end of war-time marketing controls and a substantial increase in wheat prices marked the beginning of the wheat industry's second phase of development, with a continuation of the pre-war geographical expansion of the industry. This was driven in part by state government policies on railway construction, rural finance, and immigration.[2] High wheat prices enabled farmers to hire labourers at a time when manpower was readily available due to post war immigration and the absorption of ex Australian servicemen into the economy through the Soldier Settlement Scheme. The growing prosperity of farmers at this time and the gradual diversification and mechanisation of agriculture created many job opportunities in the rural sector.

In the Dalwallinu district, large areas were opened up for agriculture, and assistance was given to settlers in the form of loans provided by the Agricultural Bank. Land that was not granted to the Midland Railway Company or leased for grazing purposes was considered for cereal growing. By 1903, areas were set aside for selection, but it was several years before any of this land was taken up and surveyed. By the 1920s the Dalwallinu district had become established as an excellent wheat growing area. [3]

Wubin, which derived its name from the Aboriginal name for a nearby water source, Woobin Well, was originally approved as a siding on the proposed Wongan Hills to Mullewa railway line. Located 21 km north of Dalwallinu, Wubin townsite was gazetted in April 1913, with the first town lots sold in June 1914. The small community developed as more land was taken up for farming. Following the end of

1 C.T. Stannage: A New History of Western Australia, UWA Press 1981, p.250.

2 Ibid, Stannage, p.251.

3 H.A. Crake, *A History of Dalwallinu: A place to wait a while 1846-1979*, Shire of Dalwallinu, 1985, p.38.

World War One, a number of soldier settlers arrived in the district and by the mid 1930s, Wubin was a sizable and important agricultural centre. [4]

A prominent farmer and pioneer of the Wubin district was Frederick Willhelm Gustave Liebe whose progressive attitude towards farming marked the beginning of the use of agricultural machinery in the district. In 1929 Liebe purchased thirty two tractors to operate his harvesters. That year Liebe harvested 102,000 bags of wheat from 21,000 acres of crops, a load which was carted in twelve trucks. With the aid of this machinery, it is said that Liebe set a world record for the production of wheat by one man in a year.[5]

The development of wheat strains suitable to Western Australian conditions, including 'Federation', a rust resistant strain released in 1901, and advances in mechanisation, dramatically increased the acreage under crop in Western Australia during the early part of the Twentieth Century. With increased harvests and the introduction of wheat exports in 1907, came a need for more sophisticated handling and transportation methods.[6]

The concept of bulk handling first emerged prior to World War One, and advice was sought from American and English engineers. However, the Australian harvest was over very quickly and the still comparatively limited rail transport meant the cost of establishing bulk storage centres across the state was too prohibitive. These factors combined with the outbreak of World War One resulted in the concept being abandoned, until interest resumed again during the 1930s with the onset of the Depression. [7]

During the Depression there was a rise in the number of farmers walking off their land as wheat prices fell and overseas markets dried up. As such, cost reductions to ensure their survival became paramount. Bulk handling was seen as a possible cost effective measure providing a number of problematic issues could be addressed, such as the seasonal fluctuation of harvests, the need for the provision of new railway wagons to carry bulk loads and for the construction of bulk storage facilities at ports. [8]

In 1930, John Thompson, H.E. Braine and Steve Wood, employees of Westralian Farmers Ltd, developed a horizontal storage system that was both economical and easy to install. The storage system utilised a cladding of corrugated galvanized iron on a wooden frame, internally strutted with a flat floor and a removable roof. The internal struts supported individual bays or bins, and relied on the weight of the wheat to provide stability. The bins were concave in shape to support the weight of the wheat and were covered with a corrugated galvanized iron roof. In order to get wheat into the bins, a sand bucket elevator was adapted and set at a higher angle to allow the wheat to be fed in through a gap in the roof.[9]

In 1931, Westralian Farmers Co- operative Limited submitted a proposal to the government for a statewide bulk handling scheme. At the same time they commenced bulk handling experiments at five sidings in the Wheatbelt region in

---

4 Ibid, Crake, p.126.

5 Shire of Dalwallinu Municipal Inventory, *Historical Overview*, 1997.

6 Gray, Laura, *Conservation Plan: Wheat bin, Wyalkatchem,* September 1988, p. 9.

7 CBH White Silos Bunbury; Conservation Plan, prepared by Ron Bodycoat, & F. Bush. 2002, section 2.3.

8 Ibid, Gray, 1988. p.9.

9 Ibid, Ron Bodycoat, & F. Bush. 2002.

association with the Wheat Pool of Western Australia. Experiments involved converting existing bagged wheat sheds to hold bulk grain by constructing timber sides, and using a mobile grain elevator to fill and empty the sheds. Farmers would arrive at the silo with their bagged wheat, which was then emptied onto the elevator, which fed the wheat into the bins. The wheat was removed from the bin using a Clark Shovel, which was operated by a clutch and cable system. The wheat was then loaded into railway wagons lined with hessian, which were extended up the sides to increase storage space. Canes were arched across the top to provide a frame for a tarpaulin, which protected the wheat from the rain.[10] The first trainload of bulk wheat was transported in the same year, and the handling costs to the grower were proven to be greatly reduced. [11]

With farmers approving the new system, on 5 April 1933, the Trustees of the Wheat Pool of Western Australia and The Westralian Farmers Ltd registered Co-operative Bulk Handling Ltd (CBH) as a company. In the same year, the newly established company took over the existing leases at sidings and extended bulk handling facilities to another 48 country sites.

In 1934, a year after the first bin was installed at Dalwallinu, just over 5000 tons of grain was delivered to the siding there. Twenty years later, following the construction of a permanent roofed bulkhead, the Dalwallinu depot received some 11,222 tons of grain. Both bins were demolished in 1975 after an A. type bulk handling facility was constructed just north of the town.

The expansion of the system came to a temporary halt in 1934 due to a government enquiry into the bulk handling system. However, in 1935 following a Royal Commission of Enquiry into grain handling in Western Australia, CBH, aided by backing from wheat growers, was allowed to continue its bulk handling operations despite opposition from some quarters, such as wheat and bag merchants who wished to have a government controlled scheme. In 1936 the *Bulk Handling Act* was introduced giving CBH the sole rights for the bulk handling of wheat in Western Australia. Following this decision, the number of rail sidings increased rapidly, doubling in number to 208 by 1940. [12]

In 1936, bins were installed at Wubin, Buntine, Kalannie and Burakin, and at Marne in 1938. In 1939, due to the increasing volumes of grain being delivered, a second ‘H’ type bin was erected at Wubin. Designed for Cooperative Bulk Handling (CBH) by engineer Robert Sticht, this bin was of the 'H' type first erected for CBH in 1933, the prominent features of which included curved bay corrugated iron walls and internal bush timber pole roof supports. The original floors of *Wubin Wheatbin (fmr)* consisted of flat iron sheeting over sleepers, and these were later replaced by terolas laid over compacted gravel. The earlier “H” type bin, constructed at Wubin in 1936 was demolished in 1986.[13]

From the mid 1950s to the late 1960s, almost a million acres of agricultural land were being released annually, resulting in significant increases in grain production, initiating changes to the bulk handling process. Mobile grain elevators became obsolete, iron and timber storage bins were replaced, and standard gauge railways

10 Ibid, Ron Bodycoat, & F. Bush. 2002.

11 Ibid, Gray, 1988. p.9.

12 Ibid, Gray, 1988, p.10.

13 Ibid, Gray, 1988. pp.10 -11.

increased speed and loading. By 1965, the number of grain receival points in the state had peaked at 305. By the late 1970s, following the economic rationalisation of the industry, the number of grain receival points were reduced to 193, with four port terminals at Kwinana, Esperance, Albany and Geraldton providing a combined storage capacity of 10 million tonnes.[14]

In the late 1960s, *Wubin Wheatbin (fmr)* ceased operations, but remained in the ownership of CBH until 1995 when it was vested in the Shire of Dalwallinu. In 1997 it opened as the Wubin Wheatbin Museum, which is still in operation in 2012. The Museum contains working displays, photographs and models, which tell the history of grain handling in the area. A recent and expansive addition to the Museum was constructed c.2009 to the north of *Wubin Wheatbin (fmr),* and currently serves as a machinery annexe, which displays a collection of vintage machinery gathered by a local collector.[15] The machinery annexe is outside the curtilage for this place.

13. 2 PHYSICAL EVIDENCE

Located on the west side of Great Northern Highway, in the town of Wubin, 270 kilometres north of Perth, the wheatbin is situated east of the railway line adjacent to a visitor information layby and public toilets. Aligned north south parallel with the railway line, the wheatbin has an addition on the south end, an expansive recent construction separate to the north, the original loading ramp and crane some 50 metres to the south on the same alignment, and the c.1960s railway station building on the west side of several railway tracks, opposite the crane. The contemporary CBH facility is further north along the railway line setback on the west side.

The Wubin wheatbin is an 'H' type 1936 bin built in 1939. Typically, the curved bays of horizontal corrugated iron are supported by vertical timber posts. The corrugated iron gable roof has an assymetrical ridge with a long steep pitch on the east side, and is break pitch along the west side forming a small skillion where the roof sheeting could be readily removed to facilitate inloading and outloading of grain. There is a concrete apron around the base of the building, formed into a drainage channel. There are various openings within some curved bay sections; all associated with grain storage functions. The north end wall evidences a flat iron clad curved bay element that provided an access. Also at the north end is a corrugated iron clad (vertical walls) skillion extension.

On the south end of the wheatbin there is a brick addition spanning the central width of 3 of the 6 curved bays across that end. The gable roofed face brick building is supported on a retained brick plinth on the rail side (west), with steps down to railway line level, and is at ground level on the eastern roadside access area. The addition abuts the wheatbin with a double door opening on the interior the only physical intrusion to the wheatbin fabric.

On the interior, accessed by the brick addition on the south end, the addition has face brick walls, gyprock ceilings and concrete floors. Access through to the wheatbin is via double flush panel doors on a concrete ramp to the interior space. The wheatbin interior is a singular open space entirely unlined, revealing the expansive grid of bush timber structure, corrugated iron sheeting, and blue metal

14 Ibid, Gray, 1988, p.11.

15 Telephone conversation with Joy Warnes, Wubin Wheatbin Museum, 29 June 2011.

floor.

The wheatbin is the most significant element within what remains of the Wubin railway station group that still evidences the timber sleeper and gravel loading ramp and crane, and the c.1960s brick railway station building, as well as a series of remnant railway lines.

13. 3 COMPARATIVE INFORMATION

Wubin Wheatbin (fmr) is one of only three remaining c.1930s bins. One bin has been retained in each of the three main grain growing areas in the State, with P2761 *CBH Wheat Bin (fmr)*, Wyalkatchem, (part of P15755 Wyalkatchem Railway and CBH Precinct), constructed in 1936, representing the eastern district, Wubin the north and Pingrup (part of P01389 Cooperative Bulk Handling Grain Store) the south. The Wubin bin has a concrete floor, while the Wyalkatchem Wheatbin has the only remaining example of the original steel door. The Wyalkatchem CBH Wheatbin is more than twice the length of the Wubin bin.

Another Wheat Bin that is located in the Wheatbelt is P5934 *CBH Bins, Pingelly*, although this bin is a Type B bin and is of later construction (1962).

Wheatbins operating as Museums

CBH Wheat Bin (fmr), Wyalkatchem is the only former Wheatbin on the HCWA database that operates as a Museum.

Conclusion

Wubin Wheatbin (fmr) is one of only three remaining examples of a 1930s 'H' type CBH wheatbin that features a series of curved iron walls supported by vertical bush timber posts.

13. 4 KEY REFERENCES

---

13. 5 FURTHER RESEARCH
