GREEN TRIANGLE AND VICTORIA

PLANTATION SITES TOUR

PREPARED BY

CALM SHAREFARMS, LOWER WEST

FOR THE BUNBURY TREEFARM PROJECT

1.0 Introduction

This report outlines the events and outcomes of the visit to the plantation sites in the Green Triangle area of South Australia, Victoria managed by Primary Industries of South Australia (PISA) and those sites in Central South Victoria manged by Midway. This tour was attended by Morten Nilsson and Chaz Newman from CALM and by various personell from PISA, Nippon Paper Treefarm and Midway, *these people will be introduced later in the report.*

Morten and Chaz were invited on this tour by Bunbury Treefarm Project. The purpose of this visit was to observe the plantations and to give an opinion of the suitability of these sites for plantation establishment.

2.0 Day 1 Leaving Home

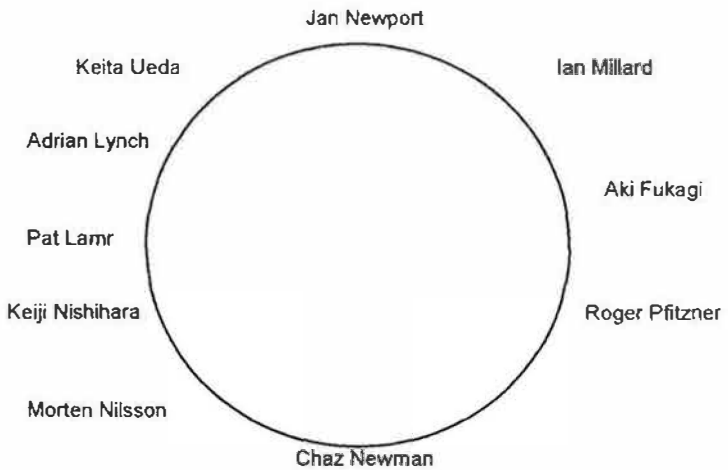
On Monday the 8th September 1997 at 1100 the flight from Perth to Adelaide, (the first leg of the journey), was readied for take off. Everything had gone well to this point, however as the engines reached near to full thrust, things changed. Suddenly power was cut and we gently rolled to the end of the run way, "this is not normal is it " was the comments from some passengers.
Apparently one of the cargo doors had come open, I suppose it's better that it happened on the ground than at 35000 feet. After a short delay we were in the air bound for Adelaide.

We arrived in Adelaide at about 1500 hrs and made our way to the Qantas Club to wait for our connecting flight to Mount Gambier.

Our flight to Mount Gambier left Adelaide at 1730 aboard a Kendall Airlines aircraft, (commonly known as a flying pencil). We arrived at Mount Gambier at 1830 and made our way to the Hotel.

3.0 Mount Gambier, PISA and The Largest Steaks Ever Seen.

The first official business of the tour took place at a Restaruant outside Mount Gambier called the Barn. Here we were to meet some of the PISA staff who manage plantation establishment in the Green Triangle area (see attachment 1).

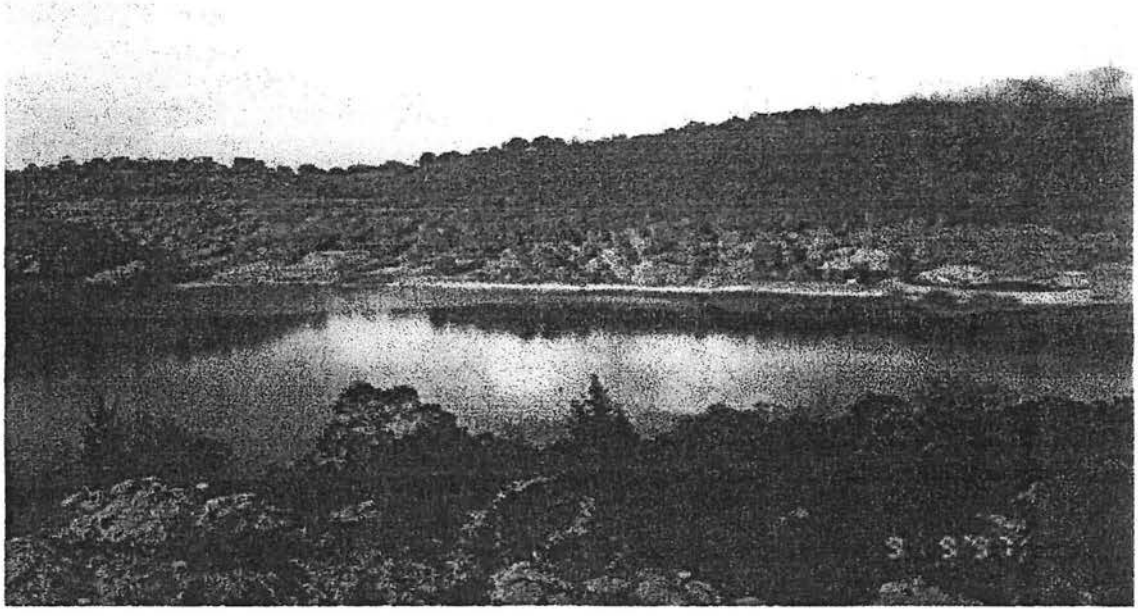


This dinner meeting was held to introduce us to the members of PISA who manage or are involved in the Green Triangle Tree Farm Project in South Australia.

Jan Newport:	Manager of Green Triangle Tree Farm Project
Ian Millard:	PISA
Aki Fukagi:	Managing Director Nippon Paper Treefarm Australia.
Roger Pfitzner:	PISA
Mick Underdown:	Co ordinator Private Forestry
Pat Lamr:	Ex CSR Softwoods
Adrian Lynch:	PISA
Keita Ueda:	General Manager Melbourne Office, Nippon Paper Treefarm.

The meeting consisted of general conversation and trading of experiences.

The meal that we as newcomers to Mt Gambier had to eat was a steak called the Newyorker. This was basically a one kilo slab of cow flesh 150mm long 50mm high and 50mm wide. As you can imagine this was not really well cooked in the centre. However we did our best to consume the whole thing and I must confess that Morten actually ate more than me.



Crater lake Mount Gambier

4.0 Day 2 Green Triangle Treefarm Project Site Visit.

On Tuesday the 9th we left Mt Gambier to begin a tour of some of the Plantations established in the Green Triangle area. On this tour we were joined by Fred Fairthorne and Peter and Meredith Lammond, these people were property owners and members of a group called Timber 2000. Timber 2000 is a private group of investors who establish plantations on their and other landowners land.

The sharefarming system used in this area is some what different to those in WA. The agreement was known as a Cropshare Agreement, however the property owners are responsible for all the establishment costs of the plantation, from site preparation to planting and fertilising. The owners of the plantations then sign an agreement with Nippon Paper Treefarms to harvest and purchase the material at it's maturity. The landowner receives stumpage for their timber, the rate for which is set when the agreement is signed. This rate is indexed against the price of native forest *globulus* chip harvested in Tasmania.

The target area for this project is any land within a 120km radius of Portland and within the 600mm rainfall zone. The minimum area plantable is 20 hectares with well structured soil types to 2.0 metres. Basically the same requirements as for WA.

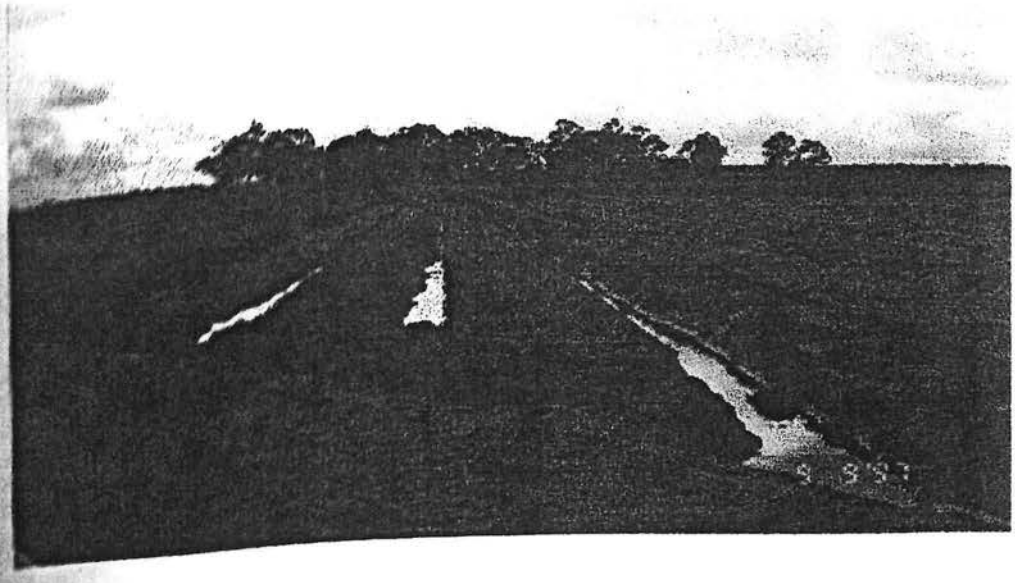
PISA's role in this project is also different to that of CALM's in that they are not so directly involved in the establishment process. Their role is to provide information to landowners in the target area about the sharfarming scheme and to also provide them with the technical advice to assist with the establishment of the plantations.

We travelled north from Mt Gambier heading for Penola, much of this drive was through State owned Radiata Pine plantation. The small towns we travelled through were mainly based on the logging and processing of Pine or conventional agriculture which appeared to be mainly beef production. These towns were Tarpeena, this town is the home to a reasonably large Pine sawmill owned by Auspine. The other town was Nangwarry where I.P.L base their Pine processing plant.

The first site we inspected was a property owned by Fred Fairthorne which was south east of Dergholm in Victoria. This property was in the 650 - 700mm rainfall zone and approximately 100km from Portland. The soil types were similar to those in the Scott River area, being mainly a grey to black sandy top soils to about 1.0 metre with a sandy clay subsoil. This subsoil was described by Mr Fairthorne as being 50% sand 50% clay with no impeding layers. Ray Fremlin has been involved with the establishment of this plantation by providing his technical information and expertise to the owners of the property. Rose and Bending Forestry services have also been involved with the establishment of this property. The only major difference in establishment operations from those in WA was that the weed control was done by aerial spraying rather than ground application.



Fred Fairhornes property near Dergholm.



Fred Fairthornes property near Dergholm.

This property and general area appears to have good potential as an area for plantation establishment.

From here we travelled south to Mr Fairthornes second plantation site. This property was nearby Digby and had been mainly established to Radiata in the past. The site had soil types similar to those soils in the Albany region being a silty clay sand topsoil with sandy clay subsoils. The rainfall of the area was approximately 650 - 700 mm and was approximately 100km from the coast.

On this property all the higher sites have been planted to Pine with the lower lying wetter sites being planted with Bluegum. From what could be seen from our visit and looking at the existing Radiata plantations on the site, this property appears to have good potential as a Bluegum plantation.



Fred Fairhtornes property near Digby.

Establishment techniques used on this property were the same as those on the previous site.



Fred Fairhtornes property near Digby.

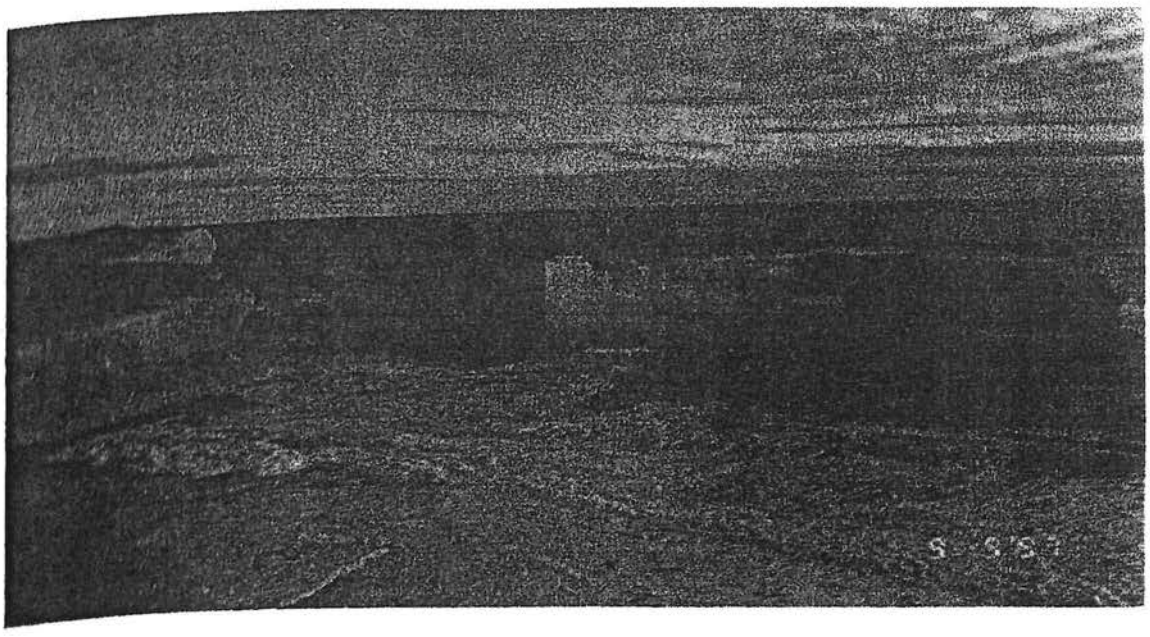
From here we travelled through to Digby and to the Digby Hotel for lunch. This was the end of our visit of the Green Triangle sites.

From the properties we were shown and the surrounding properties it appears that this area has the potential to be a successful area for plantation establishment in the future.

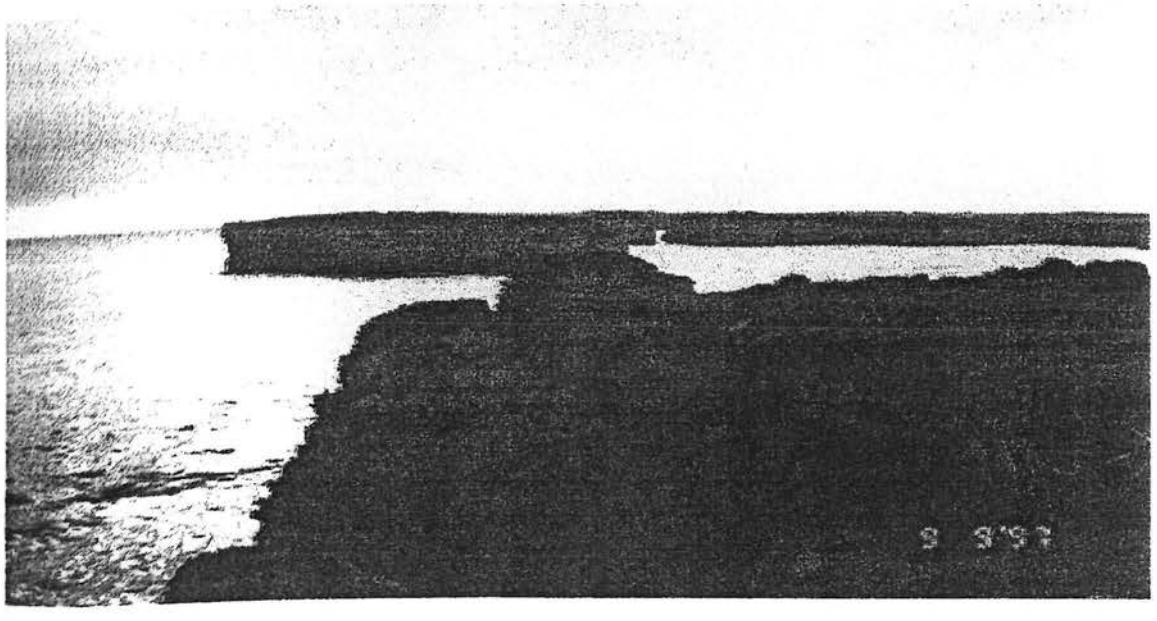
After leaving Digby we began to make our way to our overnight destination, Lorne. Our journey took us through a number of small townships being, M^{C}Arthur, Port Fairy, Killarny and Warnenbool. From Warnenbool we travelled along the Great Ocean Road, stopping on occasion at interesting parts of the coast line ie London Bridge, Bay of Isles and the 12 Apostles.



Twelve Apostles.



London Bridge.



Bay of Isles.

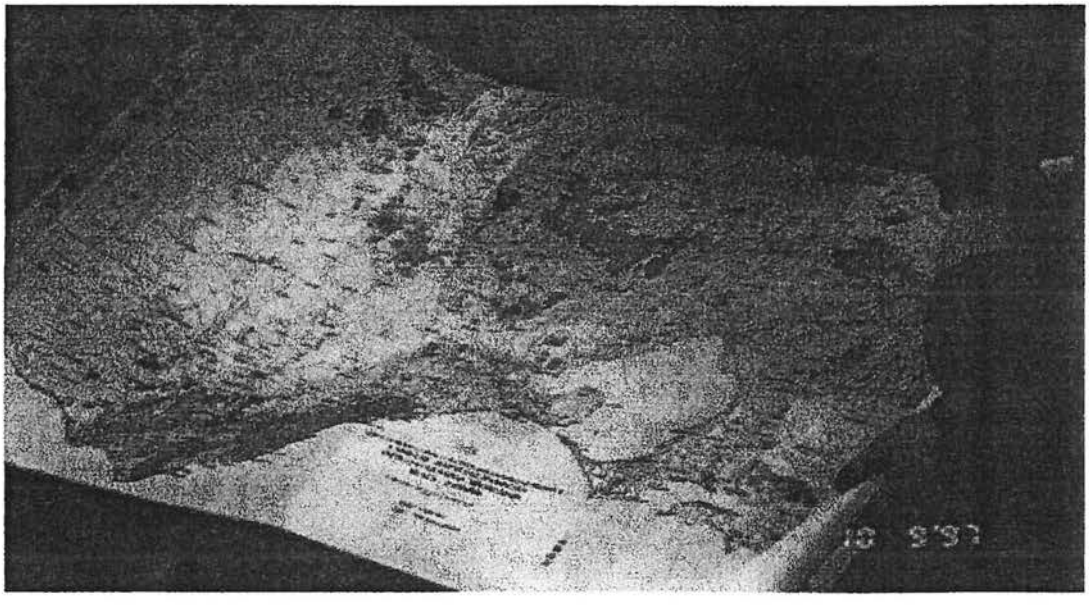
The remainder of our trip to Lorne took us through the Otway Ranges, one of the provnence zones for Bluegum seed grown in WA and along some more of the rugged southern coastline. It must be stated however that much of this journey was quite hair raising as the roads were very steep and windy with sheer cliffs on one side and rock walls on the other. It was with great relief when we arrived in Lorne as both Morten and myself were nearing the final stages of car sickness and niether of us were sure how much further we could safely travel.

At dinner we were introduced to Steve Roffey, Resources Manager for Midway Pty Ltd. Midway is a private forestry organisation that in the past has been involved in the harvesting, processing and export operations of timber from Native forests and Pine plantations in the

Otways region. Their annual export of hardwood and softwood chip from Geelong is approximately 500,000 tonnes.
Midway have now started to expand into plantation establishment business.

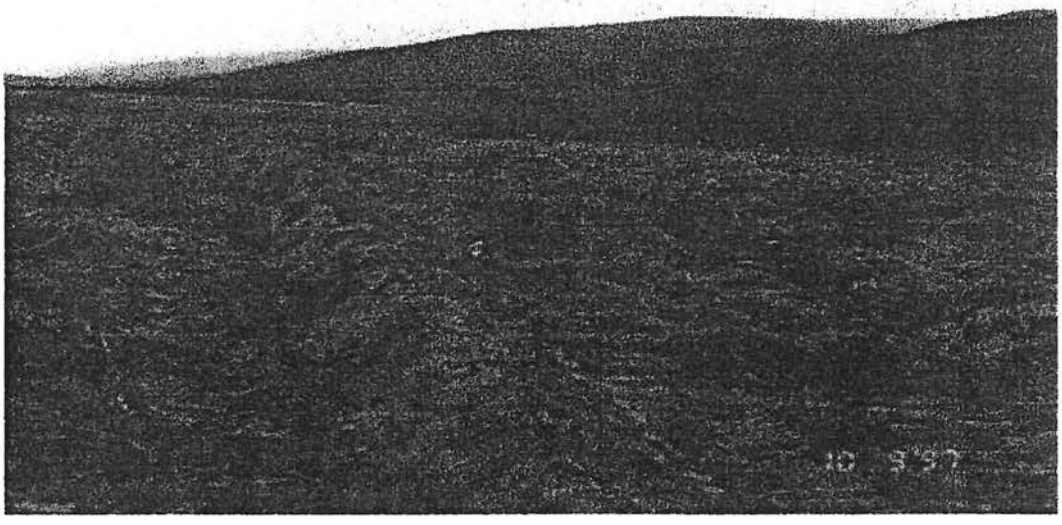
5.0 Day 3 Midway Plantations Site Visit

The plantation project Midway is managing is based on the Port of Geelong, the land base for the project is any suitable land within 120km of Geelong with an average rainfall of greater than 600mm(see attachment 2). Land is secured under an annuity contract with the landowners. The annuity rate that is paid is based on the distance from the Geelong port. There is a series of annuity values for haul distances, landowners are all paid the same price for their land in each haul distance category, productivity of different sites within these haul distances is apparently not taken into account.



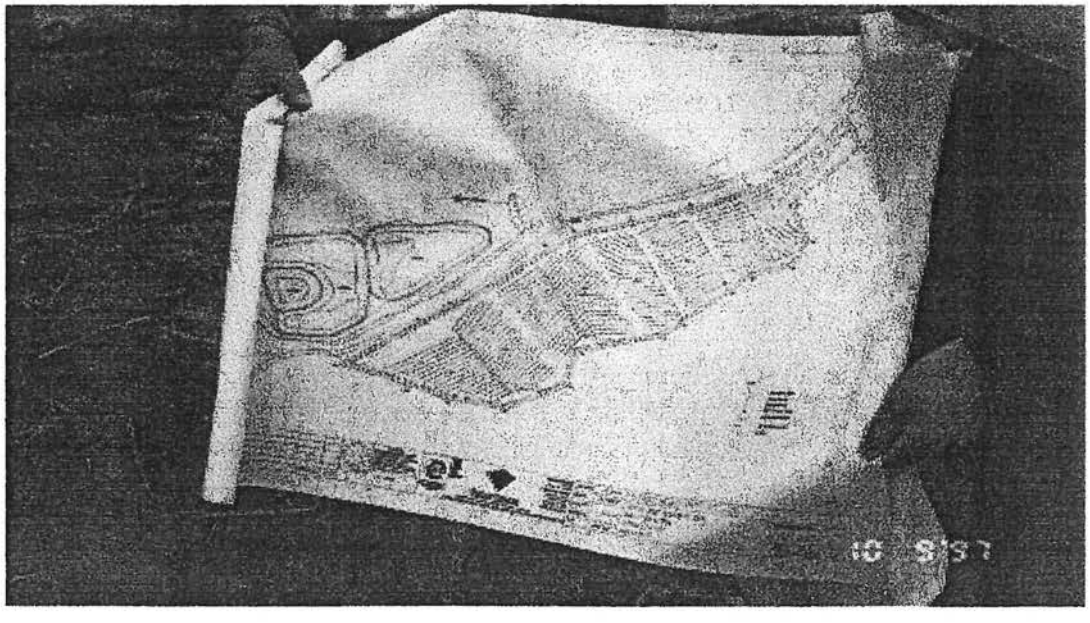
Plan of Midway's operation area. Black line indicates 120km limit, coloured dots represents plantation sites.

Site preparation on the sites visited was all basically the same as used in WA, ie ripping, mounding, pre spray and plant.



Aireys Inlet waste water disposal site.

The first site we visited was a waste water treatment site at Aireys Inlet, the plantation was established on recently cleared native forest. This site is going to be irrigated with sewerage effluent from the town site.

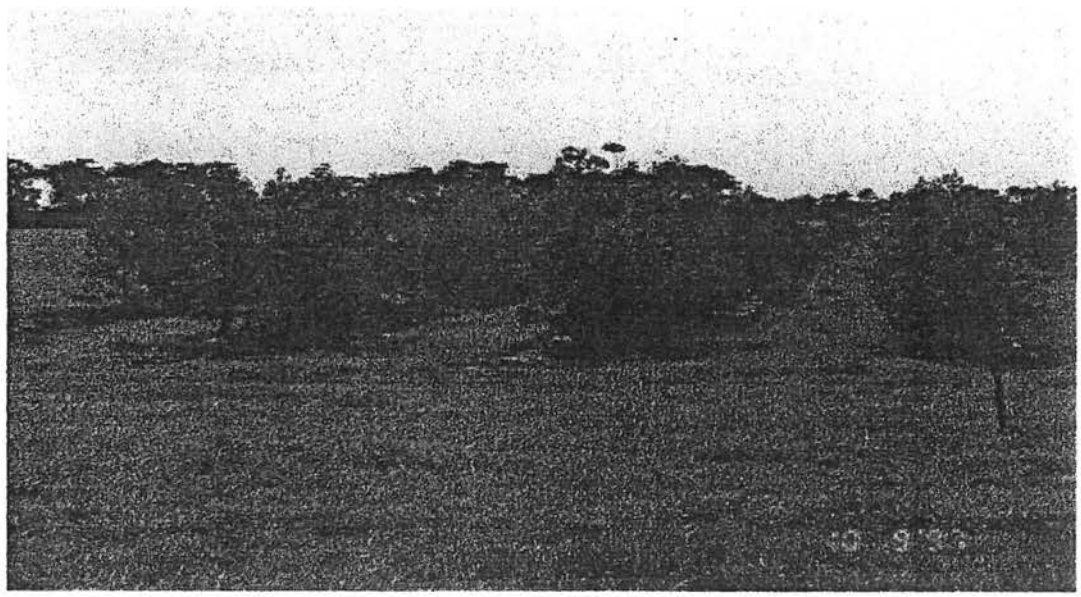


Aireys Inlet Plantation layout.

This site appeared to have good soil types being a sandy gravel topsoils with sandy clay subsoils. The property was approximately 10 kilometres from the coast and had a 800mm rainfall. The fact that the site is going to be irrigated should ensure good growth on this site.

The second site visited was approximately 20km north of the first site. The rainfall average in this area was approximately 650mm. The trees we looked at were approximately 12 months old and had an average hieght of 1.0 - 1.2 metres. The soil types however in this

area appeared to have a heavy clay topsoil which appeared to be prone to water logging. It is unknown what subsoils were present on the site as no drilling had been done on this site. On this site second year weed control had been completed using the same Amitrol and Simazine mix as used in WA. The only difference observed in this operation was that weed control was only applied to the mounds and not to the tables.

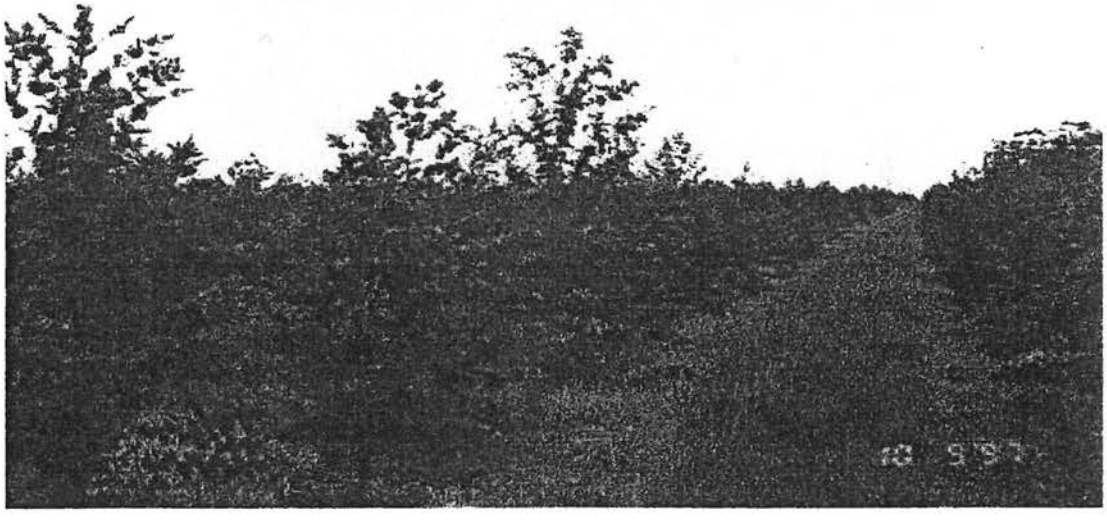


Site two.

The third site we visited was at Lismore, approximately 90 kilometers from Geelong. This site was in the 650mm rainfall zone and was planted in 1996. The growth of the trees on this site was quite good with a height of approximately 1.2 metres. However the trees were suffering from insect attack at the time of the visit.



Site three



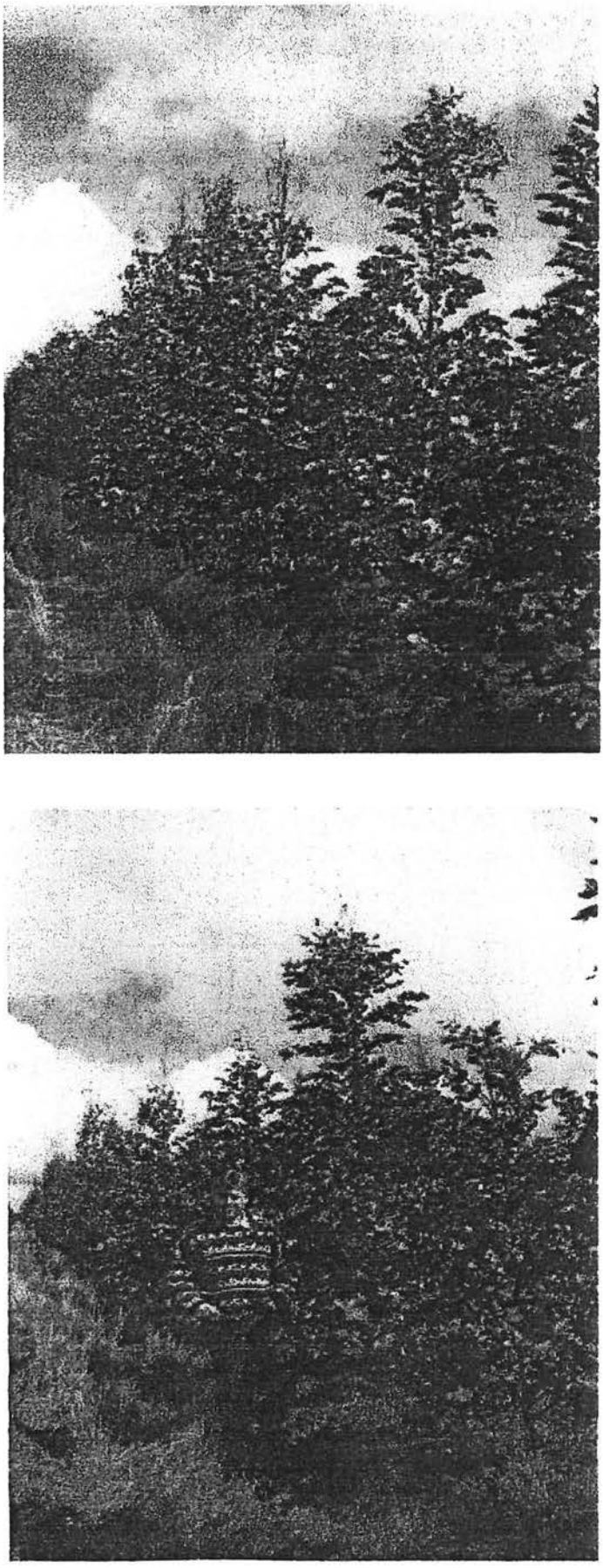
Lismore plantation site.

The soil types on this site again appeared to be fairly heavy consisting of mainly heavy red clay loams. It was indicated to us at this site that ripping to 0.5 metres on this site had been very difficult. This gave us the impression that these soils may not in fact be suitable for Bluegum growth, we were unable to ascertain what the subsoils of the area were as no drilling was conducted.

Again establishment techniques used on this site were similar to those used in here in WA.

From here we travelled north to a property approximately 40 kilometres southwest of Ballarat. This site had been planted with both *Euc nitens* and *globulus*. The plantings were established in 1996 and had appeared to do well with an average hieght close to 2.0 metres.

The soil types at this site again appeared to be very heavy and possibly waterlogged, consisting of predominately clay. No soil testing had been completed so we were unable to find out what subsoils were present. However from the surrounding landforms it appears likely that rock layers may be present.



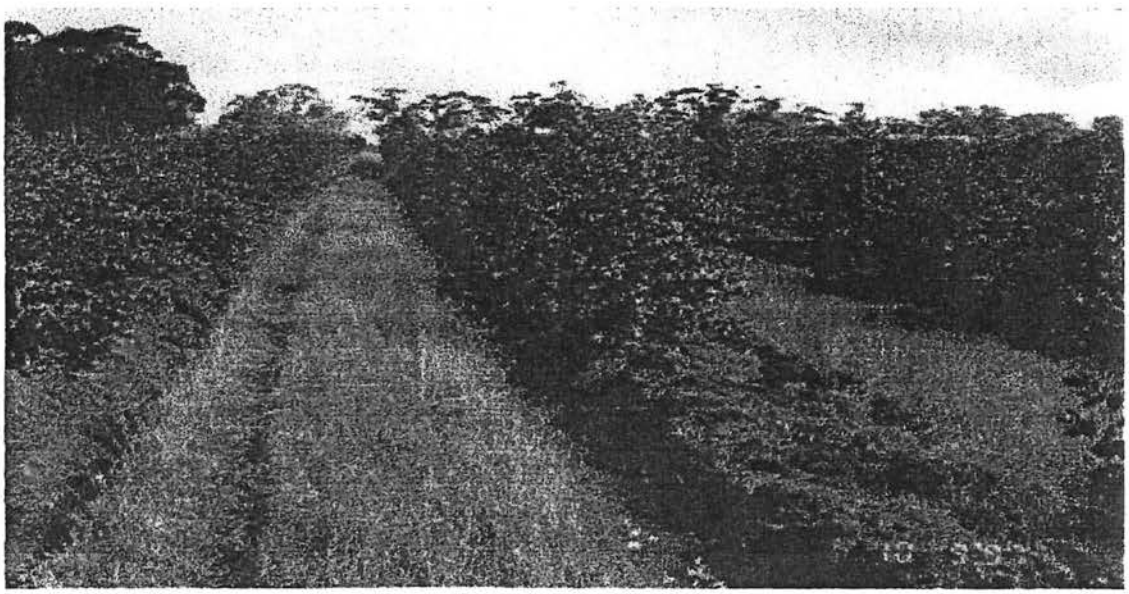
Plantation site southwest of Ballarat.

After stopping in Ballarat for lunch we travelled to Creswick approximately 20 kilometres north of Ballarat. Here we inspected the final property for the tour.

This site was established in 1996 and had an average hieght of approximately 1.2 metres. The soil types appeared to also consist of mainly heavy clay and clay loams which from observation appeared to be waterlogged. Soil testing had not been completed and therefore no information was available regarding subsoils.

Establishment techniques used on this property were similar to other properties visited.





Lismore plantation site.

We left Steve at this stage an made our way to Melbourne where we were to stay overnight before heading back to Perth.

6.0 Summary

Over the two days we visited many sites both in the Green Triangle and Geelong areas.

From our limited observations, it appears that the Green Triangle location has the potential to be a successful plantation establishment area but detailed soil analysis work needs to be performed before this could be confirmed. The soil types appear to be suitable for good tree growth which is reinforced by the successful Radiata and Bluegum plantations previously established in the area.

The Geelong area however does not appear to have a similar potential.

From our observations it appears that the soil types in this area are too heavy to sustain Bluegum growth. From our experiences in WA on similar soil types, we have found that the trees either don't grow at an acceptable rate or that they die from a lack of water at about age 5 or 6.

We found it unusal that soil testing for soil depth was not being conducted prior to establishment. We would recommend that soil testing be completed on all properties to ensure there is sufficient soil depth and quality to support tree growth.

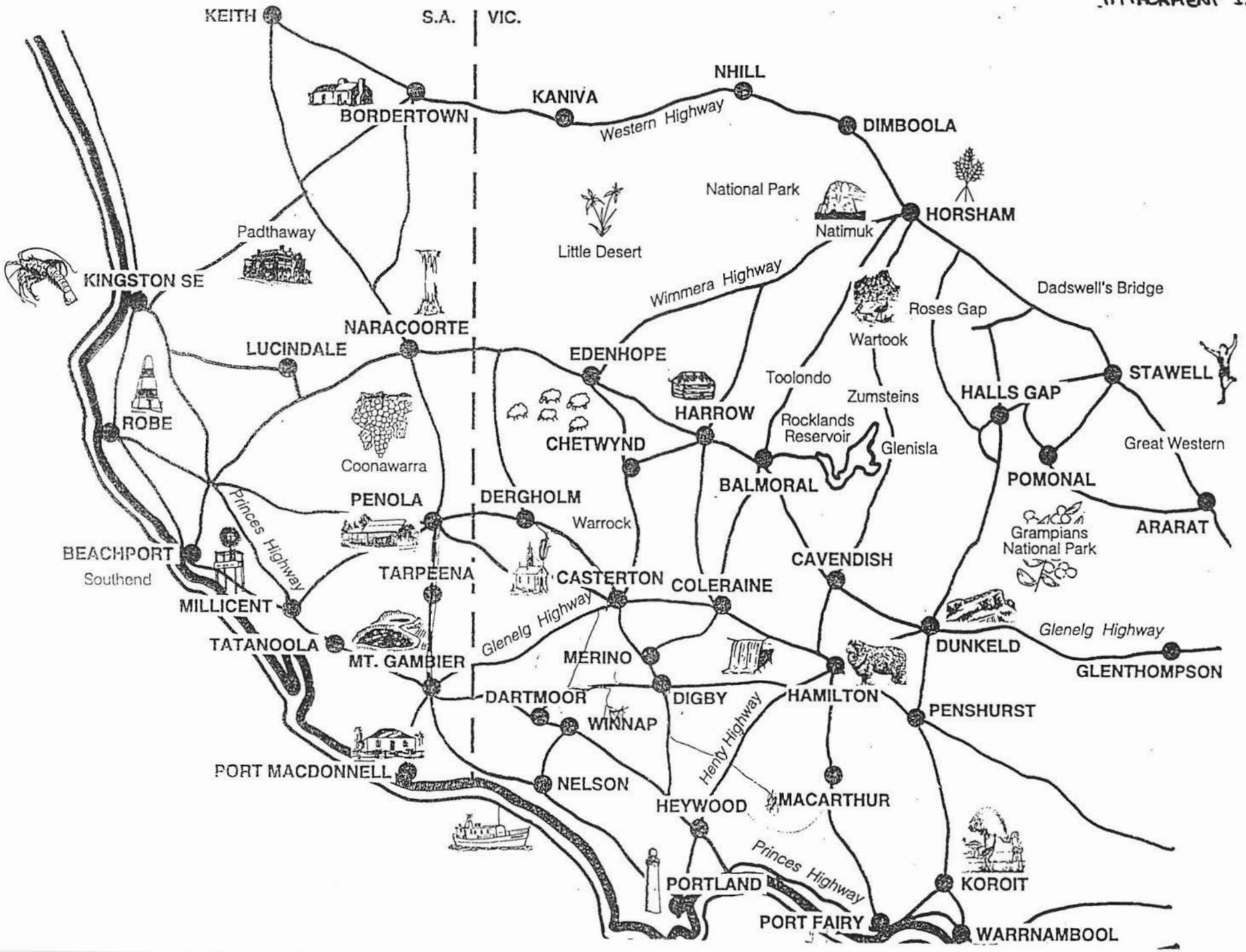
Overall we found the tour of these operations interesting and informative. Although some of the sites appear to be unsuitable for plantation establishment, we found that the quality of establishment and the practices used were good.

We would like to thank Bunbury Treefarm Project for the opportunity of visiting their operations and for the hospitality shown to us during this time.

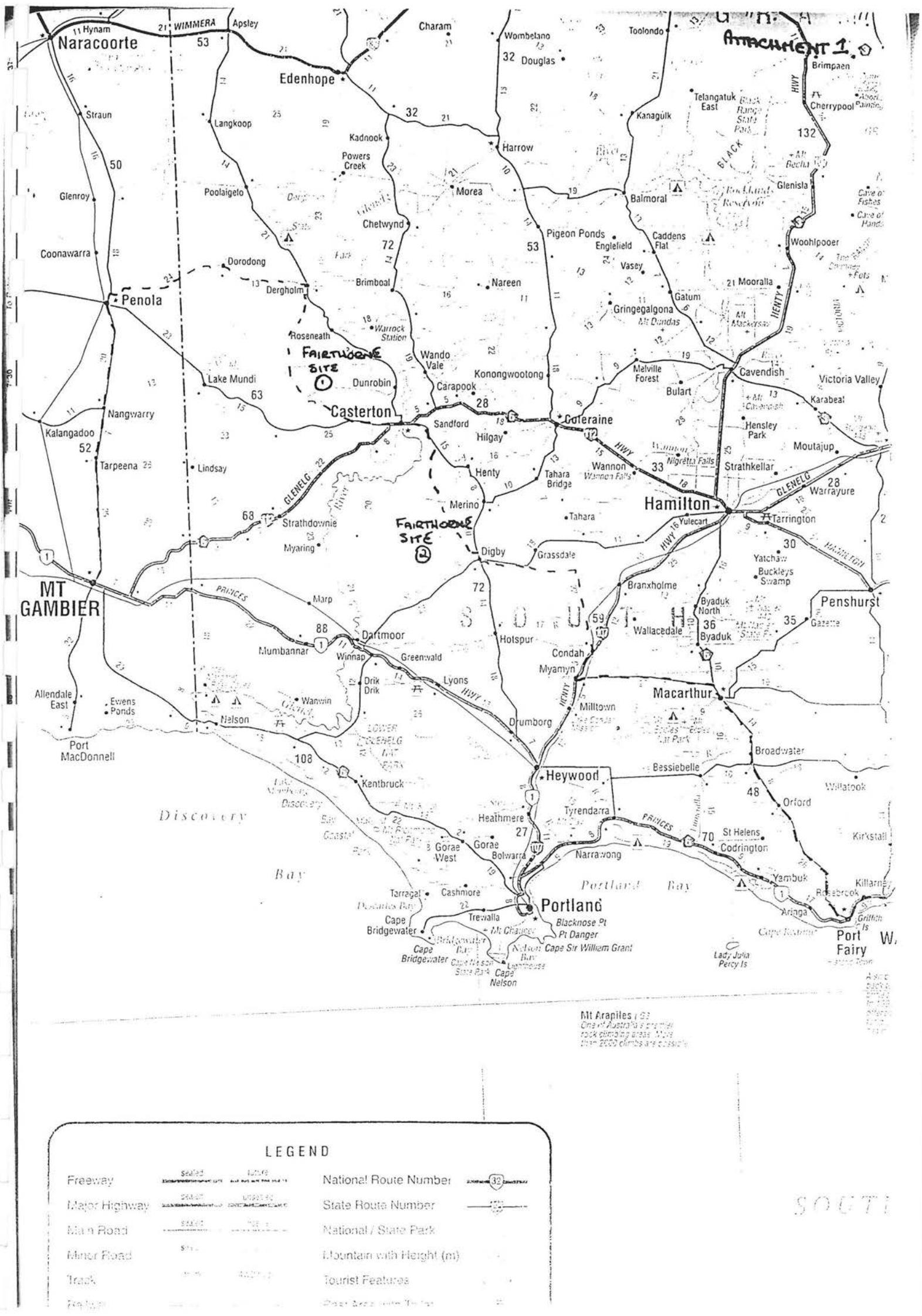
ATTACHMENT 1

GREEN TRIANGLE AREA (MAPS)

ATTACHMENT 1.



ATTACHMENT 1.



Mt Arapiles
One of Australia's premier rock climbing areas. More than 2000 climbs are possible

LEGEND

Freeway	sealed / future	National Route Number	32
Major Highway	sealed / unsealed	State Route Number	55
Main Road	sealed / unsealed	National / State Park	
Minor Road		Mountain with Height (m)	
Track		Tourist Features	
Railway		Built Area with Town	

ATTACHMENT 2

MIDWAY PROJECT

AREAS MANAGED

Marsh. Includes Anakie Gorge, and Steiglitz Historic Park, a former gold mining town.

Lavendula Lavender Farm. *5.2km N Hepburn Springs.* An example of an 1851 Swiss/Italian farm with cottage gardens and rubble stone buildings. 2000 mature lavender plants grow in rows with a spectacular display of flower and scent.

Golden Wattle festival, *Maryborough* – September.
Gold Rush Festival, *Dunolly* – October/November.
Castlemaine Festival of Gardens – October.
Maldon Folk Festival – November.
Maldon Easter Fair – Easter.
Gold 'N' Grape Festival, *Heathcote* – October.

ℹ *Maldon Visitors Centre, High Street. Ph: 054 752 569.*

Ballarat

Ballarat, J7. Pop: 90 000, 112km W Melb.

Victoria's largest inland city raised through the gold mining boom of last century. Many fine 19th century buildings help to preserve the heritage of this elegant town, which has now become a major rural centre for the Western Districts. The Avenue of

Gold Museum. *Opposite Sovereign Hill.* A unique collection of alluvial gold, nuggets and coins. Includes exhibits relating to Ballarat's history.

Kryal Castle. *8km E.* Re-created English medieval castle with live re-enactments such as knights in armour doing battle, and many associated attractions

Lydiard Street. *City.* One of Australia's most intact streetscapes from the 19th century goldfields era. Many original old buildings flank the street.

Botanical Gardens. *Lake Wendouree.* Historic gardens more than 135 years old, on the shores of Lake Wendouree. A feature is 'The Statuary'; a collection of busts which includes every Australian Prime Minister. Also of note is Adam Lindsay Gordon's Cottage, which was moved to the gardens in 1934.

Ballarat Vintage Tramway. *Botanical Gardens, Lake Wendouree.* 70 year old vintage trams which were still operative as public transport until 1971. A 1.5km section of line through the gardens has been preserved.

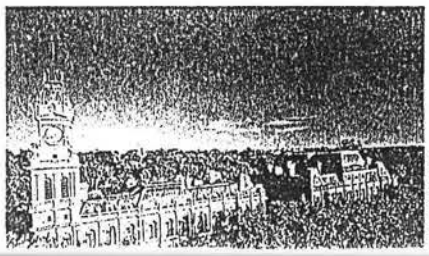
Eureka Exhibition. *Eureka and Kline Streets.* Electronic history of the famous Eureka Rebellion of

and its people, while travelling through the city on a vintage tram.

Central Deborah Gold Mine. *Violet Street.* Tours of a working gold mine down to 61m below the surface.

Chinese Joss House. *Finn Street.* Chinese temple built during the 1860's. A testament to the culture of Chinese diggers on the goldfields.

Bendigo Pottery. *Epsom.* Victoria's oldest pottery complex with tours and sales displays. The complex also contains a fascinating collection of classic Holden cars.



Tourism Victoria

Tourist Routes

Great Ocean Road. Geelong to Warrnambool. Return via Colac. Follow one of Australia's most spectacular roads above the rocky shores of Bass Strait and return via the fertile rural landscape of Colac and Camperdown. The road from Torquay to Warrnambool took 13 years to complete and was finally opened in 1932. Along the way there is ample scope for exploring beaches, lookouts, forest walking tracks and waterfalls.

Goldfields Tourist Route. 455km circuit. Follow defined roadside markers via Ballarat, Stawell and Bendigo. This journey penetrates the very heart of the Central Victorian Goldfields. The history of golden wealth extracted from this region is evident in almost every town along the way. Other places of interest can be found amongst the Pyrenees Ranges, at Daylesford or Hepburn Springs, and in the Kooyoora State Park.

Grampians Circuit. 247km circuit. Via Halls Gap, Zumstein, Cavendish, Dunkeld