



DAIRY AT THE JUNCTION OF SOUTH HEAD ROAD & CONGO ROAD MORUYA • HB PHOTOGRAPH 2004

EUROBODALLA DAIRY INDUSTRY HERITAGE •
SCOPING STUDY • STAGE 1 2004•2006

PREPARED FOR EUROBODALLA SHIRE COUNCIL & THE
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ESC HERITAGE ADVISORY COMMITTEE

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EXECUTIVE SUMMARY

The dairy industry has changed radically over the past 50 years and the pace of change and restructuring has particularly increased since the Dairy industry [Deregulation] Act 2000. This radical change has resulted in the loss and destruction of many significant Dairy Industry sites within the Eurobodalla Shire, which has traditionally been dependent on the dairying industry.

This Stage I Scoping study has investigated the scope of these radical changes and made some policy recommendations related to the conservation and documentation of key ESC dairy industry sites. The Study has found a rich legacy of significant sites within the Shire, including significant cultural landscapes [eg the 'Bodalla Company' landscapes west of the village of Bodalla]; significant buildings [eg the Comerang dairy sheds near Bodalla]; and significant archaeological sites [eg the Braemar, Shannon View, and Kyla Park dairy sites near Moruya and Tuross].

The key recommendations are as follows:

- The Heritage Inventory of sites associated with the dairy industry should be the subject of an assessment audit. The current list and descriptions of heritage sites dates from 1997, and is in urgent need of review, expansion and updating. Items found worthy of entry to the Local or State Registers should be so nominated;
- Conservation plans or detailed assessments should be prepared for the most significant dairy industry sites, including 'Haxstead' Central Tilba; 'Henkley' Farm Central Tilba; Old Trunketabella Cheese Factory Bumbo Road Bodalla; the Comerang cow bails, and the former Moruya Cheese Factory Hawdon Street, Moruya;
- Archaeological assessments be initiated for the former Kyla Park Farm site Tuross; the Shannon View sites near Moruya, and the 'Braemar' Farm South Head Road Moruya;
- Further efforts should be made towards the conservation of the timber barn at Durras Drive, Benandarah, perhaps by employment of the Local Heritage Fund; and
- All significant sites at risk should be subject to detailed archival recording and documentation, as funding allows. This would be the core task of a Stage 2 Dairy Industry project.

1.0 INTRODUCTION

1.1 BACKGROUND AND PURPOSE OF THIS STUDY

The Eurobodalla Shire includes an almost continuous coastal strip of pastoral and dairying landscape where, until relatively recently the major rural occupation was that of raising dairy cattle. Dairying has been a significant industry within the Shire since European settlement, in terms of produce, employment and shaping the physical landscape. Recent economic changes such as Dairy Industry deregulation and developmental pressure to open rural land for residential and “hobby farm” activities have the potential to alter the appearance of the landscape and may lead to the deterioration of dairy farm buildings.

The perceived need for a scoping study of the dairy industry in the Eurobodalla Shire [South Coast NSW] arose from the historical importance of the industry, and the threats to the heritage fabric of that industry, which arise from the closing of dairies. The heritage fabric elements within the Shire include farms, barns, feed silos, milking stalls, feed stalls, sheds, barns, cisterns, wells and cheese and butter factories. These elements developed in response to the market opportunities offered locally, as well as in Sydney and the Australian Capital Territory and were facilitated by changes in technology and transport. Additionally, the cultural landscape of the Shire has been shaped by the industry, and this has contributed to the scenic attraction of the shire as a tourist destination.

This Scoping Study has been envisaged as the first part of an ongoing project to assess and protect the significant dairy industry heritage within the Eurobodalla Shire. The following stages will be directed to identifying those significant dairy industry properties, sites and moveable heritage which are ‘at risk’, and pursuing the documentation and conservation of those places. There is no intention within this Study to place further restriction on sites related to an industry facing pressures through regulation, competition for land and competition for markets. The purpose of this study is to document and conserve significant aspects of the dairy industry, which has played such a pivotal role along the NSW South Coast, and in particular, within the Eurobodalla Shire.

1.2 THE STRUCTURE OF THIS STUDY

This scoping study of the dairy industry in the Eurobodalla includes an overview of the history of that industry, prepared by a working party of the Moruya and District Historical Society. This working party included Kate Boyce, Kevin Setter and John Sewell. The working party met on several occasions in early 2003 and took oral submissions from Norm Hoyer, Peter Neilson and Cleve Graham. The historical overview examines the growth and comparative demise of dairying in the Eurobodalla between its beginnings in 1829 to the present.

Some limited field-work was done through the late 1990s in conjunction with the Eurobodalla Shire Heritage study. As a result some twenty-one items relating to the dairy industry were listed in the Shire’s Local Environmental Plan’s Heritage Schedule. The working party’s deliberations have identified some further sites for follow-up examination and evaluation, which will be incorporated into the Study’s Stage 2 tasks.

1.3 THE STUDY AREA

The study area comprised the urban and rural areas of the Eurobodalla Shire from Durras in the North, to Tilba in the South. Map references for individual properties have been recorded on the Eurobodalla Shire Council Heritage Inventory, 1997. The extent of the Eurobodalla Shire is shown below, refer Figure 1.

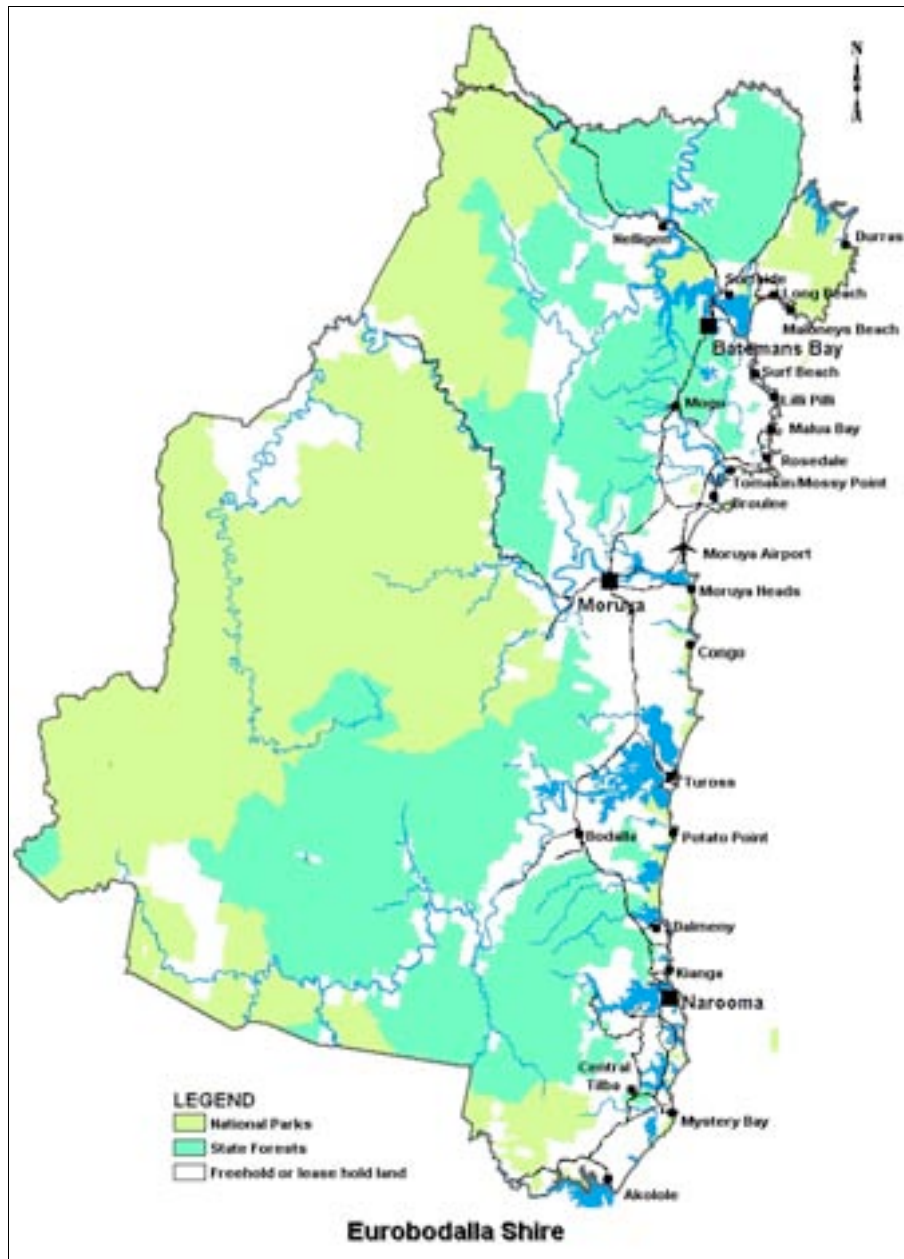


FIGURE 1 SECTION1 • EUROBODALLA SHIRE • SOURCE ESC WEBSITE 2006

1.4 ACKNOWLEDGEMENTS

The report team is indebted to the Moruya and District Historical Society for their support in the compilation of this document and provision of facilities, expertise and documentary information. The report team also acknowledges the support of Allen Grimwood, Team Leader, Strategic Planning, the Eurobodalla Shire Council. The report was funded by a grant to the Eurobodalla Shire Council by the NSW Heritage Office under the Heritage Incentives Program. The grant was matched *in-kind* by time provided by members of the working party.

2.0 HISTORICAL OVERVIEW: DAIRYING IN EUROBODALLA

2.1 EARLY DEVELOPMENTS

Francis Flanagan was Eurobodalla's first farmer. In 1829 he selected 1,280 acres at Mullenderee and built his farm Shannon View, the site of which is still identifiable. Within a few years, and using convict labour, he cleared and fenced 400 acres and owned 800 cattle, 12 horses and 200 pigs.¹ His dairy would produce butter and possibly cheese for the growing population of Broulee. His success was soon outstripped by that of John Hawdon at Kiora, whose land holdings from 1830 onwards, including squattings, covered much of the more arable land in the district.



FIGURE 1 SECTION 2 • Shannon View Estate • Source DoL historic parish maps no 10377801.

Commercial success in early dairying depended on several factors:

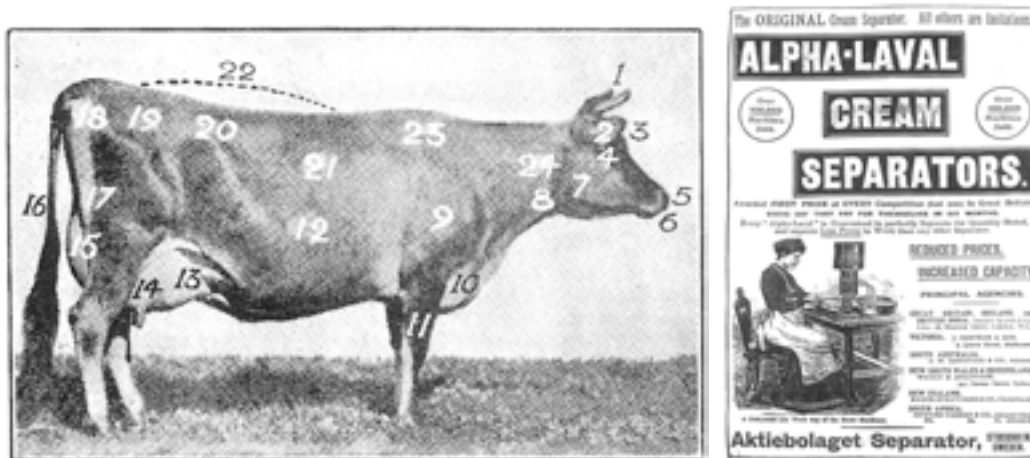
Cattle quality: It was not until the 1850s that good milking shorthorns were bred. Government owned bulls became available for hire and progressively the stock was improved;

A local market: The major boost from 1852 onwards was the opening up of the goldfields in Araluen, Coman, Nerrigundah, Mogo and Tilba;

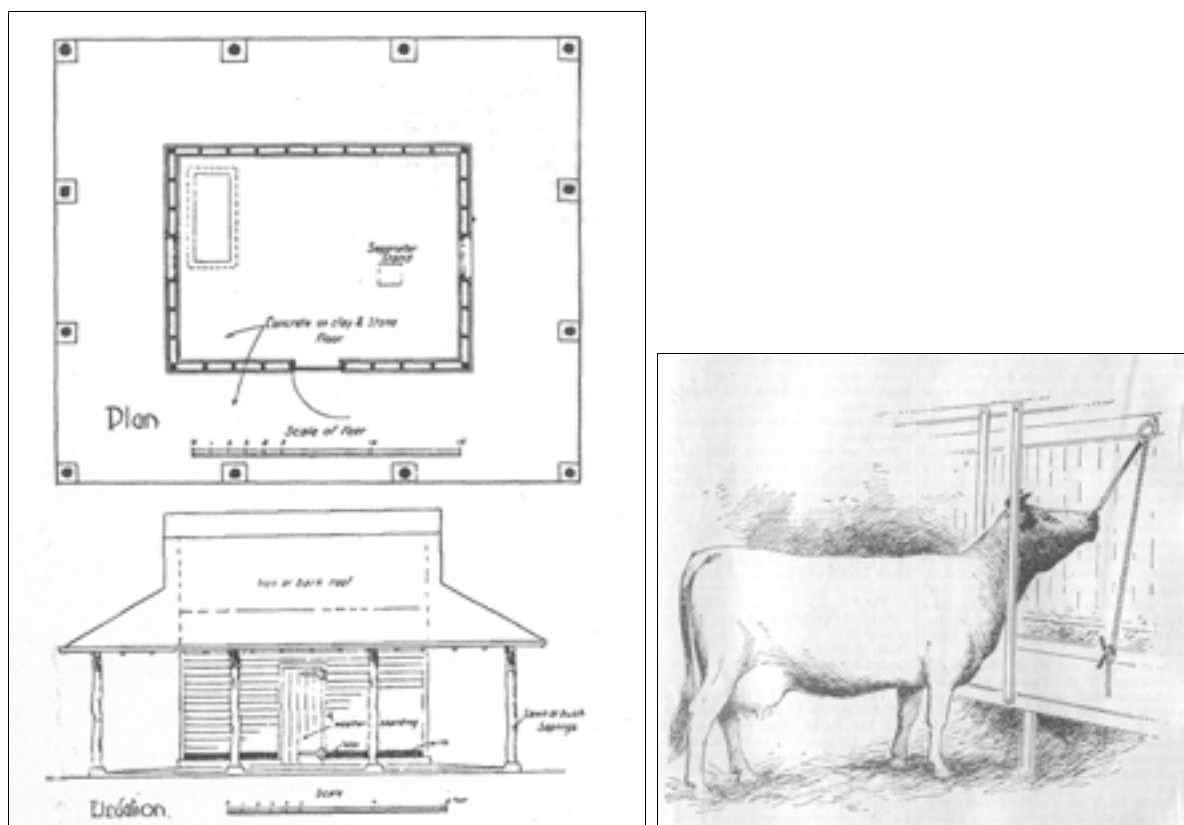
Access: Access to the Sydney market was through a regular coastal shipping service. The Illawarra Steam Navigation Company was established in 1853 and at first used Nelligen as its local port. Moruya Head's Pilot Station was established in 1861 and allowed better access, eventually through the town wharf at Moruya. Wagonga wharf at Narooma handled produce from Bodalla and the north;

¹ H J Gibbney Eurobodalla: History of the Moruya district.

Available technology: Until the import of the first Laval separators in the early 1880s, cream for butter was separated by the hand skimming of milk, which had stood long enough for the cream to rise, refer Figure 3 below. Cheese making demanded milk no older than two days. Standards of cleanliness and the local climate meant that butter or cheese made under these conditions was of variable quality;



FIGURES 2 & 3 SECTION 2 • A typical jersey dairy cow • Source the Weekly Times Farmer's Handbook • Advertisement for Alfa Laval separators 1902 • Source QVM&AG Dairy study.



FIGURES 4 & 5 SECTION 2 • Plan and elevation of a model dairy • Source the NSW Department of Agriculture Handbook • Model and bails foe dairy cattle • Source Town & Country Journal

Innovations in the C19 th dairy industry were publicised by means of the popular press, and in the early C20 th by means of handbooks produced both by the new State departments of agriculture and by the rural press, refer Figures 4 & 5 above.

2.2 THE FIRST PRIVATELY OWNED DAIRIES AND CHEESE FACTORIES

By the 1850s, settlers were producing saleable butter and cheese. In the April 18 1882 issue of the *Moruya Examiner* the operations of a dairy and cheese making plant at Bergalia

belonging to the local MP, Henry Clarke were described. The plant used complex drainage and cooling systems and produced 120 lbs. of cheese from 75 cows. At nearby Kyla Park, E. Hawdon also had a cheese factory and was concentrating on improving the breeding stock by importing an Ayrshire bull.² At Gundary in 1886, on the ridge overlooking the town of Moruya, Roger Heffernan is reported to have erected a cheese factory with all the latest improvements.³

Thomas Sutcliffe Mort's creation of the Bodalla Estates from 1860 was the high point of the private dairy industry within this Study area. In 1860 Mort⁴ somewhat unwillingly had acquired the Bodalla, originally Boat Alley, estate near the mouth of the Tuross River. Recovering from long ill health and debilitating hypochondria started by a riding accident in 1855 and intensified on his visit to England in 1857-59, he saw in Bodalla [Boat Alley] both a potential country estate for his retirement and a challenge to his concept of the productive purposes of capital. He planned to make it into a model of land utilization and rural settlement: a tenanted dairy estate run as an integrated whole. He had the beef cattle on Bodalla removed, land cleared, river swamps drained, fences erected, farms laid out, imported grasses sown, provided milking sheds and cheese- and butter-making equipment and selected tenants. Butter and cheese of steadily improving quality were produced for the Sydney market. Within a decade tenants were not prospering as share-farmers and Mort chafed under their right to make production decisions. In the early 1870s the whole estate was back in Mort's hands, run as three farms with hired labour. Specialized labour, first-class facilities, efficient stock control, careful stock-breeding programmes and controlled blending of milk from different breeds and farms all paid off in higher quality products which were dispatched by boat to the Sydney markets.

A writer in *The Town and Country Journal* of October 28, 1871 describes Mort's two-storey 'model milking shed' as 120 ft. long and 78 ft. wide and the model cheese-house, which was turning out 115 cheeses weekly from a herd of 280 cows. A wooden-railed tramway was constructed to take the produce from Bodalla to Narooma for shipment. A report from the Bodalla correspondent in the *Moruya Examiner* of May 27, 1892 described an early milking machine set up in bails 'bright clean and in apple pie order.'

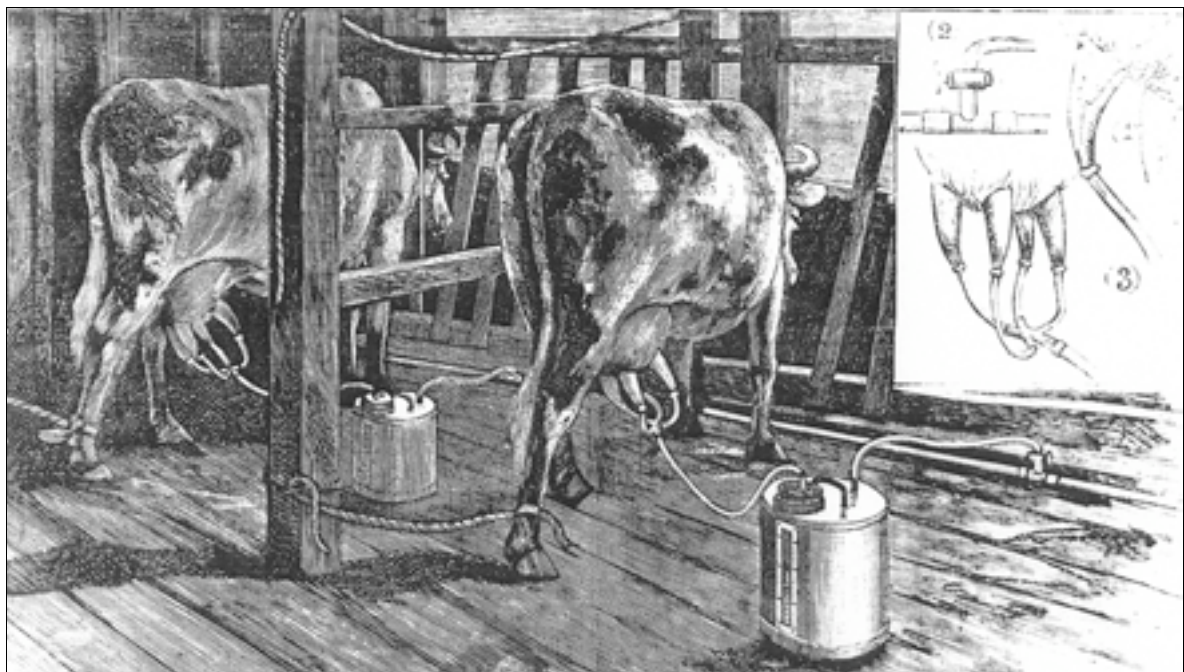


FIGURE6 SECTION 2 • The first milking machines in Australia were installed at the Bodalla Estate in 1892 • Source the Illustrated Australian News 1 July 1893 p22.

² Bayley, W.A. *Behind Broulee: a history of the Central South Coast of New South Wales*, Examiner Moruya p83.

³ Bayley, W.A. *Behind Broulee: a history of the Central South Coast of New South Wales*, Examiner Moruya p83.

⁴ Refer Thomas Sutcliffe Mort, in ADB vol, 5, 1974,, MUP.



FIGURES 7 & 8 SECTION 2 • The cow bails at Comerang within the Bodalla Estate and the pastoral landscape of Comerang, looking from the Eurobodalla road • Source AF photograph 2005.

By 1892⁵, and as reported in the *Moruya Examiner* of July 25, 1969, there were numerous other dairies and 'on farm' factories within the Shire's boundaries. These dairies included; 'Mount Pleasant' at Nelligen; 'Mullivine' at Nelligen, operated by E. McCauley; 'Paradise' at Nelligen; 'Bolero' at Nelligen; 'Runnymede', operated M. Ryan of Runnyford; 'Buckenbours'; Mogo; Tomakin; Cooboora; 'Bundarra', operated by Shotton; 'Longvale', operated by Lynch; 'Myrtle Bank', operated by Luck; Deua River, operated by Flynn, Congo operated by A. Barker; Congo, operated by J. Staunton; Congo, operated by J. H. Mercer; Bergalia, operated by Greig; Bergalia, operated by Mercer; Turlinjah, Ninderra and Mayfield, operated by J.A. DuRoss; and Meringo. Most of these were single farm operations, each producing butter and or cheese for local sales or shipment by sea to Sydney.

The term 'factory' was in common use, in the house of the Walters family at 39 Queen St, Moruya, the chimney-breast was adorned with copies of the stencils of brand names made by Thomas Edward Walter.⁶ There were stencils for many of the dairy farms listed above, and also for the Myrtleford MK Factory, the Reedy Creek Cheddar Factory and the Eurobodalla Factory. To the south, there were at least twelve factories on farm factories in the Tilba District.⁷ While the majority of these small factories closed as the co-operative factories were developed, private cheese making still continued. In his writings on the influence of the various members of the Parbery family on the local cheese industry, Dr D. G. Parbery recalls that Arthur Bishop made cheese for the Duncan family at Tyrone in Eurobodalla from 1915 to 1918.⁸

2.3 THE CO-OPERATIVE FACTORIES

By the 1880s, small farmers could either make and sell butter and cheese as individuals, or they could sell milk to 'purchasing factories' such as the Mort factory at Bodalla. It was becoming clear that they would be better served by joining together in co-operatives, thus sharing the cost of factory buildings and the cost of the increasingly complex equipment. Moreover, the demands of the export market, particularly for the export of butter to the UK, meant that the uncertain quality of the individual farm's produce was not acceptable. Several co-operative factories were set up within the Shire.

THE MORUYA CO-OPERATIVE BUTTER AND CHEESE FACTORY

At a Moruya meeting in March 1892, called to discuss the establishment of a Moruya Co-operative Butter and Cheese Factory, reference was made to the success of like ventures in the Illawarra, which had succeeded 'beyond the most sanguine expectations of the promoters'.⁹ The first factory opened in Hawdon Street in Moruya in November 1892, taking milk from twelve shareholding farmers. Within months, that number had increased to twenty-six, supplying 800 gallons of milk daily. The first batch of Moruya cheese was despatched per

⁵Harry Louttit, pers.comment, 2003

⁶ *Journal of the Moruya and District Historical Society* [MDHS], June 2000.

⁷ Norm Hoyer, correspondence, Sherringham, Tilba, November 2002.

⁸ *Journal of the Moruya and District Historical Society* [MDHS], June 2000.

⁹ *Moruya Examiner*, March 25, 1892.

the SS *Trident* to Foley Bros in Sydney on November 11, 1893.

For eighty years, the 'Co-op' factory was a major industry in Moruya, refer Figures 6 to 8 below. In 1930 the co-operative built a new factory, using the engineering genius of Arthur Preddey to move boilers from the old to the new so that production was barely interrupted.¹⁰ Capacity was upgraded nominally to 4,000 gallons per day, though in fact the maximum achieved, with a night shift at work, was 3,500 gallons. In 1954, it was proposed that capacity be increased to 5,000 gallons, though this output was never achieved. Fortunes fluctuated for reasons both national and local. The Australian Dairy Produce Board was established in 1924 to control the export of butter and cheese to the UK. That market suffered from the Great Depression, then from shipping problems during WW2. The post war boom brought prosperity, which ended with Britain's entry into the Common Market in 1973. Milk prices reflected these international factors.



FIGURE 9 SECTION 2 • Dairy farmers arriving at the Moruya Cheese Factory in Hawdon Street Moruya delivering milk ND but c1900 • Source NLA Canberra lent for copying by Mrs Williams of Broulee.



FIGURES 10 & 11 SECTION 2 • The Moruya Co-operative Dairy Factory in Hawdon Street Moruya, 1970, known then as the Moruya Dairy Factory • Source NLA Canberra from the William Bayley collection • the former Moruya Dairy Factory, now a private residence 2005 • Source HB 2005.

At the local level, floods brought hardship in 1925, when sand and debris covered much pastureland, and in 1945, when the destruction of the Moruya bridge separated major suppliers from the factory. Periodic droughts, particularly during the war years and from 1966 to 1968 affected supplies, which at times fell to 1,300 gallons per day. In 1964, in an attempt to diversify, the factory began to supply local milk, packaged in triangular [tetrahedral] containers. The venture failed.

Moruya cheddar cheese was winning both National and State awards up to 1969, but the Co-operative was on the wane. The Dairy Industry Authority was encouraging amalgamations within zones to improve efficiency. Discussions took place with Bega Co-operative, the Bodalla Cheese Society Ltd and the Nowra Dairy Co-operative. Nowra was preferred. Local milk was still to be taken to the local factory until such time as farms installed their own refrigerated tanks from which refrigerated trucks could make direct pick up.

¹⁰ *Moruya Hospital Centenary*, Heritage Publishing, 1991.

Cheese production ceased, though the name 'Moruya Cheese' remained under the ownership of the Sydney based company which owned the factory. The formal winding up of the co-operative under liquidator L.C.H. Gleeson was completed on April 17, 1982 and all shareholders were paid. The factory building became derelict and was converted to a private home.

OTHER CO-OPERATIVE FACTORIES IN THE MORUYA AREA

In the C19th and early C20 th milk was brought to the new Moruya Co-operative factory by horse and cart, which restricted its supply area, and smaller factories were established outside that area. A meeting of farmers in Bergalia resulted in the opening of a co-operative factory at Bergalia in 1893, refer Figure 12 below. This factory operated until 1941 when it was taken over by the Moruya factory. Another factory opened at Kiora just west of Moruya, and operated for fifty years until lack of a reliable source of milk forced its closure in June 1951¹¹, refer Figure 14 below. The Moruya Co-operative absorbed the Mogo factory. A factory was also established at Moggendoura in 1906, which operated until 1936 when it ceased to be viable under the milk equalisation system and at its peak, the factory was processing 500 gallons of milk per day.¹²



FIGURE 12 SECTION 2 • Dairy farmers arriving at the Bergalia Co-operative Dairy Company Ltd • NLA pictorial collection Canberra. Photograph notation reads'believed to be the first co-op in Australia'.

THE BODALLA CO-OPERATIVE

As discussed above, Thomas Sutcliffe Mort's Bodalla Estate had set standards for dairy efficiency and cheese manufacture. At his death in 1878, his estate covered 56,000 acres. From this estate was formed the Bodalla Company, all shares held by the Mort family. In 1893, the Company called for tenders for tenancies of some of the area, thus forming thirteen separate farms¹³. By auctions on April 11, 1923 and March 19, 1924, twenty-seven farms were sold off with Torrens title. The Company guaranteed that factories at Home Farm, Old Farm and Trunketabella would be available for handling milk.

¹¹ *Moruya Examiner* of June 8, 1951

¹² Louttit H., Councillor, as reported in the *Moruya Examiner*, July 25, 1969.

¹³ The Register of Dairy properties [c1920] lists ten properties owned by Bodalla co ltd: 'Wiltshire farm', Bodalla, Comerang farm Bodalla, Gannon's Pt farm', Bodalla; Greenway farm Bodalla; Heffernan's Hill farm, Bodalla; Old Bodalla farm', Bodalla; Riverview farm, Bodalla; Silo farm, Bodalla; Ttrunketabella farm, Bodalla; and West Flat farm; Bodalla.



FIGURES 13 & 14 SECTION 2 • The Bodalla Cheese Factory, Princes Highway Bodalla 1970, later developed as the Big Cheese tourist destination and cheese outlet, now disused • Source NLA Canberra from the William Bayley collection
• The Kiora Co-operative factory, west of Moruya 2005 • HB photograph 2005.

Shortly after these sales, the Bodalla Co-operative Cheese Society took over, operating two factories. Fortunes fluctuated, and during the depression, the Bodalla Company bought back some of the farms and installed share farmers. By the 1950s the two factories were obsolete. The factory in Eurobodalla Road closed in 1951. Cheese production ceased and the milk went to Street's ice cream factory in Moruya [refer Section 7.5 below]. In 1954 the Society built *'the most modern cheese factory in Australia'*¹⁴ with a capacity of 5,000 gallons daily. In August 1974, capacity was increased to 6,500 gallons by the installation of the insulated silo type tank, which still dominates the site, refer Figure 10 above. When Jack Emmott retired in July 1983 after 37 years as Chairman, the Society was described as one of the most successful in Australia.¹⁵ The following year the 'Big Cheese' building was opened as a visitor centre, retail outlet and milk bar.

By late 1986, the trading situation had changed to the extent that the Society was in trouble. Milk quotas for 'outside' sale had risen to the point where not enough milk was available for cheese making. All employees were made redundant by mid 1987 and the factory closed. The brand name 'Bodalla Cheese' was acquired by PDS. Milk went to the Bega Dairy Co-operative or to Nowra. In the same year, the Bodalla Company sold all its estate holdings, including the factory and the Big Cheese to Panfida Foods Ltd for \$7.5 million.¹⁶ Two years later in November 1989, Panfida sold by auction all its holdings in 54 lots, including eleven dairy farms, realising around \$15 million. A liquidator for the Bodalla Cheese Co-operative was appointed in 1990, at which time there was some hope that PDS might be interested enough to reopen cheese manufacture under its Allowrie label. This did not happen. The 'Big Cheese' no longer functions as a tourist attraction.

THE TILBA CO-OPERATIVE FACTORIES

To the south the ABC Co-operative Cheese Factory at Central Tilba was established in September 1891. This most successful operation produced cheese that in 1924 made the top price on the London Cheese Market. The factory amalgamated with the Bega Co-operative on March 2, 1972 via a transfer arrangement of five Bega shares for three ABC shares. The factory continued in operation for a further ten years as a wholly owned subsidiary of Bega, after which the premises were sold to a local businessman. He in turn sold to a King Island company. In 2001, National Foods took over and the factory continues to trade under the ABC name, producing speciality cheeses. ABC has claims to be the first co-operative cheese factory in N.S.W. and the first co-operative dairy factory. Its cheese attracted top prices until the late 1960s.¹⁷ In the hamlet of Tilba Tilba, cheese was made in a family operation at 'Mountain View', at Killarney, Couria Creek and several other on farm factories until the establishment of the Tilba Tilba Alpha Co-operative in 1924. This co-operative folded in 1971.

¹⁴ 'Supplement' *Moruya Examiner*, October 1, 1954.

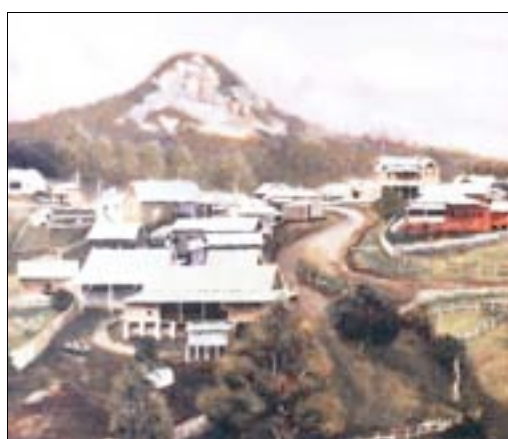
¹⁵ *Moruya Examiner*, July 14 1983

¹⁶ *Sydney Morning Herald*, November 20, 1989

¹⁷ Norm Hoyer, correspondence, Sherringham, Tilba, November 2002.



FIGURE 15 SECTION 2 • The ABC Cheese Factory, Central Tilba, c1920 • Source *Tilba Times* Laurelle Pacey & Norm Hoyer.



FIGURES 16 & 17 SECTION 2 • The ABC Cheese Factory, Central Tilba, 1925 • Source *Tilba Times* Laurelle Pacey & Norm Hoyer • Central Tilba with the ABC Cheese Factory in the foreground, painting by the Tilba School teacher 1912 • Source *Tilba Times* Laurelle Pacey & Norm Hoyer

NON CO-OPERATIVE DAIRY PRODUCTION

Not all dairy farmers were members of, or suppliers solely to, the co-operatives. In particular, farmers in the Batemans Bay area, from Nelligen to Guerrilla Bay, continued until well after the Second World War to supply their milk, butter and cheese to private homes, camping grounds and small retail outlets.¹⁸

The history of the Billilingra Dairy, a thousand-acre farm in the Dunns Creek area, illustrates the strength of this private enterprise. In 1954 the Graham family took over the dairy operation of Smith and Son and over the next eight years developed it to be the principal supplier of fresh milk to the Batemans Bay area. Neighbouring farmers delivered fresh milk daily in ten-gallon cans to the Grahams, who paid substantially more than the cheese factory. The milk was mixed and cooled. In the early days, it was sold from large tanks on the back of small trucks - the milk drawn from the tank through a tap into cans of the appropriate capacity. The Grahams then installed a Perga packaging machine that produced circular cartons, so simplifying delivery. There were great seasonal variations in demand - in mid winter, sales

¹⁸ Neilson Peter, Personal Communication, Tuross, December 2002

could be as low as 25 gallons per day and over the holiday season as high as 1,000 gallons per day - at which stage the Grahams needed to buy in milk from Bega. Farmers then normally followed a pattern of spring calving, which fitted in well with retail demand for fresh milk.

Pasteurisation became law in 1960, with a period of grace. Installation of pasteurising equipment at Billilिंगra was not economically feasible, and the Grahams sold to Smith and Williams in 1962. The enterprise was absorbed by the Nowra Co-operative, and the pattern of zoned deliveries was established with Nowra supplying milk and milk products to a refrigerated room in a milk vendor's zone; broadly the system which still obtains, despite increasing competition from the supermarket chains. Billilिंगra, as with many other dairy farms in the coastal strip has now been subdivided and nothing remains of the dairy.¹⁹

In Moruya in the immediate post war period, milk was delivered by Billy Weeks using milk from Jack Brogan's farm on the Womban road. In September 1951 the Turnbull brothers, John and James, of Mullenderree established a rival business. They delivered milk from Broulee to Moruya. Originally, as in Batemans Bay, milk was measured from a bulk tank into appropriate measuring cans. These were replaced by hand filled cartons in 1957. A hand-operated machine for filling and sealing cartons was installed in 1961. A wood fired pasteurising machine was installed in 1968. The Turnbolls bought out the Weekes' business in 1970. Increased pressure from the Milk Board that finally established a quota system led to the Turnbolls selling the retailing business to Don Eicchorn in 1974. He in turn was taken over by the Nowra Co-operative.²⁰

THE STREET'S ICE CREAM FACTORY IN MORUYA

Ted and Daisy Street began making and selling ice cream in their fruit shop in Corrimall, near Wollongong, in 1920. By 1950 their State-wide operations were big enough to justify the building of a milk-processing factory in River Street Moruya. This factory was to be capable of processing over 10,000 gallons of milk per day, reducing milk by two thirds of its volume before shipment to the Sydney factories. Potentially it would also produce powdered milk. Its main source of supply was to be the Bodalla Co-operative, whose cheese making ceased as a result of the agreement.²¹ Speaking to the Directors of the Bodalla Co-operative in July 1951, shortly before the factory opened, Mr Street promised to pay much better prices than were obtainable for cheese making. Small cheese factories, he said, were doomed, now that modern refrigerated transport made distance irrelevant.²²

The factory had a short life, closing in April 1954 when the collapse of the Tuross bridge cut off access to its main suppliers. In any case, Streets had already found that they could buy reduced milk from sources nearer to Sydney more cheaply than they could produce it in Moruya. The decision to build a new cheese factory at Bodalla also meant that future milk supplies from the co-operative there were uncertain.²³ The factory stood empty for many years until it was demolished to make way for the Illawarra Retirement Village that opened in April 1994. Two weatherboard houses that originally housed factory staff were relocated to Bergalia Street. The only remaining artefact is a discharge pipe in the riverbank.

REGULATION AND DEREGULATION

The first Dairy Supervision Act in NSW, operative from January 1, 1887, was mainly concerned with cleanliness. A revision in 1901 required that all milk producers be registered, and that they report any infectious diseases, either of the cattle or of the humans servicing them. Pasteurisation became increasingly common after 1897, its main benefit being the suppression of tuberculosis carried by milk. Later legislation addressed price structures and milk marketing. The Dairy Industry Act of 1915 brought in supervision by the Department of

¹⁹ Graham Cleve, Personal Communication, January 2003.

²⁰ Turnbull John and Miriam, Personal Communication, January 2003

²¹ *Moruya Examiner* August 18, 1950.

²² *Moruya Examiner* July 6, 1951.

²³ *Moruya Examiner* of April 23, 1954.

Agriculture, price fixing and standards for butterfat content. The Dairy Produce Export Act of 1924 was concerned about the quality of exported butter and cheese. A NSW Milk Board was established in 1931. Wartime contingencies saw the establishment of a milk zone covering the Central Coast, Illawarra and parts of the southern tablelands under the Milk Board. Dairy farmers were given milk quotas under a system designed to guarantee stable milk supplies to Sydney, Wollongong and Newcastle.



FIGURE 18 SECTION 2 • The lagoon at Moruya, the Moruya River can be seen behind, c1890. The Street's factory was established adjacent the Showgrounds on this site, once the lagoon was drained and filled • Source NLA Canberra.

With the establishment of the Dairy Industry Authority in the 1970s, all dairy farmers were given a quota to supply fresh milk. Milk produced over quota went to the remaining factories for cheese and, to a lesser extent, butter. Quotas and related price fixing by a prices tribunal determined the income of dairy farmers. Typically there would be a home consumption price, an average realisation price based on local and overseas sales and, until the late 1970s, a government subsidy.²⁴ The quota itself became a realisable asset until deregulation of the dairy industry. Deregulation operated from July 1, 2000. It affected pricing and marketing and many other regulations, covering food standards, remain in force.

THE PRESENT AND THE FUTURE

With the commencement of local farming in the Eurobodalla region, there was little distinction between the cattle kept for meat and those kept for domestic milk; cows were dual purpose. When the market for butter and cheese developed, there were good financial reasons for increasing milk output; cash flow was obviously better than that yielded by the sale of cattle. Large families meant that the chores of seven day a week milking could be shared. Over the past century, the small family dairy farm has become less and less viable. High milk yield demands specialised breeding, specialised feeding and improved pasture. Fresh milk demands heavy capital expenditure on sterile dairy machinery and farm refrigeration. Even with mechanised and automated dairies, milk production is more labour intensive than beef production. There are no longer the large families of a century ago to share that labour. In the area from Tomago River to Tuross Heads, for example, between 1921 and 1946 the number of dairies fell from 64 to 36. By 1978 this number had fallen to nineteen out of a shire wide total of 54 farms selling fresh milk under the quota system.²⁵

Deregulation hastened the process of amalgamations and rationalisations. Figures from the NSW Department of Agriculture show that in the area covered by Moruya, Bodalla, Tilba, Cobargo and Bega, dairy farm numbers dropped from 141 to 132 in the year September 2000 to September 2002. A snapshot of the industry in Eurobodalla as of June 2002 shows four farms in the Moruya area supplying milk to Nowra and twelve farms in the area of Bodalla supplying

²⁴ K.D. Cocks & J.J. Basinki *Land Use on the South Coast of N.S.W.*, 1978.

²⁵ K.D. Cocks & J.J. Basinki *Land Use on the South Coast of N.S.W.*, 1978.

milk to Bega. Six farms in the Tilba district supply milk to Bega.²⁶ The future is uncertain. The deregulated market seems likely to be dominated by fewer processors and the prices they pay for milk will be influenced by the purchasing power of the big supermarket chains and by world markets. It is unlikely that the current and future pricing and purchasing structures will bring increased prosperity to our surviving local dairy farmers.

Total Australian milk production²⁷ is projected to increase by 7 per cent from 10.1 billion litres in 2004 to 2005 to more than 10.8 billion litres in 2010 to 2011. The progressive consolidation of farms into larger production units is likely to lead to increases in yields and the size of the total dairy cow-herd over time. However, these factors are not expected to be sufficient to return milk production to the pre-drought level of around 11.3 billion litres a year. Higher Australian milk production, and therefore manufactured product volumes, over the medium term will stem from the combined effects of a slight rise in the national dairy herd and a projected 5 per cent increase in milk yields between 2005 to 2006 and 2010 to 2011. The trend toward more intensive dairy production systems; particularly the greater use of supplementary feeding of herds together with the economies of scale associated with increasing average farm herd size ; are expected to be the main factors driving projected increases in average milk yields.

²⁶ Townend Helen, *Paper for the Moruya and District Historical Society*, September 2002; Norm Hoyer, correspondence, Sherringham, Tilba, November 2002.

²⁷ Robert Delforce and John Hogan ABARE 2006 conference.

3.0 DAIRY SITES OF EUROBODALLA

3.1 PREAMBLE

The sites identified below were identified within the Heritage Study of the Eurobodalla Shire, concluded in 1997, and are listed in the Eurobodalla Shire Council Heritage Inventory. A number of other sites have been flagged for future investigation within the second stage of the ESC Dairy Industry study and will be described later in Section 4 below.

3.2 LIST OF SIGNIFICANT SITES ASSOCIATED WITH THE DAIRY INDUSTRY

The following sites were surveyed by EJE Consultants [consultants for the 1997 Eurobodalla Heritage Study] and were included in the Heritage Inventory. These sites are currently subject to Eurobodalla Shire Council's LEP processes and provisions. The bracketed reference to each site refers to the Heritage inventory [1997], and is related to the geographical location of the site. The historical notes are abstracted from the Heritage Inventory.

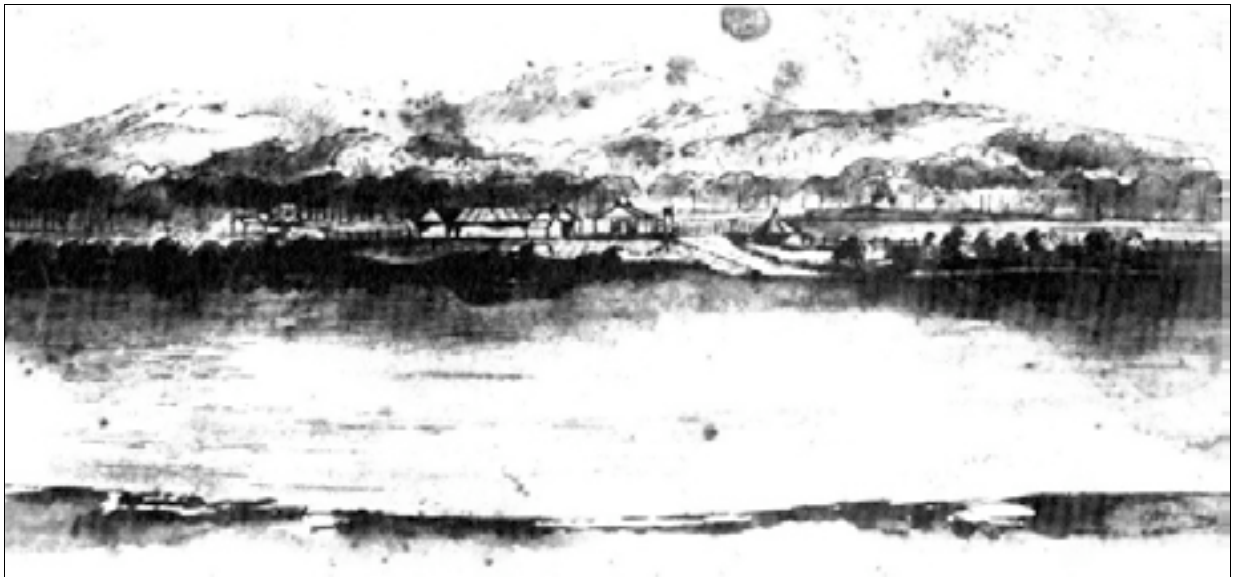
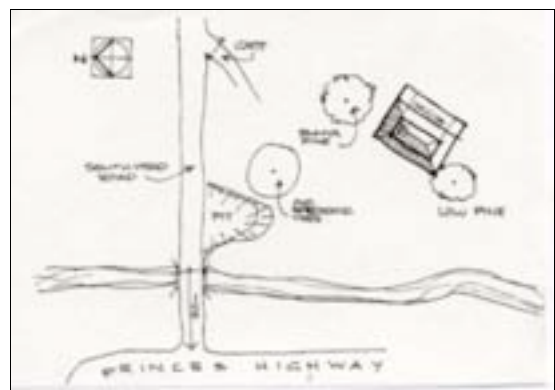


FIGURE 1 SECTION 3 • Early sketch of Shannon Flat on the Moruya River, looking North, one of the first dairy farms
•Source SL of NSW ML.



FIGURES 2 & 3 SECTION 3 • Braemar Farm 1997. The Braemar homestead was demolished illegally August 2006, however some of the outbuildings remain •Source ESC heritage study 1997.

Timber Barn [c1920], Durras Drive, Benandarah: associated with local dairying activity. [BENA/R001];

Former Cheese Factory [1893] Bergalia Link Road: Bergalia operated from 1893 to c1929, when absorbed into the Moruya Co-operative. [BERG/R001];



FIGURES 6 & 7 SECTION 3 • South Head Road dairy • Kiora Dairy, Kiora Road, west of Moruya • Source HB photograph 2004.



FIGURES 8 & 9 SECTION 3 • Brick grain silo Princes Highway Coila • Source HB photograph 2004 • The dairy village of Central Tilba • NLA Canberra photograph.

3.3 THE DISTRIBUTION OF DAIRY HERITAGE SITES IN THE EUROBODALLA SHIRE

An examination of the sites listed above indicates that their concentration lies geographically to the south of the Shire. As suggested in Section 2 of this report, consolidation of dairy farms through the period of the co-operative dairy movement, and especially the success of dairying in Bodalla and Tilba, allowed for the continuation of dairying. Many of these structures are still used for dairying. By contrast, areas to the north of the Shire, particularly on the coastal strip from Batemans Bay to Broulee, have felt particular pressure from urban expansion.

The process of nomination to the Eurobodalla Heritage studies in the late 1990s further distorted the picture with regard to the distribution of sites. Nominated sites came predominantly from the south of the Shire, and the relative 'invisibility' of dairy sites to the north meant that such sites as did exist were poorly represented in the evaluation process. The investigations for this Study have revealed the existence of possible sites in the Batemans Bay, Rosedale and Nelligen areas and are the subject of recommendations below.

3.4 CURRENT THREATS TO EUROBODALLA DAIRY HERITAGE SITES

Dairying in the Eurobodalla region is experiencing structural trends and pressures including consolidation of holdings, diversification of production into beef cattle production, viticulture and horticulture, and sub-division of [especially] coastal properties in response to an increasing demand for rural residential property [refer Section 2.7 above and Figures 2 and 3 below]. As a result of these 'structural' changes, many dairy properties and structures are left idle. Other properties/structures are semi-utilised for storage, or converted for use by beef cattle. Some have been subject to adaptive re-development for accommodation and other purposes.

Most of the disused structures are not maintained and others have been demolished. Of particular concern are remnant early structures and complexes illustrative of the evolutionary development of dairying processes. Redundant structures are often on the verge of destruction through lack of maintenance. These structures may represent a valuable historical resource, and should be recorded, and where feasible, conserved [refer Figures above]. Constraints on the protection of these sites arise from the fact that many are on freehold agricultural land. The imposition of restrictions on adaptive re-use, and attempts to direct the legitimate activities of farmers in the use of their land may be problematic.

4.0 EUROBODALLA PASTORAL CULTURAL LANDSCAPES

4.1 PREAMBLE

Pastoral landscapes in the Eurobodalla represent identifiable cultural landscapes, which have significance in their own right. Protected cultural landscapes include those at Kyla Park, Tuross, and within the Tilba conservation area. *Cultural landscape* may be defined as being '*...fashioned out of a natural landscape by a culture group*'.¹ In the case of the pastoral landscapes of the Eurobodalla region, these landscapes were fashioned by the farms and activities of various periods of settlement and use, and may be seen as multi-layered and dynamic.

4.2 LANDSCAPE FEATURES

Common landscape features include:

- House orientation towards the morning sun or across grazing paddocks, rather than being oriented towards a road.
- Exotic plantings of windbreaks, shade trees and homestead fruit trees. These include landmark plantings of Moreton Bay Figs, and *Pinus pinea*, the edible pine nut of the Mediterranean. Shade tree plantings include *Pinus radiata* (after 1918), and coral trees. Common fodder crop planting included willows.
- Landscape water supply features include paddock dams and tanks and water races. Farms evince household tanks and tank stands.
- Farm fencing is a common landscape feature of dairy farms, but is particularly subject to repair, replacement or removal as a result of decay, fire, and changed property boundaries or land use.

4.3 THE SIGNIFICANCE OF THE PASTORAL CULTURAL LANDSCAPES

The attractiveness of the dominant pastoral cultural landscape and the nature of closely subdivided dairying properties of the Eurobodalla region has encouraged the development of residential and rural residential development along the seaboard between Batemans Bay and Moruya, at Tuross and through Narooma through Tilba to the Shire's southern boundary.

The resulting development has compromised the pastoral landscape through the introduction of exotic species, and 'urban type' land subdivision and uses. For example, the Kyla Park frontage to Hector McWilliam Drive at Tuross has recently been planted with eucalypt species which threaten to obscure the views on both sides of the road to the lakes. Ian Harrison² observes that the only discernible landscape feature of the extensive clearing that characterised Rosedale Farm [south of Batemans Bay] is a slight difference in tree height and density between the re-growth of the past thirty years, and the un-cleared forest.

The physical evidence of the dairy industry as seen in the landscape, enables its understanding in terms of land use, sequence and nature of settlement and occupation. This may be seen to complement information available from historical research. As importantly, however, the retention of cultural landscapes may contribute to a sense of place for new residents drawn to the coast for lifestyle as well as aesthetic reasons.

4.4 CURRENT THREATS TO PASTORAL CULTURAL LANDSCAPES

The constantly evolving landscape may be seen as a reflection of the economic and social forces that shape our lives. Indeed, we may agree with Don Mitchell³ that '*... the condition of everyday life is, for many people, the interruption or destruction of everyday life*' [author's emphasis]. Within this context the changing pastoral landscape is a reflection too, of a changing *political* landscape. Intervention in the process of landscape evolution is thus tested against the political and economic exigencies of modern life.

¹ Gardiner 2001, 12 after Sauer

² Ian Harrison, in *Rosedale, a Brief History*, 2004

³ Don Mitchell, in *Cultural Landscapes*, op cit 2003

Where dairy operations continue, threats to the cultural landscape may appear minimal. Renovation of fencing and farm infrastructure may impinge on existing landscape, but insofar as these activities are carried out with sensitivity to past practices they are unlikely to impinge markedly on the landscape. Redevelopment of dairy land for other rural or residential purposes is more problematic.

Re-use of farming land has already led to losses of landscape. As noted above, urban expansion and re-forestation has largely obscured the pastoral landscape at Rosedale. Grazing land on Broulee Road has been utilised for the construction of a crematorium. Even where protection is offered, as at Kyla Park, Tuross, domestic gardens may obscure the dairy-related landscape.

Traditional farm plantings of *Pinus radiata*, willows and Coral trees now run foul of noxious weed regulations. Substitute horticultural activities including agro-forestry and viticulture profoundly affect the viability and integrity of pastoral cultural landscape.



FIGURES 1 & 2 SECTION 4: Adaptive re-use: Former Moruya cheese factory, Hawdon Street Moruya. HB photograph 2003



FIGURE 3 SECTION 4: Dairy country and cultural landscape Tuross Heads. HB photograph 2003

5.0 STAGE 1 STUDY RECOMMENDATIONS

The following draft recommendations are put forward as a basis for the conserving and recording of Eurobodalla's dairy industry sites and heritage.

CURRENT HERITAGE INVENTORY SITES

The key recommendations are as follows:

- The Heritage Inventory of sites associated with the dairy industry should be the subject of an assessment audit. The current list and descriptions of heritage sites dates from 1997, and is in urgent need of review, expansion and updating. Items found worthy of entry to the Local or State Registers should be so nominated;
- Conservation plans or detailed assessments should be prepared for the most significant dairy industry sites, including 'Haxstead' Central Tilba; 'Henkley' Farm Central Tilba; Old Trunketabella Cheese Factory Bumbo Road Bodalla; the Comerang cow bails, and the former Moruya Cheese Factory Hawdon Street, Moruya;
- Archaeological assessments be initiated for the former Kyla Park Farm site Tuross; the Shannon View sites near Moruya, and the 'Braemar' Farm South Head Road Moruya;
- Further efforts should be made towards the conservation of the timber barn at Durras Drive, Benandarah, perhaps by employment of the Local Heritage Fund; and
- All significant sites at risk should be subject to detailed archival recording and documentation, as funding allows. This would be the core task of a Stage 2 Dairy Industry project.

ESC HERITAGE ADVISORY COMMITTEE

It is recommended that:

- A public appeal for information on further sites, particularly in the Batemans Bay, Narooma, and Nelligen areas;
- The ESC Heritage Adviser recommends sites for further investigation to the ESC Heritage Advisory Committee [HAC] and to Council;
- The ESC Heritage Adviser and HAC investigate the feasibility of co-operating with other institutions [eg Universities] in the development of archaeological assessments and conservation plans/strategies for important sites listed in the Stage 1 scoping study;
- Continuing vigilance is required in the identification and protection of cultural heritage landscapes associated with the heritage of dairying in the Shire.
- Whilst re-affirming a preference for the maintenance of moveable cultural heritage *in-situ* items of significance in the history of the dairy industry should be identified within the collections of museums and other repositories within the Shire; and where feasible privately held moveable heritage should be documented and conserved¹;
- This Scoping study should serve as a vehicle for emphasising the important role dairy farmers and dairy farming has played in the history and economics of the Shire, and should be used to elicit the support of Council and the Dairy industry in the conservation and documentation of the dairy industry. Public Education and document launch activities should be designed to promote the importance of dairy farmers and dairy farming;
- Members of the HAC should seek to attend meetings of farmers and other dairy industry stakeholders with a view to increasing their awareness of the document, and participation in its future development.
- A full assessment and audit of sites associated with the Dairy industry is impractical at this time due to budgetary and time restraints, however the Stage 2 tasks should relate to sites at risk. Sites at risk from development or other threats should be identified and evaluated through a systematic process, and where necessary funding offered to those site through the ESC Local heritage fund, and other State and National funding sources.

¹ Since the production of this Scoping Study, a Moveable Cultural Heritage Working party has been established within the ESC HAC. A central register of ESC moveable cultural heritage items is currently being developed.

It is recommended that:

- Further dairy industry heritage studies are pursued for sites not listed in the 1997 study, in particular, sites within the Batemans Bay, Nelligen and Rosedale areas.
- A public appeal and education program is initiated for the nomination of such sites to the ESC Heritage Advisory Committee.
- Further heritage studies are pursued for the identification and recording of significant cultural heritage landscapes, including pastoral landscapes, within the Shire;
- Current regulation and controls be reviewed with regard to their efficacy and appropriateness, particularly with regard to the cultural landscape at Kyla Park; and
- Development application assessment processes are assessed, where appropriate, with regard to their impact on identified cultural landscapes.
- Many items of redundant dairy equipment are scattered around properties, often left in the open. These items should be recorded, along with the archival recording of the dairy properties; and
- Those items gathered in collections of Historical Societies should be centrally catalogued.

PUBLIC AWARENESS AND EDUCATION

As noted above, heritage exists within a geo-political context. The provision of funding for heritage projects within the Shire has historically been problematic. In an attempt to increase the awareness of the contribution made by the dairy industry to the history and resultant heritage of the Shire, the following recommendations are offered.

- A greater emphasis is placed on encouraging the active participation and involvement of dairy farmers and workers in the preservation of their heritage, through liaison with industry groups and prominent individuals;
- Recognition be given to the role tourism can play in the development of an awareness of the contribution of the dairy industry to our heritage; and
- Consideration is given to the development of a 'Dairy Industry Heritage Tour' of the Shire, with appropriate signposting and documentation in association with a 'Dairy Industry Interpretation Plan'.



Figures 1 & 2 Section 5: Australian Illawarra Shorthorn cows belonging to Mr. John Bate, Tilba Tilba c1903 • Historical photographs from the Corkhill collection NLA Canberra nos 2477171 and 2477239.