KUR-World

Appendix 17

Non-Indigenous Cultural Heritage Assessments

Environmental Impact Statement

FINAL NON-INDIGENOUS CULTURAL HERITAGE REPORT:

Proposed KUR-World Integrated Eco-Resort

Prepared for Sustainable Solutions Global Pty Ltd

August 2017

By Dr Justine Thorp, Heritage Consultant, Cairns

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ABBREVIATIONS

Cairns Historical Society	CHS
Cairns Post	CP
Department of Agriculture, Fisheries & Forestry	DAFF
Department of Environment and Resource Management	DERM
Department of Natural Resources and Mines	DNRM
Department of Primary Industries	DPI
John Oxley Library	JOL
Queensland Government Intelligence Bureau	QGIB
Queensland Government Tourist Bureau	QGTB
Queensland State Archives	QSA

TABLES OF MEASUREMENTS

Conversion table: imperial to metric		
Length	1 inch	=2.54 centimetres (cm)
	1 foot	=30.48 cm
	1 mile	=1.609 kilometres (km)
Area	1 square foot	=929.030 square cm
	1 acre	=0.4046 hectares (ha)
Weight	1 pound	=453.5924 grams
Length and area	1 chain (66 feet)	= 20.1168 metres

Table 1: Conversion Table: imperial to metric

Conversion table: currency		
Currency	12 pence (12d)	=1 shilling (1/-)
	20 shillings	=1 pound (£1)

Table 2: Conversion Table: currency

1.0 EXECUTIVE SUMMARY

In January 2017, Sustainable Solutions Global Pty Ltd (SSG) engaged Dr Justine Thorp, Heritage Consultant, Cairns as a sub-consultant to undertake a non-Indigenous cultural heritage assessment of the proposed KUR-World Integrated Eco-resort, near Kuranda. This assessment is part of the suite of studies being prepared for the Draft Environmental Impact Statement for the proposed development.

The purpose of the non-Indigenous cultural heritage assessment was to provide a contextual history of the project area and to identify areas and/or places of non-Indigenous cultural significance which should be considered in the development of Kur-World

An integrated approach was used to establish places and potential places of cultural significance in the Study Area including desktop research of heritage registers and studies, search of heritage databases, primary and secondary contextual research, community consultation and a targeted site survey.

The Study Area is an area of approximately 626 hectares (plus internal roads), spread over 10 titles, lying approximately five kilometres west of Kuranda. The non-Indigenous cultural heritage assessment of the area includes:

- A summary of the legislative framework.
- Contextual and historical research.
- The nature of consultation undertaken with the Myola and Kuranda community.
- Results of the heritage assessment.
- Recommendations for the management and protection of places of potential areas of cultural heritage significance.

This study has found that the Myola and Kuranda areas are significant in the early history of the Atherton Tablelands and that within the Study Area there are at least 26 historic sites with potential heritage value. Of these sites, six require further research, two have archaeological potential, two require further investigation and assessment for potential entry onto the Queensland Heritage Register, and one site requires further investigation and assessment for potential entry onto the Mareeba Shire Council's Local Heritage Register. Sites with potential historic significance were recorded using GPS and the results are shown in Table 3 below.

Identifier	Site or place	Level of significance
HI: 1	Former Barnwell residence	Local: prepare a report to Mareeba Shire Council to recommend inclusion on its Local Heritage Register.
HI:2	Cattle yards	Local
HI:3	Mango tree	Local
HI:4	Mature tree	Local
HI:5	Mature tree	Local
HI:6	Mature tree	Local
HI:7	Mango tree	Local
HI:8	Possible house site and well	Archaeological potential
HI:9	Creek crossing	Local: further investigation required

Identifier	Site or place	Level of significance
HI:10	Culvert	Local
HI:11	Possible former dairy site	Archaeological potential
HI:12	Mango grove	Local
HI:13	Weir and associated pumping system	Possible State significance. Prepare a report for the Queensland Heritage Council recommending entry onto the Queensland Heritage Register.
HI:14	Bamboo clump	Local
HI:15	Bush lemon tree	Local
HI:16	Mandarin tree	Local
HI:17	Mango tree	Local
HI:18	Grave site	Possible State significance. Prepare a report for the Queensland Heritage Council recommending entry onto the Queensland Heritage Register.
HI:19	Bush lemon tree	Local
HI:20	Mango tree	Local
HI:21	Mango tree	Local
HI:22	Remains of track through property	Local: further investigation required
HI:23	Two mango trees	Local
HI:24	Remnant fence line and cockie gate	Local
HI:25	Mango tree	Local
HI:26	Creek crossing	Local: further investigation required

Table 3: Potential Heritage Sites identified through contextual history, community consultation and field survey

This report details thirteen recommendations which have been formulated to address the following heritage matters: managing sites with cultural heritage significance, the area's aesthetic qualities, archaeological potential, recording the area's history, interpreting the history of the area, and potential mitigating impacts.

These recommendations, discussed fully in Section 7, include:

- Recommendation 1:
  Planning for the proposed Kur-World project should aim to capture the main character features of the site into the design and development of the project.
- Recommendation 2:
  The Project's planning processes should incorporate and develop strategies and decision-making processes to assess the implications of decisions made regarding heritage sites in the Study Area.
- Recommendation 3:
  A report should be prepared for the Mareeba Shire Council recommending that the former Barnwell residence be entered onto its Local Heritage Register.
- Recommendation 4:
  A Conservation Management Plan should be developed for the former Barnwell residence. This should consider adaptive reuse options which are consistent with the historical significance of this building.
- Recommendation 5:

A report should be prepared for the Queensland Heritage Council recommending that the weir and its associated pumping infrastructure be entered onto the Queensland Heritage Register.

- Recommendation 6:
  The weir and associated pumping system, should be retained.
- Recommendation 7:
  A report should be prepared for the Queensland Heritage Council recommending that James Hamilton's gravesite be entered onto the Queensland Heritage Register.
- Recommendation 8:
  A Conservation Management Plan, including conservation works and future management strategies, should be developed for James Hamilton's gravesite.
- Recommendation 9:
  All sites identified in this study as having archaeological potential, should be assessed and recorded with scale drawings and photographs, prior to any development.
- Recommendation 10:
  All sites identified in this study as being associated with the transportation of people and goods across the Study Area, require further investigation and mapping.
- Recommendation 11:
  All mature trees located in this study, and those not located, should be appropriately managed and retained.
- Recommendation 12:
  The double row of mature mango trees (HI: 12), comprising 18 trees should appropriately managed and retained.
- Recommendation 13:
  An Interpretation Strategy should be developed for the Study Area.

2.0 INTRODUCTION

2.1 Scope of Study

This study forms part of the suite of studies undertaken for the Draft Environmental Impact Statement (EIS) being prepared for the proposed KUR-World Integrated Eco-resort.

The aim of this study is to provide an overview of the Atherton Tablelands, with particular reference to Kuranda and Myola, investigating and identifying areas and items of potential historic cultural heritage significance within the study area.

To achieve this, the following scope was followed:

- Review of existing historical literature and documentation available in local repositories and the Queensland State Archives.
- Discussion of the historical, archaeological and physical context of the study area.
- Consideration of what historical heritage sites and places exist.
- Understanding of the known extent of significance associated with historical heritage sites within the study area, and if potential exists for currently undefined sites to be present.
- Defining which historical heritage sites, if any, will require further study before evaluation and management of risks can be achieved.

2.2 Study Area

The proposed KUR-World development is located 20 kilometres west of Cairns and approximately five kilometres west of Kuranda, at Myola, on 626 hectares (plus internal roads). The footprint of the proposed development will be mostly contained on land historically cleared for agriculture.

2.3 Limitations and constraints

This study is not intended to provide an exhaustive history of the site. Rather, it is an overview of key events and activities that have shaped development of Kuranda and Myola since European settlement. Compiled principally from a range of secondary sources, it is designed to assist in the assessment of significant, extant built heritage places within the study area.

The focus on post contact history reflects the provisions of Part 11 of the *Queensland Heritage Act 1996 (2008)* and the *Sustainable Planning Act 2009*, both of which govern heritage lists. Indigenous heritage is managed under the *Aboriginal Heritage Act 2003* and its assessment is outside the scope of this study.

2.4 Authorship

This report was prepared by Dr Justine Thorp, Heritage Consultant, Cairns. Dr Thorp has a Bachelor of Arts (Hons) and an PhD on Heritage Management. For the KUR-World project, field work was greatly assisted by John Ward who provided measured drawings of the former Barnwell residence. Billy Erickson, KUR-World site caretaker provided invaluable assistance in locating items of potential heritage significance onsite.

This report was externally peer reviewed by Dr Jan Wegner, James Cook University.

3.0 APPROACH TO STUDY

3.1 Methodology

This study used an integrated approach to establish areas and potential places of non-Indigenous cultural significance in the study area. As such, it combined desktop research of heritage registers (for previously identified places) with primary historical research, contextual research, community consultation and a targeted field survey to identify places of potential cultural heritage significance.

This study is not intended to be an exhaustive historical treatment of these parts of the present-day study area. It is based on a limited period of library and archival research of relevant documents and secondary sources. As such, it is intended to provide a historical overview of the broad areas under consideration, to assist with identifying areas and places of potential cultural heritage significance. Further research and analysis of specific areas and sites may be required to assist with assessment of particular cultural heritage issues arising in relation to the proposed development.

Research into the cultural heritage of the study area was undertaken with the assistance of library resources and data bases held by the author, Queensland State Archives, Mareeba Historical Society and Cairns Library. Extensive use was made of historical newspapers. In addition, searches were conducted of the Register of the National Estate (RNE), the Queensland Heritage Register, the National Trust of Australia (Qld) Register and the Mareeba Shire Council Town Plan. Results of database surveys are detailed in Section 3.3 below.

However, a site or place of heritage significance may not yet have been listed or acknowledged by any of the registers and databases that were searched. To overcome this, contextual research and public consultation were undertaken along with visual inspections of the study area, to identify sites and places which might be of previously unidentified cultural heritage significance.

3.2 Determining Cultural Heritage

3.2.1 The Burra Charter Guidelines

The Burra Charter guides cultural heritage assessment and management in Australia. First adopted in 1979 by Australia ICOMOS (International Council of Monuments and Sites), the Charter was initially designed for the conservation and management of historic heritage. After the addition of further guidelines defining cultural significance and conservation policy, the use of the Charter was extended to Indigenous studies. The Burra Charter is regarded as an international best practice guideline for heritage conservation.

The Charter defines conservation as “the processes of looking after a place so as to retain its cultural significance” (Article 1.4). Further, a place is considered significant if it possesses aesthetic, historic, scientific or social value for past, present or future generations (Article 1.2).

Article 2.6 of the Guidelines notes that other categories of cultural significance may become apparent during the assessment of a particular site, place or precinct. A range of cultural significance values may apply. Article 5 of the Burra Charter states that:

> Conservation of a place should identify and take into consideration all aspects of its cultural significance without unwanted emphasis on any one aspect at the expense of others (Marquis-Kyle, 1999).

Every place has a history, aesthetic value or a social meaning to some member(s) of a community. Therefore, most places meet some of the criteria prescribed above. It is, however, neither possible nor desirable to conserve every place. Some measures must be applied to these broad criteria to determine the degree of

significance. The degree to which a place is significant will determine the appropriate conservation management for that place.

Assessing cultural heritage significance against set criteria is a widely recognised method of achieving consistent, rational and unbiased assessments. Various authorities and bodies involved in heritage conservation adopt assessment criteria including the Australian Heritage Council, The National Trust, Australia ICOMOS and the Queensland Heritage Council.

3.2.2 Queensland *Heritage Act 1992 (2008)* Criteria

The *Queensland Heritage Act 1992 (2008)* sets out specific tests for considering places of State heritage value. Under Section 23(1) of the *Act,* a place may be entered in the Register if it is of cultural heritage significance in accordance with Section 4 of the *Act* and satisfies one or more of the following criteria:

a. If the place is important in demonstrating the evolution or pattern of Queensland's history.
b. If the place demonstrates rare, uncommon or endangered aspects of Queensland's cultural heritage.
c. If the place has potential to yield information that will contribute to an understanding of Queensland's history.
d. If the place is important in demonstrating the principal characteristics of a particular class of cultural places.
e. If the place is important because of its aesthetic significance.
f. If the place is important in demonstrating a high degree of creative or technical achievement at a particular period.
g. If the place has a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
h. If the place has a special association with the life or work of a particular person, group or organisation of importance in Queensland's history.

The Act also applies to potential archaeological places:

- Under section 60, a place may be considered to be an 'archaeological place' if not registered as a State heritage place and demonstrates 'potential to contain an archaeological artefact that is an important source of information about Queensland's history' (section 60(b)). Archaeological places can be entered onto the Queensland Heritage Register if they meet those criteria.
- Section 89 requires a person to advise the Chief Executive Officer of the EHP of an archaeological artefact that is an important source of information about an aspect of Queensland's history. This advice must be given as soon as practicable after the person discovers the item.
- Section 90 stipulates that it is an offence to interfere with an archaeological artefact once notice has been given of the artefact to the Chief Executive Officer.

3.2.2.1 Establishing Heritage Boundaries

Sections 3 and 30 of the *Queensland Heritage Act 1992 (2008)* provide for the establishment of a place's heritage boundary. Section 44 of the Act protects registered places by regulating development under the *Sustainable Planning Act 2009 (2016)*. The whole of the area within the heritage boundary is subject to the development provisions. If it has been determined that the immediate surrounds of an historical heritage place are necessary for its conservation, then the whole area with the boundary and not just the footprint of the building/structures/natural feature is covered by the development provisions.

Supporting the above-mentioned legislation, the Queensland Heritage Council issued a guideline *Defining Boundaries: an illustrated guide,* 2007, to assist in the determination of heritage boundaries and guide best practice.

This guide recognises that heritage boundaries must be determined and recorded in ways that are meaningful, legally enforceable and practically usable.

The establishment of a heritage boundary is guided by the application of the following principle:

> A heritage boundary is determined by the cultural heritage significance of the place and such immediate surrounds as are required for its conservation.

Several sub-principles underlie the guiding principle:

- The cultural heritage significance of a place is embodied in its fabric;
- All elements of the place that contribute to its cultural heritage significance should be included within the heritage boundary;
- Views to and from the place may be of cultural significance and should be considered when determining the heritage boundary; and
- All immediate surrounds of a place may be important to its conservation.

These guidelines allow for the application of best practice when places of heritage significance are located on large properties and are non-contiguous, as is the case of the proposed KUR-World Project. The application of the principles allows for the development of heritage boundaries which are large enough to protect and conserve the heritage place but are not so large and unwieldy that the render development processes unwieldy and likely to be ignored.

3.2.3 Local Heritage Registers

In considering places of local heritage value, Part 8 of the Mareeba Shire Council's Planning Scheme, 2016 adopts similar criteria to the abovementioned *Queensland Heritage Act 11992 (2008)* but applies to them a local threshold of significance. This means that places which meet the identified significance criteria to the level of local significance should be included in the Mareeba Shire Council's Heritage Overlay.

3.3 Legislation Applicable to Cultural Heritage

Knowledge of cultural heritage legislation is essential when assessing sites, places or items of cultural heritage significance. The following section discusses both Federal and State legislation relevant to cultural heritage and this report.

3.3.1 National Legislation

At the Federal level, the *Environmental Protection and Biodiversity Conservation (EPBC) Act 1999* is the key national heritage legislation and is administered by the Commonwealth Department of Environment and Water Resources. This Act provides statutory and legislative controls, including the National Heritage List and the Commonwealth Heritage List, and applies to places of National heritage value and to those owned and managed by the Commonwealth.

The following legislation is also relevant to heritage:

- The *Australian Heritage Council Act 2003* provides for the establishment of the Australian Heritage Council, which is the principal advisory group to the Australian Government on heritage matters. This Act also provides for registration of places considered of national significance on the Register of the National Estate (RNE) or the Australian Heritage Places Inventory (AHPI).
- The *Protection of Moveable Cultural Heritage Act 1986* regulates the export of Australia's significant cultural heritage objects. The Act does not restrict normal and legitimate trade in cultural property and does not affect an individual's right to own or sell within Australia.

This study did not identify any known or potential sites of Commonwealth or National Heritage significance and as such, this legislation does not directly affect the heritage items within and adjacent to the Study Area. However, if at the detailed assessment stage any sites are identified as being of National or Commonwealth significance, this legislation provides the governing framework that would apply for these items.

3.3.2 State Legislation

Historical cultural heritage matters are covered in the *Queensland Heritage Act 1992 (2008)*, which provides for a listing of places on the State Heritage Register. Protection is offered to places that have been entered on the Queensland Heritage Register according to a set of criteria (discussed in Section 3.2.2). This Act requires that an owner of a heritage listed place who intends to demolish, subdivide, renovate, alter, add to, change the use of, or substantially modify the appearance of that place must seek approval from the Queensland Heritage Council.

This study has identified two items or places within the Study Area of cultural heritage significance which may meet one or more of the criteria for inclusion on the Queensland Heritage Register.

3.3.3 Local Legislation

Frameworks for sites and places of local heritage significance are included in the relevant Local Area Plans (LAP) and constraint codes for management of items identified as significant are discussed within Part 11 of the *Queensland Heritage Act 1992 (2008)* and Part 8 Of the Mareeba Shire Plan. This code seeks to facilitate the conservation of places of cultural heritage significance.

This Study has identified one item or place within the Study Area which may meet one or more of the criteria for inclusion in the Mareeba Shire Heritage Overlay.

3.3.4 The (former) Register of the National Estate

An online search of the (former) Register of the National Estate was conducted to identify places and sites of cultural heritage significance that may be impacted by the proposed development. This Register was compiled by the Australian Heritage Council and is an inventory of Australia's natural and cultural heritage places that are worth conserving for the future. The (former) Register of the National Estate is now archived and accessible via the Australian Heritage Database.

No sites of heritage significance for the Study Area were entered on this database.

3.3.5 The Register of the National Trust of Australia (Qld)

An online search of The Register of the National Trust of Australia (Qld) was conducted to identify places and sites of cultural heritage significance that may be impacted upon by the proposed development. The National Trust is a community based, non-government organisation which maintains a non-statutory register of heritage places. The Register of the National Trust of Australia (Qld) is now archived and accessible via the Australian Heritage Database.

No sites of heritage significance for the Study Area were entered on these databases.

3.4 Nature of Cultural Heritage

As discussed above, levels of significance of a historical heritage place or site are measured by the application of a range of criteria. If a place is assessed and it meets at least one criterion under the *Queensland Heritage Act 1992 (2008)*, that place may qualify to be listed on the Queensland Heritage Register. However, to be considered for registration, that place must be recommended for consideration, by either the owner or another party. Consequently, many places remain unlisted because their levels of

significance have not been identified or nominated for assessment. Assuming that all sites and places with cultural heritage value are captured on a heritage register is a fundamental error.

Sites and places of local heritage significance include evidence of European settlement and areas and places of aesthetic, architectural, historical, scientific, social or technical significance to the present generation or to future generations at a local level. Many historical items identified in this study would not necessarily qualify for listing on the Queensland Heritage Register. Rather, they are of local significance and as such, contribute to local character and a small rural community's sense of place.

3.4.1 Character

In general terms, heritage may be defined as places or objects that have significant value in their own right, while character is the underlying qualities that constitute the sense of place of a particular area. The heritage significance of a place or an object can be diminished and/ or destroyed. Equally, it can be preserved and augmented.

Character is usually described as the underlying qualities that contribute to a sense of place. Character is an important concept when reviewing areas such as the KUR-World site. In contrast to heritage significance, all areas exhibit some form of character which changes over time. There is a recognition that the character of a place can be improved.

The character of the study area, located on the western side of the Kennedy Highway away from Kuranda, 'the village in the rainforest', is generally one of rural ambience. Historical land use in the Myola area has included clearing of rainforest for the timber and agricultural industries, a short-lived coffee industry in the late 19th and early 20th centuries and mixed farming and dairying until around the 1930s. When dairying became uneconomical, much land was abandoned, resulting in the regrowth of vegetation, particularly wattle (*Acacia*) into cleared areas. Semi-rural lifestyle blocks have largely supplanted past land use patterns. The study area is one of the few large parcels of land remaining in the area.

The study area comprises different vegetation and soil types and approximately 170 hectares of historically cleared land for dairy and cattle farming. This cleared area has a backdrop of regrowth rainforest which fringes the property, providing a sense of seclusion due to few houses overlooking the site.

With its rainforest backdrop, the setting of the site is tropical and forested with strong domestic and 'tamed' elements, including gently rolling green paddocks and domestic animals. This sense of rural and tropical elements has been created through agricultural activities carried out on the property over the past century and a half, with cattle farming persisting into the present. This sense of place is enhanced by its location in an area of remarkable tropical diversity, close to the Wet Tropics World Heritage Area.

4.0 HISTORICAL CONTEXT

4.1 Organisation of this section

This contextual history of the Atherton Tablelands examines the economic, infrastructure and settlement patterns which influenced the development of this diverse region. This is a large and complex undertaking and is divided into four following sections for ease of reading:

- Historical legislation that has influenced the development of Queensland.
- Economic, infrastructure and settlement patterns that have influenced the history of the Atherton Tablelands.
- Economic, infrastructure and settlement patterns that have influenced the history of the Kuranda and Myola areas.
- The former Barnwell Property.

4.2 Introduction

Queensland was formed when it separated from New South Wales in 1859 and attained Statehood with Federation in 1901. Much of Queensland was unexplored, communications were poor or non-existent, roads were unsurveyed with bush tracks and Aboriginal foot pads allowing explorers, miners, pastoralists and travellers to move through the countryside.

Maritime travel along the 'saltwater highway' was less difficult and was critical to the development of Far North Queensland. Between 1859 and 1885, at least 14 new ports were opened, the majority of which serviced the pastoral industry (Ryle, 2008). The provision of more sophisticated shipping services to Cairns to service the mining, pastoral and agricultural industries also heralded a golden era for cruising particularly during the interwar years. Tourists cruised between Melbourne and Cairns through the acclaimed Hinchinbrook Channel. Tourism in Cairns and the Atherton Tableland benefitted enormously from the provision of infrastructure to service other industries.

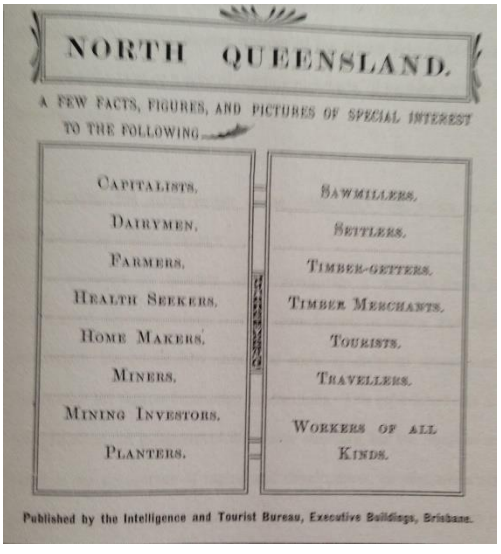


Figure 1: Queensland Government Intelligence Bureau's advertisement for migrants, workers, miners and travellers. QGIB: c. 1907.

As settlement progressed, railways were built linking the interior to the coast. The Cairns to Herberton Railway was commenced in 1886 but did not reach Herberton until 1910. Built to service the mining industry, it also provided a vital export link for other industries such as timber, cattle and agricultural products. The coastal railway connecting the Far North to Brisbane was not completed until 1924 and until that time the only viable means of transport for people and goods were ships.

Too few people, too little capital and inadequate transport systems were formidable challenges. Over time it became obvious that the climate, Dorothy McKellar's 'droughts and flooding rains', along with the difficulties of settlement in a remote and peripheral tropical environment and the often-fierce resistance from Aborigines to the newcomers, would seem surely insurmountable.

However, enthusiastic reports produced by European explorers painted a picture of bountiful resources. Gold and cedar, known as 'red gold' were particularly alluring and reports of grassed plains proved a great

incentive for prospective pastoralists and small farmers. The government extolled the benefits of migration to Queensland far and wide (Figure 1).

4.2.1 Historical legislation that has influenced the development of Queensland

In 1859, land was Queensland's most valuable commodity. Revenue raised from it in the form of lease payments and sale of Crown Land exceeded revenue gained from customs and excise duties.

Land legislation allowed governments to be heavily involved in the patterns of agriculture that emerged. At the time of European settlement on the Atherton Tablelands, agricultural farms were selected under the *Lands Act 1884.* Underpinning this legislation was the Queensland government's commitment to developing an intensive agricultural base to its economy. Its vision was to settle the land with small independent farmers, a policy known as 'closer settlement.' Governments of all persuasions embraced this policy, with the only differences being in their emphasis towards pastoral or agricultural development and their level of support for liberal, socialist or conservative principles (Cameron, 2005).

Land legislation directed the type of industry that developed through schemes such as the Group Settlement Scheme in the southern Tablelands and the Tobacco Scheme in the Mareeba-Dimbulah district. In the 20th century, the crops that emerged on the Atherton Tablelands to dominate land use patterns until deregulation from the 1980s, were subject to restricted entry or barriers such as quotas, stipulated areas for cultivation and controls over prices paid for products delivered. Legislation compelled growers to deliver all crop to the respective board for sale. Produce pools, such as maize, rice and pig pools were established to stabilise the issues of oversupply and the return to the farmer for product. The State also provided advice and assistance to farmers, such as establishing local State farms to trial crops and pastures.

Both State and Federal governments sought to control development and migration and labour relations in tropical Queensland. In the 1800s there was a view that white men could not work in the tropics and this underpinned much of thinking behind the importation of labour during the late 1800s. Far North Queensland was settled at a time when the tropics were seen as disease-ridden, inertia producing and "… that white men – and, even more, white women – were congenitally unfitted to tropical environments…" (McGregor, 2008). Furthermore, the humidity and heat were seen to degrade morals and tempt otherwise temperate people into immoral actions and modes of living. This type of thinking was slow to shift, a shift that was aided by the advances in tropical medicine and by lived experience, as people and communities became established and flourished in tropical climes. Initially it resulted in a very multicultural society with workers drawn from Pacific islands, China, Japan, India and South-east Asia, but concerns over miscegenation and the growing Labour movement's opposition to cheap labour led to the White Australia policy, even for the tropics.

The Queensland government enacted legislation which sought to restrict particularly Chinese economic and social lives:

- The *Mineral Lands Act 1882,* banned the Chinese from all mining apart from gold mining.
- *The Railway Construction Act, 1892*, banned the Chinese from working on railway construction.
- The *Leases to Aliens Restriction Act, 1912,* prevented aliens from leasing or purchasing land.
- The *Aboriginal Protection and Restriction of the Sale of Opium Acts*, *1897 and 1901,* created the role of Protector of Aborigines and paved the way for the establishment of Missions. It also, banned the sale of opium to Aborigines.

With Federation in 1901, the Federal Government enacted two pieces of legislation which would have a significant impact on industry and labour in Queensland:

- The *Immigration Restriction Act, 1901*.
- The *Pacific Islanders Labourers Act, 1901*.

Although the *Immigration Restriction Act* is widely referred to as the White Australia Policy, it also served to keep out all sorts of other people seen as undesirable and restrict the economic competition of migrants from Asia. The *Pacific Islanders Labourers Act* established a time limit (1904) for the repatriation of South Sea Labourers who had been instrumental in establishing the sugar industry.

These pieces of legislation influenced and often controlled many aspects of the lives of those who lived on the Atherton Tablelands, and elsewhere.

4.3 Economic, infrastructure and settlement patterns that have influenced the history of the Atherton Tableland

4.3.1 The discovery of the Atherton Tablelands: John Atherton and Pastoralism

Pastoral activities on the Atherton Tablelands developed during the 1870s 'pastoral boom'. The period between 1861 to 1890 in Australia was of enormous capital investment in pastoral stations, farms, railways and mining, along with the establishment and development of towns to service these industries. Much of this was underwritten by the gold mining industry which attracted more European settlements than any pastoral or agricultural product ever did. Once here, many migrants chose to stay when gold began to decline at the end of the 19th and early 20th centuries and they faced a formidable task (Fitzgerald, 2009).

Ever keen to expand their land holdings, pastoralists responded to reports of wide grass lands, rivers and ample water. John Atherton was one such pastoralist, overlanding with his family and cattle to the junction of Emerald Creek and the Barron River, near Mareeba and naming his pastoral run, Emerald End Station. Other pastoral holdings taken up in the 1870s included Wrotham Park, Mt Mulgrave and Mitchell Vale, now Southedge.

Figure 2: John Atherton's Emerald End Homestead. JOL: 245443

Such was the influence of John Atherton on the development of the region that both the town of Atherton and the surrounding Tableland, were named in his honour and he is recognised as the European pioneer of the district. Despite being a cattle man, Atherton was responsible for opening-up timber, mining and settlement possibilities. He took up land in the 1880s, the Evelyn and Woodleigh Pastoral Station, in the Ravenshoe area after noting the presence of cedar. In 1897, mining entrepreneur John Moffat acquired these holdings and imported sawmill equipment from Tasmania (Centre for the Government of Queensland, 2015). This was one of the first sawmills on the Tableland.

In 1879, Atherton discovered tin at Tinaroo Creek, now subsumed by the Tinaroo Irrigation Dam. He led prospectors, William Jack and John Newell to tin deposits in the Wild River which would become the Great Northern Tin Mine, Australia's first lode tin discovery. This led to the establishment of the town of Herberton in 1880.

The opening-up of Herberton generated much interest in the Atherton Tablelands. As dray roads were cut to carry traffic from the Hodgkinson Goldfield and Port Douglas, further exploration of the 'scrubs' revealed the value of its timber and the possibilities of agriculture and 'closer settlement.'

Part of the attraction of the open forest areas of the Atherton Tablelands for pastoralists was the demand for meat created by the goldfields (Birtles, 1982). Prior to the gold rushes, lack of markets for cattle in the north was a significant problem. Opportunities to dispose of cattle were few, apart from stocking runs for other pastoralists. Demand for meat on the gold fields opened opportunities to dispose of cattle to local markets as opposed to southern states with their associated costs and difficulties with transportation. The gold rushes provided a short-term outlet for meat, as did the increased population associated with farming.

Pastoralists strove to overcome problems associated with access to market and established small secondary industries. Locally, the Mareeba Meat Company was formed in 1894. This was a boiling down and meat extract works, a venture that was wound up in November 1895 (May, 1990). In 1897, The Barron Meat Company, opened at Biboohra near Mareeba, producing mostly tallow, hides and fertiliser, providing some compensation for pastoralist's efforts. Cattle ticks were a significant problem in the 1890s with cattle numbers in the Kennedy and Cook districts reduced by a third by 1895 (May, 1983).

Horses became a significant secondary product for pastoralists as settlement of the north progressed. The more diverse population resulted in a demand for pack and riding horses, draught and cab horses for towns, remounts for the Indian Army and plough horses for sugar plantations and farmers (Allingham, 1978).

4.3.2 Transportation on the Atherton Tablelands: tracks, roads and rail

4.3.2.1 Tracks and Roads

As settlement activities progressed across the Tablelands, the need for tracks and roads became paramount. People relied on their own resources to traverse the area to attend to business and establish social contacts. Many tracks criss- crossed the area as construction of roads was largely left in the hands of the settlers in the early years of settlement. Winding and zig-zagging tracks were to remain the norm for many years until the 1920s, when responsibility for main roads moved from local government, the divisional boards, to the State government.

Tracks were developed where they were needed. Many were blazed to allow miners to pack tin from Herberton to the coast with Robson's Track connecting them to the port in Cairns. Doyle's Track was used to pack gold to Cairns from the Hodgkinson goldfield. Impossibly steep this was largely unusable and until the railway was built, most ore was packed to Port Douglas over the Bump Track, the section of the Port Douglas to Mt Molloy wagon road over the coastal range. Until the arrival of the railway to Mareeba this road serviced settlement as far west as Georgetown and all of the Tablelands.

Cars began arriving on the Atherton Tablelands in the 1920s. The construction of the Gillies Highway in 1926, was the first road purposely built for cars to link the Atherton Tablelands to the coast. This opened up a much-needed transport link for those living on the southern Tablelands and also for the burgeoning tourism industry. The tourism potential of the Tablelands was recognised early and its tropical landscapes, volcanic lakes, rainforest landscapes and flora and fauna continue to entice tourists to the area.

The road between Kuranda and Mareeba, named the Kennedy Highway in 1970 was a winding bush track until the 1940s. It was largely unusable due to the steep gradient and was not able to accommodate bullock teams or wheeled traffic. Pack teams however were able to utilise it. In 1942, it was upgraded to a gravel road to facilitate the transport of Australian and American troops through the area during World War II (May, 1996).

4.3.2.1.1 Cobb & Co.

Cobb & Co. established on the Atherton Tablelands in the early 1890s transporting people from Port Douglas to Herberton and many points in between. The gradient was so steep in places that passengers had to alight and walk for some distance. Along the route between Kuranda and Herberton, Cobb & Co. maintained staging and horse changing camps at Rocky Creek near Tolga, at Scrubby Creek which developed into the township of Carrington before fading from existence, Clohesy River and Groves Creek on the Kuranda to Mareeba road and at Granite Creek near Mareeba. Some of these stops were substantial and included hotels to accommodate the two-day trip to Herberton (*CP,* 1933 (1)).

With the arrival of the railway to Kuranda and Myola, coach routes were altered to accommodate the travelling public. The first Cobb & Co. coach arrived in Kuranda in July 1891. Passengers alighted from the train and were transported to Mareeba and Carrington, up and over the Atherton Range to Herberton. As

the coaches moved west they intersected with other stage coach routes already in existence to connect with southern Queensland and New South Wales.

Figure 3: Cobb & Co. coach on Port Douglas to Herberton Road, 1887. JOL: 31245.

A rival service to Cobb & Co. was the 'Fossil Line,' so named because of the makeshift nature of its coaches and harness. Servicing mainly the northern Tablelands, it left Kuranda with the arrival of the train on Mondays and Thursdays to convey passengers or local residents to Herberton (*Cairns Argus,* 1892). As the railway progressed toward Herberton, additional pick up points were established at rail sidings for the convenience of travelling passengers. There is no reliable evidence to indicate when these coach services ceased operations, although it is likely to have been around 1920 in the case of Cobb & Co.

4.3.2.1.2 Mareeba: transport hub for the northern Tablelands

Mareeba, the meaning of which has been interpreted as 'the meeting of the waters' lies at the confluence of the Barron River and Granite and Emerald Creeks. Originally known as Granite Creek, travellers stopped at John Atherton's homestead at Emerald End to break their journey (Figure 2). With the construction of tracks to transport minerals, goods and people, Granite Creek became Cobb & Co.'s changing station and a hotel was established for the convenience of the travelling public.

In 1893, the township of Mareeba was surveyed and the railway arrived. Its arrival cemented Mareeba's position as a transport hub and a thriving township developed. The humble coach change station seemingly changed overnight:

> "…Everything in late 1893 bespoke of hustle and bustle. 'Hurry, hurry,' sang the crosscut saws, biting deep into box and bloodwood. 'Hurry, hurry,' answered the axes in more measured tones, and even the hammers took up the refrain. 'Hurry, hurry, hurry'…" (*CP,* 1946 (2))

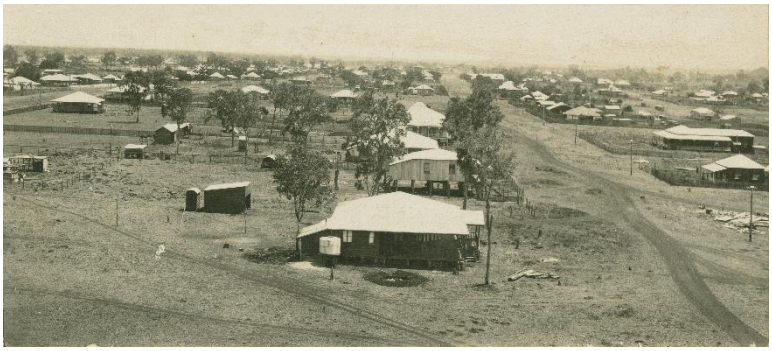


Figure 4: Town of Mareeba, c. 1930. JOL: 6670-0001-0014.

Businesses quickly established to service the railway, travellers, the Clohesy River and Mareeba goldfields and Cobb & Co. Hotels for travellers, farriers and blacksmiths, general stores such as Jack & Newell along with churches, schools and a police station and courthouse were constructed. Sawmills and a meat processing factory were established to service the timber and pastoral industries respectively.

A significant development for Mareeba was John Moffat's construction of a branch line from Mareeba to Chillagoe between 1898 and 1901, followed by further branch lines into the mining hinterland. This stimulated development west of Mareeba which drove much of North Queensland's economic growth between 1880 and 1914 (Kerr, 2000).

4.3.2.2 The Cairns to Herberton Railway

The construction of the Cairns to Herberton Railway is regarded as one of Australia's great feats of engineering, recognised as such in 2005 when it was proclaimed as a "National engineering landmark" by Engineers Australia (Hudson, 2005).

Constructed in stages, the railway reached Redlynch in 1887 and Myola in 1891; this was four years to build 24.5 kilometres of track. The second stage of its construction, Redlynch to Myola through the Barron Gorge was extraordinarily difficult with all works being carried out using manual labour and dynamite. Figure 5 below provides a snapshot of the challenges.

Construction facts: Second stage (Redlynch to Myola) of Cairns to Herberton Railway	
Contractor	John Robb
Total cost	Over £1 million
Construction time	April 1887 to June 1891
Length	24.5 kilometres
Highest point	Barron Falls Lookout: 327 metres
Average gradient	1-in-68
Number of bends	98
Number of tunnels	15 with total length of 1,755 metres
Longest tunnel	No. 15 tunnel: total length 431 metres
Bridges (wood & concrete)	55 with total length of 2,138 metres
Start of passenger service	25 June 1891
Construction deaths	32

Table 5: Construction facts, Second stage of Cairns to Herberton Railway. Hudson, 2003.

Engineering achievements aside, the railway was a catalyst for the settlement and development of Cairns and the Atherton Tableland. As it progressed, albeit slowly across the Tableland, its arrival was greeted with immense joy and hope for the future. It was seen as the answer to the problems of mining, farming and living in this isolated part of Queensland. Reaching Kuranda and Myola in 1891, the most difficult and treacherous part of the build was completed.

Construction of the Myola to Mareeba stage was completed in 1893 but for those living beyond Mareeba, their dreams were realised very slowly with construction of the Mareeba to Atherton section not starting until 1902 and the railway not reaching Herberton until 1910. This was largely due to cost blow-outs on the second stage, the economic depression of the 1890s and the decline of the gold mining industry. The government was reluctant to continue construction. Deputations to government were made and John Moffatt lent his considerable weight to the argument with the provision of mineral export tonnages from the hinterland (Hudson, 2003). Construction continued through to Herberton and by 1924, there was a well-developed railway system established on the Atherton Tablelands with branch lines servicing agricultural and mining districts as far west as Mungana, Mount Mulligan, Forsayth, Mt Garnet, Mt Molloy and Irvinebank.

Arrival of the railway, although always greeted with much fanfare, proved to be a source of acrimony for settlers, miners and farmers alike due to high freight costs, a perception of isolation and poor road links to rail sidings. The Railway Department was seen to 'work in mysterious ways' with many of its decisions regarding timetabling, freight and passenger charges, opening of rail sidings seen as quite absurd and aimed at recouping the large cost of construction rather than opening the Atherton Tablelands for settlement and transportation of goods, passengers, minerals and agricultural products (*CP*, 1891(1)).

Despite this, the railway transported significant amounts of primary produce, minerals, freight and passengers. However, by the 1940s, rail increasingly had to compete with road transport for freight. The government tried to restrict road transport through taxes, permits and other control mechanisms (Office of Economic and Statistical Research, 2009). Railway fares and freight rates were increased to reduce the losses incurred by the railways but road transport continued to grow. By the 1960s, road transport carried more than three times the tonnage carried by the railways (Office of Economic and Statistical Research, 2009).

Figure 6: Workers laying sleepers and lines during construction of Cairns to Myola railway, c. 1890. JOL: 22620.

Unable to compete with road transport and increasing car ownership, the Railways Department began cost cutting in the 1960s and uneconomical branch lines began to close. On the Atherton Tablelands, these included Tolga to Millaa Millaa in 1964, Tolga to Kairi in 1987, Atherton to Ravenshoe in 1988 and Mareeba to Atherton in 2013.

Today, the principal freight and passenger line for the far north is the North Coast Line. Operated by Queensland Rail, it caters for containerised freight services, high speed tilt trains, and commuter services, heavy haul single commodity trains of sugar, grain or minerals and cattle trains. The rail network is accessible by transporting goods to Cairns from the region by road.

Environmental, heritage and logistical constraints limit rail services within the Atherton Tablelands. Regular freight and passenger services are only offered between Cairns and Mareeba as part of the Cairns to Forsyth Savannahlander tour. Although the Cairns to Kuranda service continues as a tourist attraction, it offers limited opportunity in relation to the movement of freight for the Atherton Tablelands as it only services this small area. In addition, the height of existing heritage listed tunnels between Kuranda and Cairns, is too low to accommodate modern containers (Bureau of Transport Economics, 2001).

4.3.3 The Timber Industry

Timber was one of the most valuable, viable and easily accessible natural resources for exploitation by the government in 1859. It seemed to be an inexhaustible supply of some of the finest cabinet timbers in the world: cedar, maple, and mahogany, walnut and silky oak along with hoop, bunya and kauri pines.

By the 1870s, European, Chinese and South Sea Islander timber-getters were on the Atherton Tablelands felling Australia's red cedar almost to extinction (Vader, 1987). Logging proceeded apace, ahead of infrastructure such as transportation to ports, resulting in many logs rotting in the forest where they were felled. Transportation over the range to the coast was a major barrier in the early years with timber-getters transporting logs by bullock or horse teams using Aboriginal tracks or creating their own tracks. Bullock teams were commonplace until the 1920s when trucks became more common transporting logs from where they were felled to rail sidings for transportation to Cairns.

Despite the rudimentary state of the Atherton Tableland's infrastructure, the lure of profits from cedar, known as red gold, was intoxicating and sawmills were established. Teams of pit-sawyers operated and logs

were hand-sawn in pits until the early 1890s, when steam powered sawmills were established. These became increasingly common and revolutionised the timber industry, ultimately leading to centralised milling operations in small 'timber towns' such as Ravenshoe, the 'timber town' most impacted by the 1988 World Heritage Listing of the region's rainforest in 1988.

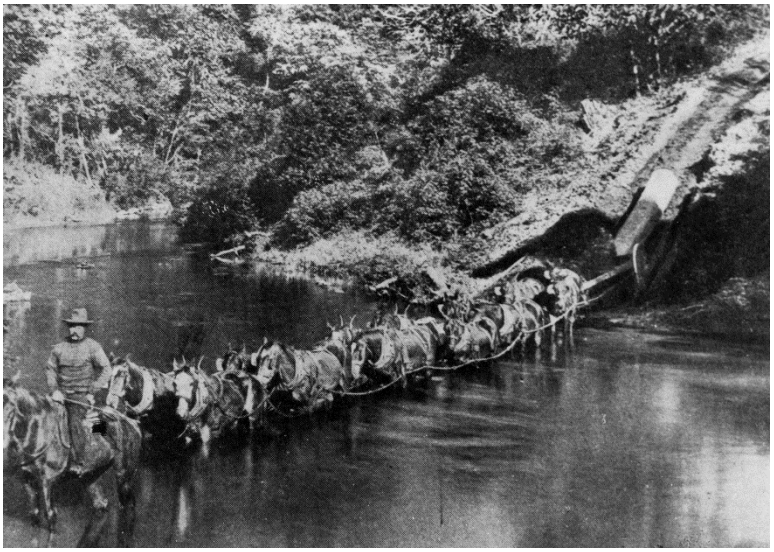


Figure 7: Timber-getting with a team of horses in the Atherton area, 1922. JOL: 42019.

Railway freight charges were expensive with timber attracting a charge of £3 per 100 feet, increasing to 4/6 per 100 super feet in 1913, and agricultural products, £2 19s. 3d per ton. Timber charges were considered excessive when compared with charges of 4s 6d per 100 feet to export to Liverpool by ship and haulage charges by teams from Atherton to Kuranda at 2/6 per 100 super feet (Borland, 1939)

Prior to the railway arriving, many optimistic ventures were instigated to transport logs to the coast. The most ambitious and foolhardy attempt was undertaken in 1883 when Burns Philp & Co. attempted to 'fresh' or float timber down the Barron River and over the Barron Falls while the river was in flood (Bolton, 1963). Reports on the loss of timber using this method differ with some claiming the loss of approximately 14 million feet of timber (Bolton, 1963), while others claim that the method was reasonably successful when the Barron River was not in flood. Whatever the case, transportation remained problematic and logs continued to be hauled by bullock teams until the arrival of the railway connecting the Tablelands and the shipping port of Cairns.

The progressive arrival of the railway across the Atherton Tableland opened up large scale processing of timber at sawmills that was both practical and profitable and sawmilling became a part of most towns on the Tableland. Mills established included Lawson's Mill in Mareeba and Tolga around 1909, the Tinaroo Timber Co. at Kureen, Ferrari & Co. and Far Northern Hardwoods in Kuranda in the late 1930s and Williamson Brothers in Yungaburra in 1910 which was later purchased by the Rankine Brothers. Rankine's also operated sawmills in Peeramon, Kairi, Mareeba, Cairns, Innisfail and Ingham. These operations closed as a result of World Heritage listing of the region's rainforest in 1988 (DERM, 1992). Rankine Brothers had the most important sawmill post World War II, opening a saw and veneer mill between Malanda and Peeramon, milling timber cut under licence from State forests.

4.3.3.1 Conservation of the Rainforest and Wet Tropics Listing

Calls for forest conservancy started in 1873, when the Queensland Acclimatisation Society brought to the attention of the government their concerns. A Select Committee was appointed in 1875 which recommended permanent reserves, regulation and supervision of timber cutting and prohibition of ring barking (Thiel, 1990). Progress was slow and resistance was high between advocates of forest conservation and interests associated with agriculture, pastoralism and timber industries both inside and outside of government.

Early concerns tended to be around the enormous wastage of timber throughout the Atherton Tablelands, rather than felling of the rainforest per se, with much of the timber staying where it fell from want of

adequate transportation to sawmills and Cairns for export. The Forestry Department was scathing of settlement practices and wastage of timber resources on the Atherton Tablelands and elsewhere. The "deplorable destruction" in the Ravenshoe area was described thus:

> "…Ravenshoe was a region whose true economic destiny lay in the tourist and timber industries. Its timber resources, however, were dissipated without the slightest consideration. In 1912, the District Forest Inspector is recorded as writing to the Land Commission at Herberton protesting against the deplorable destruction of the hardwood ensuing as the result of a passion for timber revenue, whole trees being felled to obtain one sleeper length measuring 7 foot.
>
> Hardwood areas, which should have been reserved in public grounds, were thrown open to selection to become derelict farms, or to afford a livelihood to the selectors as suppliers of sleepers to the Queensland Government railways…Out of 47, 000 acres alienated, 36,633 acres are still occupied by standing timber, the remaining 10,367 acres being more or less equally divided between the dairying industry and the timber industry for the grazing of teams…" (*Brisbane Courier,* 1931).

Attitudes were slow to change. Government legislation compelled farmers to clear the dense vegetation, the 'scrubs' in their quest to convert 'wilderness to wealth.' The sheer scale and difficulty for farmers in achieving this was immense as they battled to provide for their families. Conservation of the rainforest did not feature highly for early migrants and investors.

From around the 1920s, there was a growing appreciation that the rainforest offered something more than saleable timber, as places for recreation and as 'beauty spots'. Locally, a few individuals acted to conserve parts of the rainforest, with most being developed as tourism attractions. In the mid-1920s, for example, George Curry took up a small lease at Lake Barrine apparently with two aims: a strong interest in protecting the rainforest surrounding Lakes Barrine and Eacham which was being logged for its cedar; and a desire to create a focus for the local community by developing a sporting complex (*CP,* 1930 (3)).

Another noteworthy example is the efforts of the secretary of the Millaa Millaa Progress Association, Tom Hanley who "…fought with a pen to ensure that Falls were not blasted…" for rock to produce metal for the area's roads (Eacham Historical Society, 1988). Milla Millaa Falls would not exist in its current form today if it were not for his intervention. Today Millaa Millaa Falls has a reputation as the most perfect of waterfalls in the North (Lawson, 2003).

In Kuranda, tourist attractions, the 'Maze' and 'Fairyland' evolved in the 1930s, due to their proximity to the Kuranda railway and the vision of their respective owners to conserve the rainforest and showcase it to the public. Both presented a romantic vision of the rainforest to visitors, a view that was being displaced by an ecological paradigm with the outbreak of World War II (Thorp, 2005).

By the 1960s, the utilitarian view of the rainforest was changing to a more ecological paradigm. The setting aside of tracts of land for recreation and scenic value was an important initiative protecting nature during the period between 1880 and 1920. Initially, these tended to be in areas which had no other economic value such as millable timber, mining or agricultural land (Griffiths, 2001). However, increasing 'ways of seeing' the rainforest shifted to emphasise:

> "… non-human values: the preservation of biodiversity, the protection of gene pools, the integrity of ecosystems, the independent rights of animals and plants…" (Griffiths, 2001).

Additionally, important changes in language occurred as scientific knowledge advanced and attitudes and perceptions shifted. The term 'rainforest' was coined in 1898 (Stepan, 2001), but was not a descriptor applied to the tropical vegetation of the Atherton Tablelands until the 1970s. The ecological recasting of jungle as 'rainforest' confronted the older, negative ideas of jungle as a barrier to settlement. Now rainforests are seen as rare and precious, especially as the 'lungs' of the earth.

In 1988, the Wet Tropics region of Queensland was inscribed as a World Heritage Site and in 2007 was added to the Australian National Heritage List. Comprising around 900,000 hectares, this ecologically diverse area extends from Bloomfield in the north, south to Ingham and west to Mount Garnet including the Atherton Tableland. This region includes areas such as Barron Gorge and Davies Creek in the north, The Crater near Herberton, areas around Millaa Millaa, Tully Gorge and Koombooloomba Dam in the south and the Millstream Falls on the western edge of the World Heritage area. Dramatic landscapes abound in the Wet Tropics, ranging from lush rainforests to volcanic mountains and waterfalls, the area is also home to one of the world's oldest cultures. The Wet Tropics meets another World Heritage Area, the Great Barrier Reef in the east.

4.3.3.2 Impacts of World Heritage Listing of the Region's Rainforest

World Heritage listing of North Queensland tropical rainforests impacted upon regions beyond the Atherton Tableland. Reports compiled at the time of Listing indicate that the Tableland region was the most dependent upon the timber industry for its livelihood and there was much fear in the community regarding loss of jobs. By 1991, the timber industry was virtually non-existent. Only two licensed timber mills continued to operate in the Crown rainforests in the Atherton and Ingham forestry districts, in contrast to the 12 mills that were operating in 1987, employing 486 workers. By 1990, there had been a 98% reduction in the amount of timber processed in Atherton, a 94% reduction in Mareeba and a 74% reduction in Eacham Shire. Timber from private land continued to be processed but this did not compensate for the lack of access to Crown Land (Lynch, 2000).

Of all the towns on the Atherton Tablelands, Ravenshoe was the most dependent upon the timber industry for its livelihood. As such, it was the most susceptible to the negative impacts of listing and became the centre for most of the 'anti-listing' sentiment. Land values plummeted, businesses closed and people moved away. Government support programmes and compensation packages were put in place, with consensus being that these measures had been conceptually flawed, poorly delivered and short-term in their effects. The Government failed to understand that compensation alone does not assist a community adjusting to a major change such as the World Heritage Listing of the region's rainforests. Follow-up studies subsequent to Listing have highlighted the adaptability and resilience of individuals and communities in its wake (Lynch, 2000).

4.3.4 Major Townships on the Atherton Tablelands

With the opening-up of the Atherton Tablelands by explorers and pastoralists such as John Atherton, small towns and settlements established. The major towns on the Atherton Tablelands include Malanda (1911), Millaa Millaa (1910), Yungaburra (1886), Ravenshoe (1881), Atherton (1885), Herberton (1880), Mareeba (1893) and Kuranda (1888).

The establishment of these townships was in response to a need:

- Herberton, the Atherton Tableland's first town was established when tin was discovered.
- Malanda and Millaa Millaa were established with the dairy industry.
- Yungaburra and Ravenshoe established with the timber and dairying industries.
- Atherton grew from a timber camp known as Prior's Pocket.
- Mareeba, initially known as Granite Creek was a transport hub.
- Kuranda established with the arrival of the railway in 1891, becoming a timber and tourist town.

As each township began to establish, businesses to support the surrounding farming activities developed. Hotels, general stores and public buildings such as railway stations were built, along with schools and hospitals. Sawmills established with many of the towns along with dairy factories, bowling and golf clubs, churches, School of Arts buildings, farriers, bakers and more.

Some towns became important transport hubs such as Mareeba and others became timber towns, such as Ravenshoe and to a lesser extent, Kuranda. Each town's fortunes have been tied to the reason they developed and have ebbed and flowed accordingly; however, all continue in to the present day.

4.3.5 Patterns of Agricultural Land Use on the Atherton Tableland

4.3.5.1 Introduction

> "…. I do not know that he can [become a freeholder] anywhere on much better terms than in Queensland; but he must understand that the land is cheap because the struggle required to make it useful is severe… (Johnston, 1982)

These words spoken by Anthony Trollope were prescient. Developing agriculture on the Atherton Tablelands was a back breaking and often heart-breaking endeavour. Agricultural selections were leased as agricultural farms with a five-year occupancy condition. Improvements to the land in the form of the erection of fences and housing and cultivation of land were required. If fencing was not carried out then improvements equal to the cost of enclosing the selection were considered appropriate. And so, farmers cleared their land of trees, dense rainforest, undergrowth and anthills. This was a painstaking process, particularly the task of 'grubbing' the soil with a hoe to remove the roots of felled trees. Tree stumps were left in the ground to rot, a process requiring at least six years, thereby preventing the use of a plough during this period (Birtles, 1982).

Crown Rangers rode through the district inspecting selections and assessing the progress of each farmer's efforts. These conditions had to be met before a Deed of Grant (freehold tenure) was issued. Government reports of the day indicate that most of the early farmers need around five years to clear and grub between one and 28 acres of scrub, with most clearing around five acres, this being considered the limit of one man's cropping capacity (Birtles, 1982).

As farming was established, different crops or industries developed to dominate agricultural practices: dairying in the south, maize in the Atherton and Tolga areas, and tobacco in the Mareeba-Dimbulah district. The provision of significant pieces of infrastructure by government served as catalysts for development and/or further development: the arrival of the railway and associated branch lines, for the dairy and maize industries and the construction of the Tinaroo Dam and irrigation scheme in the 1950s for the tobacco industry. This allowed many other crops and industries to develop in its wake.

4.3.5.2 Mixed Farming

Until agriculture was established on the Atherton Tablelands, most farmers practiced mixed farming with all, almost without exception, running a few dairy cattle and pigs and experimenting with all manner of crops such as tobacco, rosella, tamarind, bauhinia, cumquat, date palms, millet, sweet potatoes, coffee, haricot beans, sugar, millet, rice, sweet potatoes, pineapple and others, in an effort to meet stringent Land Department requirements and lease payments and provide income for their families (QSA, AGS/N71).

Experimentation was a feature of farming practice and was supported by the Kari Research Station established in 1912, in response to farmers lobbying for crops other than maize on the Tableland. Later, in 1961, the Walkamin Research Station was established to investigate the potential crops and industries in the Mareeba Shire, including aquaculture.

Most understood that viability did not come from monoculture such as maize and efforts to find complementary crops were ongoing. As noted by Gilmore (2005), many crops were proposed over time, including flax for linseed, tea, coffee, ginger, chicory, Tung oil and peanuts. Of all the crops proposed, only peanuts became a viable alternative for famers in the maize growing areas of Atherton and Tolga. Farmers

knew that new crops would require research into their cultivation and marketing, but the closure of the State Farm at Kairi in the mid-1930s ended any likelihood of this.

By the early 1940s, moves were afoot to address the lack of secondary industries on the Atherton Tablelands. The state of the agricultural industry on the Atherton Tablelands was not viewed favourably with a government representative commenting:

> "… so far, the people of the Far North had always been content to grow the crops, have them cut, felled or harvested, and send them south to be manufactured… it is time the north began to think about its own industries…" (*Innisfail Evening Advocate,* 1943).

Few solutions were forthcoming apart from exploring the possibility of establishing a peanut oil extraction factory.

These types of critiques were not uncommon. As early as 1906, Queensland's Instructor in Tropical Agriculture, Howard Newport, was trying to understand North Queensland farmers' resistance to new crops and industries. Concluding that farming required a different mindset to pioneering, he saw that their conservatism was a side effect of the hardships endured while clearing the land – learning to cope with drought, floods, soil erosion, declining crop yields and noxious weeds and pests (Frazer, 2003).

He saw that there was a need for "new blood" to improve upon the work undertaken by the early pioneering farmers:

> "though there is ample room and ample scope for felling and clearing, there is also, in the North, a by no means inconsiderable area of good land to be found on which the settler can start where the pioneer left off, and put in the plough, the seed drill, and reaping machine where the pioneer had to use the hoe, his hands and his sickle" (Frazer, 2003).

Nearly all agriculture in Australia became heavily regulated in the early 20th century, with Boards set up to purchase and market all production to ensure fair prices to the farmer. The prices were protected by high tariffs on imports, keeping the domestic market for Australian farmers.

4.3.5.3 Maize

Maize production began in the Atherton area to provide feed for the horses, mules and bullocks used in the tin mining industry which grew up around Herberton. From humble beginnings, the commercial cultivation of maize developed in the Atherton and Tolga areas. Many settlers came to the Atherton area from Germany, Greece, Russia, France and Albania but it was the Chinese who would prove pivotal in the early development of this part of the Atherton Tableland.

Figure 8: Hou Wang Temple, c. 1905. JOL: 74442.

The Chinese flocked to North Queensland in the 1870s in large numbers following the discovery of gold on the Palmer River and the Hodgkinson. They were regarded with suspicion and hostility by Europeans, who they greatly outnumbered, and were barred from working on new mineral fields. Needing to make a living, they moved south to places such as Cooktown, Cairns and the Atherton Tableland where they engaged in small-scale agriculture.

The Chinese arrived in the Atherton area in the early 1880s, and set up a camp which became Atherton Chinatown on the outskirts of town. By 1897, it was a thriving residential and commercial centre which serviced Chinese tenant farmers in the Atherton area. There were over 180 Chinese living on the site which developed as a short main street lined with small timber and iron shops and houses. At its peak in the early 1900s, there were over a hundred buildings on site, including commercial premises such as corn merchants, food and general goods stores, an herbalist, two gambling dens and a place of entertainment which employed musicians.

In 1903, the Hou Wang Temple (figure 8) was built and today it is a heritage listed site and demonstrates the importance of the role of the Chinese in the development of North Queensland (DERM, 1992).

Land in Atherton was opened-up for agricultural selection in 1882. Most early selectors were mining men with no experience on farming or on clearing the land or much desire to do so. Consequently, much of the development of farms and the maize industry was undertaken by the Chinese. Not permitted to own land unless naturalised, they leased portions of land from selectors at no rent for the first year, 10 shillings/acre for the second year and £1/acre, for third and subsequent years (Statham, 1998). Land was cleared of dense rainforest and corn seed planted by hand among the stumps and cultivated with hoes. The matured cobs of grain were hand harvested from the stalks, carried in baskets to the edge of the clearing and placed in drays. They were then husked and shelled by hand, and bagged ready for the merchant's dray to pick up (Gilmore, 2005).

By 1897, there were 110 agricultural farms in the Atherton area, 60 of them freehold, with 180 Chinese working about half the farms. By 1901, more than 30,000 acres of land had been alienated, 4,079 acres were under maize and producing 167,524 bushels of grain (Gilmore, 2005).

The Chinese population grew quickly and Chinese merchants such as Edward Lee Sye in Tolga and George Fong On in Atherton became involved in the transport or selling of maize. Some segments of the European population resented the Chinese presence in the Atherton area. A short lived Anti-Chinese League was formed around 1908 and agitation for a 'White Tableland' was strident, as were threats to burn down Atherton Chinatown unless they vacated within 24 hours. Chinese farmers were evicted from farms and 18 houses burnt down (*Daily Mercury,* 1908). Farmers were asked to pledge that they would not renew Chinese leases on their farms and to patronise white traders (*Newcastle Morning Herald,* 1908), a position not favoured by a majority of the European population. Nevertheless, the Queensland government introduced legislation, designed to force aliens wishing to lease land to obtain a certificate based on their ability to write in English. This, however, was never pursued vigorously on the Tablelands, as the convenience of being able to have the hard work done by lessees and not themselves was not lost on the owners of the land (Gilmore, 2005).

By 1912, Chinese domination of the industry had reached its zenith, with about 1,000 Chinese living in the district. Then, 13,042 acres produced 722,741 bushels of maize, about 80% of which was grown by Chinese (Gilmore, 2005).

The outbreak of World War I saw the production of maize decrease in Queensland. However, it increased on the Atherton Tableland as the Chinese were not eligible for army service and were therefore available to carry on maize cultivation. Land under cultivation increased to 18,740 acres in 1917. However, this did not stop the European population's resentment of the Chinese success in the maize industry. The Tinaroo Shire Council began lobbying the Government to resume land leased to the Chinese, and to set it aside for a Soldier Settlement Scheme (Gilmore, 2005). In 1919, freehold land owned by Europeans, but leased or worked by Asians, was resumed. In 1920, the government offered 356 soldier settler blocks for ballot on 23,434 acres in the Tolga-Kairi district (Frazer, 2003).

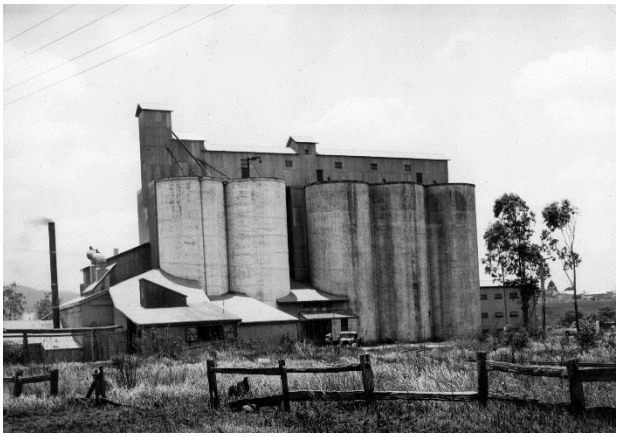


Figure 9: Atherton Maize Silos, 1948. JOL: 98703.

The Chinese were effectively locked out of agriculture and those who remained were mostly the very old. They continued to live in shacks on farms, eking out a living growing fruit and vegetables and the successful merchant families who had managed to obtain naturalisation. Today, there are no Chinese farmers in the Atherton district, though there are descendants of the families still in the area. The Chinese legacy was immense: thousands of acres of cleared land, some improvements on the farms, and a demonstration that the industry was viable given farming knowledge, industry, and appropriate organisation (Gilmore, 2005). All that remains is Atherton Chinatown discussed above, and Jue Sue Road, Fong On Street and Lee Leong Street.

The end of World War II changed many things, including maize farming on the Atherton Tableland. When farmers and internees returned to their farms, the cultivation of maize and rotation with crops of peanuts and potatoes became more common as the impacts of the practice of monoculture became more evident. This led to the development of maize hybrids by Kairi Research Station along with suitable rotations with legumes or pasture grasses to rehabilitate the worn-out soils. Farmers were quick to adopt new hybrids and increasing consolidation of farms into larger, more efficient units occurred, along with mechanisation. By 1970, the industry was looking viable with some of the highest yields in the State, storage facilities were upgraded and handling charges were reduced (Gilmore, 2005).

However, to maintain viability farms had to be further amalgamated and crops diversified with particularly peanuts and potatoes to achieve higher financial returns. Maize was no longer a monoculture crop but was now sown as a rotation crop. In the years between 1976 and 1981 the area of land sown to peanuts more than doubled and a peanut processing factory was opened at Tolga (Gilmore, 2005). Despite this, high production costs, the erosion of traditional markets and deteriorating grain storage silos were rendering the maize industry inefficient.

Grower dissatisfaction increased resulting in some farmers supplying pig, dairy and poultry farmers with maize directly rather than sending their grain to the Maize Board. The establishment of a sugar mill at Arriga, west of Mareeba in the early 1990s, poor prices for maize and a growing willingness on the part of the farmers to diversify their operations, encouraged many of them to switch their maize production to sugar

cane. Production of maize nose-dived from 35,000 tonnes in 2000, to about 12,000 tonnes in 2001 (Gilmore, 2005).

By 2002, Athmaize Cooperative – the last form of regulated farming - was in liquidation, changing the form of an industry that had been in existence for 75 years. The maize industry of the Atherton Tablelands had come full circle to its beginnings as supplying grain and fodder to local livestock.

4.3.5.4 Dairying

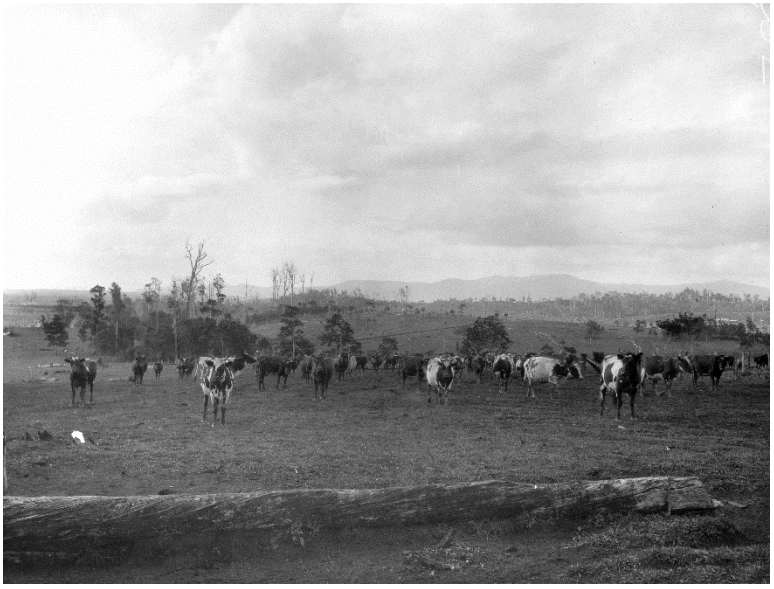


Figure 10: Roseblade's dairy farm at Yungaburra, c. 1927. JOL: 118638.

Dairying began on the Atherton Tablelands in earnest when land was thrown open for 'Group Settlement' selection in the Atherton area in 1885. The purpose of this scheme was to encourage cooperation amongst experienced farmers from a common district. Experienced dairymen from the Northern Rivers District of New South Wales were among the earlier settlers, bringing with them dairy cattle which formed the basis of the new industry. Over time, the dairying industry gradually spread to establish in Millaa Millaa, Ravenshoe and Malanda (Smith, 1993).

Success in the early days was attributed to a farm's proximity to the railway which facilitated the transportation of the cream and milk to Cairns on a regular basis. Later as the industry developed, local butter factories were built (Figure 11). The railway was pivotal to the development of dairying but did not reach Atherton until 1903, Herberton in 1910, and Ravenshoe in 1916. Consequently, dairying was not considered a standalone farming activity for some years.

The nascent industry continued to slowly develop and by 1914, there were 176 suppliers on the Tablelands. Production of butter rose steadily until 1925, establishing the industry on a good footing. This was despite the slow uptake of dairy-related science and technology. Machinery that would have eased production processes, such as separators, refrigeration units and milking machines, was often resisted or not installed until after World War II (Gilmore, 2005).

World War II changed the industry forever. Prior to the War, dairying on the Tableland had been based on the cream economy, but when the American troops arrived, they wanted milk and huge quantities of it. This demand led to the expansion of the industry at a time when many of the local farmers had enlisted and the region was left with a major labour shortage.

Major modifications were made to factories to allow for the pasteurisation of large quantities of milk. Roads were upgraded to allow for the daily collection of milk from farms. Cooperation of farmers was required to amalgamate factories and allocate markets (*CP,* 1945 (1)). It was the making of the Atherton Tablelands dairy industry. Average farm incomes almost doubled, farming infrastructure such as milking machines were installed, improved roads ensured smooth delivery to the factory and bulk deliveries of milk to Cairns and Townsville were introduced (Stewart, 1983).

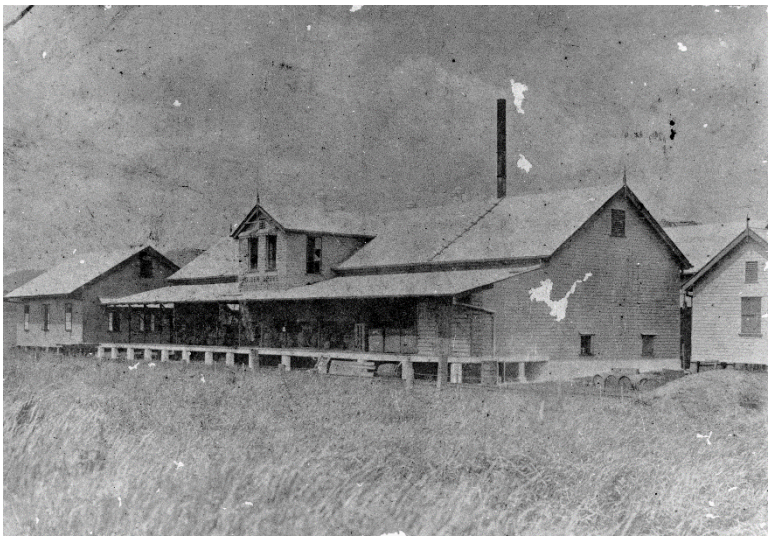


Figure 11: The Golden Grove Butter Factory, Atherton, c. 1905. JOL: 77434.

The dairy industry was now in a strong position. Demand for milk continued to increase as the population grew. Other products were produced in the 1960s to supply a more diverse market: cottage and cheddar cheeses and powdered milk (Gilmore, 2005). Like all primary industries, however, the industry was subject to changes at the national and international level. Moves toward deregulation and removing government support for the industry were afoot. Britain, a long-standing market for dairy products, was proposing to enter the European Common Market.

The greatest challenge of all, however, occurred in 2000, with the complete deregulation of the dairy industry. Farmers now had to contend with the market power of the major grocery chains as they no longer had a guaranteed farm gate price (Bureau of Transport Economics, 2001). Competition from more efficient and cost-effective producers in Victoria became a reality, and the death of the industry on the Atherton Tableland became a distinct possibility. By 2005, fewer than 100 farmers remained, and they were looking to diversify their production into beef fattening and other animal production systems.

4.3.5.5 Tobacco

By the early 1930s, the Atherton Tablelands had started to 'hitch itself to a new dream': tobacco. Many were enticed into the industry with the opening-up of cheap land under the 'Mareeba Tobacco Group Settlement Scheme', and the promise of riches through the cultivation of tobacco, or at least an escape from the high unemployment of the Great Depression. This scheme was established by the State Consultation Committee on Developmental Proposals, aiming to satisfy the long-standing aim of successive governments to 'people the north'. Land was allotted to approve applicants and was purchased for £2/6s per acre (Manning, 1993).

Many existing landholders were tempted to cultivate tobacco due to the poor returns from general agriculture, the depressed state of the pastoral industry and the abandoned mining leases dotted throughout the landscape. Seemingly overnight, the Mareeba district was enveloped with enthusiasm, excitement and ultimately despair. The harsh economic realities of the 1930s, climatic vagaries and associated crop failures and difficulties in paying annual rents, had seen many selectors supplementing their income through other employment, engaging a share farmer, utilising the labour of wives and children and in some cases abandoning their selection (Department of Lands, 1938).

Importantly for the Mareeba district, the scheme allowed the establishment of an industry on soils otherwise considered too poor for agriculture (Manning, 1993). Extensive areas of land were cleared for cultivation, and farmers made heavy investment in curing barns, bulk sheds and in some cases, irrigation equipment. Many of the tobacco farmers were migrants, particularly Italians and by the 1970s just over 75% of the tobacco farmers in the Mareeba-Dimbulah were of southern European descent. By 1999, all but one of the 170 tobacco farmers were of southern European descent (Griggs, 2002).

Figure 12: Green tobacco leaf in Piagno's curing barn, Mutchilba, c. 1948. National Library of Australia: 148905743.

4.3.5.5.1 The Failure of the Tobacco Industry

> *"No person visiting the district could fail to be impressed and depressed by the large number of abandoned farms."* (Coordinator General's Department, 1933-73)

The failure of the tobacco industry was remarkable. By 1946, more than 50% of tobacco farms in the area were deserted, falling from 513 registered growers in 1936 to 144 in 1946. Farmers had invested an estimated £500,000 in buildings, curing barns, clearing and other improvements. By the mid-1940s, most of these farms were standing idle and improvements were deteriorating or being removed. Some farmers stayed, cultivating fruit and vegetables but it was a struggle. The issuing of rations to tobacco farmers was not an unusual occurrence with £4,167 worth issued by the Mareeba Police Station from June 1933 to June 1934. Tobacco farmers were the main recipients (Manning, 1993).

The single most important contributing factor in the collapse of the industry was uneven rainfall conditions in the area. Tobacco does not require a lot of rain, rather it grows best with an even soil moisture level. This is not possible in the far north's wet and dry seasons. It was this factor which the government considered had to be addressed if the industry was to survive. The construction of weirs was recommended to provide short-term relief to growers and that the government render assistance for the development of an irrigation scheme (Manning, 1993).

4.3.5.5.2 Tinaroo Dam and Irrigation System: built to revive an industry

The government was committed to the success of the tobacco industry. Eight weirs were built on local streams allowing limited irrigation development. However, expansion of the tobacco industry could not occur unless more water was made available. At the same time, investigations began into increasing the generating capacity of the Barron Gorge Power Station to meet a growing demand for power. To do this, storage on the Barron River was required to even out seasonal flow variations. In 1952, the decision was taken to build a dam on the Barron River about 12 kilometres from Atherton and construction of the associated Mareeba-Dimbulah Irrigation Area was approved. Construction of the Tinaroo Dam began in 1953 and was completed in 1958 (http://www.sunwater.com.au/schemes/mareeba-dimbulah. Accessed 23 February 2017).

The construction of the Tinaroo Irrigation Scheme provided access to a reliable supply of water and revolutionised farming on the Tableland. It led to a significant increase in the area of land planted to tobacco and other crops, and many new farms were developed. By 1975, the total area under irrigation in the Mareeba-Dimbulah area was 5,370 hectares over 567 farms (Price, 2008). Established farmers invested in plant and equipment to boost their production. Production and income flows improved. The Government required tobacco companies to buy a certain quantity of Australian tobacco leaf, purchased through the

usual system of central buying, so prices were stable. Access to reliable water was to prove a boon when the industry was deregulated.

With the outbreak of World War II, the industry came under pressure again as much of the tobacco grown on the Atherton Tablelands was produced by Italians, Albanians and Yugoslavs many of whom were interned for the duration of the war, leaving women and children to run the farms (Gilmore, 2005).

Following the War and the return of farmers in the Armed Forces and internees, conditions improved slowly through diversification of crops cultivated and taking advantage of Army disposal machinery. However, horses continued to be used for cultivation until the end of the 1940s. Like the dairy industry, the take up of technology was slow. All processes were carried out by hand and it was a family affair, with women and children 'stringing' the leaves on sticks to be placed in the barn for curing.

The industry continued to grow and by the end of 1960, acreage planted to tobacco in the Mareeba-Dimbulah area had risen by 31%, and production by 45% (Gilmore, 2005). As with the dairy and maize industries, however, national and international forces were in play and the industry entered a long period of restructure and stabilisation, reductions in tariffs and production quota systems, ultimately resulting in total deregulation in 1995. These factors combined with a growing awareness in the 1980s, of the increasing awareness of health and economic impacts of smoking and therefore a decline in demand.

4.3.5.5.3 Farming in the post-tobacco era

The process of deregulation was long and protracted with some farmers seeing the writing on the wall and leaving the industry, either through quota transfer or farm sale. Others diversified to other crops such as mangoes, sugar, citrus, exotic fruits, flowers, tea-tree, coffee, bananas and paw-paw, with variable results. None of these crops has proved equal to the value of tobacco. Others stayed to the end. The impact on the Mareeba-Dimbulah area was significant and was not restricted to the farming sector. Shops and businesses in Dimbulah and Mareeba closed down or downsized and the population contracted.

The last crop of tobacco was grown in the Mareeba-Dimbulah area in 2003. This resulted in a significant change in land use in the area. Farms were amalgamated, reducing farm numbers from 960 in 1932 to 700 in 2003 (Griggs, 2002). Land use was adapted to other crops such as sugar to supply the Tableland Mill at Arriga, west of Mareeba.

Despite the dominance of the tobacco industry in the Mareeba-Dimbulah area, not all area's soils were suitable for tobacco cultivation. By 1961, the Walkamin Research Station had been established to investigate the potential of crops other than tobacco in the Mareeba Shire. Peanuts, sorghum and maize were found suitable and many farmers, including tobacco farmers, started trialling other crops from the 1970s. By the mid-1980s maize, pastures for seed and hay, peanuts and sorghum were being cultivated (Griggs, 2002).

Benefitting from these trials, North Queensland Tropical Seeds was established in the 1980s, supplying legume seeds to the sugar industry and for export. The Salvetti family produces over 20 different crops on three properties in the Mareeba- Dimbulah area, ranging from sugar cane, pasture seeds, legumes, grains and hay. Recently, the company moved into branded food production, cultivating chemical free chia which is sold to retailers, wholesalers and health bar manufacturers under their brand, Australian Superfoods NQ (*Australian,* 2015).

Tree crops such as mangos are now being grown under irrigation on former tobacco land. An important emerging industry is processed mango as wine, dried, frozen and freeze dried (Tablelands Research and Consultancy Services, 2007). By 2011, 2,500 hectares was under cultivation, across 200 farms producing 13,975 tonnes of mango (DAFF, 2012).

Reminiscent of the efforts of earlier times, ex-tobacco growers experimented with crops, trialling those that seemed most promising. Tea tree oil production was a promising enterprise when 60 ex-tobacco farmers

formed the North Queensland Essential Oils Cooperative in 1993 and began growing tea tree. Levies on oil sales funded research into developing local knowledge about the irrigation requirements of the tea tree (Griggs, 2002). The industry enjoyed high returns during the early years but was undone by the massive dumping of oil on the market by managed investment funds. Many growers exited the industry and by 2011, only 70 hectares were under cultivation, across ten farms, producing 21,000 litres of oil (DAFF, 2012).

Another promising crop was rice. Following government trials at Arriga in 1975, cultivation began in the Mareeba- Dimbulah area. Expectations were high (DPI, 1978). By the early 1980s the total area of rice under cultivation had increased from 27 hectares in 1976/77 to 1,419 hectares in 1980/81. Total production had increased from 132 tonnes to 6,263 tonnes during the same period (Hardman, 1982). Furthermore, the Queensland Water Resources Commission saw that there was sufficient suitable irrigable land in the Mareeba-Dimbulah district to produce 20,000 tonnes per year from two crops of rice. The Rice Co-operative was equally optimistic, encouraging the expansion of rice cultivation in the area and committing to increasing the storage and drying capacity at Mareeba from 800 tonnes to 2,300 tonnes by early 1982 (Hardman, 1982).

Despite this encouraging start, the industry failed with the most significant difficulties being the rising salinity profile in the production area (Northern Gulf Resource Management Group Ltd, 2015) and the collapse of rice growers marketing and milling arrangements in the early 1990s (Griggs, 2002).

4.3.6 Conclusion

The vision held by politicians and farmers alike from the 1880s, of intensive agriculture on small agricultural farms by 'sturdy' farmers, could not overcome the numerous environmental, technical and economic problems that emerged to challenge even the most 'sturdy' of pioneer farmers:

- Unstable domestic and international markets, despite attempts to ameliorate the problem through regulation of selling.
- Strong domestic competition especially from southern states.
- Distance to market.
- Difficulties in adapting or finding crops suitable for cultivation on the Atherton Tableland.
- Lack of farming skills (Cameron, 2005).

Increasingly these factors came to challenge the viability of small-scale agriculture and government policy shifted progressively from the 1960s:

- Economic policy moved from a protectionist to a market-based approach.
- Natural resource management began to question ideas of progress through closer settlement by farming, emphasising the idea of scarcity of resources and degradation.
- Government policy shifted from protection to promoting the economic self- sufficiency of communities (Cameron, 2005).

These influences played out on the Atherton Tableland. During the 1980s specific changes impacted on the region's industries: deregulation of the dairy and maize industries, closure of the tobacco industry and World Heritage Listing of the region's rainforest. These changes have resulted in a much more diversified region today. Agricultural patterns have reached their present land use after much trial and error, experimentation and testing, and the process continues.

Arguably agricultural activities have turned full circle, returning to a form similar to that seen when land was thrown open for agricultural selection from the late 1880s: mixed farming. Many of the early crops experimented with by farmers established as commercially viable: maize, citrus, peanuts, sugar, potatoes and grass seed. Other experimental crops did establish but then disappeared for a variety of reasons:

tobacco and rice. Yet others, have established but remain as niche crops: coffee, lychees, avocadoes, and macadamias.

No longer do farmers source seeds and cuttings from Government sources such as the Kamerunga State Nursery. Now they are cultivating flowers, poultry, lychee, mango, aquaculture, bananas, cashews, custard apples, macadamia, melons, papaya, pineapples, poultry eggs and tea tree. Farmers are through necessity, mixed farmers. The commercial cropping area on the Atherton Tablelands is now an identifiable area comprising approximately 18,000 hectares. The area is bounded to the east by mountains, to the south by country too steep or wet for arable farming, to the west by rugged, drier and less fertile land, and to the north by the Mareeba-Dimbulah Irrigation Area, where historically the relatively infertile soils and drier climate supported distinctly different farming systems (Barron Catchment Care, 2016). Flexibility is key for farmers to respond to ever changing conditions.

Lessons from the past have been well and truly learnt. Farming practices are now informed by local variations in topography, climate and soils across the Atherton Tableland. Continuous production of annual crops, monoculture, is no longer practiced due to its depletion of soil fertility, damage to soil structure, increased numbers of invasive weeds, pest and crop diseases, and resulting reduced crop yields (Barron Catchment Care, 2016).

Many of the problems that faced early farmers persist into the present. Distance from markets continues. Road transport dominates and while local road conditions are good, links to southern markets are regularly disrupted during the wet season (Barron Catchment Care, 2016). The Atherton Tablelands still has an abundance of natural resources but it continues to face uncertainty in terms of government policy, national and international events and the vagaries of the climate. Ultimately it is the people of the Tableland, their attitudes and their skills which will help determine the future. As noted in a discussion paper addressing the future of the dairy industry in 2012:

> …the real skills required are not so much in the 'hands-on' behind farm gate 'technical aspects' of the industries, as the number of employment opportunities at regional level just are not there. However, there is opportunity in the entrepreneurial, marketing and business skills side of the local dairy industry… (Spies, 2012)

Always dynamic and ever-changing, the agricultural profile of the Atherton Tablelands continues to respond to changes. In recent years the 'foodie culture' has emerged to challenge traditional agricultural systems. Increasingly consumers are keen to know where their food is produced, its distance from market, and the way crops and animals are raised and how they are processed. As noted by Spies above, marketing, entrepreneurial and business skills will increasingly determine the viability of the all industries, not just agriculture.

4.4 Economic, infrastructure and settlement patterns that have influenced the history of the Kuranda and Myola areas.

4.4.1 Introduction

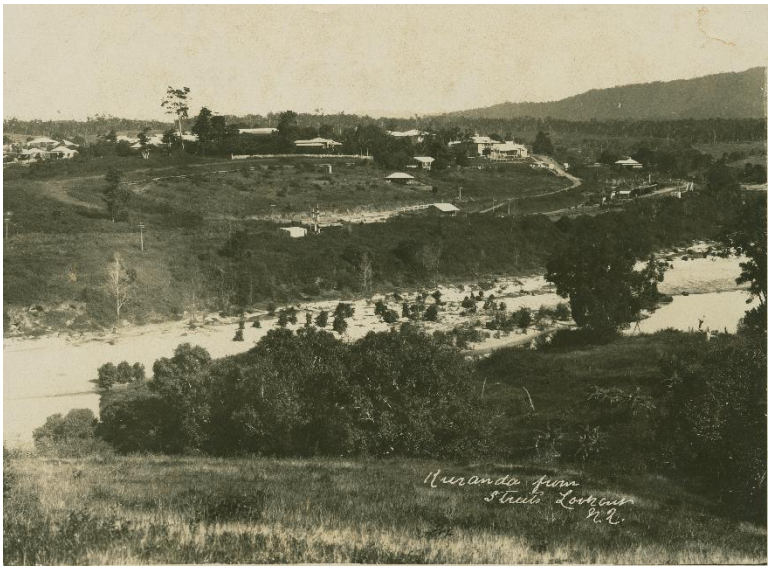


Figure 13: Early photo of Kuranda taken from Street's Lookout on the northern side of the Barron River, JOL: 245619.

Kuranda was surveyed in 1888 and the Cairns to Herberton railway reached Kuranda in 1891. As was common with the announcement of a railway route, settlement occurred ahead of survey and by 1885, at least 16 selectors had taken up land in Kuranda (Humston, 1988).

Kuranda remained a small rural village throughout most of the 20th century with brief rises in population, in the early 1930s with the construction of the Barron Falls Hydro-electricity scheme and during World War II when Australian and American troops trained in the surrounding rainforests.

Kuranda had two distinct strands to its development: as a small sawmilling centre and as the famed 'village in the rainforest'. Sawmilling declined with the World Heritage Listing of the region's rainforest in 1988 but Kuranda's appeal to tourists has continued unabated since its inception with the completion of the second stage of the Cairns to Herberton railway.

Mixed farming was carried out by many of the early selectors and a small coffee industry developed in the 1890s, lasting for approximately 20 years. Dairy farming was also undertaken and milk supplied to Cairns via the railway until it was overtaken by the larger dairy industry on the southern Tablelands during the 1930s. With the decline of the dairy industry, farmers continued to practice mixed farming and developed and/or increased their cattle grazing activities.

4.4.2 Timber

The felling of timber began with settlement. Farmers felled trees to clear their land for cultivation and to construct their homes. For Kuranda and Myola farmers, the proximity of the railway from 1891 made it easier for logs to be railed to sawmills in Cairns.

Timber was the main industry in Kuranda by the 1930s, employing many of the local residents. At first, bullock teams hauled timber to railway sidings throughout the district. Some of the teamsters hauling timber include the Veivers Brothers, Bill Austin, Nobby Ganes, Sam Crothers, Jim Clacherty, Dave Crothers, George Harriman, Jack Ray and Harry Harriman. Teamsters such as the Veivers family for example, operated around thirty bullock teams between Kuranda and Oak Forest, hauling timber to various rail sidings in the district (Veivers, 1999). Bullock teams were eventually replaced by trucks.

Despite high freight charges, by 1895, when the Department began to record traffic movements from the Kuranda and Myola sidings, timber and agricultural products were the major exports from the area Between 1895 and 1901, 18 tons of agricultural products and 2,407 tons of general merchandise and timber were

transported from Myola; from Kuranda, 87 tons of agricultural products and 2969 tons of general merchandise and timber were transported for the same period (*V&P*, 1896 – 1901).

Sawmills were established mostly after the construction of the Barron Hydro- electric scheme in the mid-1930s. These included Murphy's Sawmill in 1937, (*Northern Herald,* 1937) and Northern Hardwoods Ltd, (*CP,* 1939 (1)) however, most of the timber felled in the area was railed to sawmills in Cairns.

Businesses grew up around the timber industry with at least one commercial timber agent established in Kuranda in 1920: Hunters Log Export Company was registered in Kuranda with capital of £10,000 in shares of £1 each. The company was formed to carry on the business of timber merchants, saw millers, contractors and general agents (*Daily Commercial News and Shipping List,* 1920). It is unclear for how long it was in operation.

Despite this activity, the Forestry Department was scathing in its assessment of forestry and settlement activities in Kuranda, labelling farmers as "Pensioners in Forests:"

> "… Taking the oldest of the Tableland settlements… Kuranda lands were freeholded around 1885 at 2/6 per acre, with timber given in. The railway line from Cairns was built through the settlement in 1891. In all 23,615 acres of Kauri pine, silkwood, maple, hickory, acacia, cedar, cadaghi, white ash, and milky pine forests were transferred to private ownership, ostensibly to produce agricultural products, and to provide freights for the railways.
>
> At this date, after 45 years of agricultural settlement, the main industry is timber. There are 23 bullock teams in the district, and 20,187 acres are still under jungle. The sum total of 45 years of agricultural pioneering is 3,428 acres of clearings of sorts, and a mountainside adjoining the Barron Falls smothered in lantana.
>
> Dairying did not commence until 1923, and there are now only 10 exporters of milk and cream. The agricultural products of the district consigned from Kuranda, Myola, Mantaka, Kowrowra, Oak Forest, and Koah in 1929-30 weighed 92 tons, and yielded £79 in railway freights: timber and firewood paid £4809. During all these years the selectors have been pensioners in the forests surrendered to them in 1885. They have now transferred large areas to private forestry companies.
>
> There are still 11,000 acres of vacant Crown lands in the district, and innumerable farms for sale at low prices, but the local urge for further "development" aims to have thrown open for selection timber reserve 315, situated on the northern side of the railway, containing 50,000,000 superficial feet of commercial timbers, and surrounding the beauty spots, which make the tourist traffic Kuranda's chief industry after timber. Obviously…the local conception of development is a prolonged series of land, railway, and timber booms, with the accompanying expenditure of loan moneys…" (*Brisbane Courier,* 1931).

It is unclear what effect critiques such as these had on the residents of the Kuranda area. Timber felling continued at a rate dictated by the weather, accessibility to stands of timber and the capacity of timber mills. For the 12 months ended December 1932, 1,995 logs were railed from the Kuranda Siding alone. Eighty percent of the logs went to Johnstone's Sawmill in Cairns with the balance going to Cairns Timber Ltd and Lyons Sawmill. The breakdown of the logs railed included: maple, oak, boligum, water gum, hickory, ash, beech, kauri, she pine, putts pine, black pine, candle nut, silkwood, penders, bean, white pine, cadaghi, acacia cedar, sassafras, wattle and quondong (*CP,* 1933 (1)).

The extraction and milling of timber whether in Kuranda or in Cairns continued until World Heritage Listing of the rainforests in 1988.

4.4.3 Cairns to Kuranda Railway: a premier tourism product

The Cairns to Kuranda railway trip quickly became a source of tourism revenue. The railway built for mining, pastoralism and agriculture coincidentally ran past the Barron Falls. This trip through the Barron Gorge to the Barron Falls and Kuranda became one of Queensland's most popular tourist attractions in the 1890s. The rail journey was extolled for both its scenic delights and as a marvel of engineering. It was seen as one of the most awe-inspiring trips in Australia (Thorp, 2005).

While figures for the Cairns to Kuranda journey were collected from the 1890s by the Railways Department, it is unknown what proportion of these were tourists. Reliable figures were not available until 1967 when 37,350 passengers travelled on the train, rising to 47,200 in 1970 and 105,316 in 1980 (Thorp, 2005). The popularity of the trip resulted in it being included in the 'Tropic Wonderland Tour' and 'Grand Tour' in the mid-1950s, the 'Tableland Circular Tour' in 1960 and was part of three tours provided by Queensland Scenic Tours in 1973.

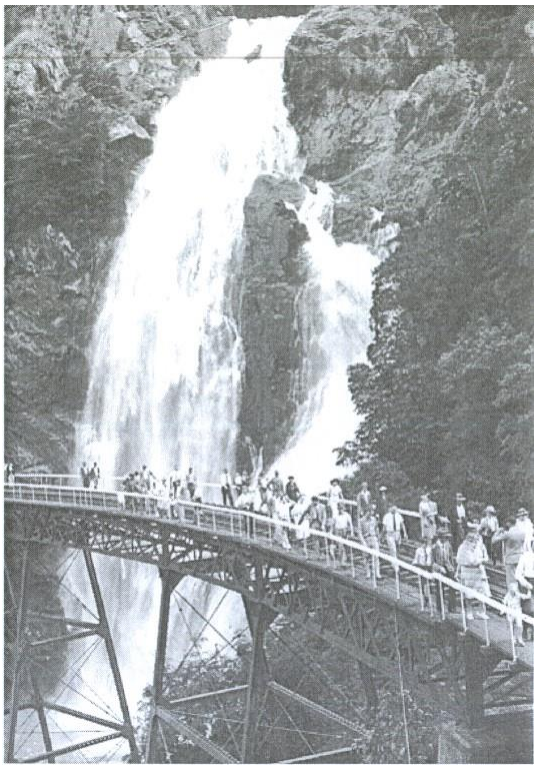


Figure 14: Tourists at Stony Creek Falls, 1939, CHS: P11974.

The introduction of these tours contributed to the rapidly increasing numbers of tourists travelling by train between 1970 and 1980. By 1991/92, 487,515 trips were taken on the Kuranda railway, an increase of 382,199 people in 12 years. A study carried out in 1992 indicated that many of the tourists were taking this trip for many of the reasons that early tourists did: the scenery (Thorp, 2005). By 2015, passenger numbers had decreased somewhat to 350,000 per year (Queensland Rail, 2015).

Until around the 1960s, the train stopped at Stony Creek Falls allowing travellers to disembark (Figure 14). By 1905, the area had become a picnic spot with orange and mango trees growing and visitors were clamouring for a shelter shed, toilets and for tracks to be cut, allowing access to the top and bottom of Stony Creek Falls. Initially, this was refused by the Railway Department because Cairns people were not wanting to patronise the line, and an upgrade of facilities would not increase the numbers of passengers as only strangers found the scenery attractive. By 1907, the Department had revised its position and all upgrades were completed.

The Kuranda Railway Station was a drawcard in itself as shown in Figure 15, regularly winning the competition for the State's most beautiful garden:

> "…with no less than 270 hanging baskets of ferns and orchids, together with 450 other plants. Every variety of tropical fern known in Queensland is represented, there is a magnificent collection of coleuses and orchids, together with crotons, staghorns and elkhorns, as well as many samples of that quaint plant, the tassel fern. For sheer beauty, it is unique among the stations of Australia, if not the whole world…." (Premiers Department, 1933).

Figure 15: Ferns at Kuranda Railway Station, c. 1935. JOL: 1239.

4.4.4 Kuranda: naturalists delight, honeymooners' paradise and 'Sanatorium of the North'

Visitors to Kuranda were often transfixed by what they encountered. It was quite different to anything they had experienced before. One visitor to Kuranda found it difficult to describe what he found:

> "…Here nature seems to have been extravagant in planning and fulfilling a stupendous wonderland. Butterflies and moths, many of great size and exquisite beauty, flitter persistently through the sunshine and shadow of open spaces and beneath the trees, ferns, shrubs and palms. Great trees tower high…" (McLean, 1943)

Figure 10: Playing croquet on lawns of Remilton's Kuranda Hotel, c. 1900. CHS: P03189.

Kuranda was renowned as a honeymooner's paradise particularly during the 1930s. Couples arrived from southern ports, staying at one of the hotels and enjoying all that Kuranda had to offer. By this time, there was much for honeymooners and tourists generally to enjoy. Kuranda's shop keepers and hotel operators were early providers of culinary delights for tourists and locals alike, with E. Hunter of Fitzpatrick's Hotel manufacturing his "far famed Kuranda Lemon Juice, Hunters Sauce and Mango Chutney." (Figure 11) (*Cairns Morning Post,* 1899 (1).

Tourist activities based on Barron Falls and Gorge and the surrounding rainforest were established. Paths were cut to several viewpoints such as O'Malley's Chair, named after a well-known politician, Lady Robinson's Lookout, and Governor Godwin's Lookout. Adventurous tourists could climb 700 feet down to the base of the Barron Falls using a long series of steps hewn into the face of the falls (*Cairns Argus,* 1895). Today we would call this adventure tourism.

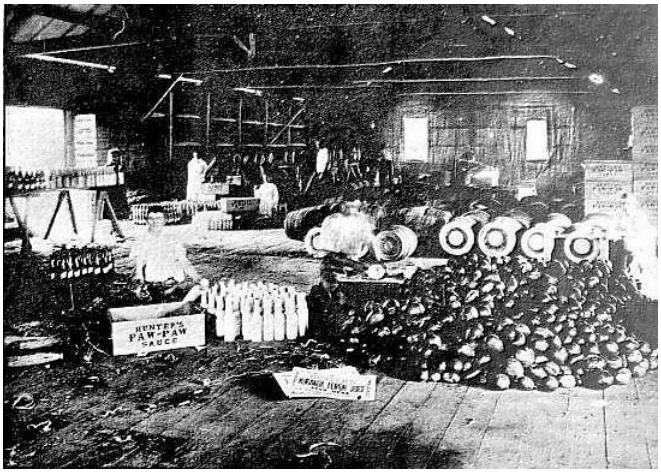


Figure 11: Interior of Hunters Paw Paw Sauce & Kuranda Lemon Juice Factory, 1897. North Queensland Register, 28 July 1897.

Another adventurous activity was descending to the base of the falls from Dean's Lookout thereby presenting a different view of the Barron Falls for visitors. This lookout was named after F.H. Dean, who owned part of the Barnwell property in the 1930s. Located in the bed of the river below the second falls, it was accessed using a system of ropes and poles and took 25 minutes to descend (*CP,* 1929). This lookout was rendered unusable by the construction of the Barron Falls Hydro Scheme in the 1930s.

Romantic, rainforest based attractions began such as 'Fairyland' which was established in 1907 by John Dick. Located upstream from Kuranda, Fairyland was accessed by visitors alighting from the train at Fairyland siding, where they 'cooeed' the boat and Lorna Dick rowed over to transport them across the Barron River to a little creek which emerged from a tunnel-like opening in the undergrowth. Information on the rainforest plants was provided as visitors followed the paths to the 'Fairy Bower' where tea was served at tables covered with snowy white cloths ('Tramp,' 1931). A similar experience could be had at the 'Maze' across the Barron River, opposite the Kuranda Hotel.

Dodd's Butterfly Museum was very popular, containing over 5,000 specimens. Known as the 'Butterfly Man of Kuranda', Frederick Parkhurst Dodd was a well-regarded naturalist and his collection was considered one of the finest anywhere. Most noteworthy for visitors was the use of more than 500 delicate little orange tinted moths to print Longfellow's well-known verse: *"And whenever the way seemed long, / or his heart began to fail / she would sing a more wonderful song, / or tell a more wonderful tale"* (McLean, 1943).

Figure 16: The Shelter Shed at Fairyland, c. 1930s. CHS: P11637

Kuranda was also known as the "Sanatorium of the North." By 1915, Kuranda was one of the State's health resorts (QGIB, 1915) along with Beachview in Millaa Millaa and the CWA Holiday House at Ravenshoe in the 1930s. Health was an important motivation for travel in Australia and worldwide prior to 1900, and heading to the mountains for the summer was not uncommon. Indeed, as late as the 1950s and 1960s a small number of tourists was spending the winter at Fitzpatrick's Hotel, Kuranda, and returning south in the summer (Thorp, 2005).

Some attempts were made to capitalise on Kuranda's health reviving reputation. In 1892, the 'Glencairn Sanatorium' was opened for those seeking the health benefits of Kuranda's invigorating air. Established on G.R. Mayers' Glencairn Coffee Plantation, it was a substantial two-story building measuring 45² feet excluding verandas. It comprised 22 rooms including a 22 x 22-foot dining room. (*CP,* 1893 (2)). By 1893, Mayers' was advertising for someone to lease the Sanatorium (*Queenslander,* 4 February 1893). It is unclear for how long Glencairn Sanatorium operated.

Post-World War II saw the decline of some tourism ventures that had sustained the township. The cruise boats which had brought many of the tourists to Cairns were slow to return to their pre-war schedules. Increased ownership of cars became commonplace and tourists became more adventurous as they explored the Atherton Tablelands independently, greatly aided by the upgrading of the Cairns to Kuranda Range Road during the War. Visitor numbers to The Maze and Fairyland had been declining prior to the War and came to a standstill during the War years when the railway was virtually commandeered for military purposes. This coupled with a change in tourist taste, from viewing the rainforest in romantic terms to a more ecological or scientific perspective, led to their decline (Thorp, 2005).

4.4.6 Indigenous tourism and background

Along with the rainforest experience, tourists in Kuranda were also curious to see firsthand the local Aborigines camped on the outskirts of Kuranda. Prior to 1913, when Aborigines were removed to the nearby Mona Mona Mission, tourists visited Aboriginal camps near Kuranda "to buy for a few coins, a boomerang or a woven basket" (Henry, 1999).

By this time, European pastoral, mining, agricultural and associated settlement activities had had a profound effect on the Djabugay cultural landscape, particularly in terms of their spiritual links with the landscape and their food supply. European clearing activities, mobs of cattle, ploughs, fencing of properties, cutting of tracks and the construction of the Cairns to Herberton Railway led to a breaking of spiritual links with the environment and disruption of their food supply. Such was the disruption for the Kuranda people, Myola Township was being used as a food distribution point by 1885 (Bottoms, 1999).

Tours to Mona Mona Mission were available to the travelling public from 1960 but were not encouraged by the industry and were generally by arrangement only. The tour of Mona Mona Mission, near Kuranda was a weekly tour combined with a tour of the 'Maze' at a cost of £2/6/0. Visitors could experience boomerang throwing and "other exhibitions of native culture and handicrafts" (QGTB, 1960).

During the 1980s, Tjapukai Dance Theatre was opened in Kuranda. This is discussed in Section 4.4.8 below.

4.4.6.1 Mona Mona Mission

Systematic removal of the Djabugay people to Mona Mona Reserve, located on Flaggy Creek approximately 25 kilometres from Kuranda occurred from 1913. The word 'Mona Mona' comes from the Djabugay word for Flaggy Creek, munu-munu (Bottoms, 1999). The Mission was established by the Seventh Day Adventist Church and was existence until 1962 when it was closed for the construction of a water supply for Cairns; a project that never went ahead.

Prior to 1913, dispossessed local Aborigines would have congregated in camps on the outskirts of Kuranda as discussed above, or at Myola, a traditional village located five kilometres from Kuranda. This camp was described by Reverend Gribble in 1891 as being inhabited by 'myalls' or 'uncivilised' Aborigines. However, it is more likely that the inhabitants of this village were hungry old men, women and children.

The reasons for the establishment of Mona Mona remain unclear. Bottoms (1999) reports that by 1900 relations between the Djabugay people and the Kuranda settlers were 'relatively amicable', with many being employed by local settlers particularly to pick coffee between 1896 and 1900. A report by the Chief Protector of Aboriginals in 1912 indicated that the Djabugay people around Kuranda were in good health and free from alcohol and opium addiction. However, one year later, in 1913, the year that Mona Mona was established, the Djabugay were being described as fringe dwellers living in a "… demoralised state, being steeped in tobacco, and when they can procure it, opium, morphia and alcohol…" (Bottoms, 1999).

It is difficult to account for their slide into such dismal circumstances in the space of 12 months. Resistance activities undertaken by the Djabugay people may have contributed to the establishment of the Mission with

reports of spearings at Middle Crossing (Kuranda) and the murder of George Hobson, a farmer at Myola in 1889. The collapse of the coffee industry in the early 1900s, an industry which employed many local Aborigines, may have also impacted on the decision.

The closure of the Mona Mona Mission in 1963 for the construction of a dam on Flaggy Creek saw the Djabugay people dispossessed of their land and homes again. The people were given no choice but to leave, with the threat of removal to Yarrabah by the police used as a stick (Bottoms, 1999).

Today, most Aboriginal people live in small settlements along the Barron River at Kowrowa, Mantaka, Koah and Oak Forest and some have returned to the Mission site (Henry, 1999).

4.4.7 Hippies and Alternative Lifers arrive in Kuranda

In the late 1960s and 1970s Kuranda underwent a demographic change with the arrival of new types of residents: Cairns people escaping the bustle of Cairns and commuting daily for work; alternative lifestylers, who brought with them new ideas and artistic talents; and hippies (Humston, 1988). The early hippies were seeking to escape from the complexities of the modern world and arrived in Kuranda to find themselves often at odds with established residents.

Some Kuranda residents welcomed them as they could sell them unproductive land, otherwise unsaleable. Other landholders, particularly those adjacent to them, were not so enthusiastic, with one Myola farmer finding:

> "… Clusters of toadstools that had been disturbed in a paddock that 'hippies' had been through… [going on to report] … a young girl was found in a distressed condition on a local road. She told authorities she had eaten 'mushrooms' from a Myola paddock…" (Henry, 1999)

Many communes and 'tenancies in common,' housing groups of people did not last more than a few months or years. However, Kuranda's lifestyle as a small, rural town based on timber, sawmilling and tourism changed. These influences invigorated the tourism industry.

4.4.7.1 The Kuranda Markets

Figure 14: The Kuranda Markets, 1978. Hudson, 2003.

The Kuranda markets started as a periodic community event organised by the newcomers outside the monetary economy, where stall holders bartered among themselves, evolving to become a privately-owned tourist attraction in 1986. (Henry, 1999)

Between 1971 and 1978, the markets were held in different backyards on a periodic basis to allow the "bohemians, hippies, drop-outs and beachcombers to remain relatively independent of shop bought goods" (Henry, 1999). In the mid-1970s, a lease holder at the Honey House complex and others decided to run regular Sunday markets behind this complex. Kuranda's business owners could see the economic potential of Kuranda's image, as being a haven for drug smoking hippies' and 'weirdo alternative lifestylers' was attracting visitors to the town (Henry, 1999).

Inevitably, the popularity of the markets brought stall holders from outside of Kuranda and the product-mix began to change. Today, there are two markets in Kuranda, the 'original Kuranda Markets' and the 'Heritage

Markets', a situation brought about by a set of complex circumstances beyond the scope of this study. However, it is best understood in terms of tension between those who wanted to commodify the markets and Kuranda itself for the tourist dollar, and those who did not (Henry, 1999).

Some significant tourism attractions were opened in the late 1970s and 1980s, including Rainforestation in 1976, and the Butterfly Sanctuary and Tjapukai Dance Theatre in 1987. These along with the markets, the train journey and its location in the rainforest were major drawcards to Kuranda.

4.4.8 Tourism in the 1990s and beyond

In the 1990s, the vibrancy of the tourism industry and the nature of Kuranda itself were challenged. Skyrail opened in 1995, Tjapukai was relocated to Smithfield in 1996 and Rainforestation started providing increasingly sophisticated tourism experiences. By this stage, tourists were being conveyed to Rainforestation for the day to experience the Koala and Wildlife Park, Army Duck rainforest tours and the Pamagirri Aboriginal experience, without venturing into Kuranda proper (Le Page & Co., 1997).

The Tjapukai Dance Theatre was a significant employer of Kuranda Aborigines. At its peak, the show was performed 17 times over the week. Aboriginal staff fulfilled reception and administrative functions along with backstage lighting and sound. The theatre was a source of great pride and belonging for local Aborigines. It was also an important gathering place. A great sense of loss was experienced when it moved to its current Smithfield location (Henry, 1999).

The closure of the Tjapukai Dance Theatre coincided with the opening of Skyrail. This cableway runs from the foot of the range crossing through World Heritage listed rainforest and the Barron Falls National Park before reaching Kuranda. Protests against the construction of Skyrail were strong with marches and blockades. Environmentalists and Djabugay joined forces to protest over issues such as damage to rainforest and the granting of leases in National Parks (Henry, 1999).

Kuranda was being 'loved to death' with over 700,000 visitors in 1992. Infrastructure was struggling to keep up with the visitor numbers (Henry, 1999). Kuranda residents were feeling concerned about their 'place' and 'home' and powerless against the forces of development. Studies, strategic plans, transport management plans and reports were commissioned to 'find Kuranda's future', its 'identity', to be factored into future development and management of the township (Henry, 1999).

Today, Kuranda still reflects its colourful past with the remnants of early settlement evident in the built environment and the arts, craft, music and traditions of the hippies and alternative lifestylers. A greater variety of attractions and activities are available for the tourist including the Venom Zoo, Birdworld and Riverboat tours. Tourists continue to experience the rainforest using walking tracks such as the Jum Rum Walking Track and the Rainforest Canopy Walk to the Barron Falls along with walking tracks to Wright's Lookout, Glacier Rock and Barron Falls.

The Markets continue to draw tourists and while there are fewer fruits and vegetables on sale, the talented artists of Kuranda continue to make and sell their artworks at the market and in local shops.

Like other towns across the Atherton Tableland discussed in this study, Kuranda will continue to determine its own future.

4.4.9 Myola: Railway Camp, Township and Timber Siding

Myola came into being with the news that it was to be the terminus of the second stage of the Cairns to Herberton railway. The Railway Camp was located approximately 4.5 kilometres from Kuranda and the Township of Myola around 1.5 kilometres further along the line.

Figure 17: Site of the Myola Railway Station. Hudson, 2003

As the railway got closer, Myola became a busy little place. A navvy camp was established to house the workers, and some of their wives and children. Ephemeral in nature, these camps usually had at least one hotel, a general store and a boarding house where meals were prepared for the single men (Hudson, 2003).

Few firsthand accounts of life in these camps have survived but one details childhood memories of life in the camps including at Myola, described thus:

"…At Myola, our home was built of slabs of bush timber. We had a bark house made with big sheets of bark for the roof and sides. Mother lined them inside with cretonne [a strong printed cotton fabric]…it had an earth floor but they stretched hessian over it and pegged it down tight…" (Hudson, 2003).

4.4.9.1 The arrival of the Railway

The arrival of the railway at Myola in 1891 appears to have been met with frustration at the absurdity of Railway Department actions. The Department declared Kuranda as the terminus of the railway, despite Myola being designated as such. The train dropped passengers and goods at Kuranda before proceeding to Myola to turn the train around for the return journey. Passengers and freight were not permitted to embark the train at Myola and were required to walk behind the train, along with pack horses carrying goods for transport, along the track to Kuranda to board the train for Cairns (*CP*, 1891 (2)). It was not long before the Railway Department changed its arrangements to accommodate the travelling public located beyond Kuranda at Myola.

In 1946, an early traveller on the railway reminisced on the aesthetics and comfort of travel on the early journey from Cairns to Myola:

> "… Carriages were crude and rough-seated. There was no lavatory accommodation. Lighting was provided by bowl-shaped oil lamps under the roof. Cinders from the apparently overworked locomotive poured in unceasingly through the open windows… but never one of the scores of tourists who travelled in luxurious carriages… never one of these viewed the scenery with more delight than I did…" (*CP,* 1946(2))

Apparently because of the Railway Department's decision to make Kuranda the terminus, a substantial railway station building was not constructed at Myola. This was much to the bemusement of at least one contributor to the *Baccus Marsh Express* (1893):

> "… I saw no railway station [at Myola], but soon learnt how THEY SELL TICKETS AT MYOLA. The conductor who stays behind hauls out a rubber stamp-looking punch, sets a 1 x 2 feet cabinet on the ground alongside the van, squats in front of it, and calls out, "Who wants tickets!" He has the ticket office in his hands which he takes back and puts under his bed (I suppose) until next day, when he finishes. The next conductor (for they have two conductors up here) swings his arm out like a semaphore, yells, "Take your seats, please!" whistles, drops his signal, and the engine pulls out of the paddock. The officials are courteous, and that is more than I can claim for some over our wire fence in New South Wales…"

Figure 18: Contractor's Camp, Myola. Hudson, 2003.

Despite its shaky start as a passenger and freight conveyor, Myola and its residents began to reap the benefits. Travelling became easier with Railway Department records indicating that passenger movements, excluding season ticket holders, from the Myola siding for the period 1895 to 1935 numbered 25,570, an average of approximately 690 passenger movements per year (*V&P*, 1896 – 1935).

4.4.9.2 Cobb and Co. track

When the railway reached Myola in 1891, the Railway Contractor cut a track into Myola to accommodate travellers wanting to carry on to Mareeba, making it the railhead for a large area (*CP,* 1891 (3)). Initially funded by railway money, the road was later funded by the Divisional Board. Anecdotally, the Cobb & Co. route to Myola passed through land occupied by The Billabong on Mt Haren Road, across the Barnwell property to Leila's Way on the northern boundary. Located near this area was a Horse Change Station and wheel ruts, possibly from the coaching era (Personal communication 1: 2017).

4.4.9.3 Hotels at Myola

Railways were a magnet for development, particularly the construction of hotels. The Second Section of the Cairns Railway was famous for its numerous hotels along its length and it was no different as the line approached Myola.

The most substantial and long-lasting hotel to be constructed was George Walton's hotel, Walton Arms. It was located half a mile before Myola railway siding and by 1891 the *Cairns Post* (4) was declaring it a little township on its own account. By then, Walton was carrying out extensions to his hotel due to the large numbers of visitors he was receiving, 50 at peak. It comprised a large detached building with wrap around verandas similar to his establishment in Cairns, the Railway Hotel. Along with several small detached cottages to accommodate families, a large dining room was added to the original building. Butter, milk, eggs, pork and beef were produced onsite on ten acres with local farmers supplying additional produce (*CP,* 1891 (4)).

Walton often sent his hotel guests in Cairns on the railway to stay in his establishment in Myola (*Bacchus Marsh Express,* 1893). Keen to offer all that could be found in Cairns, he purchased a piano to entertain visitors (CP, 1891 (5)).

As was common in small settlements, hotels functioned as centres of business and social centres. The Walton Arms Hotel appears to have filled at least some of those functions with Dr Dobie, the Surgeon for the Third Section of the railway, holding twice weekly clinics including gynaecological clinics at the hotel in 1891. Prescriptions were dispensed at a dispensary adjoining the hotel (*CP,* 1891 (6)).

The Walton Arms continued to trade until at least 1894, when a 'Lady Tourist' detailed her holiday in the *Australasian* (1894). Her description represents one of the most popular reasons for visiting the area: to experience the flora and fauna and the scenery:

> "We rusticated for a week at Myola, "doing" the scrubs for birds, butterflies, berries and shells, but as no rain had fallen for a long-time insect life was scarce, and not a shell was to be found. We got a few specimens of the large green and black butterfly… and a good many of the Delias species on the river bank. The large blue was now very scarce and wild. In the right season one person may net between 25 and 30 specimens in a day. Cassowaries, title birds, several kinds of pigeons and honey eaters, and the cat-bird are found here, and we got from a Kanaka [sic] three cassowary eggs. These are about the size of emu eggs, but much lighter in colour, and there are usually four or five in a clutch.
>
> The Barron River flows past the hotel and there is delightful bathing, the water being transparently clear, bottom sandy, and no alligators [sic] further up than Kamerunga. The blacks about Myola are very shy, and at times treacherous and troublesome… In the scrubs about Myola the lawyer cane abounds. It seizes you unexpectedly, tears your clothes, and you seldom escape with a whole skin. The stinging tree springs up wherever paths are opened into the scrub. The candle-nut, wild banana, pawpaw, Cooktown loquat, the match-box bean, Burdekin plum, Cairns ironwood and umbrella tree are common… A tree with a bright-red bottle brush flower, hanging in sprays and growing on the river bank, was much admired by all of us, as was also the striped red and white berry of the gourd family. A handsome tree, with dark leaves and dark-red clusters of pods, grew near the hotel, and also another, with brown oblong cones, six inches in length."

Liquor licence records indicate that there were at least two other hotels at Myola. These included the Hand and Heart Hotel licenced to W.H. Trewern (*CP,* 1891 (7)) and Peter Byrne's, Imperial Arms Hotel (*CP,* 1891 (8)) Byrnes' Imperial Arms was located on government land at the Railway Camp and was described as comprising one bar, a four-stalled stable, two sitting rooms and six bedrooms exclusive of those required for himself and his family (*CP,* 1891(9)). Like the Walton Arms, the Imperial Arms facilitated local business activities including a horse sale in 1891. (*CP,* 1891(8)). Byrne was also involved in gold mining on the Clohesy River Gold Field near Koah. As one of the owners of the Clohesy River Quartz Crushing Company, he was placed in liquidation in 1897 (*Cairns Argus,* 1897 (1)).

4.4.9.4 The Township of Myola

In 1889, Myola Township was surveyed. It comprised 43 town lots ahead of the railway's arrival in 1891. Little is known about the township but its general stores were described by one visitor as "…trade holes or shanties…" (*Bacchus Marsh Express,* 1893). Records indicate that at least three stores were established as the railway neared Myola. As was common with ephemeral railway townships, by 1892, two storekeepers were in liquidation. One, Michael Hearney, is reported as having liabilities of £420 (*Queenslander,* 1892) and the other storekeepers, Michael Ganey and John McEllenny, trading as Ganey and McEllenny were arraigned in the Cairns Magistrate Court in 1892. Court reports indicate that having been adjudicated insolvent, they were preparing to leave Queensland without paying creditors monies owed. They were declared insolvent (*Northern Mining Register,* 1892).

A third storekeeper was Alexander Shearer, selector of one of the Barnwell properties. Land Agent reports indicate that by 1892, Shearer had opened up a store at Myola, while still residing on Portion 22v. Shearer's wife ran the store throughout 1893 and it would appear that it closed after that (QSA, LAN/DF 1059: Farm 251).

Myola did thrive for a brief period. A few businesses established including a Forwarding and Commission Agent, P. Deare, in 1891, (*CP,* 1891 (10)) along with well-known Cairns General Merchant, G.R. Mayers and Co. (*CP,* 1891 (11)). Small business opportunities available to "men with small capital" included an

established butchering business located at the Railway Contractors Camp. This comprised all plant and equipment to process bullocks, pigs and sheep, a piggery and a grazing paddock (*CP,* 1891 (11)).

As construction of the railway moved toward Mareeba, Myola's fortunes began to decline and by 1893, a local reporter describing it thus:

> "The township … had a season of prosperity, but now other kings' reign in Israel who know not Joseph. I am afraid the allotments or many of them sold at Government Land Sales are now hardly worth the Divisional Board rates. During its day George Walton's Hotel had a lively time. George always catered for visitors on the same style for which his Railway Hotel in Cairns is famous…. The hotel is still kept on, and it is yet the resort that visitors… make a beeline for when visiting the district. In conjunction with Kuranda, Myola has a good extent of settled agricultural and timber lands at the back…. (*Cairns Argus*, 1893 (1).

By the 1920s, most of Myola's 43 town lots had been leased to surrounding farmers for timber-getting and agricultural purposes and by 1936, the Land Department considered that the Town of Myola had no prospect of development as a town. (QSA, State Lands Asset Management. Town of Myola. L0-09/73: L071-L073, Box 22) Some town lots were taken up and used for agricultural purposes including the cultivation of pineapples in the mid-1950s and avocados in the mid-1970s (QSA, APL 20816 D/0 (SL00078).

4.4.9.5 Myola Railway siding

Despite the demise of Myola Township, the railway siding continued as an important siding for the transport of agricultural goods and timber.

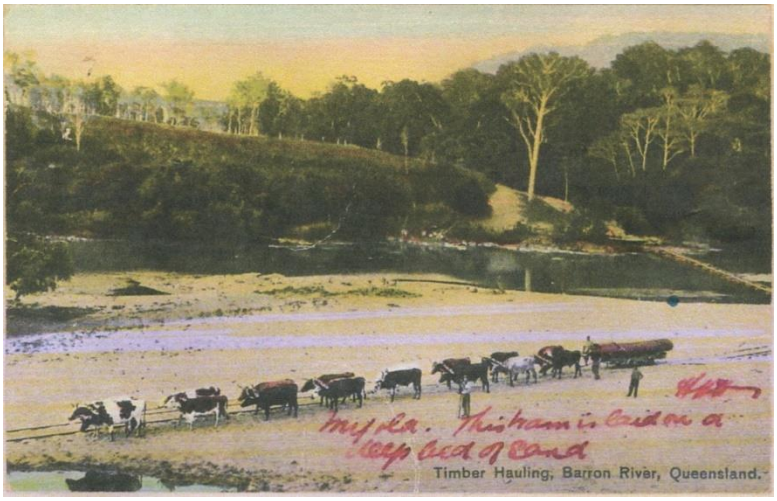


Figure 19: Hauling timber across the Barron River, Myola, c. 1912. QSA: LAN/AZ262

Much of the timber railed from Myola was sourced from the northern side of the Barron River. In the early 1900s a two-foot, 6-inch tram line was constructed across the Barron River to convey Hickory and other timbers across the sand bed of the river, and up and under the railway bridge on the Kuranda side of Myola, and then into the Myola railway yards. In 1906, the trestle bridge was washed away and rebuilt by W. Marriott and J. Ray. After being washed away again in 1910, it was again rebuilt by Mr. Ray. The tramway was washed away again in a subsequent year and was never rebuilt (*CP,* 1933 (2)).

Government reports indicate that this crossing was in existence by 1912, as noted in Figure 19. Subject to frequent flooding of the Barron River, the tramway was often buried and the Works Department considered installing an aerial ropeway across the Barron to transport timber, similar to that built by John Moffat at Irvinebank to transport ore across deep gullies as indicated in Figure 20. (QSA, LAN/AZ 262: No. 211, Myola Crossing Works).

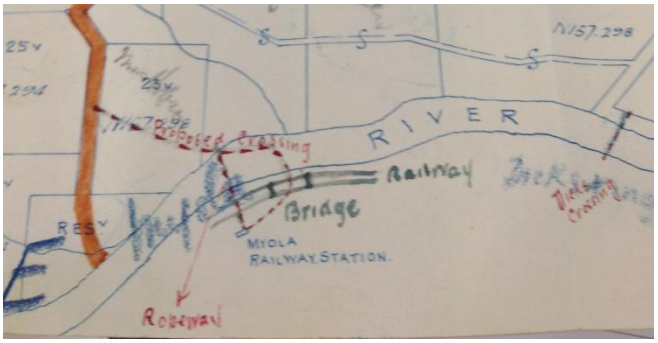


Figure 20: Proposed location of aerial ropeway across Barron River, 1912. QSA: LAN/AZ 262.

This never occurred. However, with Cairns Timber Co Ltd.'s interest in the area, a low-level bridge was built across the Barron River at Mantaka in 1934 with the aid of voluntary labour from local farmers. The bridge allowed access to hickory, kauri, oak and secondary timbers in the area between Mantaka and Myola (*CP,* 1934 (1)).

In 1936, a flat ramp for general loading purposes was installed and repairs were being made to the siding's shelter shed (*CP,* 1936 (1)). Cattle yards were erected at the siding at some point with materials supplied by locals and the Railways Department carrying out the construction works. By 1959, the yards were in a deteriorating condition requiring considerable repairs. These were carried out by local graziers G. Cannon and K. Atkinson (QSA, Works & General, 61.1531.1 to 61.1587.1, Box 36: Accommodation, Myola). It is unclear when this railway siding was closed.

4.4.10 Farming at Myola

Agricultural farms were taken up in the Myola area with its announcement as the terminus of the Second Stage of the Kuranda to Herberton Railway. Land Department files indicate that the land in much of the Myola area was "… all scrub…the soil a rich loam and well-watered [and timbered with] beech, hickory, kauri pine and bean tree…" (QSA, LAN/DF 1054: Farm 145). Much of the clearing was undertaken by individual farmers but Land Reports indicate that South Sea Islander labour was used on at least one Myola farm (QSA, LAN/DF 1054: Farm 146). The extent of this is difficult to gauge.

Like farmers across the Atherton Tablelands, those in the Myola area, practiced mixing farming experimenting with crops such as sugar, maize and tobacco and carrying a few dairy cattle and pigs. Tobacco was trialled in nearby Mantaka during the 1930s with good results and at least one farmer, F. Wust, planted 25 acres of tobacco (*CP,* 1933 (3)). Pasture was grown to graze cattle and the horse and bullock teams associated with the timber industry. Coffee was an early cash crop and looked promising as did dairying and the growing of pasture for seed. The growing of molasses grass and sugar cane to feed cattle and for seed was a common practice in the Myola area with some Myola farmers extolling its virtues in the press. It was seen as the answer to pasturing poor soils, able to withstand extremes of heat and cold and as hay for cattle in dry periods (*Queenslander,* 1931). By 1943, a few Myola farmers, including Veivers and Bartley were selling 'government tested' seed for 2/6 per pound (*CP,* 1943).

Citrus cultivation was established by most early farmers, largely for domestic purposes. Commercial cultivation appears to have been carried out by R.R. Veivers and J. Bartley in the 1930s (*CP,* 1936 (1)). By the 1940s Veivers appears to have been one of the largest citrus growers in the Myola area with 150 orange, mandarin, grape fruit and lemon trees bearing fruit (*CP*, 1942). Damage caused by fruit fly and orange moth infestations regularly spoiled ripening fruit (Townsville Daily Bulletin, 1935).

During the 1950s, Alfred Street's Fernhill Coffee Plantation was purchased by two Englishmen. Renaming it Mountain Grove, it was planted as a citrus orchard. Citrus was cultivated on this property until 1974 until it was purchased by the CaPTA Group and Rainforestation was developed (Henry, 1999).

Citrus proved to be a reasonably successful crop for some farmers. During the early 1980s, 40 hectares of citrus were being cultivated in the Kuranda and Koah areas (Hardman, 1982). By 2011, the area under cultivation in the Mareeba Shire Council area had increased substantially to 402 hectares across 250 farms (DAFF, 2011). It is not clear what proportion was grown in the Kuranda and Koah areas.

Figure 21: Pineapple plantation, Kuranda, c. 1892. JOL: 1072433.

The area's comparatively high rainfall encouraged the planting of tropical fruits such as bananas, paw paws, mangos, granadillas and pineapples. Figure 21 indicates that pineapples were being cultivated in commercial quantities by the early 1890s. The extent of pineapple cultivation beyond that for domestic use is not clear but by the 1930s, F. Wust was growing commercial quantities of pineapples with 200 dozen being railed to Cairns for shipment south (*CP,* 1933 (3)).

4.4.10.1 Coffee

As noted earlier, coffee was established in the late 1880s by a few early selectors on the Atherton Tablelands, most notably Alfred Street at Kuranda and George Windhaus on the southern Tableland. As early as 1893, it was being touted as the 'next best thing' for the Atherton Tablelands (*Cairns Argus,* 1893 (2)). By 1897 there were between 40 and 50 farmers cultivating between one and ten acres in the Kuranda area (*Cairns Morning Post,* 1897 (2)). The estimated crop for 1900 was 15 to 20 tons (*Cairns Morning Post,* 1899 (3).

By 1899, the Cairns Coffee Growers Association had been formed. Open only to coffee growers, it held its inaugural meeting in Kuranda. Meeting minutes indicate that the meeting was well attended with at least 12 coffee growers from the Myola area attending, including Thomas Haren, RW Warren, WA Hannam, C. Story, James Hamilton, G. Tenni, M. Tenni, W.A. Mayer, G.R. Mayer, J. Malcolm, W.A. Hannam and R. Sturt (*Cairns Morning Post*, 1899 (3)). Two of these growers, Thomas Haren and R.W. (Bob) Warren cultivated coffee on the Barnwell property.

Figure 22: Mayer's Glencairn Coffee Plantation, c. 1900. State Library of Victoria: H2014.1013155.

The most prominent coffee grower in Kuranda was Alfred Street who grew coffee for approximately 20 years on 'Fernhill' (present day Rainforestation). Coffee growers supplied coffee beans to Alfred Street for marketing under his "Barron Falls" brand. By 1897, the coffee industry had developed to such an extent and optimism was such, that the "Myola Coffee" brand was developed and marketed by local merchants Walsh & Co *(Cairns Morning Post,* 1897).

Alfred Street used Aboriginal labour to harvest his coffee and in 1911 was paying 2/- per week with food and clothing. By this stage, Aboriginal labour was becoming increasingly difficult to source (*Bundaberg Mail,* 1911). It is likely that other coffee producers in the area also used Aboriginal labour along with South Sea Islanders (Figure 23).

Figure 23: Workers, including South Sea Islanders, on coffee plantation, Kuranda, c. 1900. JOL: 129808

Coffee declined as a commercial crop largely because of the high labour costs of harvesting the beans and competition from imports of cheap Brazilian coffee. Only 32 acres remained in 1917, and soon after coffee production ceased. (*V&P,* 1917). Low temperatures leading to crop failures in some years also contributed to the industry's demise (*CP,* 1921).

Coffee became viable again when experienced coffee producers from Kenya migrated to the Atherton Tablelands in the 1970s. The availability of suitable land in the Mareeba-Dimbulah area along with the development of mechanised cultivation and harvesting methods has allowed the industry to expand to the point where it is now one of Australia's premier coffee producing areas. In 2005, ten growers produced approximately 600 tonnes per annum (Tablelands Research and Consultancy Services, 2007). It remains a niche product with seven farms on the Atherton Tablelands producing 323 tonnes in 2011 (*DAFF,* 2011). Today there is no coffee is produced in the Kuranda and Myola areas.

4.4.10.2 Sugar

Few farmers grew sugar in the Kuranda and Myola areas. Alice Jane Markham and her husband E. M. Markham appear to have seen the area's future being in the cultivation of sugar. The Markham's arrived in Myola after owning hotels in Almaden and Mungana, the Barron Valley Hotel in Atherton and the Strand Hotel in Cairns (*CP,* 1953 (2)). By 1924, their 'Clifton Farm' at Myola was supplying an improved sugar variety to local farmers for cultivation (*Northern Miner,* 1924).

It is unclear how successful their attempts to encourage the industry in the area were. In 1925, Markham appears to be the only farmer in Myola growing sugar under quota for the Mulgrave Mill. By then, they had 12 acres under cultivation (*CP,* 1935 (1)) increasing to 25 acres by 1935 (*CP,* 1935 (2)). Sugar was cultivated on this property until 1938 (*CP,* 1938 (2)) when it was sold to the Hargreaves Brothers who were also cultivating sugar (*CP,* 1946 (1)).

The Department of Primary Industries established an isolation plot, known as the Hargreaves Brothers Propagation Plot, at Myola in 1944. Hargreaves was a registered sugar grower and was provided with free sugar plants and assistance with planting. Various sugar varieties were trialled looking at growth and stand in this part of the Tablelands (QSA, Bureau of Sugar Experiment Station Files: 20778: Isolation Plots Mossman, Myola, 1944 – 1976, Box 22). In 1973, the Leaf Scald Strain Environmental Trials were conducted, concluding in late 1975 (QSA, Bureau of Sugar Experiment Station Files: 20778: Project Repeat Leaf Sealed Environment Trial, Myola, 1973-1975, Box 69).

4.4.10.3 Dairy farming

By the 1930s, a few Myola farmers had established dairy farms and were supplying milk to Cairns. The most important dairy farmer in the Myola area was A. J. Markham who also as noted above, was a prominent sugar grower in the Myola area. By 1931, she was improving her herd with the addition of 20 head of Illawarra Shorthorn Dairy cows from the Malanda area and was Myola's largest supplier of milk to Cairns. (*CP,* 1931 (1)). By 1938, dairy farmers in Kuranda, Myola and Mantaka were railing to Cairns twice daily consignments of milk for the city of Cairns milk supply (*CP,* 1938)).

There were a few efforts made by local farmers to establish a butter factory, one by R.W. (Bob) Warren, one of the early farmers on the Barnwell property in 1909, and another in the 1930s. Keen to see the dairy industry establish in the Kuranda district, Bob Warren wrote an impassioned "Plea for the District," in a letter to the Editor of the *Cairns Post* (1909) in his capacity as Chairman of the Cairns – Atherton Dairy & Ice Co, pleading the Company's case and for the survival of the dairy industry:

> "… I am writing to you for some space in your valuable newspaper to try and raise some financial sympathy and support for the [Cairns-Atherton Dairy & Ice Co.] … This company was formed some four years ago to purchase the old Cairns Butter Factory and turned it into a cooperative company and after struggling for that time we now find ourselves unable to afford the payments falling due.
>
> The government lured us on with promises to lend us £2,000 which would have paid all our debts to within £100… there have been thousands spent in this district in the purchase of cattle, sheds, dips and machinery and if we lose the factory, all is lost, as the landholders, as I understand, do not intend to run it unless some help arrives.
>
> The Government could well have done it seeing that sales of timber and land in the Atherton district alone approach half a million sterling, and again since this factory has been in existence, settlers have been attracted from other states to go into the dairying business. The value of the land has increased by at least £1 an acre and our turnover by over £3,000 per year… there will be an extraordinary meeting held on 3rd January, at 2:30 o'clock of shareholders to consider our position, and if it is possible to arouse some enthusiasm by then… If you can impress our landholders with the necessity of keeping the industry going… you will have earned the gratitude of every person in the district…"

Warren's plea for the district and the industry apparently fell on deaf ears.

Despite dairy farms being sold off (*CP,* 1922) and the industry in decline by the early 1920s, another attempt was made to establish a butter factory at Kuranda in the 1930s. F.H. Dean, another Barnwell property farmer, keen to capitalise on the electricity supplied by the Barron Falls Hydro Scheme (1935), made another call for the establishment of a butter factory in Kuranda (*CP,* 1932). A few meetings were called but were poorly attended. Coupled with the decline in the industry and a factory system which did not allow farmers to rear calves or pigs (*Northern Herald,* 1934 (1)), it is not surprising that there was a lack of interest in establishing a butter factory.

With the demise of the dairy industry, many farmers continued mixed farming growing crops such as pasture seeds as noted above and transitioning into or increased cattle production. There is little documentary evidence to indicate the level of cattle production carried out in the Myola area. However, the timber industry was thriving during this period and it is likely that some landholders were involved in both, the raising of bullocks and horses for the timber industry, as well as cattle and pigs and the cultivation of crops.

Stock movement reports contained in newspapers of the day indicate the regular movement of cattle and horses by rail and droving, to and from Myola and the saleyards at Mareeba. Well established farmers such as Markham and Bartley were purchasing bullocks and cattle and transporting them to Myola in the 1930s (*CP,* 1930 (2); *Northern Herald,* 1934 (2)). Zebu cross steers were bred on at least one property, with a pen of them being sold on account of C.V. McDougal, Myola in 1954 (*Townsville Daily Bulletin,* 1954).

4.5 The Barnwell property

4.5.1 Introduction

Today, the former Barnwell property comprises lots: L22 N157227; L20 N157 423 and L1-2 RP 703984; and L17-18 N157 227, amongst others. These lots were originally opened-up for agricultural selection in the 1890s following the selection of Myola as the terminus of the second stage of the Cairns to Herberton Railway.

Figure 23: Site map showing approximate location of boundaries of original agricultural selections, 1890s.

Historical Title Searches and Land Department files indicate that upon selection at least five agricultural farms (AF) were established: AF 154 on Portion 17v; AF 214 on Portion 18v; AF 192 on Portion 21v; unknown farm number on Portion 20v; and AFs 145 and 251 on Portion 22v. Figure 23 indicates the approximate boundaries and location of each farm at the time of selection.

Over time, subdivisions occurred on the properties and adjoining properties, altering their configuration and increasing their size through the purchase of adjoining lots. Each of the early selections will be discussed below indicating the patterns of land use, location of early home and cultivation sites where known, and changing ownership patterns.

4.5.2 Portions 17v and 21v

Portions 17v and 21v were selected as separate agricultural farms in the 1880s but by mid to late 1890s, both had been purchased by the Warren family. These Portions will be discussed individually until the date when they were purchased by the Warrens and thereafter discussed together.

4.5.2.1 Portion 17v

Portion 17v, the site of the present homestead, was selected in October 1886 by John Russell, a bush carpenter and comprised 149 acres (Figure 25). Land Agent reports indicate that by 1891 considerable improvements had been made to the property:

- A house measuring 24 x 14 feet containing two rooms built with sawn timber and an iron roof, erected on blocks two feet above the ground. Value £60.
- Fifty acres of scrub felled and burnt off and grass planted. Value £350.
- Stockyard, killing yards and gallows. Value £30.
- Pigsty and yards. Value £15.
- One hundred chains of fencing, part split post and two rail and part split post top rail and two barbed wire. Value £100.
- Fifty orange, lemon and citron trees. Value £25. (QSA, LAN/DF 1054: Farm 154)

The Land agent further noted that the cleared land was under cultivation, growing potatoes, pumpkins, fruit trees and pasture grass. Mr Russell was granted freehold title to Portion 17v in 1892 (QSA, LAN/DF 1054: Farm 154).

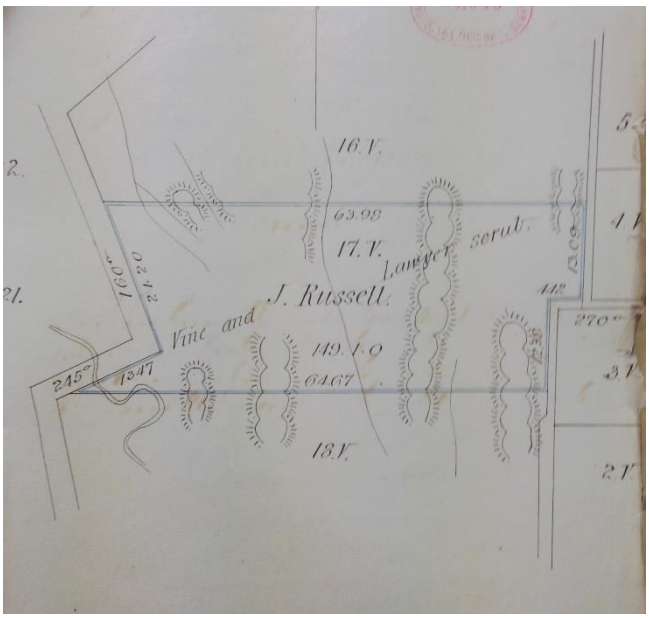
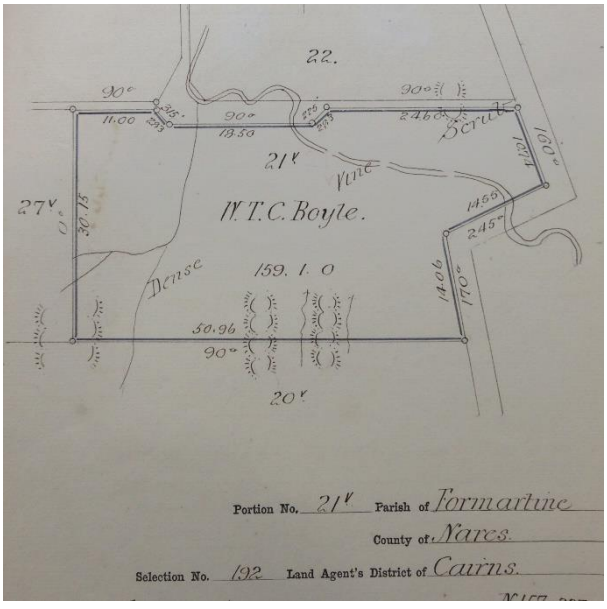


Figure 24: Land Agent's diagram showing Portion 17v, 1891. He made no notations to indicate the position of improvements described above. QSA, LAN/DF 1054: Farm 154.

By 1895, this property had been purchased by Robert William Warren. Title was transferred to William Henry Warren in 1897 with freehold tenure granted in 1898. Warren made substantial improvements to both properties, and was an innovative farmer being an early and successful dairy and coffee grower.

Portion 17v was subdivided and along with Portion 21v also owned by the Warrens, sold in 1915 as described in Portion 21v below.

4.5.2.2 Portion 21v



Portion 21v, comprising 159 acres was selected by William Boyle in June 1887(Figure 26). Land Agent reports indicate that the property was never occupied and no improvements were carried out leading to its forfeiture in 1889 (QSA, LAN/DF 1056: Farm 192). No further information was available in Lands Department files.

Figure 25: Land Agent's diagram showing Portion 21v, 1887. QSA, LAN/DF 1056: Farm 192.

Portion 21v was taken up by R.W. Warren at that time. In 1901, that property along with Portion 17v was subdivided into two lots, Subdivision 1 and Subdivision 2 (Figure 27) (DNRM, Deed of Grant N 6208: Vol. 125, folio 28).

In 1915, the Warren's began to sell the properties. Subdivision 1 was purchased by Albert Veivers in 1917, transferred to Robert Albert George Veivers in 1933 and sold to William Henry Barnwell in 1955. Subdivision 2 had a series of ownership changes in conjunction with Portion 22v discussed below and was purchased by William Henry Barnwell in 1936 (DNRM, Historical Title Search: 20349230).

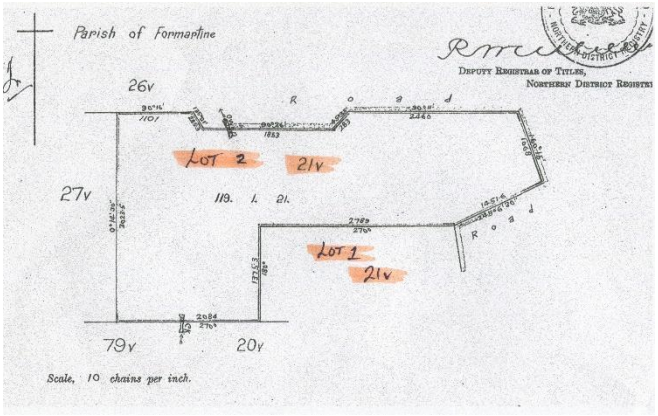


Figure 26: Marked-up map showing subdivision of Portion21v, 1901. DNRM, Deed of Grant: N 52680, Vol. 349, folio 230.

4.5.2.3 Robert (Bob) William Warren

As detailed above, Bob Warren purchased portions 21v and 17v along with Annie Elizabeth Warren in the 1890s. The Warrens established a coffee plantation on the property which they named 'Downtown Farm'. He invented and built a coffee pulping machine (Figure 28). The *North Queensland Register* (1899) made much of his invention describing it as being equal to that of the imported version of the machine and available at a quarter of the cost, £4 vs. £21 landed in Cairns.

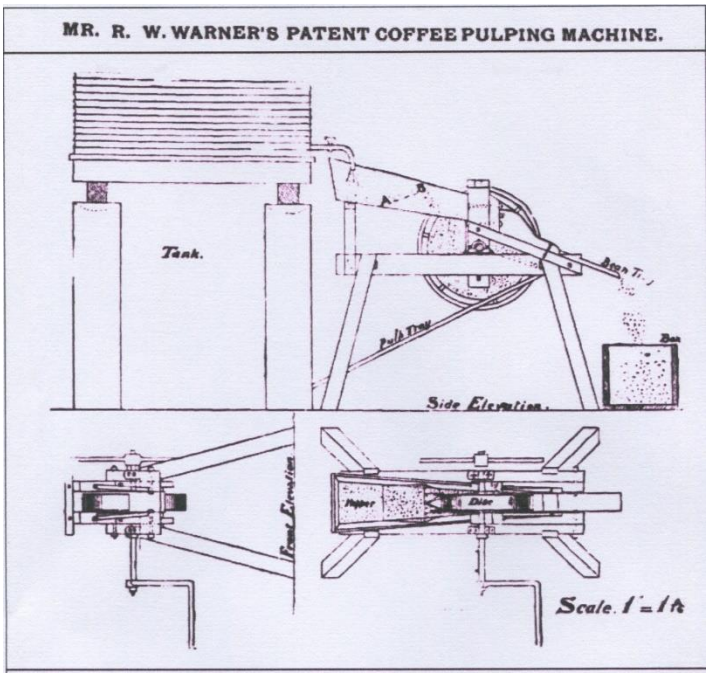


Figure 27: Coffee Pulping Machine. North Queensland Register, 1899

The reporter described its workings thus: "The frame is of hardwood, securely bolted together and made so as to be taken to pieces. Its supports a 20-inch face copper disc having protruding bulbs about ¾ of an inch apart which are keyed on to a one-inch shaft and running in brass bearings, making it quite true and easy to work. The cherry is sullied to the hopper by a small stream of water running in as shown and runs first over a slanting partition down to the vertically fixed chop. The pulp is then torn off and runs down the pulp tray, while the clean beans go on down the shoot into a box placed there to receive them. The amount of water required is very small, and although a tank is shown, an ordinary barrel will do…"

Apparently, many of the coffee farmers purchased plans for the coffee machine and it was widely used by the Myola and Kuranda coffee growers (Humston, 1988).

As indicated earlier, Bob Warren was one of the early dairy farmers at Myola and along with A.J. Markham was one of the biggest suppliers of milk to Cairns and as noted in Section 4.4.10.3, was keen to see the dairy industry established in the Kuranda district. He made substantial improvements to his properties and dairy herd before selling up and leaving the area in 1914. By then, he had a herd numbering 83 head of pure bred Jersey cows (*Northern Herald,* 1914). Descriptions in local newspapers described his properties, Subdivision 2

of Portion 17v and Portion 21, as one of the "plums of the district" (*CP,* 1914 (1)). It comprised 212 acres (*CP,* 1914 (2)), improvements included:

- Three paddocks each approximately 10 acres with permanent running water and cultivated with artificial grasses.
- Eight acres ploughed.
- Orange, lemon, mango and mandarin trees under cultivation.
- A concrete dip and draining yard.
- Machinery, including a Robey 5 horse power engine, a chaffcutter, corn grinder and tools.
- 10x12 foot dwelling, mounted on eight-foot blocks, built of oak and bean tree.
- Dwelling enclosed by verandas.
- Kitchen underneath the house (*CP,* 1914 (3)).

Warren's purebred Jersey dairy herd and bulls were sold separately to the farm. The property was passed in at auction with a reserve of £450 (*Northern Herald,* 1914), but sold in 1915 to Albert Veivers as described above.

4.5.2.3.1 The puzzle of James Hamilton's grave

James Hamilton' grave is located on Portion 17v near the present day former Barnwell residence. Historic title searches and review of Land Department files associated with this property indicate that James Hamilton never owned Portion 17v. However, Land Department files indicate that Portion 34v, west of the study area, was transferred to James Hamilton by Ernest Henry Osborne in 1898 for £50. Hamilton forfeited this property due to failure to pay rent for the year 1901 (LAN/DF 1067: Farm 451). He took his own life on the 24th of November 1901 (*Cairns Morning Post,* 1901; *North Queensland Register,* 1901). His death certificate confirms that he took his own life with a shotgun and was buried the following day (Queensland Death Certificate: 1901).

James Hamilton, formerly of Glasgow, grew coffee at Myola probably on his property, Portion 34v. He was committed to the industry as evidenced by his membership of the Cairns Coffee Growers Association in 1899 (*Cairns Morning Post*, 1899) and invested in coffee sheds with trays on wheels that ran coffee into the sun to dry during the day. A windmill was used to pump water from Owens Creek which flowed through his property, to process the coffee. Anecdotally, he took his own life after a frost affected his coffee crop. He left a note addressed to Bob Warren, who built his coffee processing plant, stating that his violin was to go to him. Apparently, Hamilton spent many nights with the Warren family practicing the violin.

James Hamilton had at least one relative living in Australia, his cousin Adam Hamilton who resided in Redlynch, Cairns. At the time of his death he had spent approximately 4.5 years in Australia, four of those in Queensland (Queensland Death Certificate: 1901). His family in Scotland had a headstone erected on the grave at the property (Humston, 1988).

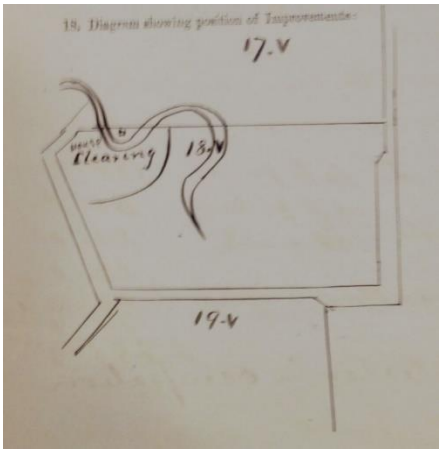
Another puzzling aspect of this unfortunate episode lies with the notice in the *Cairns Morning Post* (1903), which advertises for sale:

> "Portion 17v, known as Hamilton's Selection, Myola, to close estate accounts, area 149 acres. Upset price £150. Good House and large clearing occupied by Bert Veivers."

Portion 17v had been purchased by Bob Warren in the 1890s, with ownership of the property not passing to Bert Veivers until 1915. It is possible that Bert Veivers was leasing the property from the Warrens, or that James Hamilton was cultivating coffee on Warren's property.

4.5.3 Portion 18v

Portion 18v, comprising 158 acres was selected in April 1888 by Thomas Haren (Figure 29). Land Agent reports indicate that by March 1890, improvements to the property included a house, clearing of scrub and cultivation. By 1892, some fencing had been carried out and maize, potatoes and bananas were being grown. In 1893, the Land Agent reports indicate the following improvements:



- A house constructed, 20 x 10 feet, comprising two rooms built with split slabs, a front veranda and a back skillion. Value £20.
- Kitchen built with split slabs. Value £15.
- Fifteen acres of scrub cleared. Value £120.
- Thirty chains of fencing valued at £24.
- Forty seedling fruit trees. Value £5.
- One outhouse used as a dwelling. Value £25.
- One stockyard. Value £10 (QSA, LAN/DF 1057: Farm 214).

Figure 28: Land Agent's map showing area of Portion 18v cleared for cultivation and location of house, 1892.
QSA: LAN/DF 1057: Farm 214.

Haren received freehold tenure of Portion 18v in April 1894. It is unclear how long this property was retained by Mr Haren and no further details were available in Lands Files or through historical title searches.

4.5.4 Portion 20v

Portion 20v comprising 160 acres was taken up for agricultural selection in 1894 by Alexander Gordon and Alfred George Stevens, with freehold title obtained in 1901 (DNRM, Deed of Grant N 4097, folio 44). Title passed to John Wilson Walton, licensee of the Walton Arms Hotel, Myola (*CP,* 1893 (1)) in 1903. Land files for this property were not located at Queensland State Archives and it is not clear as to what early agricultural activities were carried out on Portion 20v.

In 1934, the farm was purchased by Frank Henry Dean. Dean worked for many years in the Railway's mobile post office in Cairns and Kuranda (*CP,* 1948 (1)). He was a prominent member of the Kuranda community and frequently wrote letters to the *Cairns Post* highlighting issues of import to the Kuranda area and pushing for improvements such as the construction of the Kuranda to Cairns Road and the building of a road bridge over the Barron River (*CP,* 1930 (1)).

He saw the advantages of the Barron Falls Hydro Electricity Scheme constructed in the mid-1930s and encouraged government and settlers alike to grasp the opportunity of plentiful power to build a butter factory in Kuranda and open up more land for dairying (*CP,* 1932) and a sawmill (*CP,* 1931 (2)).

Throughout his time in Kuranda, he purchased several blocks of land apparently with the intention of milling the timber when the opportunity arose. North of the Barron River, he purchased two blocks of standing timber in strategic locations near the Barron River Hydro Electricity Scheme and at McKenzie's Pocket, which he sold to Johnston's Sawmill in Cairns (*CP,* 1933 (2)). It is not clear from documentary evidence what agricultural activities were pursued by Dean on this property. It is possible that he milled the timber on the property during the 1930s. Following Dean's death in 1948, title transferred to his four children as tenants in common, who retained it until William George Barnwell purchased the property in 1970 (DNRM, Historical Title Search: 20815084).

4.5.5 Portion 22v

Portion 22v, comprising 100 acres was selected by William Wreford in August 1886. A Land Agent's report in February 1889 indicates that 12 acres of scrub had been felled but that Wreford was no longer in residence:

> "Selector sold the galvanised iron off his buildings and cleared out disgusted with his farming experience. I do not think he will return to claim the selection" (QSA, LAN/DF: 141-164. Farm 145).

By April 1889, Portion 22v had been forfeited due to failure to pay rent for 1888.

The property was offered for reselection and taken up by Alexander Shearer in October 1889 (Figure 30). By 1892 a shelter had been constructed, clearing undertaken and fruit trees were under cultivation. The Land Agent was reporting that Mr Shearer and his wife had opened a general store at Myola, while still residing on the property, thereby satisfying occupancy obligations. The land remained unused but rental payments made until 1894 when cultivation of the property began in earnest:

- House measuring 24x12 feet, consisting of two rooms built with sawn timber, a front veranda and roofed with iron. The building was erected on blocks and floored. Value £50.
- Kitchen with value of £10.
- Twenty-four acres of scrub felled. Value £60.
- Fifteen chains of part two rail split and part two wire fencing. Value £6.
- Fifty-five fruit trees. Value £20.

Freehold tenure of Portion 22v was granted April 1895. (QSA, LAN/DF 1059: Farm 251. Cairns).

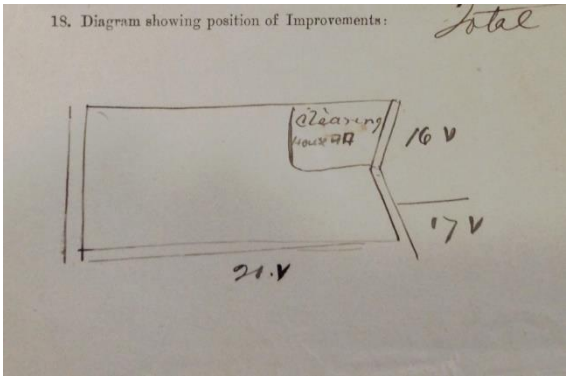


Figure 29: Land Agent's diagram showing position of improvements on Portion 22v, 1889. QSA: LAN/DF 1059: Farm 251.

It seems that Warren purchased this property along with Portion 27v, on his western boundary, at some point after 1895, probably around the same time as purchasing 17v and 21v. Alexander Shearer, like many others followed the construction of the railway as it made its way toward Mareeba. By 1895, Shearer held the liquor licence for the Diggers Arms Hotel at Koah (CHS, *Queensland Hotels and Publicans Index*). He held this until 1897 and as the construction of the railway progressed toward Mareeba, he made an application to have his license applied to the Barron River Hotel, at Biboohra. (*Cairns Argus,* 1897 (2)). It is likely that he sold Portion 22v to Warren around 1895 to pursue his other business interests.

Included in Warren's 1914 sale of Portions 21v, 17v and 22v, was Subdivision 3 of Portion 27v which is located on the western boundary of Portion 21v (*CP,* 1914 (1)).

As noted in Section 4.5.2.2 above, Subdivision 2 of Portion 21v occurred and this along with Portion 22v was purchased by Herbert Edward Atkins in 1915. It is not clear as to what agricultural activities were undertaken by Atkins but he was quickly advising the Barron Shire Council that he was going to fell scrub on Portion 22v (*CP,* 1915).

Atkins retained ownership until 1920 when the property was purchased by Charles Thomas Heppel who retained it until his death in 1922. The property was transferred to James Spender (*CP,* 1923 (1)) who then put it up for sale. It was purchased by William George Bradley in 1923 who retained it until 1936 when it was purchased by William Henry Barnwell.

4.5.6 Consolidation of the properties

As outlined above, William Henry Barnwell progressively purchased the properties over a period of approximately 35 years:

- 1936: Subdivision 2, Portion 21v.
- 1936: Portion 22v.
- 1955: Subdivision 1, Portion 21v.
- 1970: Portion 20v, purchased by William George Barnwell, William Henry's son (DNRM, Historical Title Search: 20815084).

As stated earlier, it is not clear from Lands Department files and title searches, when Portion 18v was purchased.

Upon William Henry Barnwell's death in 1999, titles for all properties held in his name were transferred to Dawn Barnwell, William George Barnwell and Grace Harriman as tenants in common. Upon the death of Dawn in March 2014, title transferred to William George Barnwell, Grace Harriman and the Public Trustee as tenants in common, before being purchased by Reever and Ocean in August 2014 (DNRM, Historical Title Search: 201250029).

4.5.7 Farming in the Barnwell era

4.5.7.1 Introduction

Little is known about the Barnwell family and the details of their agricultural activities on the property. There are different factors resulting in limited information emanating from the public. Local newspapers were consulted to fill in the knowledge gaps and gain understanding of the farming and social history of this family.

4.5.7.2 Dairy and Cattle farming

William Henry Barnwell began dairying on two of the Barnwell properties in 1936 (Subdivision 2 of Portion 21v and Portion 22v) when he and his wife and infant daughter, Dawn, moved to Myola from Stratford (*CP,* 1936 (2)). The Barnwell's had two more children, William George and Grace.

They purchased their dairy herd from a Mrs Clacherty, one of the district's milk suppliers. It is not clear as to how large the dairy herd was, however, Mrs Clacherty was considered one of the better milk producers in the area, it is likely that the cattle were of good quality (*CP,* 24 October 1936 (3)).

Barnwell purchased a well-developed dairy farm given Warren's history as a successful dairy farmer. As detailed earlier, these properties had many enhancements including improved pastures with some areas ploughed and under cultivation, a dip, machinery and buildings. It seems Barnwell successfully established as a dairy farmer and by 1939 he was advertising for a dairy hand with remuneration of 25 shillings per week and keep (*CP,* 1939 (2)).

In the 1940s/50s the Barnwell's constructed a farm house on the property. This building remains in its original location on top of a small rise overlooking cleared paddocks, livestock and rainforest in the background. The family went onto develop manicured lawns and rose beds on the eastern side of the building, providing a striking aesthetic experience as one drove up the driveway toward the house (Personal communication 3: 2017).

At some point, possibly following World War II, the Barnwell's stopped dairy production. As detailed in Sections 4.3.5.4 and 4.4.10.3, dairying in the Myola area was declining in the 1920s and by the 1930s had been supplanted by the dairy industry on the southern Tablelands. The Barnwell's established their farm in what was to become a turbulent time for all farmers on the Atherton Tableland and elsewhere, with the

outbreak of World War II in 1939. The War severely disrupted the marketing and transporting of all agricultural products due to changes in rail and shipping arrangements. Many farmers were required to grow fruit, vegetables and meat products to supply army needs.

It is unclear whether Barnwell was directed to grow fruit, vegetables and meat products to support the War effort but as a dairy farmer he would have been producing milk to supply the district.

He may also have been supplying pigs and/cattle for meat for the war effort when during the period 1939 to 1945, 12,000 pigs and 2-4,000 head of cattle/year were processed at the Biboohra Meat Factory (*Townsville Daily Bulletin,* 1946). While there is no evidence to indicate that Barnwell was producing pigs during the war years, he did in the post-war years. He does not appear to have been supplying pigs directly to the Biboohra Meat Works, but was selling weaner pigs. In 1945, he advertised for sale, 30 weaner pigs at £1 each (*CP,* 1945 (2)) and an 18-month-old, purebred Tamworth boar for £6/6/- (*CP,* 1945 (3)). He sold a further 12 weaner pigs in 1946 (*CP,* 1946 (3)) and eight weaners and four backfatters in 1953 (*CP,* 1953 (1)). The small size of these transactions indicate that he was producing pigs to supplement farm income and value adding to milk production.

Anecdotally, William Henry Barnwell was one of the earliest cattle farmers in the Myola and Kuranda areas to carry Droughtmaster cattle. He was well regarded as a 'cattle man' in the Myola area (Personal communication 1: 2017).

Others familiar with the property in general terms advise that the cattle grazing was undertaken on a limited basis particularly in the last 20 to 30 years (Personal communication 2: 2017). Limited extant farming infrastructure support this. A search of Stock Movement reports in local newspapers did not indicate any cattle movements from the Barnwell property.

Neighbours report that the property fell into a state of disrepair over a period of 20 to 30 years, particularly in relation to poor maintenance of boundary fences. Anecdotally, Barnwell senior was more interested in cattle farming than his son and the formers death in 1999 may have contributed to the neglect of farming infrastructure (Personal communication 1: 2017). Over time, this was exacerbated by advancing years and the ill health of both, William George and Dawn Barnwell.

5.0 COMMUNITY CONSULTATION

5.1 Introduction

Integral to the historic assessment of any site is identifying and locating places of potential significance. While much can be gleaned from primary and secondary documents and contextual histories, it is vital that people who live and work in an area and members of the surrounding communities are involved in the identification process. To achieve this successfully, a community must have adequate information about a proposed development which includes an understanding of town planning processes and how historic sites are identified and significance assigned.

To promote this understanding and to identify sites of potential historic significance within the Study Area, the author attended two Information Days, hosted onsite by the proponent. These were held on 18 February 2017 and 3 June 2017. Both days were well attended with approximately 100 and 80 attendees, respectively.

5.1.1 Methodology

Community engagement initiatives undertaken for this study are underpinned and informed by the IAP2 Model of community participation. This model was developed by the International Association for Public Participation (IAP2) and incorporates seven core values/principles which build on the notion of negotiated inclusion, and shared processes and information. The principles comprise:

1. The public should have a say in decisions about actions that could affect their lives.
2. Public participation includes the promise that the public's contribution will influence the decision.
3. Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision makers.
4. Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
5. Public participation seeks input from participants in designing how they participate.
6. Public participation provides participants with the information they need to participate in a meaningful way.
7. Public participation communicates to participants how their input affected the decision.

The IAP2 participatory spectrum assists organisations and practitioners to better understand the potential and limitations of their community engagement programs. It differentiates between informing and consulting approaches and those of collaborating and empowering. In addition, it outlines what might constitute different levels of community engagement at a community level, and recognises that not all community engagement projects are the same or have similar engagement outcomes.

Prior to the first Information Day, at least 20 potential attendees (immediate neighbours) were spoken to by telephone inviting them to the Information Day. They were also asked about their knowledge of the history of the Study Area; their willingness to contribute to the historical component of the studies being undertaken for the Draft EIS, and their thoughts regarding the proposed development.

At the Information Day, the Project team provided an overview of the Environmental Studies, their progress and relationship to the Draft Master Plan, which at the time was being prepared in a parallel process.

Prior to the second Information Day, four potential attendees (for whom no other means of communication were available) were spoken to by telephone. They were invited to attend the event and asked about their ability to contribute to the historical component of the draft EIS.

Some attendees were spoken to over the course of both events in relation to the historical component of the project, the details of which are detailed below in Section 5.1.2.

5.1.2 Results of Community Engagement initiatives

As noted above, the Information Days were well attended with approximately 100 and 80 attendees each.

It became clear in conversations with attendees both, prior to the Information Days and on the days that there appears to be little local knowledge in relation to the history of the Study Area and of the Barnwell's themselves. This can be accounted for in different ways:

- The Barnwell siblings who lived on the property until recent years were reclusive in nature.
- Many of the Barnwell's cohorts have either passed away or due to their advanced years, are unable to contribute meaningfully to the project.
- Some attendees at the Information Day expressed an unwillingness to be involved with the project, fearing retribution from those opposed to the project.
- Many of the attendees are opposed to the project and as such are unwilling to contribute to the historical component of the project.

However, despite these constraints, some information was forthcoming regarding the Barnwell family. Any information received from the public has been depersonalised to protect their privacy.

5.2 Field Survey

5.2.1 Methodology

The survey methodology adopted for this study incorporated a targeted vehicle and pedestrian surveys across the cleared areas of the Study Area. Areas and places identified through primary and secondary sources and from community consultation revealed that the most likely locations of places of historical interest were on the historically cleared parts of the Study Area. Local knowledge provided by onsite caretaker, Billy Ericson was invaluable in locating heritage remains across the site. approximately 90% of the cleared areas of the Study Area was surveyed. Fieldwork was carried out over four days: 2 April 2017, 30 April 2017, 31 May and 2 August 2017.

All survey data was recorded in field notebooks and locations of any items or place of historical cultural heritage were captured via a hand held global positioning system (GPS). Where/when lighting conditions permitted, areas of interest were photographed. All photos were logged in a field notebook to be transcribed to a laptop computer for initial storage. Upon completion of the report, photographs and other data were stored in a drop box folder.

Sampling strategies can be either purposive, where specific areas are targeted, as is done with predictive modelling; or probabilistic, where decisions are made to survey without any prior knowledge or predictive model of what heritage items might exist in the landscape. Archaeological survey strategies usually involve transects across the Study Area chosen at random (probabilistic) to avoid possible bias in the results; or transects within areas (purposive) known to be historically significant, or those designated areas specifically earmarked for development.

For these surveys, a purposive sampling strategy was employed. Historical research and community consultation enabled a comprehensive survey of areas known to be of historical interest whilst remaining inside the survey timeframes.

Noted historic cultural heritage areas or items were recorded with reference to location, environmental context, levels of previous impact. Condition and relevant comments were recorded. All GPS points were collated and mapped. A map of these points can be found on Appendix 1. The information obtained from each site was recorded on inventory forms which are contained in Appendix 2. Scaled drawings for the former Barnwell residence are contained in Appendix 3.

6.0 RESULTS OF HERITAGE INVESTIGATION

6.1 Introduction

Results of the contextual history, community consultation and field surveys identified potential historic heritage places in the Study Area. The sites identified through this process are listed in Table 2 below. A detailed inventory of each site is contained in Appendix 1.

6.2 Summary of Results

This study found that the Myola and Kuranda areas are significant in the early history of the Atherton Tablelands and that within the Study Area there are at least 26 items/historic sites with potential heritage value. Of these sites: six require further research; two have archaeological potential; one site requires further investigation and assessment for entry onto Mareeba Shire Council's Local Heritage Register and; two sites require further investigation and assessment for entry onto the Queensland Heritage Register. Additionally, 17 historic items/sites require heritage boundaries to be established around them to maintain their historical integrity. These are discussed in Section 6.3 below.

Identifier	Site or place	Level of significance
HI: 1	Former Barnwell residence	Local: prepare a report to Mareeba Shire Council to recommend inclusion on its Local Heritage Register.
HI:2	Cattle yards	Local
HI:3	Mango tree	Local
HI:4	Mature tree	Local
HI:5	Mature tree	Local
HI:6	Mature tree	Local
HI:7	Mango tree	Local
HI:8	Possible house site and well	Archaeological potential
HI:9	Creek crossing	Local: further investigation required
HI:10	Culvert	Local
HI:11	Possible former dairy site	Archaeological potential
HI:12	Mango grove	Local
HI:13	Weir and associated pumping system	Possible State significance. Prepare a report for the Queensland Heritage Council recommending entry onto the Queensland Heritage Register.
HI:14	Bamboo clump	Local
HI:15	Bush lemon tree	Local
HI:16	Mandarin tree	Local
HI:17	Mango tree	Local
HI:18	Grave site	Possible State significance. Prepare a report for the Queensland Heritage Council recommending entry onto the Queensland Heritage Register.

Identifier	Site or place	Level of significance
HI:19	Bush lemon tree	Local
HI:20	Mango tree	Local
HI:21	Mango tree	Local
HI:22	Remains of track through property	Local: further investigation required
HI:23	Two mango trees	Local
HI:24	Remnant fence line and cockie gate	Local
HI:25	Mango tree	Local
HI:26	Creek crossing	Local: further investigation required

Table 3: Potential Heritage Sites inside the Study Area identified through contextual history, community consultation and field surveys

6.3 Establishment of heritage boundaries for selected historical items/places identified in Study Area

This study identified 17 heritage items/places which require the establishment of heritage boundaries to ensure that their historical integrity is conserved and to allow certainty in the development process. Non-contiguous boundaries are common in instances where one component of a site is some distance removed from other components and/or these boundaries extend across roads or other features that are not significant in themselves.

A heritage boundary is determined by the cultural heritage significance of the place and such immediate surrounds as are required for its conservation, heritage boundaries are recommended for the following items/places:

- Mature trees located across the property: HI:3, HI:4, HI:5, HI:6, HI:7, HI:15, HI:16, HI:17, HI19, HI:20, HI:21, HI:23, HI: 25
- Mango grove: HI:12
- Weir and associated pumping system: HI:13
- James Hamilton's grave site: HI:18
- Former Barnwell Residence: HI:1

Recommendations for managing the establishment of heritage boundaries around these sites and rationale is detailed in Section 7 and Appendix 1.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This section provides an assessment of the items of cultural heritage significance located within the Study Area. Each recommendation is followed by a discussion of the issues which informed these recommendations.

7.2 Recommendation 1

> Planning for the proposed KUR-World development should aim to capture the main character features of the site to flow into the design and development of the project.

The character of the Study Area, located on the western side of the Kennedy Highway away from Kuranda, 'the village in the rainforest', is generally one of rural ambience. Historical land use in the Myola area has included clearing of rainforest for the timber and agricultural industries, a short-lived coffee industry in the late 19th and early 20th centuries and mixed farming and dairying until around the 1930s. When dairying became uneconomical, much land was left to its own devices with resulting incursions of vegetation, particularly *Acacia* into cleared areas. Semi-rural lifestyle blocks have largely supplanted past land use patterns. The Study Area is one of the few large parcels of land remaining in the area.

The project area comprises different vegetation types and approximately 170 hectares of land historically cleared for dairy and cattle farming. This cleared area has a backdrop of regrowth and rainforest which fringes the property, providing a current sense of seclusion due to few houses overlooking the site.

With its rainforest backdrop, the setting of the site is tropical and forested with strong domestic and 'tamed' elements, including gently rolling green paddocks and domestic animals. This sense of rural and tropical elements has been created through agricultural activities carried out on the property over the past century and a half, with cattle farming persisting into the present. This sense of place is enhanced by its location in an area of remarkable tropical diversity, close to the Wet Tropics World Heritage Area.

7.3 Recommendation 2

> The Project's planning processes needs to incorporate and develop strategies and decision-making processes to assess the implications of decisions made regarding heritage sites in the Study Area.

The Project's planning processes will need to determine which heritage sites within the Study Area will be retained and which will be removed. Justification for these decisions will need to be made.

Managing changes such as these needs to be based upon solid decision-making processes. The information or basis for decisions such as the demolition or removal of an item of cultural heritage significance must be based on the significance of the site. This stage of the planning process identifies sites with potential cultural heritage significance and assigns a level of probable significance. It is anticipated that the next stage of the planning process will confirm the significance of each identified site and prepare a statement of significance.

The information contained within the statement of significance will identify for the Project not only the significance of the site but the obligations arising from its significance. This will allow for the formation of policies regarding specific sites which incorporate the following processes:

- Gathering information about other factors affecting the future of the site, including proponent needs and resources and the physical condition of the site.
- Identifying options for the site and test these options against the significance statement for the site.
- Preparing a statement of policy.
- Managing the site in accordance with policy and develop strategies for the future use of the site prior to commencement of development.

- Monitoring and reviewing policy as required.

One of the most difficult and potentially divisive decisions surrounding heritage is that of demolition/removal. This decision requires evidence of a solid and transparent decision-making process based on the statements of significance and evidence that all other courses of action were considered. Importantly, any site to be removed should be recorded for the historical record and should include a photographic record and scale drawings, if applicable.

7.4 Recommendation 3

> A report should be prepared for the Mareeba Shire Council recommending that the former Barnwell residence be entered onto its Local Heritage Register.

This study has identified that the former Barnwell residence has local significance and should be recommended for inclusion onto Mareeba Shire Council's Local Heritage Register.

Constructed in the 1940s/50s and although it has been remodelled, it retained much of its original fabric (70-80%) and configuration. Many of the building's original features remain including mixed rainforest timber floorboards throughout, silky oak doors and tongue and groove wall cladding, single skin in some places. The recent addition of the veranda on the northern and eastern elevations and resulting reconfigurations and creation of door openings and access points, have not detracted greatly from the aesthetics of the building.

Constructed by the Barnwell family, the house is a typical rural/farming residence. Located on a small rise, it allowed the family to overlook and enjoy the fruits of their labour as dairy and later cattle farmers. On a practical level, its location allowed the family to enjoy the cooling effects of breezes in the hot and humid summer months.

Broadly speaking, the historical significance of this building is due to three factors: its history, its fabric and its context. It is greater than the sum of its parts, that is, when the former Barnwell residence is considered as a whole, it is more significant than looking at the individual parts that comprise it.

It is recommended that all proposed development near the former Barnwell residence considers the sight lines both to and from the residence. This is particularly relevant in relation to overlooking the driveway from the veranda, the views from the kitchen windows, and views north overlooking the dam (despite this not being an historical feature) toward the mango grove and gently rolling green pastured paddocks, fringed by rainforest.

Should removal of the former Barnwell residence and/or alterations to the building be necessary, the recommendations contained in Recommendations 1 and 2 should also be considered.

7.5 Recommendation 4

> A Conservation Management Plan should be developed for the former Barnwell residence. This should consider adaptive reuse options which are consistent with the historical significance of this building.

As noted in Recommendation 3, this study has identified that the former Barnwell residence should be recommended for entry onto Mareeba Shire Council's Local Heritage Register. While recent renovations to the house are in keeping with this style of building, great care needs to be taken to ensure that the significance of the building is not further eroded through removal of internal walls and joinery and addition of further verandas on the remaining intact original facades.

The building was constructed by the Barnwell's probably in the 1940s/50s. It was a reasonably substantial building for the time and its location on the small rise overlooking the farm and the entrance to the property was probably quite a deliberate decision. Practical in design, the building served as a typical farming

residence. As such, the Project should consider adaptive reuse options which are consistent with its historical significance.

7.6 Recommendation 5

> A report should be prepared for the Queensland Heritage Council recommending that the weir and its associated pumping infrastructure be entered onto the Queensland Heritage Register.

This Study has found that the weir and its associated pumping infrastructure should be recommended for inclusion on the Queensland Heritage Register.

Initial investigations indicate that the weir was formed with rough sawn timber and filled with hand poured concrete and was probably constructed in the 1940s/50s. The associated Billabong 6 Hydraulic Ram Pumping system also dates from that time.

The weir and associated pumping system represents the most significant and intact agricultural infrastructure in the Study Area. The weir appears in good condition with no concrete spalling noted. As such, this site may satisfy at least two of the criteria under the Queensland *Heritage Act 1992 (2008)*: Criteria A and Criteria D (See Section 3.2.2).

A heritage boundary should be established to protect its historical integrity. This should be established at the top of the steep slope on either side of the weir site and extend 10 metres upstream of the weir wall and 10 metres downstream of the pumping system, located downstream of the weir wall.

7.7 Recommendation 6

> The weir and associated pumping system, should be retained in the landscape.

The weir was probably constructed in the 1940s/50s with the associated Billabong 6 Hydraulic Ram Pumping system also dating from that time. The weir and associated pumping system represent the most significant and intact agricultural infrastructure in the Study Area and as such offers the Project an opportunity to interpret the agricultural history of this site.

Further investigations of the weir and associated pumping system should be undertaken to determine the structural integrity of the weir and the feasibility of making the pumping system operational.

7.8 Recommendation 7

> A report should be prepared for the Queensland Heritage Council recommending that James Hamilton's gravesite be entered onto the Queensland Heritage Register.

This grave dates to 1901. James Hamilton was a coffee grower on a neighbouring farm. Hamilton took his own life following the failure of his coffee crop and suffering financial stress which ultimately led to the forfeiture of his property due to his failure to pay annual rent. He was apparently buried on the property as he was a good friend of the owner R.W. Warren.

James Hamilton's gravesite and its associated story powerfully demonstrate the devastation wrought by crop failure and financial difficulties faced by early farmers. Lone graves usually have social significance because they are burial places, and strong historical significance because of what they reveal about patterns of settlement.

As such, this site may satisfy at least two of the criteria under the Queensland *Heritage Act 1992 (2008)*: Criteria A and Criteria G (See Section 3.2.2).

This grave site is located on the edge of a forested area, approximately 10-15 metres from a creek bank. Initial investigations indicate that there may be drainage and erosion issues which may impact the integrity of the site into the future. For this reason, it is recommended that a reasonably generous heritage boundary

be established to allow for the mitigation of these issues should they arise in the future. A radius of 20 metres from the midpoint of the grave should be established.

7.9 Recommendation 8

> A Conservation Management Plan, including conservation works and future management strategies, should be developed for James Hamilton's gravesite.

The gravestone is now in poor condition with the headstone in three pieces, and the cast iron fence surrounds have come loose with parts missing and fracturing by corrosion. Natural processes such as the growth of lichen and mould on the gravestone, while unsightly, do not appear to have caused much damage. The lead raised lettering has deteriorated with the passage of time and environmental factors.

As indicated in Recommendation 7, there may be erosion and drainage issues associated with this site. Further investigation into these issues is required to conserve the historical integrity of the grave site into the future.

7.10 Recommendation 9

> All sites identified in this study as having archaeological potential, should be assessed and recorded with scale drawings and photographs, prior to development.

This study has identified at least two sites as having archaeological potential. These include HI: 8, a possible house site and well, and HI: 11, a possible former dairy site. The highly disturbed nature of these sites, particularly HI: 11 due to the piling up of materials by bulldozer/similar means, and their overgrown nature, has rendered their assessment difficult.

Documentary evidence and the presence of these scant remains suggest that both areas were earlier occupation sites. Decisions regarding management of these sites should be informed by Recommendation 2.

7.11 Recommendation 10

> All sites identified in this study as being associated with the transportation of people and goods across the Study Area, require further investigation and mapping.

This study has identified documentary, anecdotal and physical evidence of tracks and creek crossings in the Study Area. Roads and tracks through the Myola area to Kuranda were an *ad hoc* affair until the 1920s when the State government took control of their management. Gazetted roads were often abandoned or unused due to their poor state. As a result, tracks zig zagged through the landscape as residents and farmers sought to traverse the distance in the shortest possible time.

Anecdotally, Cobb & Co. coaches traversed the property to the northern boundary, linking via Leila's Way to the vet's property, where apparently a Horse Change Station was located. Cobb & Co. then travelled to Myola Railway Station to pick up or drop off passengers and goods for transport on the train to Cairns. Cobb & Co.'s story is an important and evocative one in Queensland's history.

7.12 Recommendation 11

> All mature trees located in this study (HI:3, HI:4, HI:5, HI:6, HI:7, HI:15, HI:16, HI:17, HI:19, HI:20, HI:21, HI:23 and HI:25), and those not located, should be retained in the landscape.

At least 12 mature trees, including mango trees, bush lemons and a Milky Pine were located during surveys.

Lands Department records indicate that mangos, bush lemons and coffee were cultivated on the property by early selectors. At least two of the mango trees located appear to be around 100 years of age. The planting of these types of trees demonstrate an early pattern of domestic and agricultural activity.

A heritage boundary should be established around each of these trees comprising a radius of 10 metres from the midpoint of the tree.

The two mango trees (HI: 23) located on the side of track running along a ridge toward the northern boundary of the property should have a heritage boundary established comprising 10 metres on the long side of the trees and 5 metres on the short side of the trees.

7.13 Recommendation 12

> The double row of mature mango trees (HI: 12), comprising 18 trees should be retained in the landscape.

This mango grove is located on a ridge NNW of the former Barnwell residence. The location of the mango trees suggests that there may have been another occupation site/house in this area in the past, which was not located. Their size indicates that they are probably 40-60 years of age and were probably planted by the Barnwell family. The planting of these trees in the 1940s/50s represent early domestic cultivation practices during this time and should be retained in the landscape.

These mango trees have been pruned back considerably in recent times. Given that they are likely to be 40-60 years of age and are likely to regrow to their former size, and beyond, it is recommended that a 15-metre heritage boundary be established on the long sides of the mango grove and 5 metres on the short side.

7.14 Recommendation 13

> An Interpretation Strategy should be developed for the Study Area.

Article 25 of the Burra Charter points out that the cultural significance of many places is not readily apparent to the casual observer, and should be explained by interpretation. Interpretation should enhance understanding and enjoyment and be culturally appropriate. This statement will particularly apply should KUR-World's development progress.

When one passes through the Myola and Kuranda areas today it is not immediately apparent that the area was a busy timber area with bullock teams hauling logs to Myola railway siding and that coffee plantations dotted the landscape. Equally, it is not obvious that dairying and mixed farming were once common, albeit small, agricultural activities. This is particularly pertinent for the former Barnwell property, where all of those activities occurred.

The Kuranda community is divided regarding the proposed KUR-World development and many are concerned about the extent of change should development commence. An Interpretation Strategy involving the community may well alleviate some of these concerns. However, it is imperative that this strategy is based upon a comprehensive understanding of the history of the Study Area, the sites with historic significance, the wider Kuranda and Atherton Tablelands history, and an understanding of the expected audience. As such, an Interpretation Plan needs to incorporate the following:

- Interpretation of the significant fabric of the site.
- Interpretation of all stages of development, that is, before, during and after major works. This strategy could be useful in alleviating community concerns regarding the process of change. It may well be an effective means of communicating with the community, and importantly provides a record of the changes made to the Study Area and its historical elements.
- Involvement of relevant stakeholders. Many of the most successful historic sites and interpretation centres in the Atherton Tablelands are based upon and driven by passionate volunteers and 'Friends of' groups.

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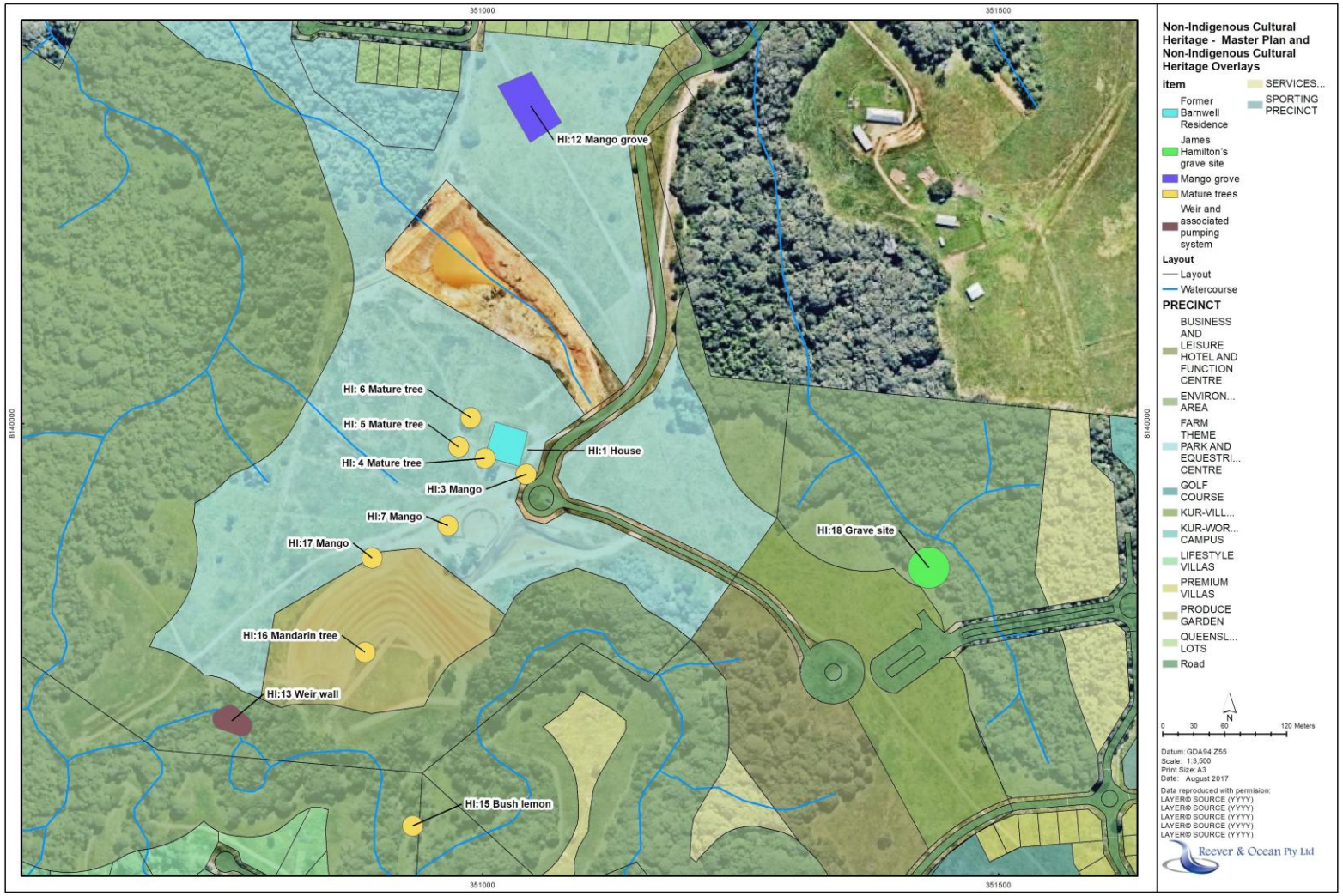
9.0 APPENDICES

Appendix 1: Noted historic cultural heritage areas or items



Map of the Noted historic cultural heritage areas or items found on the KUR-World site during surveys.

Appendix 2: Historical Interest Sites located during fieldwork

Survey Inventory Sheet			
Feature Name:	Former Barnwell residence	Feature Number:	HI:1
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude:	Longitude:	
House corners	16°49'7.3336"S	145°36'6.2966"E	
	16°49'7.3255"S	145°36'6.9028"E	
	16°49'6.8981"S	145°36'6.5839"E	
	16°49'7.1094"S	145°36'6.9212"E	

Description

Physical details:
This building is set in a rural/farming context on a large cleared/grassed area on a small rise overlooking cattle paddocks, animal pens, and the dam and cattle yards. The cleared areas of the property, clearly visible from the house have a background of dense rainforest vegetation.
Construction style indicates that the house was built in the late 1940s/ 1950s. It is a Queenslander style high-set building, supported on concrete stumps. The roof is gabled with a skillion roof on the western elevation, and sheeted with Colorbond. The underneath of the house has not been enclosed. Recent additions to the ground floor include two bathrooms (not significant).

The building's external cladding appears to be the original chamferboard (with repairs) on all elevations except the eastern, which is clad with Colorbond. A mixture of window styles including louvres, casement and sliding aluminium frame (recent) are set under the eaves. Casement windows have been removed to create a door opening to the veranda recently constructed on the eastern elevation. Original decorative features remain on the northern elevation. The eaves retain their original tongue and groove lining in some places. New entry points to the house have been created on the northern and eastern elevations with the addition of the veranda.

One of the original entrances to the building is on the southern elevation, up a set of stairs to an enclosed porch and into the kitchen. Internally, much of the original cladding has been retained, including tongue and groove cladding in bedrooms and silky oak doors. The toilet and bathroom have retained their original position but have been refurbished. Original Masonite wall cladding remains in the kitchen and dining room areas, along with the stove alcove. Chamfered architraves have been retained. The original mixed rainforest timber floor boards have been retained throughout the house. The original ceiling has been replaced by a suspended plasterboard cladding throughout.

A few internal walls have been removed to facilitate an open plan configuration of the living/dining/kitchen areas. Walls have been removed between the kitchen and dining room and dining room and lounge. The existing cupboard in the lounge was previously the entrance to the lounge room.

The original veranda on the northern elevation has now been enclosed by the construction of the new veranda, with the original exterior cladding retained to form the internal walls. A new door opening onto the veranda on the northern elevation has been installed.

The building originally comprised three rooms and the two small rooms which today comprise the toilet and bathroom.

The bathroom and toilet are accessed off a wide passageway lined with fitted cupboards. It is likely that the toilet was located downstairs when this property was constructed. These rooms may have functioned as wash rooms, storage or some other use. The bathroom and toilet areas have concrete floors. Two bedrooms are located at the end of this passageway.

The house has recently been enclosed with a post and rail fence (not significant)

Significance:
Local significance. A report to Mareeba Shire Council should be prepared recommending that the former Barnwell residence be entered onto the Local Heritage Register.
Broadly speaking, the historical significance of this building is due to three factors: its history, its fabric and its context. It is greater than the sum of its parts, that is, when the former Barnwell residence is considered as a whole (history, fabric and context), it is more significant that looking at the individual parts that comprise it.

It is recommended that all proposed development near the former Barnwell residence considers the sight lines both to and from the residence. This is particularly relevant in relation to overlooking the driveway from the veranda, the views from the kitchen windows, and views north overlooking the dam (despite this not being significant) toward the mango grove and gently rolling pastures, fringed by rainforest.

Should removal/alteration to the residence be considered, the recommendations contained in this report should be applied (Recommendations 1 to 4)

Images	
 *Figure 30: Northern and Western elevations, showing new veranda and entry point. Thorp, 2017.*	 *Figure 31: Southern elevation. Thorp, 2017.*
 *Figure 32: Original detailing, northern elevation. Thorp, 2017.*	 *Figure 33: Looking into kitchen, towards porch and stove alcove. Thorp, 2017.*
 *Figure 34: Original stove alcove on southern elevation. Thorp, 2017.*	 *Figure 35: Original hopper window, stove alcove: southern elevation. Thorp, 2017.*

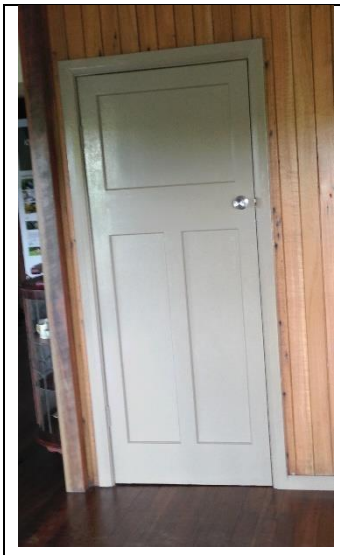


Figure 36: Original opening between lounge and enclosed veranda. Now a cupboard. Thorp, 2017.

Figure 37: Original enclosed veranda with louvered windows, northern and western elevations. Thorp, 2017.

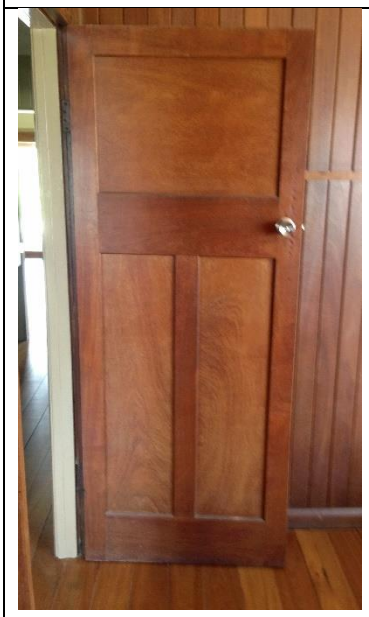


Figure 38: Main bedroom: original wall cladding, silky oak doors and mixed rainforest timber floor boards. Thorp, 2017.

Figure 39: Taken from the kitchen overlooking the veranda and east to the paddock and fringing rainforest. Thorp, 2017.

Figure 40: Taken from kitchen overlooking garden, farm track, cattleyard, carpark and fringing rainforest. Thorp, 2017.

Figure 41: Looking NNE from veranda over the garden, animal pens, driveway and fringing rainforest. Thorp, 2017.

Figure 42: Taken from the veranda, looking N over the animal pens and dam and toward the mango grove and fringing rainforest. Thorp, 2017.

Figure 43: Looking over the dam toward the eastern façade of the former Barnwell residence, animal pens and farm buildings. Thorp, 2017.

Figure 44: Taken from the front gate, looking SW along the driveway towards the house, cattleyard, animal pens and farm buildings. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Cattle Yards	Feature Number:	HI:2
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Dirt		
GPS Reading: Midpoint of cattle yards	Latitude: 16°49'10.0459"S	Longitude: 145°36'5.3114"E	

Description

Physical details:
The current cattleyards were recently constructed and are located on the site of the original cattleyards. Little remains of the original infrastructure. A row of deteriorating mature mangos is located behind the cattleyards and appear to be around 40-50 years old.

Significance:
The current infrastructure on the cattleyard site has no heritage value. The site of the cattleyards has been included in this report to indicate past agricultural activities. Its position is important for the interpretation of the site. The mango trees are deteriorating and are not likely to survive.

Images

Figure 45: Rebuilt cattle yards on site of historical cattle yards. Note deteriorating row of mango trees in background. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Mature mango	Feature Number:	HI:3
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'8.1043"S	Longitude: 145°36'7.3373"E	

Description

Physical details:
This mature mango is located on southern side of the Barnwell residence, just outside the perimeter fence. It is one of a few mature mango trees located across the property. It is probably around 40 -50 years of age.

Significance:
Local significance. Its location close to the homestead constructed in the 1940s/50s represents early domestic cultivation practices during this time. This tree should be retained.

A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Images

Figure 46: Mature mango tree south of former Barnwell house. Thorp, 2107.

Survey Inventory Sheet			
Feature Name:	Mature tree	Feature Number:	HI:4
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'7.5945"S	Longitude: 145°36'5.9976"E	
Description			
Physical details: Mature tree located to the west of the house near animal pen.			
Significance: Local significance. Its location close to the homestead constructed in the 1940s/50s represents early domestic cultivation practices during this time. The tree should be retained. A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.			

Survey Inventory Sheet			
Feature Name:	Mature Tree	Feature Number:	HI:5
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'7.2301"S	Longitude: 145°36'5.1367"E	
Description			
Physical details: Mature tree located NNW of animal pen and former Barnwell residence. The tree is probably 40-50 years of age.			
Significance: Local significance. Its location close to the homestead constructed in the 1940s/50s represents early domestic cultivation practices during this time. The tree should be retained. A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.			

Survey Inventory Sheet			
Feature Name:	Mature Tree	Feature Number:	HI:6
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass / dirt		
GPS Reading:	Latitude: 16°49'6.3142"S	Longitude: 145°36'5.5413"E	

Description

Physical details:
Mature tree located in the animal pen adjacent to former Barnwell residence. It is probably around 40-50 years of age.

Significance:
Local significance. Its location close to the homestead constructed in the 1940s/50s represents early domestic cultivation practices during this time. The tree should be retained.

A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Images

Figure 47: Mature tree located to the west of former Barnwell residence, near animal pens. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Mango tree	Feature Number:	HI:7
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Dirt		
GPS Reading:	Latitude: 16°49'9.7105"S	Longitude: 145°36'4.7688"E	

Description

Physical details:
Mature mango located at the end of a row of deteriorating mango trees on southern edge of cattle yards. This tree appears in good condition and is probably 40-50 years old.

Significance:
Local significance. The proximity of the mango tree to the site of the historical cattle yards indicates that it, along with the other mango trees (now deteriorating) were planted for both domestic use and to provide shelter to cattle. The mango should be retained. A heritage boundary should be established comprising a radius of 10metres from the midpoint of the tree.

Images

Figure 48: Mature mango located at end of row of deteriorating mango trees to south of cattle yards. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Possible house site & well from prior occupation period	Feature Number:	HI:8
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Poor
Ground cover:	House site overgrown with vegetation; well site clear visibility		
GPS Reading:	Latitude: 16°49'17.5327"S	Longitude: 145°36'29.0587"E	

Description

Physical details:
This site comprises the location of a possible house site and a well from a prior occupation area. The well has a diameter of approximately 2 metres and is in excess of 2 metres deep. The well is formed with rough sawn timber and filled with hand mixed concrete. The well's water is fed from a nearby stream.
There is a possibility that this was the site of a former house given its proximity to a track running north-south through the property and the pile of old timber, iron, railway sleepers, concrete and corrugated iron. This material is heavily overgrown with vegetation.

Significance:
Local significance. This site is highly disturbed rendering it difficult to discern previous occupation/ use due to materials/buildings/remains having been bulldozed into a pile.
The well site, by contrast remains intact. The well site should be retained, however, should demolition be required, measured drawings of the well should be undertaken.

Images

Figure 49: Well lined with rough sawn timbers and filled with hand poured concrete. Thorp, 2017.

Figure 50: Rubbish pile containing railway line, concrete, corrugated iron and timber posts. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Crossing Point, Warril Creek tributary	Feature Number:	HI:9
Date surveyed:	2 April 2017	Recorder:	Justine Thorp
Weather conditions:	Good	Visibility:	Poor lighting
Ground cover:	Dirt, leaf litter		
GPS Reading:	Latitude: 16°49'17.2344"S	Longitude: 145°36'29.4151"E	
Description			
Physical details: This crossing point is located on a tributary of Warril Creek and is located on an old gazetted road. Remains of an old bridge are in situ comprising one bearer and three iron bridge spikes. The remains are in a deteriorating condition.			
Significance: Local significance. This crossing is of historical interest due to its location on an old gazetted road. A steep gradient on both sides of the creek demonstrate the difficulties facing early travellers in traversing the landscape. This crossing point, along with others identified in this study are useful in determining travel patterns in past eras.			

Survey Inventory Sheet			
Feature Name:	Culvert	Feature Number:	HI:10
Date surveyed:		Recorder:	Justine Thorp
Weather conditions:	Good	Visibility:	Poor lighting
Ground cover:	Nil		
GPS Reading:	Latitude: 16°49'13.6698"S	Longitude: 145°36'48.6270"E	
Description			
Physical details: This culvert is located approximately 100 metres above the Warril Creek crossing point described in HI: 9.			
Significance: Local significance.			

Survey Inventory Sheet			
Feature Name:	Possible dairy site	Feature Number:	HI:11
Date surveyed:	5 April 2017	Recorder:	Justine Thorp
Weather conditions:	Overcast	Visibility:	Poor
Ground cover:	Overgrown: Guinea Grass		

GPS Reading:	Latitude:	Longitude:
Domestic dump	16°49'30.1295"S	145°36'26.8834"E
Bottle dump	16°49'30.4011"S	145°36'26.6927"E
Blocks & rocks	16°49'30.4930"S	145°36'25.4861"E
Posts, wire, iron	16°49'32.2742"S	145°36'26.9806"E
Posts, burnt trees	16°49'32.6303"S	145°36'27.1761"E
Posts, wire, stumps	16°48'32.7971"S	145°36'59.9356"E
Posts, wire, iron	16°49'29.0944"S	145°36'26.1462"E
Posts, wire, iron	16°49'28.4135"S	145°36'26.6954"E
Posts, wire, iron	16°49'28.2543"S	145°36'24.4818"E
Posts, wire, iron	16°49'28.7382"S	145°36'23.6731"E
Posts, wire, iron	16°49'29.9338"S	145°36'21.5539"E
Posts, wire, iron	16°49'29.9338"S	145°36'21.5539"E
Pump footings	16°49'35.4005"S	145°36'23.2268"E

Description

Physical details:
This is a heavily disturbed site with at least ten piles of timber posts, wire, tree stumps and iron bulldozed/similar into piles. It is possible that this was a previous dairy site as evidenced by what appears to be a shallow drainage system running north to west through the site, along with what appears to be a circular block arrangement which may be part of the dairy's yard. Aerial photos from 1942 indicate that there was a cluster of buildings in this area which may be this site.

The remains of pump footings are located on the bank of Warril Creek, approximately 100-150 metres from the site. These comprise four angle iron footings mounted on two-metre square concrete footings.

Two dump sites were located, one under a mature Milky Pine tree containing domestic materials such as the bell housing off a pump, a teapot spout and part of a wood stove. The other is a bottle dump containing a small quantity of bottles, with makers' marks including TASMA inscribed inside a map of Tasmania, and another inscribed with 278 M 5.

Significance:
The highly disturbed nature of this site has made it difficult to discern occupation and use activities carried out here. Given the scant but suggestive physical evidence coupled with documentary evidence of dairying being pursued on this property, an archaeological investigation of the site should be carried out prior to further development of the site.

Images	
 *Figure 51: Concrete blocks and rocks covering a deep hole. Thorp, 2017.*	 *Figure 52: Assortment of old bottles in domestic dump. Thorp, 2017.*
 *Figure 53: Remains of pump footings, Warril Creek. Thorp, 2017.*	 *Figure 54: An example of timber post and wire found in piles of material throughout site. Thorp, 2017.*
 *Figure 55: Remains of teapot spout found in domestic dump. Thorp, 2017.*	

Survey Inventory Sheet			
Feature Name:	Double row of Mango Trees	Feature Number:	HI:12
Date surveyed:	5 April 2017	Recorder:	Justine Thorp
Weather conditions:	Overcast	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°48'55.7543"S 16°48'55.8847"S 16°48'57.0758"S 16°48'57.1724"S	Longitude: 145°36'7.2984"E 145°36'7.0670"E 145°36'8.0591"E 145°36'7.8932"E	

Description

Physical details:

The double row of mature mangos comprises 18 trees. It is located on a ridge NNW of the former Barnwell residence. They have recently been pruned. They are probably 40-60 years old and were deliberately planted possibly by the Barnwell family.

Significance:

Local significance. The location of the mango trees suggests that there may have been another occupation site/house in this area, which was not located. Their planting in the 1940s/50s represent early domestic cultivation practices during this time. The trees should be retained.

These mango trees have been pruned back considerably in recent times. They are likely to regrow to their former size, and beyond.

A 15-metre heritage boundary should be established on the long sides of the mango grove and a 5-metre boundary on the short side.

Images

Figure 56: Double row of mango trees. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Weir & pump	Feature Number:	HI:13
Date surveyed:	5 April 2017	Recorder:	Justine Thorp
Weather conditions:	Overcast	Visibility:	Good
Ground cover:	Dirt, leaf litter		
GPS Reading:	Latitude:	Longitude:	
Weir wall	16°49'15.9751"S	145°35'57.9726"E	
Weir wall	16°49'15.6319"S	145°35'57.5857"E	
Pump	16°49'15.7569"S	145°35'57.3513"E	

Description

Physical details:
The weir and associated pumping system is located on Warril Creek. The weir wall is approximately 18 metres wide and 3 metres high. The water behind the weir wall is approximately 2 metres deep. As dams made of thin straight vertical walls of concrete are not inherently strong, the face of the weir is supported by three concrete braces. The weir wall and braces are formed with rough sawn timber and filled with hand mixed concrete. Cast iron railway lines are evident in one of the concrete braces.

Approximately 50 metres downstream of the weir on the northern bank of Warril Creek is a Billabong 6 hydraulic ram pump bolted on a concrete foundation. Constructed of cast iron with brass valves, it is powered by running water. Internally, leather bucket valves 'push' water slowly and over high and long distances. An associated pipe system conveys water from behind the weir wall to the pump using head pressure to convey water up the steep creek bank.

Billabong pumps were commonly used on Australian farms, particularly where there were difficulties accessing power and to lift water to a tank or reservoir above the water level from which the water originated. It is likely that this was used to provide water to the former Barnwell residence and/the cattle yards in the past.

Significance:
Local significance. Possibly State significance. The weir and associated Billabong 6 pumping system represent the only significant and intact agricultural infrastructure remaining on the site. This infrastructure should be retained.

A heritage boundary should be established at the top of the steep slope on either side of the weir site and extend 10 metres upstream of the weir wall and 10 metres downstream of the pumping system located downstream of the weir wall.

Images

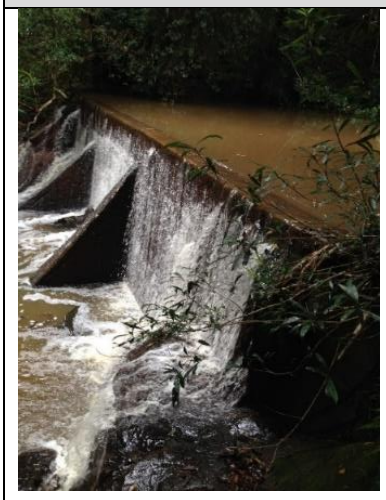


Figure 57: Poured concrete weir, Warril Creek. Thorp, 2017.

Figure 58: Billabong 6 Hydraulic Ram Pump, banks of Warril Creek. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Clump of bamboo	Feature Number:	HI:14
Date surveyed:	5 April 2017	Recorder:	Justine Thorp
Weather conditions:	Overcast	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'17.1407"S	Longitude: 145°36'23.9438"E	

Description

Physical details:
A large clump of bamboo, measuring approximately 10-15 metres wide by 5 metres deep. It is located on the bank of Warril Creek below the Produce Garden. Age unknown. Bamboo was often planted for aesthetic reasons.

Significance:
Local significance.

Images

Figure 59: Clump of bamboo near Warril Creek and below the Produce Garden. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Bush Lemon	Feature Number:	HI:15
Date surveyed:	5 April	Recorder:	Justine Thorp
Weather conditions:	Overcast	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'19.1715"S	Longitude: 145°36'3.5450"E	

Description

Physical details:
Mature bush lemon. Bush lemons were among the trees cultivated by early selectors on this property. They are a particularly hardy plant and easily maintained, making it an attractive proposition for farmers. While the age of this tree is not known, it is mature and it demonstrates an early pattern of domestic and agricultural activity.

Significance:
Local significance. The bush lemon should be retained.
A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Survey Inventory Sheet			
Feature Name:	Mandarin Tree	Feature Number:	HI:16
Date surveyed:	5 April 2017	Recorder:	Justine Thorp
Weather conditions:	Overcast	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'13.6850"S	Longitude: 145°36'2.0254"E	

Description

Physical details:
Mandarin tree located near the Produce Garden. This tree is approximately 10-15 years of age and was probably planted by the Barnwell family for domestic use.

Significance:
Local significance. The mandarin tree should be retained.

A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Images

Figure 60: Mandarin tree. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Mature Mango	Feature Number:	HI:17
Date surveyed:	5 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'10.7146"S	Longitude: 145°36'2.2764"E	

Description

Physical details:
This mature mango is located on the edge of the track west of the cattle yards and former Barnwell residence. It is one of a few mature mango trees located across the property. It is probably around 40 -50 years of age.

Significance:
Local significance. Its location close to the homestead constructed in the 1940s/50s represents early domestic cultivation practices during this time. The tree should be retained.

A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Images

Figure 61: Mature Mango tree. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Grave Site	Feature Number:	HI-18
Date surveyed:	30 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Overgrown with Guinea Grass		
GPS Reading:	Latitude: 16°49'11.1461"S	Longitude: 145°36'20.5008"E	

Description

Physical details:

The grave site of James Hamilton is located north of the former Barnwell residence, on the edge of a forested area, approximately 10-15 metres from a creek bank. The grave stone and cast-iron surrounds are in poor condition, the gravestone is in three pieces and the iron surrounds broken and largely displaced from their concrete foundations. Parts of the iron surrounds are missing. The iron surrounds were originally mounted on concrete pillars, 50 mm x 35 mm x 230 mm high.

The gravestone inscription, with its raised lead lettering, remains partially legible with James Hamilton's name and his origin (Glasgow) still legible.

Significance:

Local significance. Possibly State significance. This gravesite and its associated story represent the difficulties faced by early selectors in the Myola area. The grave site should be retained. Preparation of a conservation management plan, including conservation works is required.

Initial investigations indicate that there may be drainage and erosion issues which may impact the integrity of the site into the future. For this reason, it is recommended that a reasonably generous heritage boundary be established to allow for the mitigation of these issues should they arise in the future.

A heritage boundary comprising a radius of 20 metres from the midpoint of the grave should be established.

Images

Figure 62: James Hamilton's grave showing broken gravestone in foreground, cast iron surrounds and concrete pillar in the background. Thorp, 2017.

Figure 63: Raised lead inscription on gravestone. Note lichen and mould build-up. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Bush lemon	Feature Number:	HI:19
Date surveyed:	30 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'17.5907"S	Longitude: 145°36'18.5663"E	

Description

Physical details:
Mature bush lemon located on the edge of a forested area. Bush lemons were among the trees cultivated by early selectors on this property. Its proximity to other mature trees such as mangos suggests that this area may have been a previous occupation area. While the age of this tree is not known, it is mature and it demonstrates an early pattern of domestic and agricultural activity.

Significance:
Local significance. The bush lemon should be retained.
A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Images

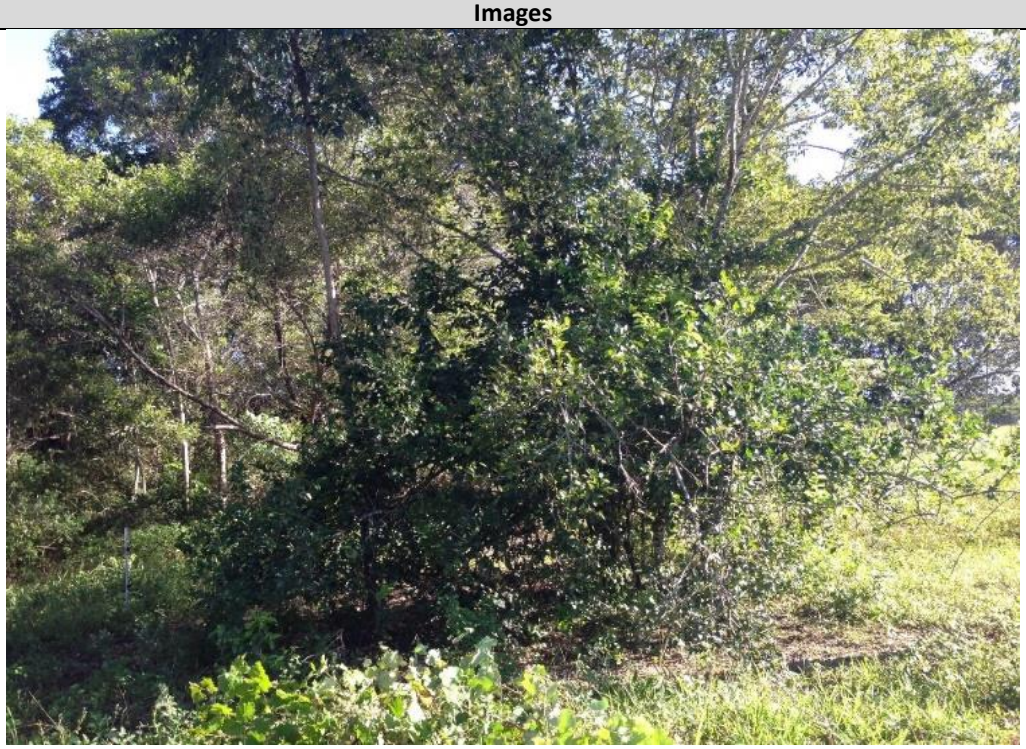


Figure 64: Mature bush lemon tree. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Mango tree	Feature Number:	HI:20
Date surveyed:	30 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Poor: Low lighting
Ground cover:	Leaf litter, dirt		
GPS Reading:	Latitude: 16°49'17.9694"S	Longitude: 145°36'18.5735"E	

Description
Physical details: This mango tree is one of two of the most mature located during this survey. Located on the edge of Warril Creek, its girth measures 3.5 metres, suggesting an age of 80-100 years. Given its proximity to other mature trees located, it is likely that this area is a previous occupation site, although no physical remains of buildings were located to support this.
Significance: Local significance. This mango tree represents domestic cultivation practices of early farmers. The tree should be retained. A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Survey Inventory Sheet			
Feature Name:	Mango tree	Feature Number:	HI:21
Date surveyed:	30 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Poor: Low lighting
Ground cover:	Leaf litter, dirt		
GPS Reading:	Latitude: 16°49'24.3900"S	Longitude: 145°36'210228"E	

Description
Physical details: This mango tree is one of two of the most mature located during this survey. Located on the edge of Warril Creek, its girth measures 3.8 metres, suggesting an age of 80-100 years. Given its proximity to other mature trees located (HI: 19 & HI: 20), it is likely that this area is a previous occupation site, although no physical remains of buildings etc were located to support this.
Significance: Local significance. This mango tree represents domestic cultivation practices of early farmers. The tree should be retained. A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Survey Inventory Sheet			
Feature Name:	Remains of track	Feature Number:	HI:22
Date surveyed:	30 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'23.1682"S	Longitude: 145°36'27.3704"E	

Description

Physical details:
Historically, tracks and gazetted roads passed through this property at settlement and anecdotally to allow Cobb & Co through to Myola Railway Station. This washed out/eroded area may form part of the track through the property. The track continues along the ridge line to the northern boundary and the vet's property. The track is discernible along the ridge line, running parallel with the recently installed fence line.

Significance:
Further investigation and assessment required to determine passage of historical tracks including Cobb & Co. movements through the property.

Images

Figure 65: Remains of track traversing the property. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Two mango trees	Feature Number:	HI:23
Date surveyed:	30 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'16.2571"S	Longitude: 145°36'27.9612"E	

Description

Physical details:
Two mature mango trees, 40-50 years of age, located on the side of the track running along the ridge toward the northern boundary with the vet's property. The mango trees are being overtaken by a fig tree.

Significance:
Local significance. These mango trees are near the possible occupation site identified in HI: 8 and are located on the edge of a possible historic track running through the property. Further investigation of this track is required. The mango trees should be retained.

A heritage boundary should be established comprising 10 metres on the long side of the trees and 5 metres on the short side of the trees.

Images

Figure 66: Two mature mango trees on side of track traversing property. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Remnant fence line & cockie gate	Feature Number:	HI:24
Date surveyed:	30 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'12.1347"S	Longitude: 145°36'27.7829"E	

Description

Physical details:
The start of historic internal fence line running parallel with recently installed fencing to the boundary with the vet's property. The fence line is in a deteriorating condition and comprises strainer posts, spaced with steel posts and strung with a mixture of old and new 3 barbed wire.

Approximately 100 metres along the fence line is a cockie gate, a 3.5 metre steel post and 4 wire gate opening between two strainer posts. This gate previously controlled cattle movements between paddocks. It is functional but in a poor condition.

Significance:
Local significance. This fence line was probably erected by the Barnwell family. The cockie gate represents a style of fencing construction commonly carried out by early farmers to manage cattle movements through their properties. The fence line and cockie gate should be retained for interpretative purposes.

Images

Figure 67: Cockie gate located in historical fence line. Thorp, 2017.

Survey Inventory Sheet			
Feature Name:	Mango tree	Feature Number:	HI:25
Date surveyed:	30 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Grass		
GPS Reading:	Latitude: 16°49'12.1013"S	Longitude: 145°36'27.6785"E	

Description
Physical details: Mature mango tree located on banks of Warril Creek. It is one the mature mango trees located across the property. It is probably around 40 -50 years of age.
Significance: Local significance. The mango represents early domestic cultivation practices in earlier times. The tree should be retained. A heritage boundary should be established comprising a radius of 10 metres from the midpoint of the tree.

Survey Inventory Sheet			
Feature Name:	Creek Crossing, Warril Creek	Feature Number:	HI:26
Date surveyed:	5 April 2017	Recorder:	Justine Thorp
Weather conditions:	Fine	Visibility:	Good
Ground cover:	Leaf litter, grass		
GPS Reading:	Latitude: 16°49'15.7275"S	Longitude: 145°36'0.5260"E	

Description
Physical details: This cleared area appears to be a crossing over Warril Creek connecting with a track through the Barnwell property.
Significance: Local significance. This crossing point, along with others identified in this study are useful in determining travel patterns in past eras. Further investigation is required.

Appendix 2: Scaled drawings: former Barnwell residence

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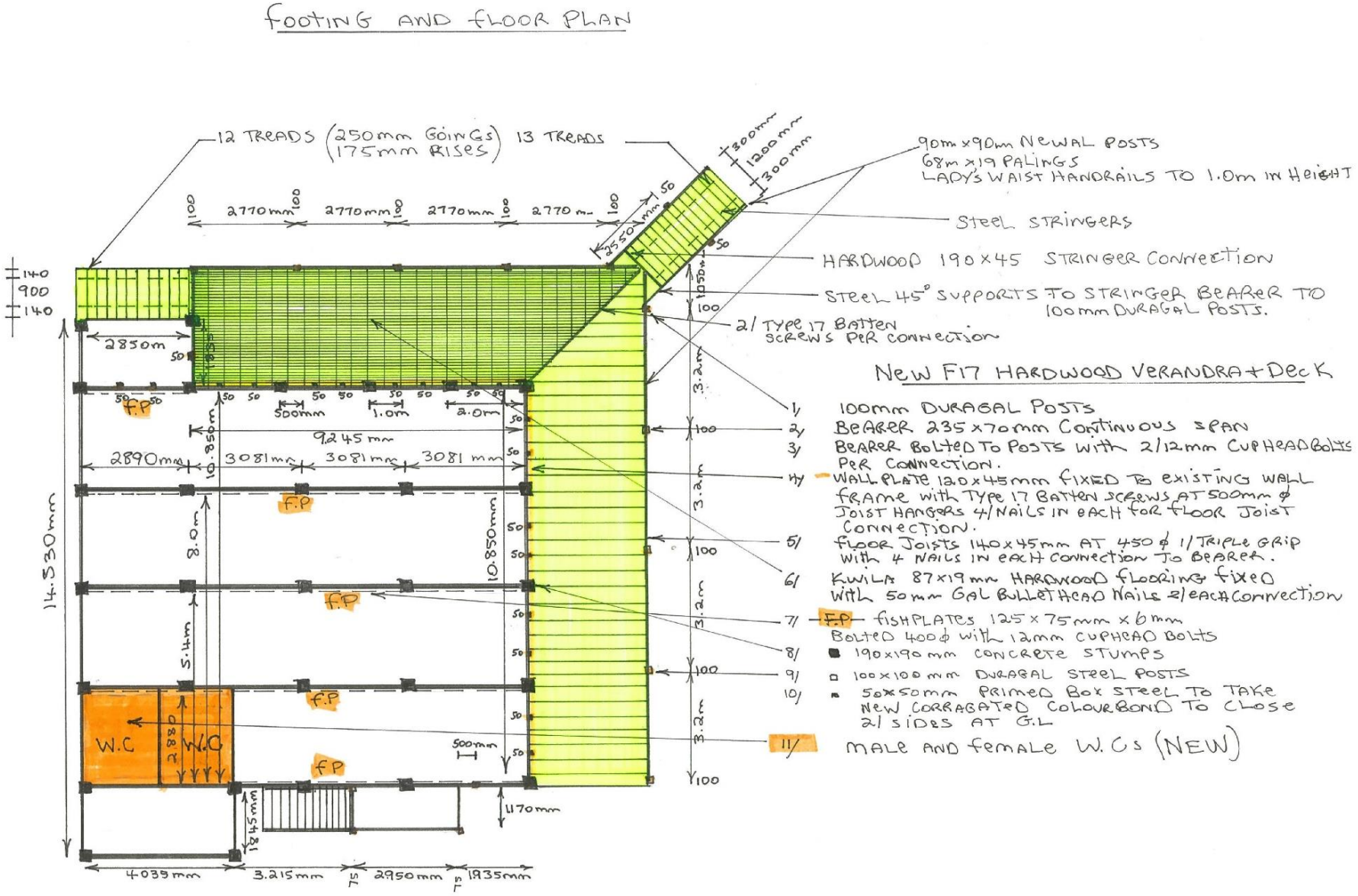

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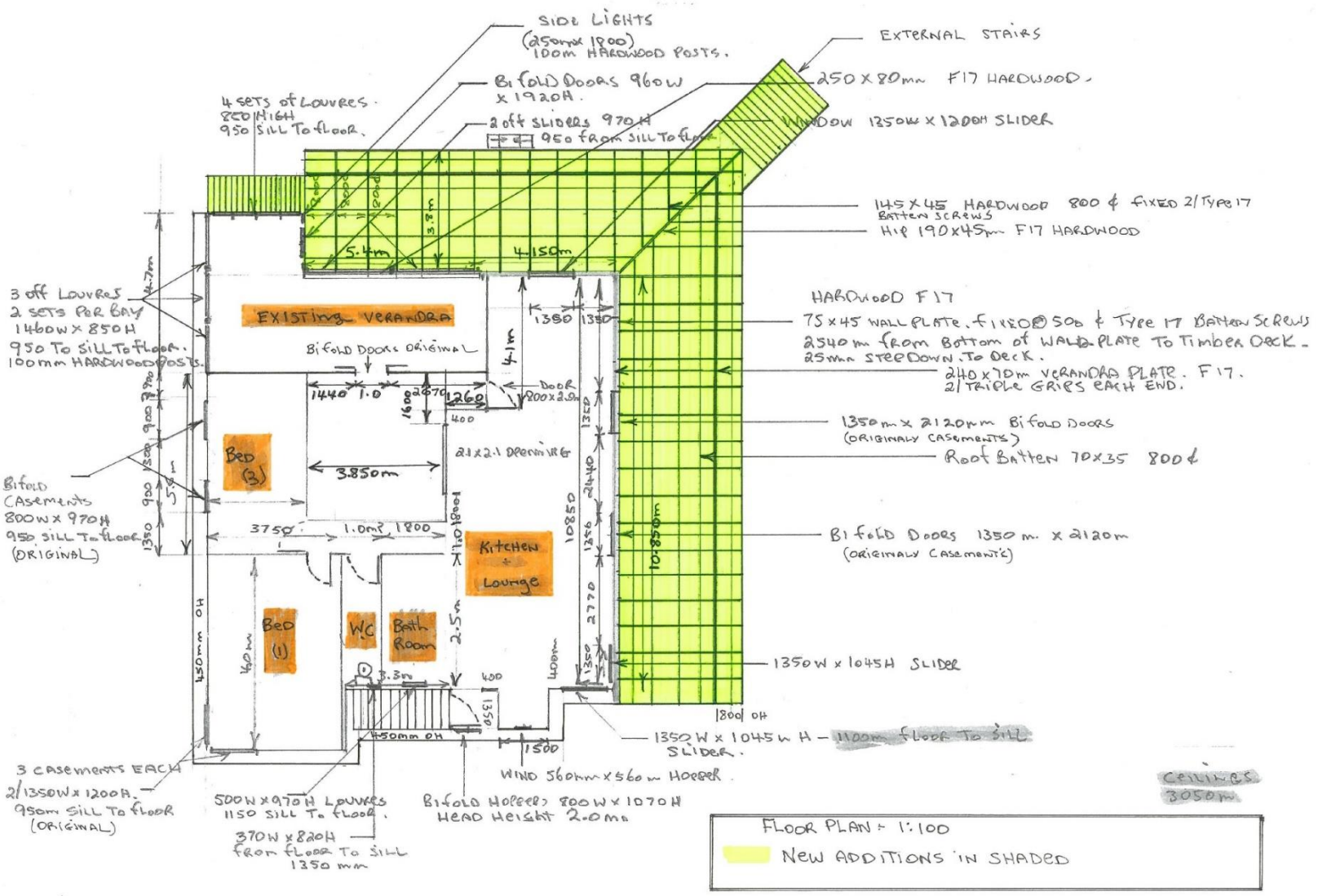

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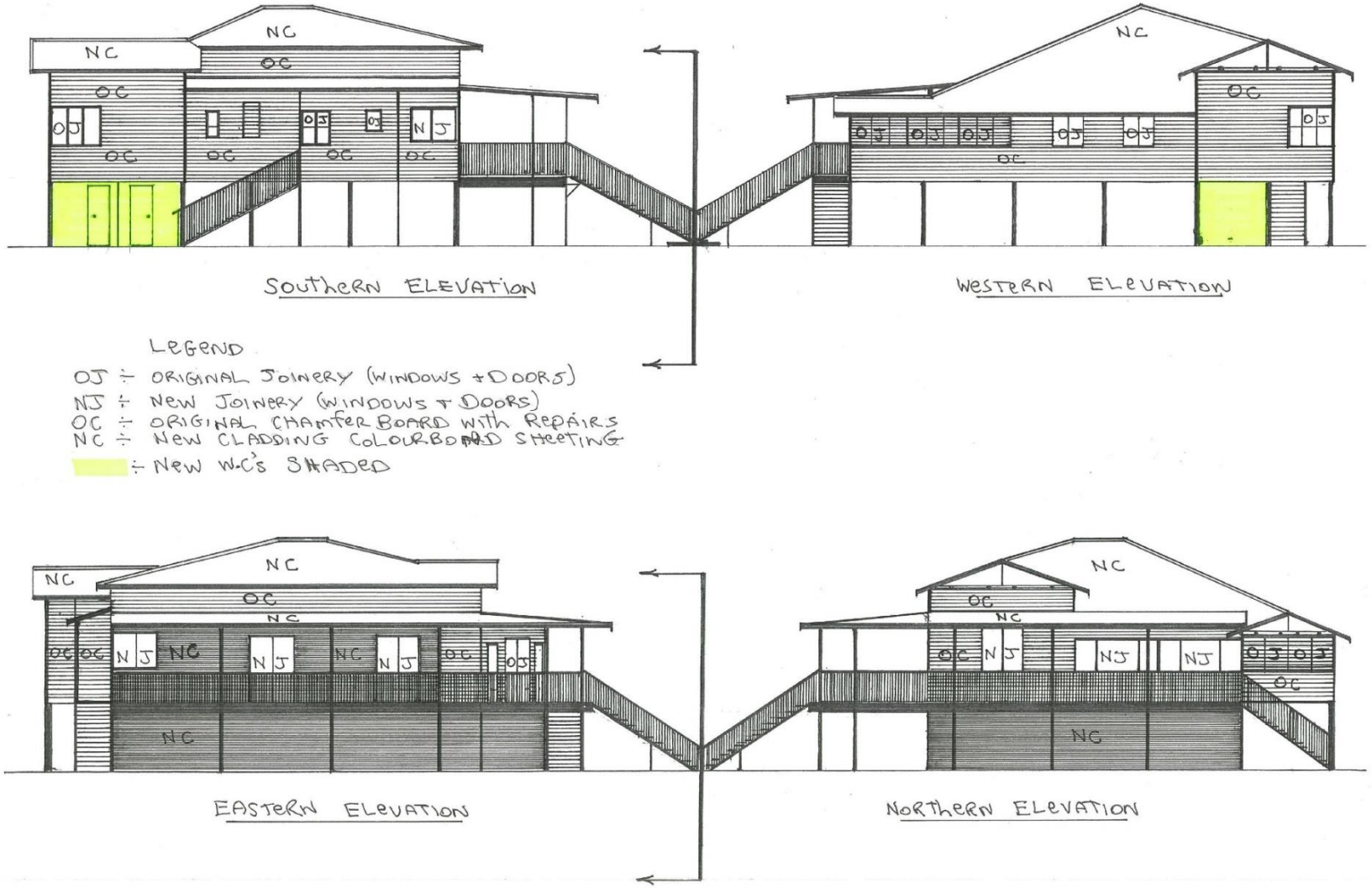

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Final Non-Indigenous Cultural Heritage Report
August 2017

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