CASINO MANAGEMENT AREA EIS AND MURWILLUMBAH MANAGEMENT AREA EIS SUPPORTING DOCUMENT No. 5

ARCHAEOLOGICAL SURVEY OF HISTORICAL SITES CASINO AND MURWILLUMBAH MANAGEMENT AREAS NORTHERN REGION STATE FORESTS OF NEW SOUTH WALES

by

Susan Pearson

1992

STATE FORESTS
NORTHERN REGION

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DISCLAIMER

The findings of this report are based on the author's analysis and interpretation of the survey results. Views and interpretations presented in the report are those of the author and not necessarily those of the State Forests of New South Wales. The recommendations of the report are the opinion of the author.

ACKNOWLEDGEMENTS

Sincere thanks are extended to the staff of the Forestry Commission for their help and co-operation and to all those people who provided such valuable information concerning the location and history of the many sites within the Casino and Murwillumbah Forest Management Areas.

Appreciation is also extended to the Forestry Commission, Casino, for the provision of the vehicle used during the survey of the Casino Forest Management Area.

Special recognition is given to the assistance provided by Mr Eric Rankin of the Forestry Commission, Grafton. Whithout his extensive local knowledge, both historically and within the various forests, and his expertise with the 4WD vehicle, it would not have been possible to complete the survey within the time allocated

CONTENTS

CONTENTS cont.

CASINO AND MURWILLUMBAH FOREST MANAGEMENT AREAS

ARCHAEOLOGICAL SITES SURVEY

1.0 INTRODUCTION

The following historical, archaeological report was prepared for Margules Groome Poyry Pty Ltd, Consultants, 45 Jardine Street, Kingston, A.C.T. 2604 for the Forestry Commission of New South Wales as part of a study undertaken for the purpose of preparing an Environmental Impact Study for the Casino and Murwillumbah Forest Management areas of New South Wales.

2.0 THE BRIEF

Briefing was provided by Kate Blackmore of Blackmore and Associates, 54 Lilyfield Road, Rozelle. N.S.W. 2039, as the sites to be inspected were developed in part from local knowledge and a summary of sites compiled by Ray Margules of Margules Groome Poyry Pty Ltd, (the consultants charged with the preparation of the said EIS) and research into the history of the Grafton Forest Management Area carried out by Blackmore and Associates. This research was based on the National Parkes and Wildlife Service's Director's requirements that the sites to be inspected should be generated from a predictive model based on historical research which would provide a minimum range of sites that would have to be inspected'. In addition, it was considered to be of little consequence which site was surveyed as long as the site had predictive value, that is, it expressed the typical nature of activity in the region [2] and that the size of the forest areas and the ephemeral and/or negligible evidence present on some sites would probably preclude from, or not warrant inclusion in, a comprehensive archaeological survey[3,4] as it was considered that there was ample documentary or oral evidence of the historical process[5].

The sites identified in this way were:

CASINO FOREST MANAGEMENT AREA

Gibberagee State Forest
- * Ti-tree still.
- * Overnight hut.
- * Tick fence.

Gibberagee Ext. 8
- * Tramway.

Busby Flat
- * Stade Bros sawmill.

Bungabbee State Forest
- * Banana growing lease area.

MURWILLUMBAH FOREST MANAGEMENT AREA

Whian Whian State Forest
- * Old Lismore Road.
- * Sharp's sawmill.
- * Flying Fox near Lions Head.

It was decided that the banana growing lease area in Bungabbee State Forest, because of the expected difficulty in locating the site, should only be investigated if time permitted.

Because the number and type of sites did not allow inter site

comparisons to be made and there was no way of establishing if a site was typical or unique or to identify those sites that may be archaeologically significant and/or in need of having special conservation procedures applied to them, it was decided that other sites should be added to the list, at the archaeologists discretion, so that a comparison of sites could be obtained and the archaeological significance of the sites determined.

2.1 PURPOSE AND AIM

The aim of the survey of historical sites in the State Forests of the management areas was to inspect, record and photograph the following sites:

Billilimbra State Fforest

* Malara Tops.

Ewingar State Forest

* Bulldog Diggings.
* Solferino Mining Area

Gibberagee State Forest

* Ti-tree still.
* Overnight hut.
* Tick fence

Bungabbee State Forest

* Banana growing lease area

Gibberagee Ext 8.

* Tramway Gibberagee Ext 8.

Busby Flat

* Stade Bros sawmill

Whian Whian State Forest

* Old Lismore Road.
* Sharp's sawmill.
* Flying Fox near Lions Head

* Tramway Gibberagee Ext 8.

Busby Flat

* Stade Bros sawmill

Whian Whian State Forest

* Old Lismore Road.
* Sharp's sawmill.
* Flying Fox near Lions Head

In addition, any sites deemed to be significant by the archaeologist were also to be recorded and included in the study for the provision of a comparison between similar sites, an assessment of the importance of the sites and allow recommendations to be made for their future management within the range of forest activities.

To achieve these ends the study will:

* Describe the consultation and survey strategies employed to locate and identify the historical archaeological sites within the Casino and Murwillumbah Forest Management Areas.
* State the results of the survey strategies.
* Assess the significance of any sites.
* Identify those activities that are likely to pose a threat to the sites.
* Discuss the management options available.
* Make recommendations, where necessary, for the management and/or preservation of the sites.

For the purpose of the study, the term 'management' includes maintenance, preservation, restoration, reconstruction or adaptation of any or all of the historical sites and/or items identified by the survey as being significant to the environment of the Casino and Murwillumbah Forest Management Areas.

3.0 THE STUDY AREAS.

The Casino Forest Management Area (Figs. 1 and 2) consisted of 29 individual State Forests[5] that covered approximately 122 000 hectares[6] while the Murrwillubah Forest Management Area (Fig. 3) covered some 18 000 hectares[7] between latitudes 28°10' and 28°50'S and longitudes 153°07'E and 153°37'E[8] in the Shires of Tweed and Byron and the City of Lismore[9] which contained Burringbar, Mebbin, Mooball, Nullum, Whian Whian, Whian Whian East and Wollumbin State Forests[10].

The areas displayed wide variations in both altitude and geology that resulted in a diversified flora characterised by Blackbutt, Moist Hardwood, Spotted Gum and Dry Hardwood in the Casino Management Area[11] and Blackbutt, Moist Hardwood, Dry Hardwood and Rainforest in the Murwillumbah Management Area[12].

Of the 25 individual State Forests located in the two Management Areas, only Mount Belmore, Ewingar, Billilimbra, Gibberagee, Bungabbee, Doubleduke and Whian Whian State Forests had sites that were to be the subject of the archaeological survey.

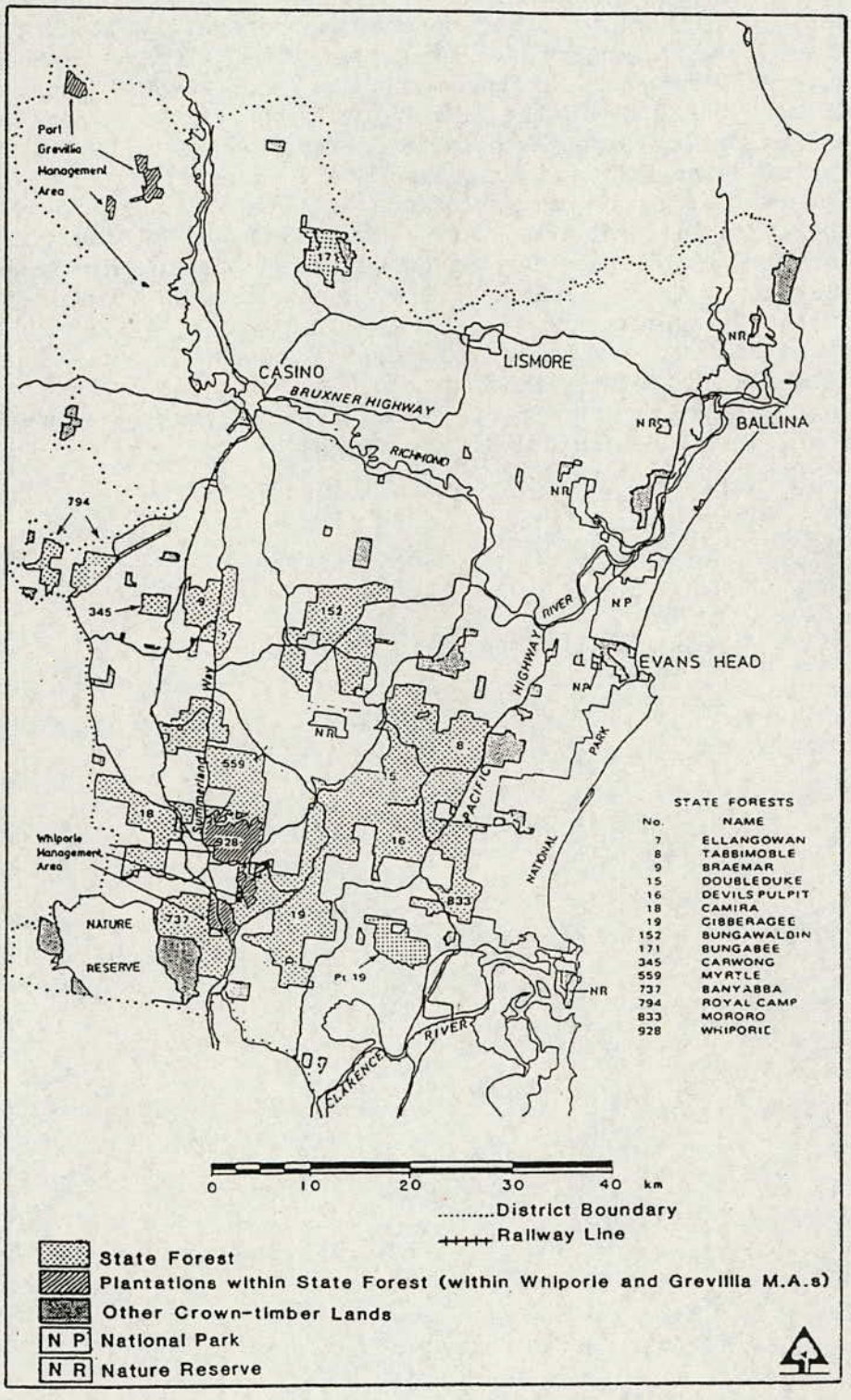


Figure 1. Location of the State Forests in the Casino Forest Management Area. (Reproduced from the Casino Forest Management Plan).

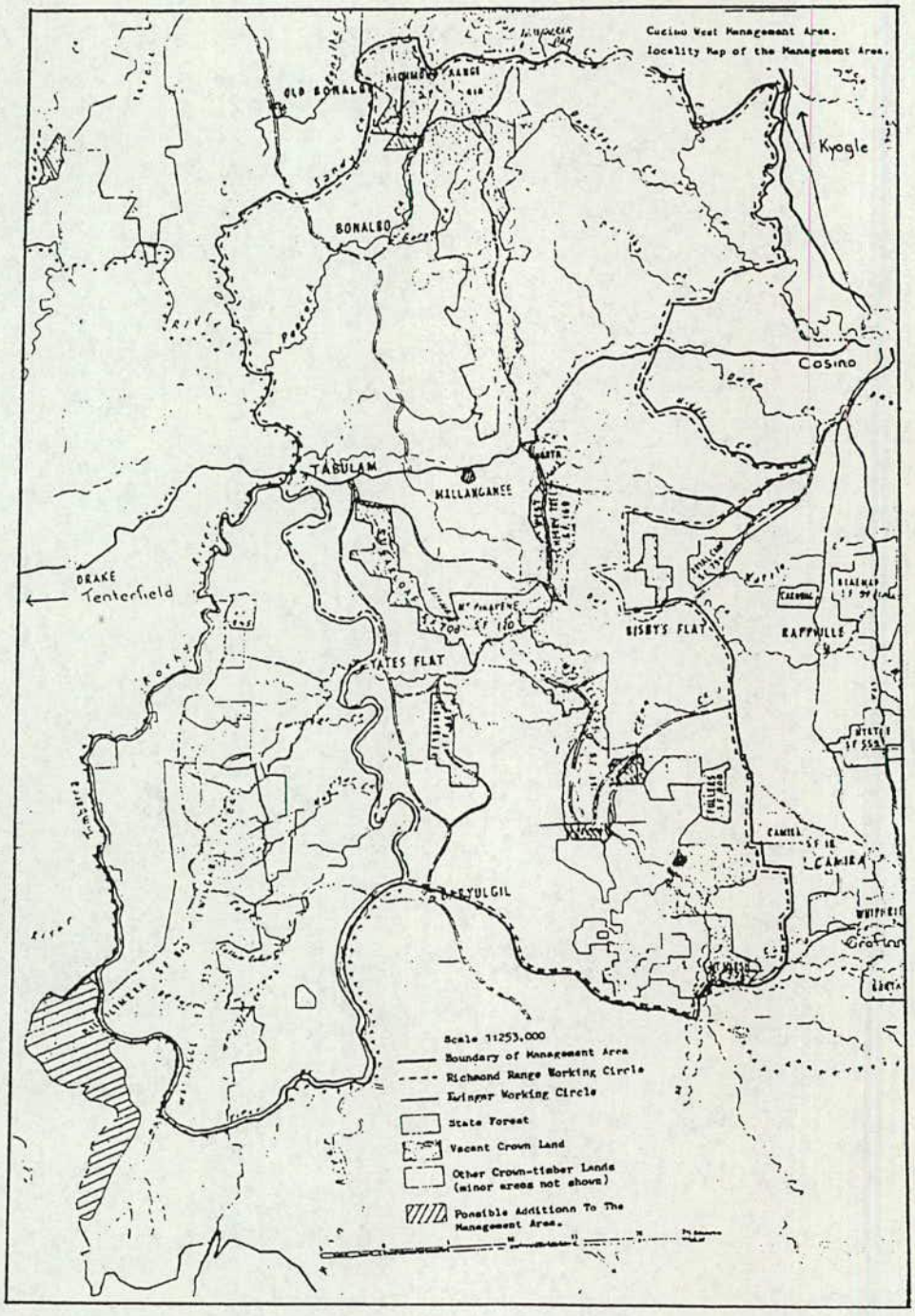


Figure 2. Casino West Management Area. (Reproduced from the Casino West Management Plan

LOCALITY MAP

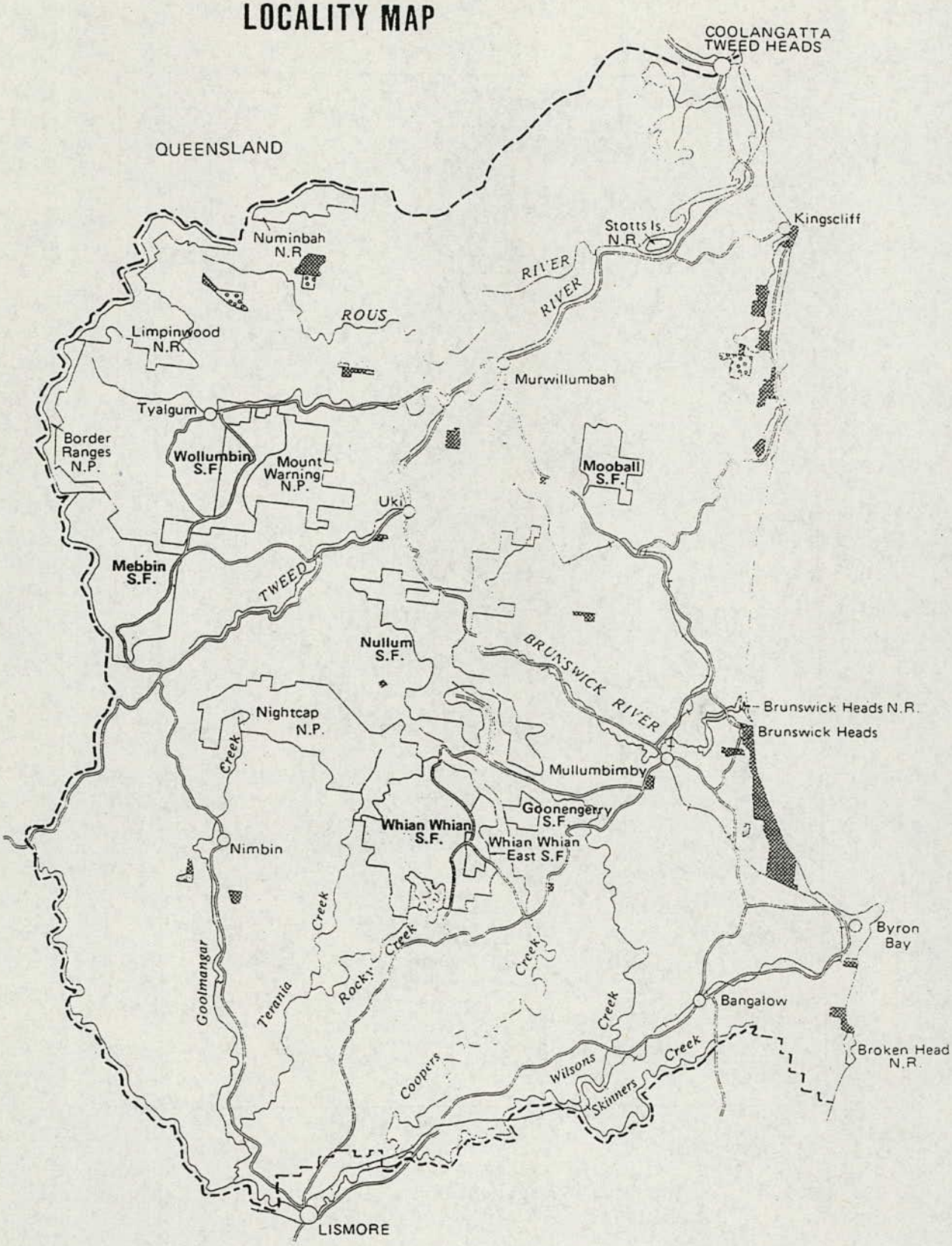


Figure 3. Location of the State Forests in the Murwillumbah Forest Management Area. (Reproduced from the Murwillumbah Forest Management Plan).

4.0 CONSULTATIONS

Consultations were held with

Mr Ron Fussell, Forestry Commission of NSW, Casino. New South Wales.
Mr Garry Douglas, Forestry Commission of NSW, Casino. New South Wales.
Mr Eric Rankin, Forestry Commission of NSW, Casino. New South Wales.
Mr Ian Robertson, Forestry Commission of NSW, Murwillumbah. New South Wales.

5.0 THEMES IDENTIFIED FROM THE HISTORICAL RESEARCH.

From the historical research carried out by Blackmore and Associates, it was shown that certain major national and regional themes were represented in the two Forest Management Areas that were the subject of the research.

The national themes represented in the three management areas, as identified by the historical research, were:

1. The establishment, development and spread of grazing land with accompanying deforestation.
2. Marginal agricultural usage.
3. Nineteenth century development of basic transport and communication routes.
4. Small scale recreational usage, including the creation of National Parks.
5. Bee-keeping[14].

On a regional basis the themes were

1. Agricultural diversification (generally marginal).
2. Ti-tree oil production.
3. Mining - notably gold mining.
4. Dairying - marginal.
5. State intervention (grazing)[15].

The theme of forestry was also included in the list of themes as it was ' ... central to the European heritage assessment of State Forests'[16], and '... provided five fairly distinct periods of activity which have resulted in material remains in or near contemporary State Forests'[17].

The themes identified as being present in the management areas were:

1. The remains of early sawmilling sites and associated domestic evidence.
2. Tramways and spur lines.
3. Bridges and viaducts.
4. Marked trees.
5. Plantations.

6. Forest roads.

7. Fire towers.

8. Foresters' camps, huts and foremen's cottages[17].

5.1 THEME/SITE ASSOCIATION

From the research that identified the themes represented in the Forest Management Areas, Blackmore and Associates were able to select seventeen sites that exemplified the themes and were considered to be 'typical' of that particular category of site. The themes and sites targeted in this way for archaeologial survey were:

1. GRAZING

   * Overnight hut - Gibberagee State Forest.
   * Tick fence - Gibberagee State Forest.

2. MARGINAL AGRICULTURAL USAGE.

   * Banana growing lease area - Bungabbee State Forest.

3. TRANSPORT AND COMMUNICATION

   * Old Lismore Road - Whian Whian State Forest.
   * Tramway - Gibberagee Ext 8.
   * Flying Fox near Lions Head - Whian Whian State Forest.

4. TI-TREE OIL PRODUCTION

   * Ti-tree still - Gibberagee State Forest..

5. MINING

   * Malara Tops - Billilimbra State Forest.
   * Bulldog Diggings - Ewingar State Forest.
   * Solferino - Ewingar State Forest

6. FORESTRY

   * Stade Bros sawmill - Busby Flat.
   * Sharp's sawmill- Whian Whian State Forest

6.0 METHODOLOGY

Following discussion with Roger Hall, Archaeologist, Forestry Commission, Coffs Harbour, as to the depth of information that should be provided by the site survey the following methodology was applied.

Using local knowledge, each site was located and the exact location plotted on a map. Where possible, each site was surveyed using a prismatic compass after which all features and artefacts were recorded and the site, features and artefacts photographed.

Because of compass error it proved to be impossible to produce accurate plans of the sites surveyed therefore, only simple sketch plans were prepared to accompany the written description of the sites and the features and artifacts that were present on the sites.

Road distances were either recorded on an odometer, estimated, or calculated from the scale of the map being used. Where the distance was estimated from a map, the fact will be indicated in the text. Other distances such as those along creeks or across sites were either paced out or estimated.

All photographs were taken with a Pentax camera using Kodak Gold 100 colour film.

During the process of estimating the location of the various sites it was revealed that a number of the sites selected for archaeological survey would have to be deleted because the location of the sites were either unknown or outside the Forest Management Areas.

The sites affected in this way were:

1. An overnight hut in Gibberagee State Forest as there was no certainty as to the location of such huts.

2. The tramway in Giberagee Extesion 8. The exact location of the feature was not known, but it was known that there had been such a feature in the Maryvale area, but it was outside the Forest Management Area.

3. Stade Brothers sawmill, Busby Flat. Busby Flat was not within a State Forest, and therefore was not part of the brief.

4. The Old Lismore Road. According to local knowledge, those parts of the road that could be located with any accuracy were situated in the Nightcap National Park.

5. The flying fox near Lions Head was also located in the National Park.

7.0 SITE SURVEY RESULTS

7.1 GRAZING

7.1.1 Tick fence - Doubleduke State Forest.

The site, located at the junction of Glencoe Road and the boundary between Doubleduke and Tabbimoble State Forests (Fig. 4), consisted of a set of double iron gates and a pair of parallel, four strand barbed wire and wooden post fences set approximately 4 metres apart (Plate 1).

On the southern side of the road approximately 75 metres north west of the gates were the remains of a set of stock yards (Plate 2), a generator shed[?] that consisted of several wooden posts and a concrete pad and a greasing ramp. There was also a general scatter of charred timber; fragments of green, brown and clear glass, metal that consisted of such things as the top of a fuel stove, tins, iron, a burnt drum and part of a galvanised chimney, as well as ceramic fragments with blue and white, floral and multi coloured motifs, with one piece being branded WADE - HEATH - ENGLAND - A.

As well as the artefacts, the remains of a garden in the form of a number of lilly plants and a drum set in the ground as a planter were located near the road at the north western corner of the site.

7.2 MARGINAL AGRICULTURAL USAGE.

7.2.1 Banana growing lease area - Bungabbee SF.

Although an attempt was made to locate this site it was impossible to identify the precise area due to the presence of numerous tracks in the vicinity and a heavy covering of blady-grass on all cleared areas.

7.3 TI-TREE OIL PRODUCTION

7.3.1 Ti-tree still - Gibberagee State Forest.

The location of an early Ti-tree processing site was not known, but because of the fact that the method of harvesting and processing has virtually remained unchanged, one of the oldest presently operating stills in Gibberagee State Forest (Fig. 5) was inspected to assist in the recognition of any early sites that may be discovered in the future.

Traditionally, the Ti-tree, which tends to grow in the wetter parts of the forest, was harvested by cutting the bushes about a metre above the ground (Plate 3). The ti-tree was then placed in a large receptical with a perforated bottom and lowered into an outer chamber that contained a small amount of water. The whole aparatus was then covered and sealed with a lid and heat applied at the base (Plate 4). The resulting steam and volatile Ti-tree oils then passed out through an outlet pipe near the top of the aparatus and cooled in a condenser coil. The resulting Ti-tree oil and water were then collected in a container at the bottom, after which the oil and water were separated and the spent ti-tree discarded.

The archaeological evidence for such an operation would consist, in part or wholly, of the cut ti-trees in the forest, charcoal from the

fire used to heat the water and ti-tree, the remains of the aparatus and condenser coil, a ramp used during loading of the ti-tree into the equipment and the spent ti-tree dump.

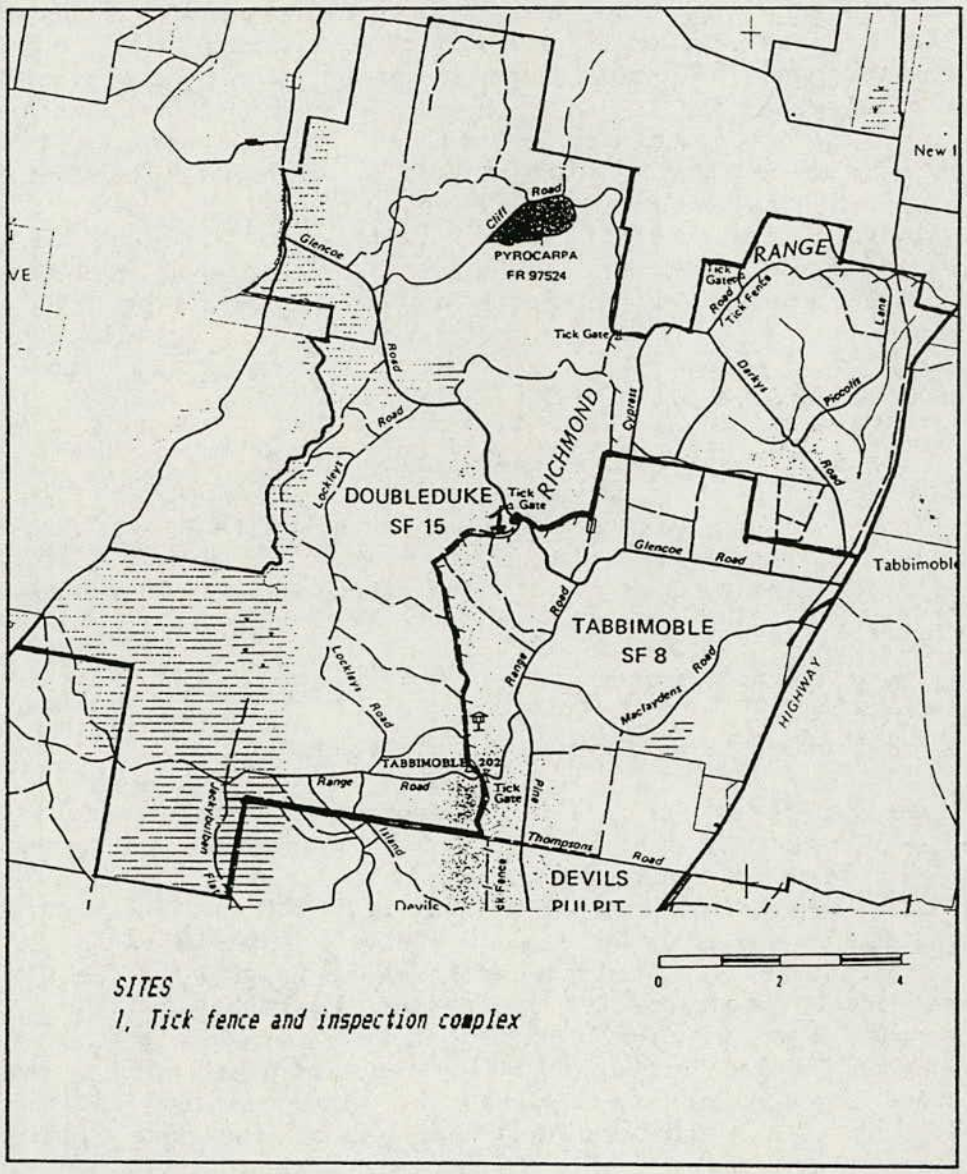
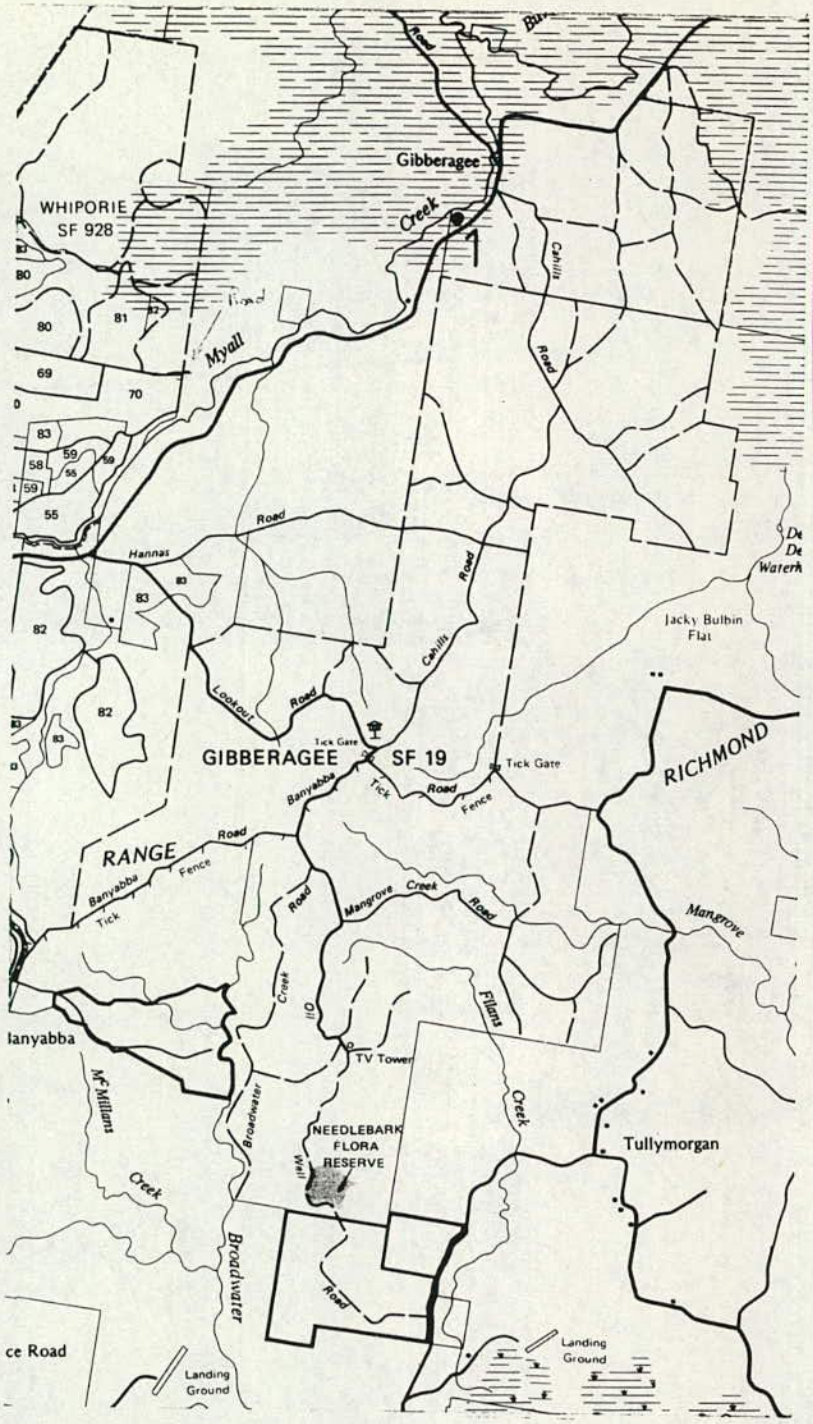


Figure 4. Sites in Doubleduke State Forest. (Produced from Casino State Forests 1:125 000 map).



SITES
1. Ti-tree area and Ti-tree oil extraction still

Figure 5. Sites in Gibberagee State Forest. (Produced from the Casino State Forests 1:125 000 map)

SCALE 1:125,000

0 2 4 6 8 10
KILOMETRES

Plate 1. View looking looking east along the double tick fence Doubleduke State Forest, Scale divisions 50cm,

Plate 2. Remains of stock yards associated with the tick inspection complex, Doubleduke State Forest, Scale divisions 50cm,

Plate 3. Ti-Tree showing re-growth after harvesting, Scale divisions 50cm,

Plate 4. Ti-Tree oil extraction equipment, Scale divisions 50cm,

7.4. MINING

7.4.1 Malara Tops - Billilimbra State Forest.

Located on an un-named tributary of Malara Creek in Billilimbra State Forest (Fig.6), the site of the township of Malara was part of an extensive, old mining area known as Malara Tops. Situated at the end of an unnamed track leading from the Billilimbra Road the site consisted of an open flat area of some 300 metres across and 120 metres deep lying between the end of the track and the creek (Plate 5). Immediately beside the creek was an area of tailings from the alluvial mining operation, while the remaining area was covered with blady grass and gladioli (Plate 6).

To the north of the site, just within the trees, were one damaged and one intact stone oven (Plate 7). The undisturbed oven was semi-circular in shape with a single opening in the centre of the straight side. The slightly dished base was lined with stones and extended upwards to join the 50 centimetre high sides so that a single chamber was formed. the structure was then finished with a free standing stone top.

Associated with the ovens were the remains of a shovel and a scatter of broken glass.

A short distance to the south of the site was an area that had probably been the main living area as it was set out with what appeared to stone edged paths and rectangular areas that may have been house sites. Between the cleared part of this area and the creek there was a dense jungle of what was thought to be carob trees that had naturalised over the years[20], blady grass, honeysuckle and perriwinkle. Perriwinkle and fish fern were also present on other parts of the area .

Beside the track leading into the site and right on the edge of the tree line were the remains of a stone fire place and a scatter of broken black glass.

7.4.2 Bulldog Diggings - Ewingar State Forest.

The area known as the Bulldog Diggings was located either side of Bulldog Road in Ewingar State Forest (Fig.7). The area to the south west was, for the most part, the town site while the mining area was concentrated to the north east.

The township area (Fig.8) had a light covering of grass bracken fern and wattle but no large trees. Dotted about the site were part of a large iron pipe, a disturbed rubbish dump, a number of stone fireplaces (Plate 8), 3 small mining shafts and a general scatter of glass. A number of gladioli plants were present near the 1966-7 tick fence that roughly marked the southern boundary of the site (Plate 9).

The mining area consisted of a numerous shafts of varying size scattered amongst the trees. Most of the shafts were indicated by a mound of earth and tailings around their perimiter. The exception to this were the shafts in the township area which had little to indicate their location.

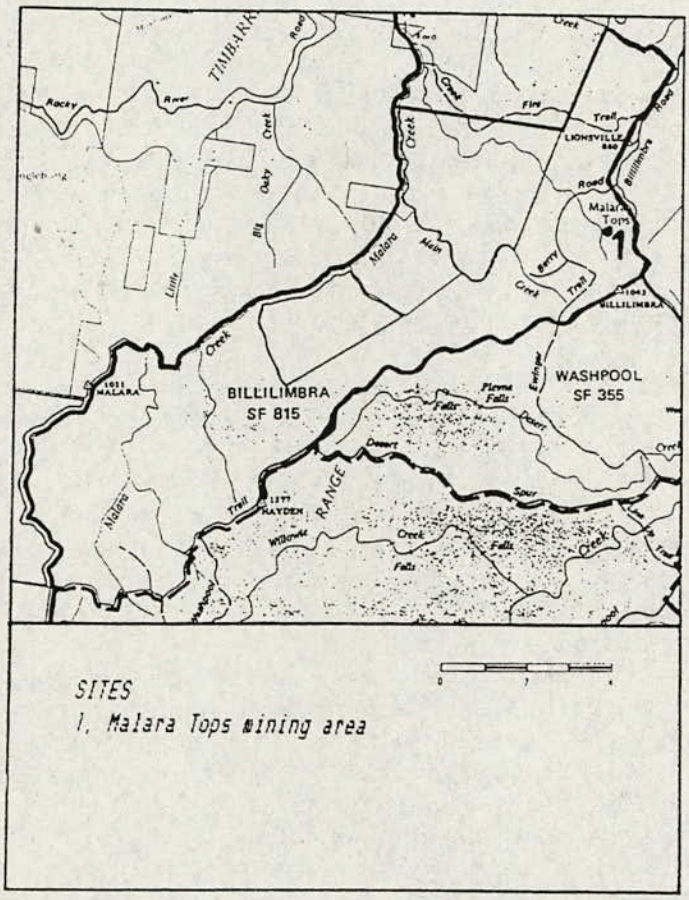


Figure 6. Sites in Billilimbra State Forest. (Produced from the Tenterfield State Forests 1:125 000 map)

7.4.3 Solferino - Ewingar State Forest.

Located along Nogrigar Creek in Ewingar State Forest (Fig. 7), the diggings consisted of an extensive area of alluvial tailings that were heavily overgrown with lantana, large trees and other rather dense undergrowth. The miners had obviously followed leads up small gullies that resulted in an area of up to 100 metres from the creek being excavated. Stone races appeared to have been constructed from the large rocks removed during digging. The mullock was piled behind the rocks so that the area had the appearance of being a series of race lines running between raised terraces (Plate 10). One of these terraces was littered with a scatter of broken black glass bottles.

Associated with, but located some distance away on Solferino Creek were the remains of the Solferino township. Situated on either side of the road at the junction of the road and the creek, the site appeared to have occupied much of the creek flat and lower slopes on the southern side of the creek. Although a hazard reduction fire had been through the area a short time before the inspection, the heavy cover of lantana along the creek prevented any inspection of this part of the site, however, just near the edge of the lantana, there was a row of stones and hand made sandstock bricks that were marking the possible location

Plate 5. Malara Tops looking west towards the creek across the blady grass and gladioli covered flat.

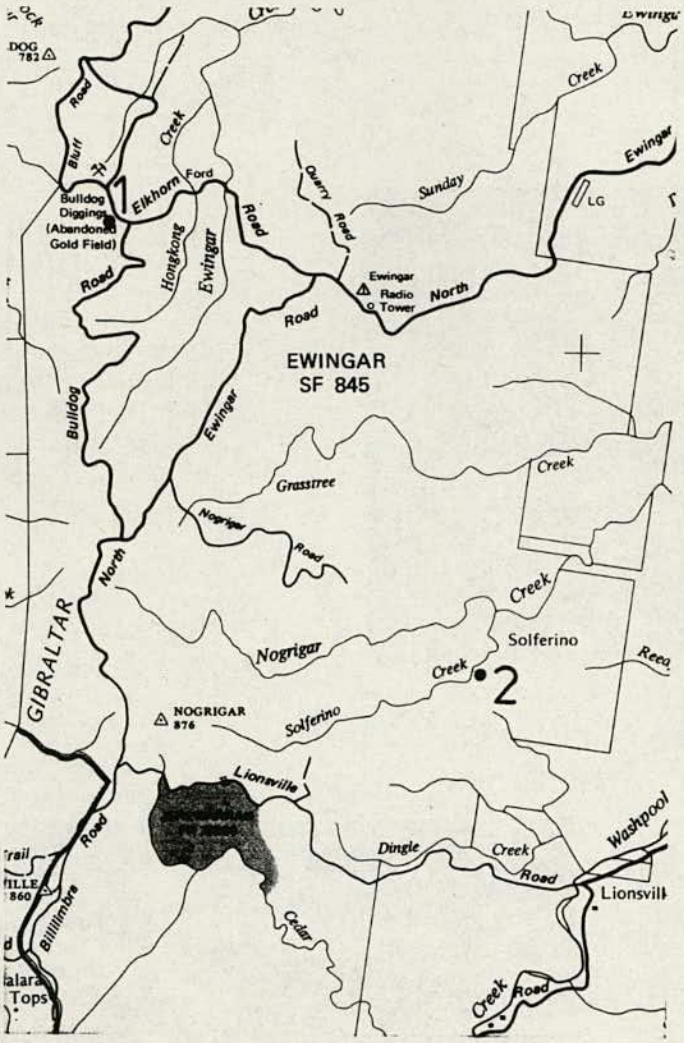
Plate 6. Gladioli growing on the Malara Tops site, Scale divisions 50cm.

Plate 7. Stone oven Malara Tops, Scale divisions 50cm.

of either a building or a path. A post that was all that remained of a post and rail fence and leveled areas above an old road was virtually all that remained of a town that around 1900 had 7 hotels[21].

The only other evidence of occupation was a disturbed rubbish dump located about 20 metres from the road and a covered, stone lined well located on the slope above the creek 35 to 40 metres south west of the road.

Scattered around the rubbish dump were the remains of various bottles, including part of a torpedo bottle, the base of a stone bottle and numerous fragments of black and green glass bottles. In addition to the glass there were pieces of ceramic with various motifs such as a blue pheasant pattern branded 'Asiatic Pheasant - R. Hamm', a blue and white wheat and grape motif and part of a plate with scolloped edges and a grey floral transfer pattern.



SITES
1. Bulldog Diggings township
2. Solferino alluvial mining area

Figure 7. Sites in Ewingar State Forest. (Produced from the Tenterfield State Forests 1:125 000 map).

SCALE 1:125,000

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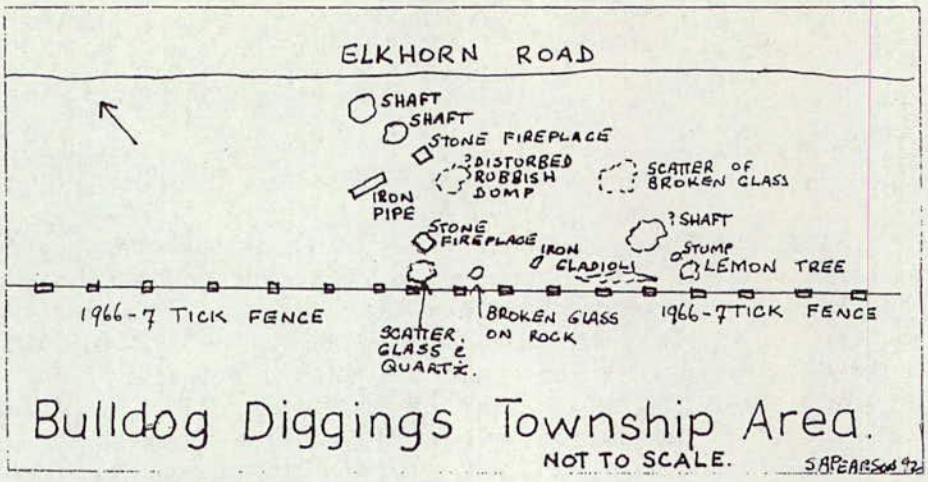


Figure 8. Bulldog Diggings township site Plan.

Plate 8. Stone fireplace Bulldog Diggings, Scale divisions 50cm.

Plate 9. Tick fence Bulldog Diggings, Scale divisions 50cm.

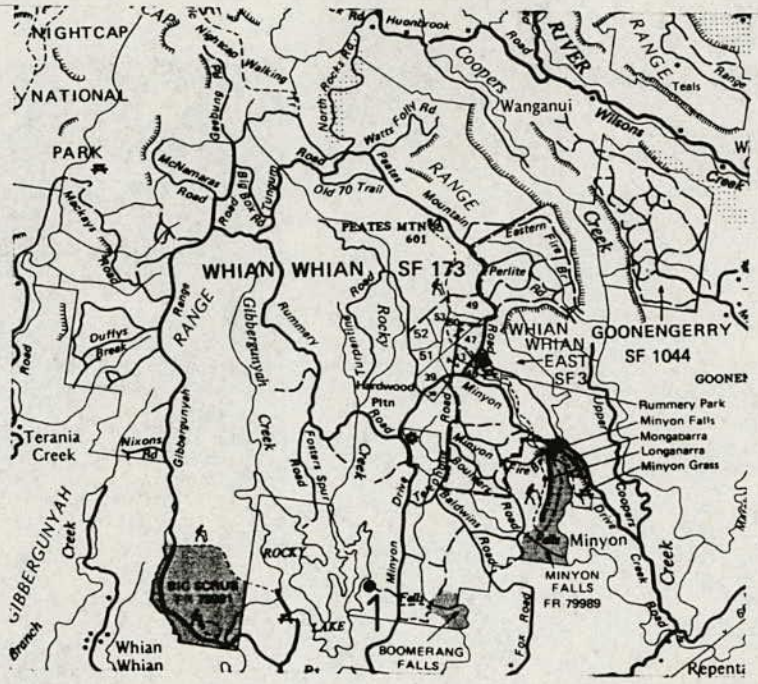
Plate 10. Terraced mullock heaps, Solferinc alluvial workings, Scale divisions 50cm.

7.5. FORESTRY

7.5.1 Sharp's sawmill- Whian Whian State Forest

Normally this site would be inundated as a result of the construction of a dam on Rocky Creek (Fig.9), but due to a prolonged dry period and the resulting lowering of the water level in the lake, the site was exposed at the time of inspection. The site, situated at the end of Old Mill Road on a small finger of land that extended out into the lake, consised of several old stumps, some of which had slots for felling boards (Plate 11), a number of poles of varying length that were partially buried, the remains of a loading ramp (Plate 12), several upright posts that were actually in the water and the remnants of a trolley way that was represented by *in situ* sleepers and iron spikes (Fig.10 and Plate 12).

Because of a covering of silt and old vegetation that covered the site it was impossible to assertain if there were any artifacts present on the surface of the site.



SITES
1. Sharp's Sawmill

Figure 9. Sites in Whian Whian State Forest. (Produced from the Casino State Forests 1:125 000 map).

SCALE 1:125,000

0 2 4 6 8 10
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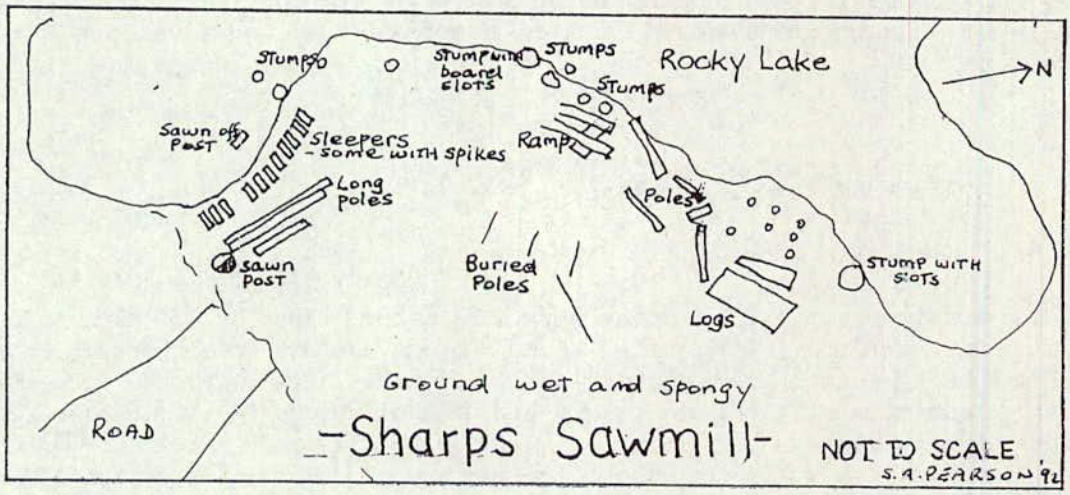


Figure 10. Sharp's Sawmill site plan.

Plate 11. View looking west to old stumps with board slots and remains of loading ramp, Sharp's Sawmill, Scale divisions 50cm,

Figure 12. Remains o' trolley way Sharps Sawmill, Scale div.sions 50cm,

7.6 ADDITIONAL SITE SURVEY RESULTS.

The following site survey results, which will be presented on a forest by forest basis, will only be dealt with in sufficient detail as to allow a comparison between, and an assessment of, the various sites to be made.

7.6.1. Mount Belmore State Forest

7.6.1.1 Bennetts Sawmill

This was a very big site being some 200 metres long by 150 metres wide. Situated south-west of Hicks Road, just inside the forest boundary (Fig. 11) the site was characterised by the butt-ends of a number of logs; the pipes belonging to an old petrol bowser[22], what was left of the steam boiler that provided power for the mill, the log skid and trolley way, a group of short, sawn posts that had been part of the foundations of the mill building, a trench that was probably the remains of the sawdust pit, a timber lined well, the sawdust dump and area of parallel ruts that may have been caused by the stacks of sawn timber. There was a general scatter of items such as iron spikes, steel hawsers, various iron items and pieces of sawn timber.

Approximately 50 metres east of the saw mill were 3 small posts and various domestic items such as the remains of an old refridgerator, a stove and metal chimney pipe that marked the location of what were the remains of a house that had been occupied up until 1965 when the site was finally abandoned[23].

About 75 metres south of the mill two parallel banks with a series of 8 short wooden posts arranged between them marked the location of what was thought to be a shed.

Most of the eastern part of the site had been occupied by a domestic site which was indicated by the presence of a scatter of metal, a clothes line post and some randomly placed building stumps and depressions that marked the location of at least two houses. Two Hoop Pines, two Variegated Box bushes, a citrus tree, two Banksias and a rose growing prolifically across the ground served to confirm the domestic nature of this part of the site.

Approximately 300 metres west of the sawmill, near a line of Hoop Pines, was the the site of the school that had been associated will the mill. All that remained of what appeared to have been a one roomed building was a number of posts, part of the wooden floor, a scatter of tins, some small pices of fibro sheeting, a wire bed base and a worn stone step. The schoolyard was marked by the presence of a pear tree, an orange and a lemon tree, a Crepe Myrtle, a peach tree, a Silky Oak, some roses and honeysuckle and a miniature rose that was growing across the site as ground cover.

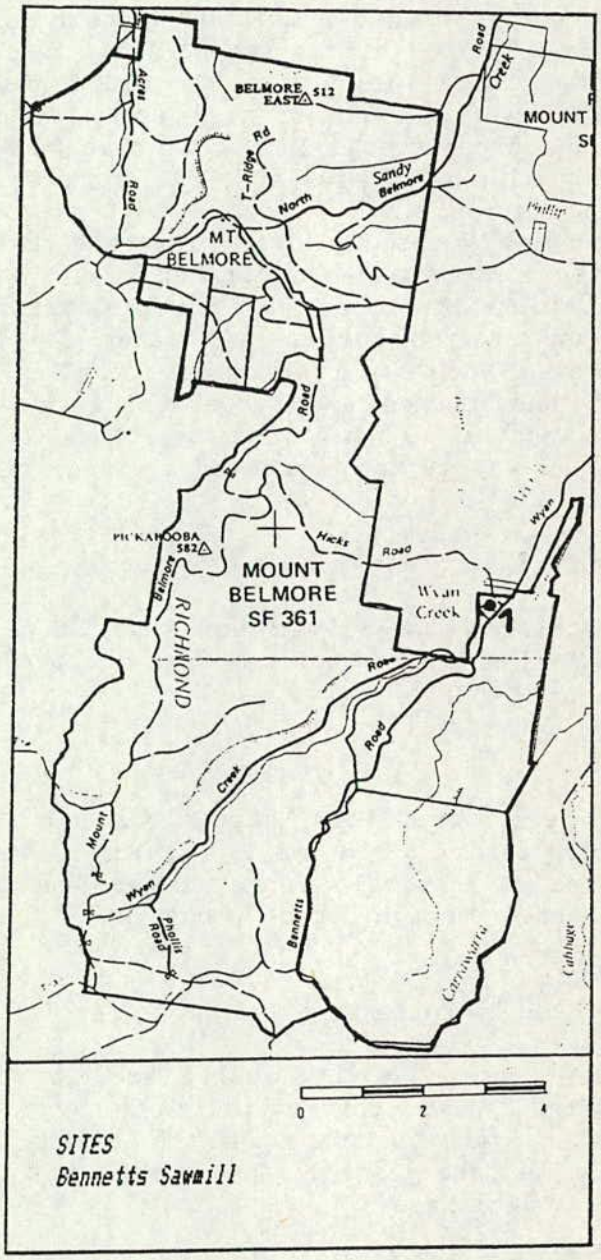


Figure 11. Location of Bennett's Sawmill, Mount Belmore State Forest. (Produced from Casino 1:125 000 map).

7.6.2 Ewingar State Forest

7.6.2.1 Lionsville Township

A cleared area dotted with a number of Crepe Myrtle and May bushes and some Carob, Silky Oak and citrus trees, just inside the forest boundary (Fig. 12), indicated the location of the old township of Lionsville. In addition to the exotic plant species were two small wooden huts, a square iron tank, a corrugated iron tank that had been converted into a bush toilet, a pond, the remains of a boiler, a set of iron wheels and a number of rubbish dumps.

All the rubbish dumps had been disturbed and the area around the dumps was littered with pieces of broken green, olive, black and brown glass, some of which was branded NSW Bottle Company Limited 1917, M. Moss & Co Limited and Adolpho Wolfes - Schiedam. The site of the Royal Hotel that was '... quite a pretentious building by bush standards of the day...'[24] was marked by large Crepe Myrtle and May bushes, honeysuckle, a scatter of handmade sandstock bricks 21 by 10 by 6 centimetres with no frogs and a scatter of iron and tin.

7.6.2.2 Lombardi Mine

This mine, located between Nogrigar and Solferino Creeks (Fig. 12) consisted of an extensive area of tailings, deep shafts and a tunnel.

7.6.2.3 Tick Fence

This particular section of tick fence, located to south of the Bulldog Diggings township site (Figs. 8 and 12; Plate 9), was built around 1966-7 [25] and consisted of a single fence constructed from four strands of barbed wire threaded through bored, wooden posts.

7.6.2.4 Banana Growing Lease Area

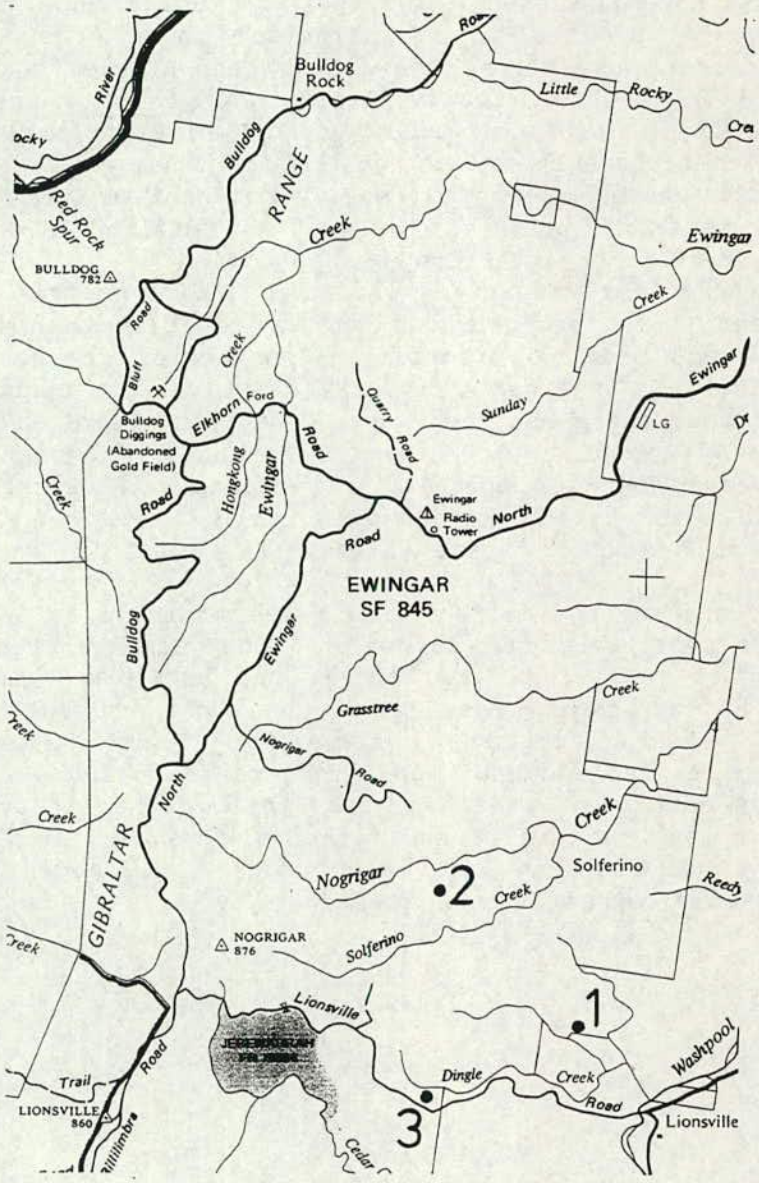
The site, located north of Lionsville Road on the southern bank of Dingle Creek (Fig. 12), was covered with a heavy covering of lantana and undergrowth. There was no trace of the banana trees that had been present on the site some years ago and which, at that time, had attained a height of about 10 metres[26].

Because of problems due to either inaccessibility or distance there were two additional sites that were not inspected but which should, at least, be noted.

These sites were:

Ewingar State Forest

1. A water powered stamper on Cedar Creek.
2. The Garibaldi Crystal Mine.



SITES

1. Lionsville Township

2. Lombardi mine

3. Banana growing lease area

Figure 12. Ewingar State Forests showing the location of the additional sites that were inspected during the archaeological survey
(Produced from Tenterfield State Forests 1:125 000 map).

SCALE 1:125,000

0 2 4 6 8 10

KILOMETRES

8.0 SIGNIFICANCE OF THE SITES.

When assessing the European heritage significance of an archaeological site, it is not sufficient to base the assessment simply on the relationship of the item to an historical theme, the frequency with which it occurs or the degree to which it contributes to the whole, as an event that may be historically significant may not neccessarily leave any evidence in the archaeological record, while another site that may have little relationship to an historical theme and not contribute greatly to the whole, may be extremely important archaeologically as a result of differential preservation that has resulted in the survival of certain features and/or artefacts.

A comparison of all the sites inspected indicated that they were all very different, which demonstrated that no one site should be deemed to be 'typical' and used to exemplify a particular category of site or theme. In addition, by inspecting a relatively large number of sites it was revealed that there had been varying degrees of interference to some of the sites which had affected their archaeological significance to a greater or lesser degree, depending on the amount of damage.

Of the sites inspected, the Solferino alluvial diggings, Malara Tops, Bennetts Sawmill complex and Lionsville township were the most significant.

The importance of the Solferino alluvial mining area lay in the fact that it was a relatively undisturbed area that demonstrated a particular method of problem solving. The Malara Tops area was significant as a complex and because of the presence of the stone ovens and the valuable information relating to the remnant vegetation site indicators. Bennetts Sawmill supplied additional information about sawmills and the type of sites associaed with them, and finally, the Lionsville township site was important because it was relatively well documented and, as a result, the various element that made up the site could be identified with a reasonable degree of accuracy.

9.0 ACTIVITIES LIKELY TO POSE A THREAT TO THE SITES

The most significant activities or events that occurred within all or some of the state forests in the Casino and Murwillumbah Forest Management Areas were logging, road and fire trail construction, fire, grazing, apiculture, mining and recreation.

In terms of the above activities the type and degree of pressure likely to be exerted on the different sites by those activities were:

9.1 Logging

The use of bulldozers, the clearing of sites for use as log dumps and the felling of trees onto sites are the main activities likely to cause damage where logging is concerned.

Because old sawmill sites are usually situated on flat ground that can be easily cleared, they run the risk of being used for log dumps. This type of activity would, without exception, cause major damage to a site and any features that may be present on that site.

One of the greatest problems associated with the use of heavy equipment is the disturbance to archaeological deposits caused by track and wheel action that can bring about the mixing of artifacts from different stratigraphic units; the obliteration of surface features such as depressions marking the location of post holes or graves; the collapsing-in of mine shafts and wells; damage to mullock heaps and race lines in alluvial mining areas and the possible erosion of sites caused by water being channeled across the sites in wheel tracks.

Trees being felled onto sites can also be responsible for the mixing of stratigraphic units when branches are forced into the ground, but the main danger lies in the actual destruction of features should a tree being felled actually fall on the said features.

9.2 Fire

Following the inspection of the different sites in the various state forests it was apparent that fire was the element most likely to cause damage to many of the sites. Those under most threat were the ones where timber was the construction material of choice.

9.3 Road and fire trail construction

The main dangers to archaeological sites where road and fire trail construction is concerned is the partial, or total, loss of a site due to the said road or trail being cut through a site; heavy machinery being run over the sites because of a failure to recognise what they were; damage to features and sites from the deposition of dust during the construction of the road or trail and later, by traffic and finally, the damage to, or loss of, sites due to erosion caused by drainage and run-off from the said roads and fire trails.

9.4 Grazing

Apart from the possible rolling or 'treading in' of surface artefacts, for which there was no actual evidence, it is difficult to identify the type of damage to a site that may be caused by the grazing of livestock. The relative size and frequency of sites in relation to the size of the areas being grazed would tend to make the chances of both rolling and 'treading-in' somewhat remote and therefore the likelyhood of damage from this type of forest activity also rather remote.

9.5 Apiculture

The only possible damage likely to be caused by beekeeping activities would be the bulldozing of sites to provide a flat, cleared area for the hives, otherwise it is unlikely that any damage would be caused by this particular activity.

9.6 Mining

The re-working of old mining areas poses the greatest threat to old mining sites. Unfortunately, the re-working of mines is almost traditional as the mining industry is, and always has been, closely tied to the changing world-wide demand for particular minerals which can, almost over-night, make a previously uneconomic mine, valuable. Because peoples' livelyhood can be greatly affected as a result of these economic trends, the preservation of the old mining areas requires careful negotiations to be undertaken should an historical site be placed under threat.

9.7 Recreation

The use of the forest areas for recreational purposes introduces one of the greatest dangers to historical and/or archaeological sites. Unfortunately, people can, and often do, cause accidental damage to a site through ignorance, but all to often the damage is the result of deliberate, wanton destruction, graffiti and/or the removal of artifacts for curiosity's sake or for personal gain. This latter fact was exemplified by the removal of the wheels from the set of bogey wheels in Dalmorton State Forest and the constant disturbance to old rubbish dumps throughout the forests in the two Management areas.

10.0 MANAGEMENT OPTIONS.

The management options available where any archaeological sites are concerned are dictated by legislation such as the Environmental Planning and Assessment Act (1979), the Burra Charter (Appendix I) and the Heritage (Amendment) Act 1987 which, among other things, defines a relic as 'any deposit, object or material evidence - (a) which relates to the settlement of the area that comprises New South Wales, not being aboriginal settlement; and (b) which is 50 or more years old'[27].

In general, the main decisions that have to be made are whether or not the heritage item should be protected with either a permanent or interim conservation order, or recorded (that is, all features on the site are accurately measured and their position recorded on a site plan and the features and artefacts described) and then either preserved, restored, reconstructed or adapted, or should the site simply be recorded and left alone. Other options may also include the identification of sites with some kind of marker to prevent accidental destruction and the physical protection of the sites from such things as fire.

10.1 Priorities

Top priority should be given to having Conservation Orders placed on those sites that are considered to be worthy of such a classification. Any sites known to exist, but not included in the archaeological survey should be located, mapped and accurately recorded. Finally, fire breaks should be cut around those sites that have previously been identified as being under threat from fire.

10.2 Preferred Management Priority Classification

All the sites referred to in this report should be classified according to the Forestry Commission's Preferred Management Priority system and the Preferred Management Priority maps should be revised to include the said sites. Any sites discovered in the future should also be classified and entered on the maps.

11.0 RECOMMENDATIONS

1. Conservation orders should be placed on The Malara Tops complex and the Solferino tailings terraces.

2. A further attempt to locate the banana growing lease area in Bungabee State Forest should be made as there is little archaeological information about this type of site. The most opportune time would probably be following a fire in the immediate vicinity as the ground surface would be exposed, allowing the detection of any crop marks or other surface features that may be present.

3. The location of as many of the remaining sites as possible, if not all, should be mapped and the sites inspected and recorded as soon as possible.

4. Some examples of stumps with board slots and lettered trees should be included in a future site survey.

5. In the event that logging is to take place in any areas where sites are located that were not inspected during the present survey, the said sites should be inspected prior to the commencement of the forest operations so that an appropriate type of management strategy can be formulated.

6. Where practical, sites should be identified with a star picket and an identification plate and a light fire break should be cut around those sites that are considered to be under threat from fire.

7. Damage to mine shafts, alluvial workings and race lines should be prevented by restricting the use of heavy machinery on or near these features.

8. Lettered trees, because they are becoming scarce, should be notified when they are discovered so that their position can be recorded.

9. Beekeepers should be made aware of the presence of the various types of sites in the forest and the only activity permitted on the sites should be the placement of the hives.

10 . Heavy machinery should not be used on, or within a reasonable distance of any archaeological sites.

11. Roads and fire trails should be kept well away from archaeological sites.

12. All forest workers should be instructed not to disturb sites or remove artifacts from sites, particularly as it is an offence under heritage legislation.

13. Some kind of public education programme should be undertaken so that damage to, and/or destruction of, archaeological sites is reduced.

14. The removal of historic items from the forests, either in part or in total, should be actively discouraged.

15. All run-off from roads and fire trails sholuld be directed away from or around sites.

16. Any sites that may be discovered in the future should be reported so that they can be inspected, identified and, if necessary, recorded. The sites should also be managed in the same way as the sites that had already been identified.

17. All archaeological sites within the Grafton Forest Management Area should be classified according to the Forestry Commission's Preferred Management Priority System and the Preferred Management Priority Map/s should be revised to include the said sites.

18. Any sites discovered in the future should be classified according to the Forestry Commission's Preferred Management Priority System and the Preferred Management Priority Map/s should be revised to include the new sites.

19. All archaeological sites within the Forest management Area should be classified according to the Forestry Commission's Preferred Management Priority system and the Preferred Management Priority map/s should be revised to include the said sites.

20. Any sites discovered in the future should also be classified according to the Forestry Commission's Preferred Management Priority system and the Preferred Management Priority map/s should be revised to include the new sites.

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18. Ibid.: 7 and 8.
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