

ForestrySA

SOUTH EAST REGION

CAVE RANGE NATIVE FOREST RESERVE

MANAGEMENT PLAN

FOREWORD

The Cave Range Native Forest Reserve Management Plan has been prepared by ForestrySA. This Plan clearly states the purpose and objectives for this Native Forest Reserve.

The Reserve will be managed according to this Management Plan which includes details of specific work to be undertaken under the proposed management program, and relevant biological data.

The preparation of this Plan included consideration of the native vegetation in the adjoining Naracoorte Caves National Park. The Plan and the Five Year Management Program reflects a coordinated planning and management approach involving relevant staff from ForestrySA and the Department for Environment and Heritage to ensure enhanced bio-diversity outcomes.

The interim version of this plan was submitted to the Native Vegetation Council, other land management authorities and relevant community organisations, appropriate comments from these groups have been incorporated into this Final Plan.

This Plan includes proposals for prescribed burning, however, this will not be undertaken until approval has been received from the Native Vegetation Council pending their resolution of monitoring requirements.

The Reserves were proclaimed as Native Forest Reserves under the Forestry Act 1950, gazetted 15 March 2001.

The administrative details contained in this document are current as at August 2001.

I hereby approve the Cave Range Native Forest Reserve Management Plan for implementation.



Ian B Millard
CHIEF EXECUTIVE
SOUTH AUSTRALIAN FORESTRY CORPORATION

10 / 8 /2001

CONTENTS

FOREWORD

1. PURPOSE, LEGAL DESIGNATION, PLANNING AND PROTECTION

1.1 The Cave Range Native Forest Reserves

- 1.1.1 Statement of Purpose
- 1.1.2 Significant Values
- 1.1.3 Location and access
- 1.1.4 Administration

1.2 Land Tenure

1.3 Planning

1.4 Native Forest Management, Policy and Philosophy

1.5 Legislative Protection of Flora and Fauna

- 1.5.1 Forestry Act 1950
- 1.5.2 National Parks and Wildlife Act 1972
- 1.5.3 Native Vegetation Act 1991

2. NATURAL RESOURCES

2.1 Climate

2.2 Physical Environment

- 2.2.1 Regional Geology and Soil Parent Material
- 2.2.2 Local Geology
- 2.2.3 Soils
- 2.2.4 Hydrology

2.3 Petroleum and Mining Resources

- 2.3.1 Petroleum and Mining Acts.

2.4 Biological Environment

- 2.4.1 Vegetation
- 2.4.2 Fauna

3. LAND USE

3.1 History

- 3.1.1 Acquisition and Name

3.2 Historical Impacts

- 3.2.1 Grazing
- 3.2.2 Timber Production
- 3.2.3 Wildfire
- 3.2.4 Prescribed Burning
- 3.2.5 Other Impacts
- 3.2.6 Exotic plants and animals

3.3 Current Uses

3.3.1 Conservation

3.3.2 Community Use

3.4 Adjacent Land Use

4. MANAGEMENT OBJECTIVES

4.1 Native Forest Management Philosophies

4.2 Long-term Management Objectives For Native Forest Reserves

4.2.1 Conservation Management

4.2.2 Community Use

4.2.3 Protection

4.2.4 Rehabilitation

5. FIVE YEAR MANAGEMENT PROGRAM

5.1 Conservation Management

5.2 Community Use

5.3 Protection

5.4 Rehabilitation

6. NATURAL RESOURCE DATA

7. APPENDICES

REFERENCES

ACKNOWLEDGEMENTS

1. Purpose, Legal Designation, Planning and Protection

1.1 The Cave Range Native Forest Reserves

1.1.1 Statement of Purpose

The Cave Range Native Forest Reserve will be managed and protected to maintain and enhance its bio-diversity as an enduring and dynamic ecosystem.

1.1.2 Significant Values

The *Biodiversity Plan for the South East of South Australia* acknowledges that ForestrySA manages the largest inland areas of remnant native vegetation in the Lower South East containing populations of plant and animal species, and plant communities of high conservation significance at both the State and Regional level. The Cave Range Native Forest Reserve conserves native flora and fauna which contributes to the bio-diversity of the Region

The following attributes have been used to determine the conservation and cultural values of the Cave Range Native Forest Reserve:

Conservation Values

- This Reserve of 45.3 hectares, relatively undisturbed by human activity since 1955, is one of a number of remnants containing native flora and fauna located along the length of the Naracoorte Range. It is representative of the original dune vegetation and makes an important contribution to bio-diversity in this district.
- The conservation value of the Reserve is enhanced because approximately 15 hectares of native forest, being part of the Naracoorte Caves National Park, adjoins on the south-east boundary.
- The Reserve is located on the Naracoorte Range and contains one of the large caves which this geologically interesting area is well known for. The cave entrance is a collapsed window in the calcreted caprock formed above a large chamber.
- A total of 103 native plant species have been recorded for this Reserve to date. Of these 8 have a conservation status rating equal to or greater than Uncommon for the South East Region of South Australia.
- Sugar gliders (*Petaurus breviceps*) and Red-necked Wallabies (*Macropus rufogriseus*), both rated as Rare in South Australia occur in this Reserve. The endangered Red-tailed Black-Cockatoo has been observed (Sept. 2000) feeding on Brown Stringybark fruit in this Reserve which is situated within the known range of this species in this Region.

Cultural Heritage

- According to Norman B. Tindale's '*Tribal Boundaries in Aboriginal Australia*' this Reserve lies on the boundary between territory previously occupied by the Meintangk Tribe to the west and the Marditjali Tribe to the east. No evidence of Aboriginal sites has been recorded within the Reserve.
- A map of Pastoral Leases in the South-East of SA circa 1865 shows that this Reserve was part of lease No. 169 'Mosquito Creek' leased by W & J Robertson who built Struan House located 8 kilometres south.
- Following surveys for closer settlement in the 1860s the area now reserved formed part of Perpetual Lease 8852A. The last lessee prior to purchase by the then Woods and Forests Department was the Radiata Pine Milling Pty. Co. Ltd. Before that this lease was held by local farmer and grazier C. J. Kay whose descendants still occupy nearby land.

1.1.3 Location and Access

Location

Cave Range NFR is located approximately 9 kilometres east of south from Naracoorte (Figures 1 and 2) and is shown but not named on the SA Department for Environment and Heritage 1:50,000 Topographic Map 'STRUAN' 7023-1 Grid reference 813:022.

The Reserve, its compartments and area are shown in Figure 3.

Table 1. Cadastral locations

Reserve	Area (ha.)	Section	Hundred	District Council
CAVE RANGE	45.3	Pts. 403, 406	Naracoorte	Naracoorte & Lucindale

Foot Access

Foot access to all areas is unrestricted during daylight hours except on days when a Total Fire Ban is imposed or where erected signs or notices restrict access to specific areas.

Vehicle Access

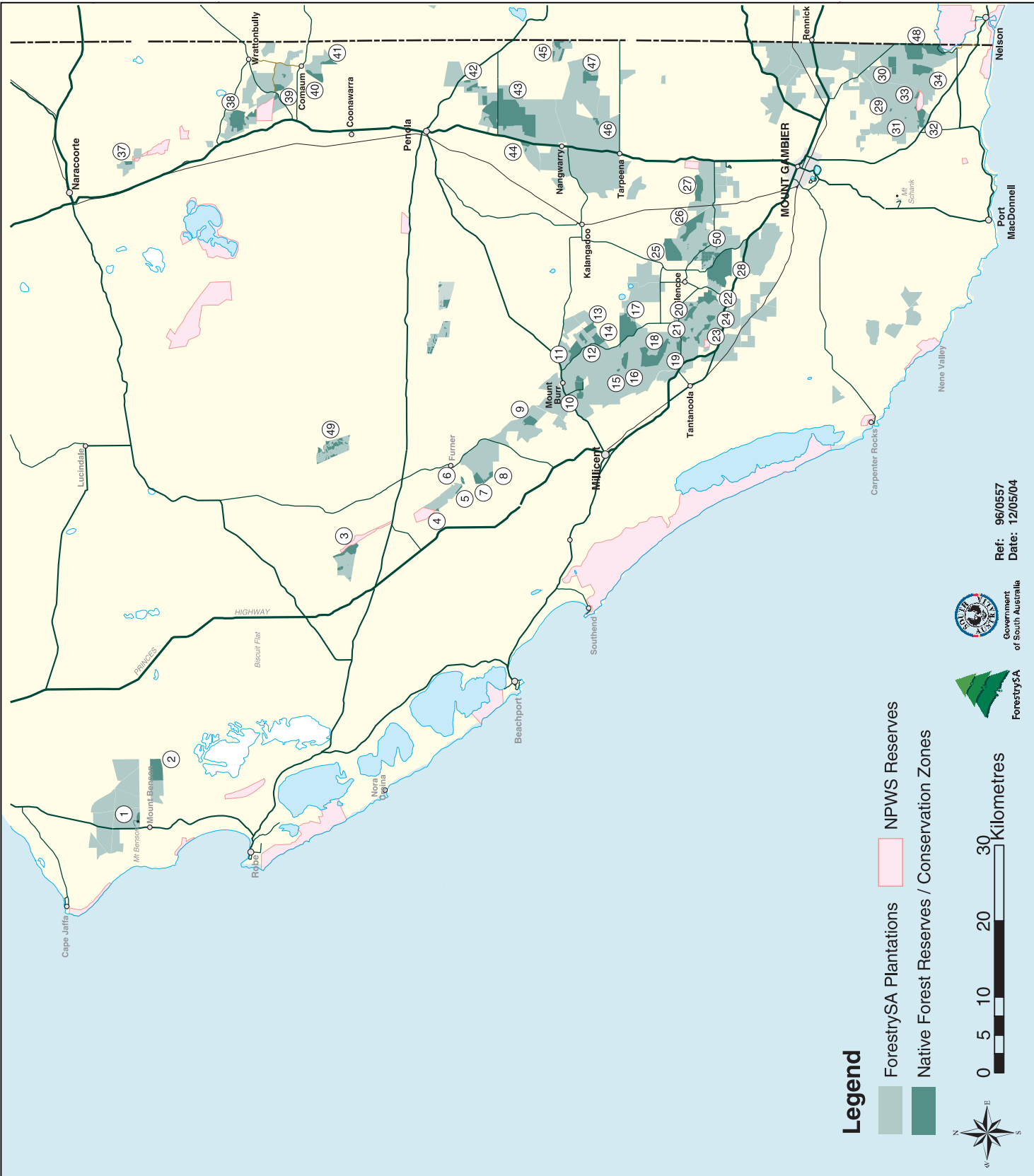
Access to and within Cave Range Native Forest Reserve is by forest tracks and firebreaks. Access maybe restricted in parts due to deep, dry unconsolidated sand.

Vehicular access by the public within the Reserves may be restricted by provision of the Regulations under the Forestry Act, 1950.

FIGURE 1

Native Forest Reserves

No.	N.F.R. Name	Area (ha)
1	Mount Benson	66.2
2	Bagdad	453.6
3	Konetta	241.6
4	Gillap North	12.9
5	Gillap South	25.1
6	Kennion	30.7
7	Rocky Reserve	131.8
8	White Waterhole	60.2
9	Malone Heath	156.3
10	Kay	249.9
11	Whennen	244.4
12	Mount McInyre	63.1
13	McRosies	111.2
14	Overland Track	144.1
15	Rock Shelter	12.4
16	Burr Slopes South	135.5
17	The Marshes	596.5
18	Native Wells	619.5
19	Glencoe Hill	66.6
20	Mount Watch	49.9
21	Windy Hill	139.6
22	Long	147.1
23	The Bluff	73.1
24	The Woolwash	263.6
25	Hackett Hill	493.1
26	Wandillo	425.2
27	Grundy Lane	287.7
28	Honan	1026.8
29	Laslett	9.5
30	Snow Gum	191.8
31	Hells Hole	4.1
32	Warreanga	250
33	Pond Flat	32.8
34	Honeysuckle	266.4
37	Cave Range	45.3
38	Deadmans Swamp	538
39	Wombat Flat	151.1
40	Conaam	157
41	Boolara	84.2
42	Round Waterhole	118.4
43	Nangwarry	2213.6
44	Muddy Flat	64
45	Topperwein	175
46	Island Swamp	42.6
47	The Heath	203.7
48	Dry Creek	745.8
49	Khayyam	214.7
50	Kangaroo Flat	302.8



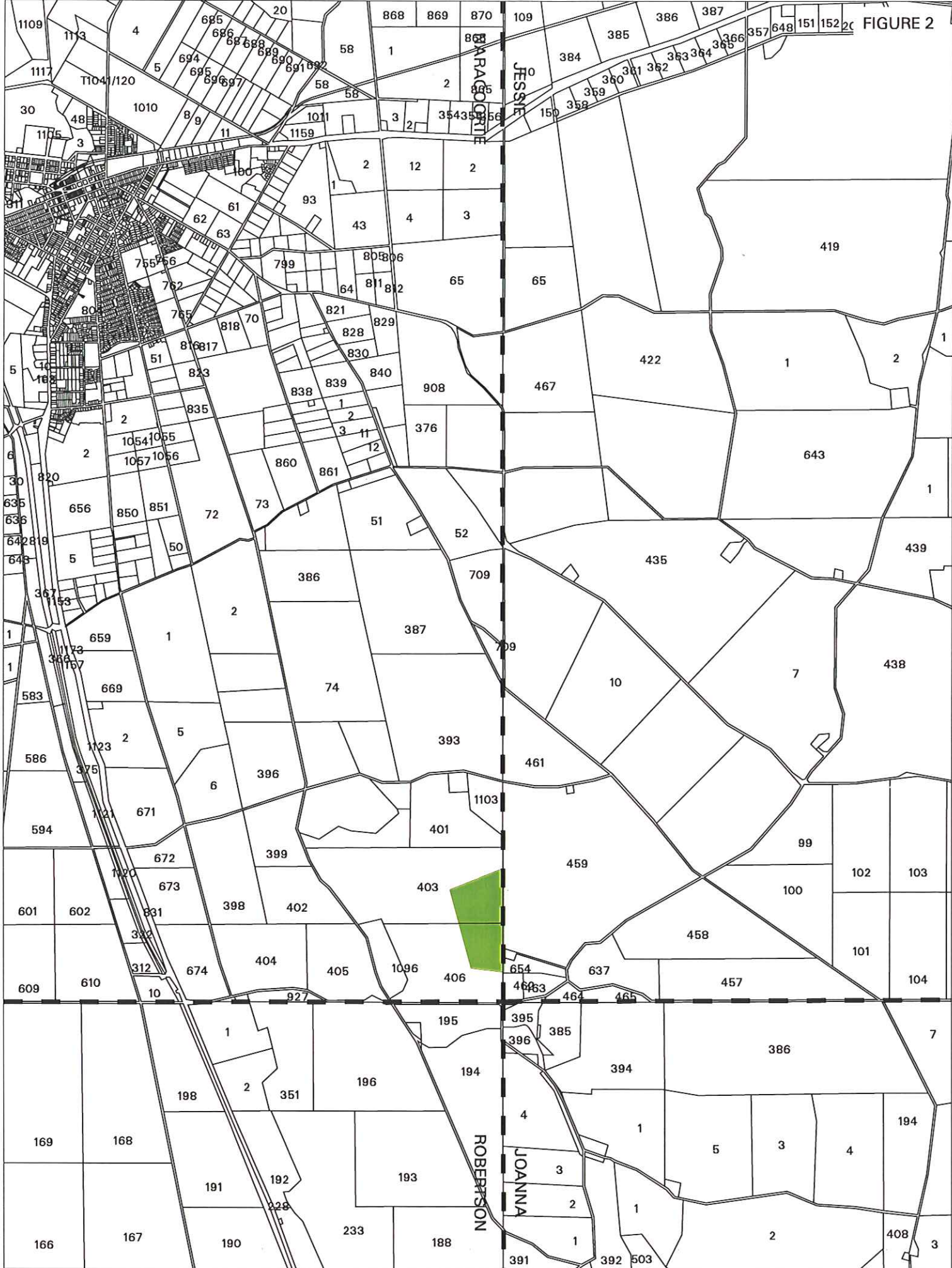
Legend

- ForestrySA Plantations
- NPWS Reserves
- Native Forest Reserves / Conservation Zones

0 5 10 20 30 Kilometres

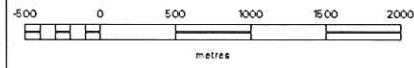


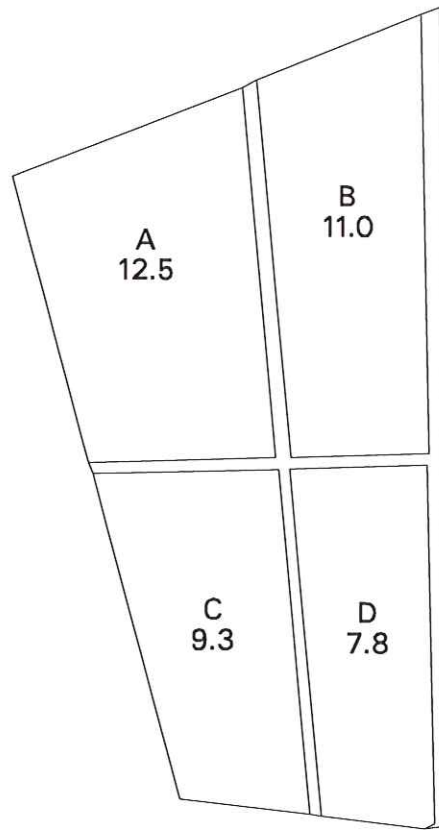
Ref: 96/0557
Date: 12/05/04



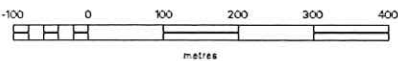
Gross Area = 45.3 ha

**CAVE RANGE NATIVE FOREST RESERVE
CADASTRAL BOUNDARIES**





Gross Area = 45.3 ha



Ref : 96/0557/7

08-SEP-2000

**CAVE RANGE NATIVE FOREST RESERVE
COMPARTMENT CODES**

(CAVE RANGE NATIVE FOREST MANAGEMENT PLAN)



1.1.4 Administration

The Native Forest Reserve is managed by ForestrySA, Jubilee Highway East, Mount Gambier 5290.

All permits for access and approved activities are issued from this office.

1.2 Land Tenure

The Cave Range NFR is gazetted as Native Forest Reserve under the Forestry Act 1950. ForestrySA¹, is responsible for the management of 126,000 hectares of gazetted Forest Reserves in South Australia.

Approximately 20,500 hectares of this land is native forest, woodland or enclosed wetland, located in the Southern Flinders Ranges (4,000 hectares), the Mount Lofty Ranges (4,400 hectares) and the Lower South East of South Australia (13,000 hectares).

1.3 Planning

Land managed by ForestrySA is zoned to define areas that are to be managed for commercial forestry or for conservation.

Specific Native Forest Management Plans are prepared for each of the larger areas designated for conservation due to their ecological importance. Cave Range is one of 48 Native Forest Reserves in the South East of SA for which management plans have been or are being prepared.

Community use of Forest Reserves is not restricted to specific areas but determined according to compatibility and impact on other land uses. Planning for community use covers both commercial plantation forest and native forest areas. Community use considerations specific to individual areas of native forest are included in the respective Native Forest Management Plans.

Fire prevention considerations for areas of native forest are outlined in the Local Government 'District Bush Fire Prevention Plan', a requirement of the Country Fires Act 1989. Further detail on wild fire prevention/suppression is provided in Section 5.3.1 Five Year Management Program.

1.4 Native Forest Management, Policy and Philosophy

ForestrySA manages some of the few remnant areas of native forest and woodland located mainly in the higher rainfall areas of South Australia, together with their associated fauna. These areas contribute significantly to the natural assets of the State and have been managed as Native Forest Reserves under the Forestry Act since purchase by ForestrySA, formerly the Woods and Forests Department, which was established in 1882.

ForestrySA's primary management objective for areas of native forest under its management control is to conserve and enhance the native flora and fauna and preserve bio-diversity, for the long-term benefit of the South Australian community.

¹ ForestrySA formerly known as Primary Industries Forestry and the Woods and Forests Department

The native vegetation managed by ForestrySA occurs mainly as isolated fragments. Prior to the early 1950s most areas were disturbed by timber cutting, grazing, fire and invasion by introduced plants. Since then, most of these areas have remained relatively undisturbed.

Compared with other remnant areas of native vegetation in South Australia, those managed by ForestrySA are often the least disturbed due to their long history of consistent land tenure.

Areas of native vegetation may require specific management prescriptions to achieve conservation objectives depending upon their disturbances histories. These may include:-

- total protection of areas and/or parts of areas from any further disturbances eg. weed invasions, grazing, pest animals;
- protection from bushfires;
- restricting public access;
- rehabilitation of the over-storey or the understorey vegetation;
- re-introduction of selected species of flora and fauna;
- ecosystem management by the use of prescribed fire.

1.5 Legislative Protection of Flora and Fauna

1.5.1 Forestry Act 1950

The Forestry Act provides for the declaration of Native Forest Reserves for the purpose of conserving native flora and fauna.

Regulations under this Act enable enforcement of measures to protect Native Forest Reserves.

The Act states in respect to Forest Reserves and Native Forest Reserves that :-

3. (1) The Governor may by proclamation

(b) for the purposes relating to the conservation, development and management of land supporting native flora and fauna, declare a forest reserve, or part of a forest reserve, to be a native forest reserve;

3. (2) A proclamation declaring a forest reserve or part of a forest reserve to be native forest reserve shall contain a statement of the purposes for which the native forest reserve is established.

- 9.A Notwithstanding any other provision of this Act, the Minister shall manage a native forest reserve having regard to the purposes for which it was established and shall endeavour to ensure that no operations are undertaken on the reserve that are inconsistent with those purposes.

1.5.2 National Parks and Wildlife Act 1972

The object of this Act is to provide legislative framework for the management and protection of native plants and animals throughout South Australia.

For any activity that involves the removal or capture of native plants or animals, permits must be obtained from both the Department for Environment and Heritage, and ForestrySA.

For any activity that involves hunting, permits must be obtained from the Department for Environment and Heritage, and prior written approval must be obtained from ForestrySA.

1.5.3 Native Vegetation Act 1991

The object of this Act is to control clearance and to facilitate and assist management of native vegetation in South Australia.

Under the Act, in most circumstances, a range of activities defined as clearing may not occur without the prior consent of the Native Vegetation Council (Sections 27 to 29). This includes the prescribed use of fire or selective cutting of trees for restoration purposes. Both of these activities may be approved as part of a management plan and compliance with this is mandatory.

2. NATURAL RESOURCES

2.1 Climate

The Reserve has a typical Mediterranean climate with warm dry summers and cool wet winters.

The following mean temperature and rainfall records were obtained from the Bureau of Meteorology – Climate Averages for Naracoorte and Struan, 9 km north and 8 km south respectively from this Reserve.

Naracoorte	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yr
Mean Max (°C)	28.1	28.8	25.4	21.4	17.4	14.9	14.2	15.4	17.3	20.2	22.8	25.5	20.9
Mean Min (°C)	12.2	12.5	10.9	8.6	6.9	5.2	4.8	5.3	6.4	7.7	8.9	10.8	8.3
Mean Rain (mm)	23	20	26	44	60	73	76	72	65	52	36	31	578
Mean Rain Days	5	4	6	10	14	15	17	17	15	12	9	7	132
Struan													
Mean Max (°C)	27.7	27.7	25.6	21.2	17.7	14.2	13.9	15.0	16.7	19.8	22.5	26.4	19.1
Mean Min (°C)	10.9	10.7	10.8	8.4	7.5	5.3	4.8	5.5	6.3	7.7	7.8	10.7	7.5
Mean Rain (mm)	26	12	25	37	52	70	84	75	64	49	37	26	557
Mean Rain Days	6	5	9	12	16	18	20	20	18	14	11	9	158

Average annual rainfall for this Reserve based on records from the above sites is estimated to be 570mm.

2.2 Physical Environment

2.2.1 Regional Geology and Soil Parent Material

The geological evolution of the South East Region of SA is closely related to the separation of the Australian and Antarctic Continents, formerly parts of the super-continent Gondwana, beginning about 150 million years ago. Sequences of terrestrial, riverine-deltaic and marine sediments, characteristic of fluctuating sea levels, were laid down in the resultant depression now known as the Otway Basin. The western most portion that underlies the region in SA is known as the Gambier Embayment.

Flooding of the Gambier Embayment, associated with a warm temperate climate during the Miocene period, provided conditions for the deposition of bryozoal limestone now referred to as Gambier Limestone. Since that time, due to the slow tectonic uplift of the Gambier Embayment, the low coastal plain gradient, and glaciation sequences, sea level oscillation has produced variable erosion of the Gambier Limestone and a series of stranded coastal dunes.

Aeolian sands spread and resorted by wind deflation, and volcanic fissure eruptions in more recent times have produced additional topographic relief and soil parent material in a relatively flat relict coastal plain.

A more detailed explanation of the geology and soil parent materials of the region can be found in the Natural History of the South East, (Tyler et al. 1983).

2.2.2 Local Geology

Cave Range Native Forest Reserve is situated above the Kanawinka Scarp, on the Naracoorte Plateau. The East Naracoorte Dune intersects the Reserve. It was deposited originally more than 800,000 years BP. This rests directly on the Naracoorte Limestone, believed to be Gambier Oligocene Limestone modified by undisturbed sub-aerial exposure for a long period. The Naracoorte Limestone dominates the area and displays the fullest development in the region of marked karst features; several kinds of dolines, caves and uvalas. The Reserve is located on a calcarenite dune mostly covered with thin terra rossa soils and shallow, resorted acid siliceous sand deposits of the Bridgewater Formation. Cave entrances are marked by sandy dolines oriented parallel to the scarp, but underground no single alignment is found. The Reserve is in the Kanawinka Land Unit and is part of the Kanawinka Land System. Soils are classified as a local equivalent of the Warrolong sandy loam and Dergholm fine sandy loam. (Boardman, R. 1992)

2.2.3 Soils

There have been no recent formal soil surveys in this Reserve which is dominated by two soil types and associated transitionals. Aeolian podsolised sand of varying depth overlays the calcarenite dune, terra rossa type red-brown loam and sandy-loam have developed over the exposed marine and dune limestone.

Terra rossa soil – a shallow loam or sandy loam derived from the base Naracoorte Limestone or calcarenite dune is present where this limestone is exposed.

Sandy podsol – a grey surface aeolian dune sand changing to yellow-grey sub-surface with varying depth to the limestone base is present over much of the Reserve.

2.2.4 Hydrology

Average rainfall for this Reserve is estimated to be 570 mm per annum (see Section 2.1 Climate). There are no permanent swamps, surface streams or drains in this Reserve.

Rainfall is absorbed through the soil to the water table estimated to be up to 40m below ground level in this Reserve which is situated on a dune ranging between 80 – 100 metres above sea level.

2.3 Petroleum and Mining Resources

The south-east of South Australia and western Victoria is a proven petroleum exploration/production province referred to as the Otway Basin. There are numerous small natural gas and carbon dioxide fields in production or in development, both onshore and offshore. There are also several oil shows/discoveries in exploration wells, some of which may be commercially viable and be developed at some time in the future.

Petroleum Exploration Licence (PEL) 62 exists over all of Cave Range Native Forest Reserve. (See Appendix II) This tenement provides rights to explore for petroleum beneath the Reserves and adjacent lands. The PEL also permits the licensee to apply for Petroleum Production Licences in the case of resource discovery. (M. Bayly, pers.comm.)

This plan recognises the potential for mineral resources to be present and recoverable beneath this Native Forest Reserve.

2.3.1 Petroleum Act 2000 and Mining Act 1971.

These Acts regulate all activities relating to exploration and production. In regard to flora and fauna, there are requirements to avoid, or where not reasonably practicable, minimise environmental impacts. In this regard, impacts to native vegetation are permitted without requirement of consent under the Native Vegetation Act 1991.

2.4 Biological Environment

2.4.1 Vegetation

This Reserve is located on the eastern ridge of the Naracoorte Range formed from calcarenite and aeolian dune sand of varying depth over Gambier Limestone. The vegetation is dominated by one or more of five tree species viz. *Eucalyptus arenacea*, *E. leucoxyton ssp.*, *E. viminalis ssp. cygnetensis*, *Acacia mearnsii* and *A. pycnantha*. Their occurrence is influenced by soil type and depth.

The following vegetation associations have been identified (Grigg 2000), and their more common constituent species listed.

***Eucalyptus arenacea* (Dune stringybark) Association**

The Reserve is dominated by *E. arenacea* on those deeper dune sands with little influence from the underlying limestone. *Acacia mearnsii* and *A. pycnantha* are generally present over shrub and ground flora comprising *Banksia marginata*, *Leptospermum myrsinoides*, *Pteridium esculentum*, *Leucopogon ericoides*, *Astroloma conostephioides*, *Hibbertia sericea* var. *sericea*, *Glossodia major*, *Danthonia* spp. and *Hydrocotyle* spp. *E. viminalis* ssp. *cygnetensis* and *Allocasuarina verticillata* have limited occurrence on the transition zone between aeolian sands and the Terra rossa soils

***Eucalyptus leucoxylon* (South Australian blue gum) Association**

Relatively small areas of Terra rossa soil derived from the underlying limestone are dominated by *E. leucoxylon*. *A. mearnsii* and *A. pycnantha* may be present over shrub and ground flora comprising *Dodonaea viscosa* ssp. *spatulata*, *A. conostephioides*, *A. humifusum*, *Hibbertia sericea* var. *scabrifolia*, *Acrotriche serrulata*, *Senecio* spp. *Pelargonium rodneyanum*, *Hydrocotyle* spp., and *Dichondra repens*.

A total of 119 native plant species have been recorded for Cave Range NFR of which 12 have a conservation status of Uncommon or higher rating for the South East of South Australia (Table 1, Natural Resource Data).

2.4.2 Fauna

There has been one formal survey of fauna undertaken in 2000 to identify birds. However bird species, other than those dependant on water, recorded by H. P. Possingham and the Naracoorte Field Naturalists Society listed in Table II, Naracoorte Caves Conservation Park Draft Management Plan, have been included for this Reserve because of the relatively close proximity of the two areas and their similar habitat.

Species lists from these surveys and recorded observations of other fauna are included in the Natural Resources Data (Tables 2-3)

Birds

Bird species can be grouped according to their preferred habitat. The presence of species from many different groups reflects the diversity of habitat present. Eighty-four species have been recorded for this Reserve. (Table 2, Natural Resource Data).

The following species have a South Australian conservation status rating of Endangered, Vulnerable or Rare.

Red-tailed Black Cockatoo	E
Yellow-tailed Black-Cockatoo	V
Crested Shrike-tit	V
Chestnut-rumped Hylacola	V
Black-chinned Honeyeater	V
Shining Bronze-Cuckoo	R
White-throated Gerygone	R
Satin Flycatcher	R

Mammals

Five native mammal species, not including Bats, have been recorded in this Reserve (See Table 3, Natural Resource Data).

Of these, two species have a conservation status rating of Rare viz.,

Sugar Glider	R
Red-necked Wallaby	R

Reptiles and Amphibians

To date there has been no survey of reptiles or amphibians, however it is reasonable to expect that many of the species known to occur in the inland parts of this region may occur in this Reserve. The Eastern blue-tongued Lizard (*Tiliqua scincoides*) has been observed.

3. LAND USE

3.1 History

According to Tindale (1974), this Reserve is located on the boundary of territories previously occupied by Aboriginal people of the Meintangk and Marditjali tribes. No evidence of permanent occupation sites has been recorded on this Reserve. However, the following extract from the Naracoorte Caves Conservation Park Draft Management Plan 1986 citing Murdoch and Parker 1963 indicates that Aboriginal people lived in the locality and may have had a tenurial interest in the caves and immediate environs;

“On 12 February 1863, Governor Dominic Daly visited the cave, and was entertained by a corroboree (of 52 Aborigines) and a brass band.”

3.1.1 Acquisition and Name

Sections 401, 403 and 406 Hd of Naracoorte, formerly Perpetual Lease No. 8852A, containing the area now reserved was purchased from Radiata Pine Milling Pty. Co. Ltd. on 28.9.1954 and gazetted as Forest Reserve on 1.12.1955. This company commenced planting pines on the property in 1946. Prior to that time the lease was held by CJ Kay (Allan Kay ² pers. comm.)

Cave Range NFR takes the name of the Forest Reserve in which it is located. Cave Range was adopted as the name for this Forest Reserve following an inspection of

sites suitable for such purpose by Surveyor-General G.W. Goyder and Mr. Edwin Smith in 1873. This site among others that they recommended to the Commissioner of Crown Lands was described then as “On the Cave Range south of Naracoorte”.

3.2 Historical Impacts

3.2.1 Grazing

The property which prior to purchase by Radiata Pine Milling Pty. Co. Ltd. had been leased by C J Kay was almost entirely native forest and was not grazed. (Allan Kay pers. comm.) On two occasions in the late 1980s in years of high rainfall, up to 500 sheep from the wet flats to the west were agisted on the area which includes the Reserve from July to October. Any damage or modification to the vegetation caused by these events cannot be now assessed, but due to the limited duration it is believed to be minimal.

3.2.2 Timber Production

A bush-mill, located on the property, processed timber having commercial value cut from the sites being prepared for plantation establishment, including those areas partially cleared in the now existing Native Forest Reserve. This mill operated by the Southern Trading Company, associated with the property owner of the time, was near the Old Caves Road. The site is not recognisable as such now. (Allan Kay pers. comm) There has been no commercial cutting of native trees on this Reserve since purchase by ForestrySA in 1954.

3.2.3 Wildfire

There is no record of this Reserve being burnt by a wild fire. Long term neighbours cannot recall any wild fires in or near this particular site since the original pine planting in 1946.

3.2.4 Prescribed Burning

The records indicate the Compartment A was prescribed burned in 1970. Evidence of burning characterised by fire charred bark on the older stringybark trees is scattered throughout the Reserve indicating that all compartments may have been prescribed burned in the early 1970s.

²Allan Kay – long term neighbouring land holder

Prescribed Burning Policy

In 1971, in recognition of the conservation value of the native forests and the limited knowledge of the ecological impact of repeated burning, ForestrySA (then Woods and Forests Department) developed a prescribed burning policy with the objective of carrying out low intensity mosaic burning in native forests at intervals of 3 - 8 years. Some areas were scheduled for longer intervals between burns, and certain areas were excluded from burning to provide scientific reference (benchmark) areas.

The policy was reviewed in 1985, 1992 and 1998, continuing the emphasis on habitat management.

The objectives of ForestrySA's current Prescribed Burning Policy which schedules burning of varying intensity and interval in selected compartments while maintaining other compartments as unburnt reference areas, is to:

- create and maintain floristic and structural diversity
- optimise species presence and minimise further local extinctions
- reduce wildfire intensities to improve survival and re-colonisation opportunities
- protect assets by fuel reduction in limited strategic areas.

The policy recommends alternating prescribed fire intensity from low to high for consecutive fires in the same compartment. The seasonal timing of the fire, ie, spring or autumn may also vary depending on assessed vegetation diversity and development and the requirement for species regeneration.

The minimum interval between burns has been based on the reproductive period of the major over-storey species *Eucalyptus baxteri/arenacea* which has been established to be about 10 years. The reproductive period is the time necessary for a seedling to mature to sufficient size to produce its own seed and be able to survive the effects of the next scheduled fire. The minimum interval is flexible beyond 10 years such that scheduled burning will be postponed in drought years if the area to be burnt represents more than 25% of the Reserve.

The previous fire history of a compartment is considered when planning future prescribed burning.

The proposed prescribed burning program for this Reserve, subject to ratification by the Native Vegetation Council, is shown in Figure 4.

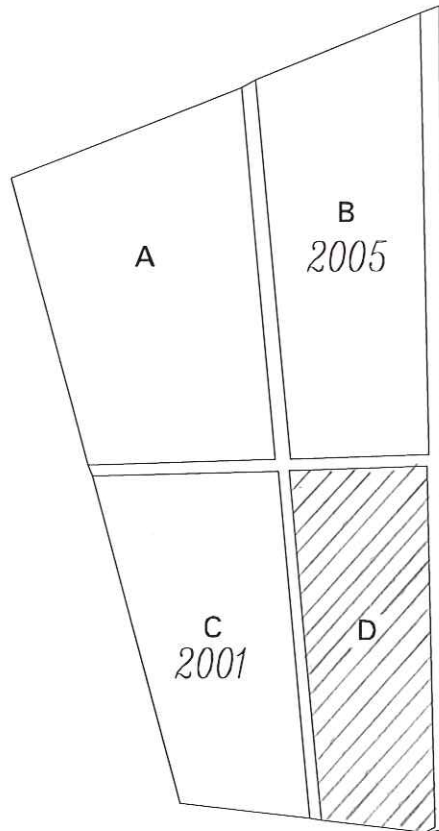
3.2.5 Other Impacts

Maps produced prior to purchase by the then Woods and Forests Department indicate that the over-storey species over all of Compartment A and more than half of Compartment B were cleared in preparation for plantation establishment. This is supported by observations of coppicing on cut stumps and some large standing dead trees killed by 'ring-barking'. This partial clearing has impacted on age class distribution, stocking per unit area and hollow formation and availability. These maps indicate that clearing did not extend into existing Cpt. D and most of Cpt. C.

The fire breaks which sub-divide the Reserve into the existing four compartments were constructed in 1964.

3.2.6 Exotic plants and animals

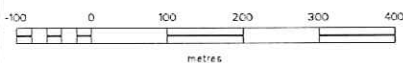
Rabbits and foxes are known to inhabit Cave Range NFR and may have modified the biological community during their long period of occupation. The probability is that some animal and plant species have been lost from this Reserve due to predation and competition by introduced pest species. The risk of local extinctions remains



 SCIENTIFIC REFERENCE AREAS
(RESERVED FROM PRESCRIBED BURNING)

Gross Area = 45.3 ha

**CAVE RANGE NATIVE FOREST RESERVE
PROPOSED PRESCRIBED BURNING**



with the continued presence of pest species.

Bridal Creeper a proclaimed pest plant for the whole of the State is growing in this Reserve occurring within the native forest and in the surrounding plantations, the potential for it to spread further through the Reserve is high unless control is undertaken as a high priority. It is interesting to note that Bridal Creeper appears in a photograph of the entrance to Blanche Cave taken in 1908. (Naracoorte Caves Conservation Park Draft Management Plan 1986).

Boneseed plants have been removed from this Reserve but need to be controlled in the plantation area to the north to prevent continuing invasion of the Native Forest Reserve.

3.3 Current Uses

3.3.1 Conservation

The area comprising Cave Range Native Forest Reserve was set aside for the conservation of flora and fauna in line with forest policy restated in June 1970, which read in part;

“To maintain, within the care, control and management of the Woods and Forests Department, such sufficient natural forest vegetation as may be needed to conserve the range of natural habitats of indigenous animals and plants thereon, for such of the protective, scientific, recreational and aesthetic needs of the community as it may be practicable to provide from time to time.”

Woods and Forests Department Annual Report 1969/1970.

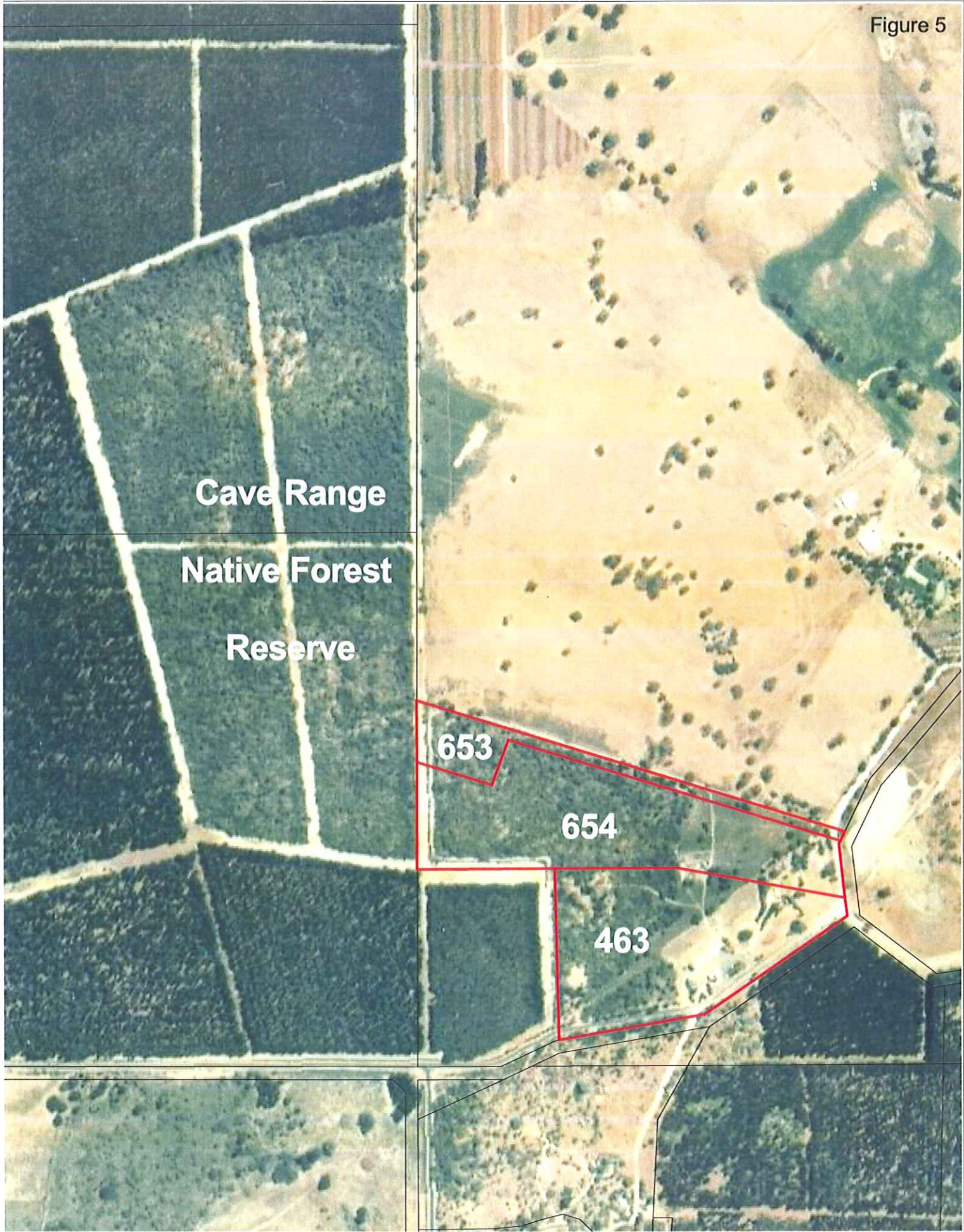
3.3.2 Community Use

The Cave Range NFR offers recreation opportunities such as bush walking and bird watching. Field naturalists and researchers are infrequent visitors to the Reserve.

3.4 Adjacent Land Use

Pine plantations managed by ForestrySA occupy the adjacent land to the north, west and south. Most of the land on the eastern boundary has recently been converted from grazing to vineyard. The balance to the east is occupied by native forest being part of the Naracoorte Caves National Park. (Figure 5)

This Management Plan has been prepared with due consideration of the native vegetation present in Sections 653,654 and 463, Hundred of Hynam. Relevant staff from ForestrySA and the Department for Environment and Heritage were involved, and will continue to be involved to ensure that operations proposed for the Cave Range Native Forest Reserve and for the adjacent part of the Naracoorte Caves National Park are complementary. Enhanced management outcomes include fire prevention, pest animal and plant control, fencing, prescribed fire and bio-diversity outcomes.



**Cave Range
Native Forest
Reserve**

653

654

463

100 0 100 200 Meters

Naracoorte Caves National Park
Secs 653, 654, 463
Hundred of Jessie



4. MANAGEMENT OBJECTIVES

4.1 Native Forest Management Philosophies

In managing native forests ForestrySA recognises the following factors:

- Native Forest Reserves contribute to conserving valuable remnant habitats for many species and provide in part a representation of land cover before clearance and other changes following European settlement.
- The size and relative isolation of many Native Forest Reserves increases the risk of species loss caused by fire, drought or disease, where isolation is a barrier to re-colonisation.
- Ecosystems are dynamic and will continue to change with time.
- In most instances biological data for decision making represents a single point in time.
- Decisions will generally be for management of ecosystems, communities and processes, as complete information on individual species or for all species will never be available.
- Due to the long-term changes in ecosystems, the availability of data showing changes over time is uncommon.
- The least disturbed sites will be protected and used as benchmark areas to monitor changes due to natural succession without fire, and may be used as reference sites for restoration of adjacent disturbed areas.
- The scale of post European settlement disturbance may influence the subsequent rates of change in the ecosystem. The larger and more perceptible the scale of disturbance eg. logging or bushfires, the easier it is to document impacts and to develop restoration programs.
- To maximise diversity, all areas will not be treated the same way at the same time.
- Maximising the conservation value of an area may involve consultation and co-operation with neighbouring landowners (private individuals, Local Government and other Government Agencies).

4.2 Long-term Management Objectives For Native Forest Reserves

ForestrySA is committed to the following broad management objectives for the native forests under its control for the benefit of the people of South Australia.

4.2.1 Conservation Management

- Manage for the long-term conservation of native plant and animal communities.
- Promote integrated planning and management where native forest areas adjoin but are under different ownership.
- Evaluate the options and desirability for species reintroduction programs.

4.2.2 Community Use

- Manage community use consistent with the primary conservation purpose of the Reserve.
- Promote understanding and awareness of the conservation values of the Reserve.

4.2.3 Protection

- Protect the Reserves to minimise impacts from human induced or natural events.
- Control pest plants and animals.

4.2.4 Rehabilitation

- Rehabilitate sites that have been severely degraded by human activity since European settlement.

SOUTH EAST REGION

CAVE RANGE NATIVE FOREST RESERVE

5 YEAR MANAGEMENT PROGRAM

5. FIVE YEAR MANAGEMENT PROGRAM

The Management actions proposed will be carried out in accordance with guidelines contained in the relevant procedural policies listed in Appendix 1.

5.1 Conservation Management

Goal - Manage Cave Range NFR for the long term conservation of native plant and animal communities.

5.1.1 Specific Objectives – Habitat Management

- Maintain diverse vegetation structure and composition.

Action

- Conduct the prescribed burning program as proposed in Figure 4 and Appendix III subject to approval from the Native Vegetation Council.

Priority
High

Timing
Ongoing

High

Ongoing

5.1.2 Specific Objective – Conservation Research

- Coordinate and facilitate projects to improve knowledge and understanding of the natural features and biological community.
- Collaborate with other agencies involved in ecological studies to ensure that information obtained is added to the Natural Resource Data section of this plan.

High

Ongoing

5.1.3 Specific Objective – Cooperative Management

- Consult with adjoining land owners
- Continue liaison with DEH to ensure complementary management of the Native Forest Reserve and the adjoining part of the Naracoorte Caves National Park.
- Advise neighbours of management operations which may affect them, eg. prescribed burning, pest plant and animal control, community use.

High

Ongoing

High

Ongoing

5.2 Community Use

Goals – Manage community use of the Reserves consistent with its primary conservation purpose

- Promote understanding and awareness of their conservation values.

- 5.2.1 Specific Objective – Reserve Identity
- Identify ownership of the Reserves, their names, status, area, and permitted activities.

Erect and maintain signs at appropriate locations	High	Ongoing
Consider nominating Cave Range NFR for entry to the register of the National Estate	Low	2001

5.2.2 Specific Objective – Access

- Prohibit unauthorised access to minimise damage to natural features.

Restrict public vehicle access to permitted activities	High	Ongoing
Erect and maintain a safety barrier with appropriate warning signage around the cave entrance for safety purposes	High	2001

5.2.3 Specific Objectives – Community Use

- Manage recreation activities to minimise impacts on natural features.

Ensure that permitted activities and approved public events are compatible with the conservation aims of the Reserve and comply with regulations under the relevant Acts for the protection of native flora and fauna.	High	Ongoing
--	------	---------

- Identify sensitive areas for exclusion from high impact recreation activities.

Inform recreation users that certain areas may be declared unavailable for high impact activities.	High	Ongoing
--	------	---------

- Identify activities that have the potential for deleterious impacts and implement appropriate monitoring programs.

Ensure that impacts of permitted activities are monitored and reported by recreation users or ForestrySA as required.	High	Ongoing
---	------	---------

5.3 Protection

Goal – Protect the Reserves to minimise impacts from human induced or natural events.

5.3.1 Specific Objective – Wild-fire Protection

- Minimise the area burnt in wild-fires using a range of wildfire prevention measures
- Regulate public access and use of the Reserve in the fire danger period. High Ongoing
- In the event of a wildfire, when necessary, take special measures (eg. fire break construction, and back burning) to minimise the area burnt. High Ongoing
- Maintain effective perimeter fire breaks and internal access tracks to facilitate wild fire control. High Ongoing

5.3.2 Specific Objective – Introduced Species

- Minimise impacts from introduced plants and animals
- Monitor feral animal populations and implement control operations as required. High Ongoing
- Remove large pine trees from northern edge of Cpt B. Med 2001
- Remove pine regeneration as required. High Ongoing
- Eradicate Bridal Creeper, Bone Seed, Tree Lucerne, Cootamundra Wattle and Coastal Wattle. High Ongoing

5.3.3 Specific Objective – Commercial Activity

- Regulate and monitor commercial activities in the Reserve and adjacent plantation areas to minimise damage to the biological community
- Ensure precautions are taken to prevent damage to the Reserve by commercial forestry activities such as herbicide spraying, fertiliser application, and logging operations. High Ongoing

- | | | |
|--|------|---------------|
| <ul style="list-style-type: none"> • Prohibit firewood removal unless as approved management operation. | High | Ongoing |
| <ul style="list-style-type: none"> • Prohibit Bee Husbandry on ForestrySA land which may impact on the flora in these Reserves. | High | Ongoing |
| <ul style="list-style-type: none"> • Regulate native species seed harvesting in accordance with ForestrySA policy. | High | Ongoing |
| <ul style="list-style-type: none"> • Negotiate with petroleum and mineral exploration licence holders to minimise impacts in this Reserve in accordance with the Petroleum Act,2000, and Mining Act, 1971, and regulations. | High | When required |

5.4 Rehabilitation

Goal – Rehabilitate sites that have been degraded by post-European settlement.

5.4.1 Specific Objective – Restoration

- Remove unnatural structures
- Liaise with DEH to remove the fence on the common boundary between Cave Range NFR and Naracoorte Caves National Park.

Med

2001

SOUTH EAST REGION

CAVE RANGE NATIVE FOREST RESERVE

6. NATURAL RESOURCE DATA

TABLE 1

PLANT SPECIES RECORDED FOR CAVE RANGE NATIVE FOREST RESERVE

<u>Botanical Name</u>	<u>Common name</u>	<u>Rating</u>	<u>Source</u>
*Acacia baileyana	Cootamundra wattle		1
*Acacia longifolia var. sophorae	Coastal wattle		1
Acacia mearnsii	Black wattle		1
Acacia melanoxylon	Blackwood		1
Acacia myrtifolia var. myrtifolia	Bitter leaved wattle		1
Acacia pycnantha	Golden wattle		1
Acaena echinata var.	Sheep burrs		1
Acaena novae-zelandiae	Biddy-biddy		1
Acrotriche serrulata	Honeypots		1
Allocasuarina muelleriana ssp. mulleriana	Slaty sheoak		2
Allocasuarina verticillata	Drooping sheoak		1
Amyema miquelii	Box mistletoe		2
Aphelia pumilio	Dwarf aphelia	N/R	2
*Arctotheca calendula	Capeweed		1
Arthropodium strictum	Common vanilla-lily		2
Astroloma conostephioides	Flame heath		1
Astroloma humifusum	Native cranberry		1
Banksia marginata	Silver banksia		1
Billardiera cymosa	Sweet apple-berry		2
Bossiaea cinerea	Showy bossiaea	U/U	2
Brachycome perpusilla	Tiny daisy		2
Brachyloma ciliatum	Fringed brachyloma		1
Bursaria spinosa	Sweet bursaria		1
Caesia caliantha	Blue grass-lily		2
Caladenia carnea	Pink fingers		1
Caladenia latifolia	Pink caladenia		2
Calandrinia granulifera	Pygmy purslane	N/Q	2
Calochilus robertsonii	Common beard-orchid		1
Calytrix tetragona	Common Fringe-myrtle		2
Cassytha pubescens	Downy dodder-laurel		3
*Chamaecytisus palmensis	Tree lucerne		1
Chamaescilla corymbosa var. corymbosa	Blue squill		2
Clematis microphylla	Old mans beard		1
Comesperma volubile	Love creeper		1
Convolvulus aff. erubescens	Australian bindweed		2
Correa reflexa var. reflexa	Common correa		1
Corybas incurvus	Slaty helmet-orchid	U/U	2
Corybas unguiculatus	Small helmet-orchid	R/R	3
Crassula decumbens var. decumbens	Spreading crassula		2
Cynoglossum australe	Australian hounds tongue		1
Cynoglossum suaveolens	Sweet hound's-tongue	Q/Q	3
Cyrtostylis reniformis	Small gnat orchid		2
Cyrtostylis robusta	Robust gnat-orchid		2

<i>Danthonia geniculata</i>	Knead wallaby – grass	2
<i>Daucus glochidiatus</i>	Native carrot	1
<i>Dianbella revoluta</i> var. <i>revoluta</i>	Black-anther flax-lily	1
<i>Dichelachne micrantha</i>	Short-hair plume-grass	Q/V 3
<i>Dichondra repens</i>	Kidney weed	1
<i>Dillwynia sericea</i>	Showy parrot – pea	2
<i>Dodonaea viscosa</i> ssp. <i>spatulata</i>	Sticky hop – bush	1
<i>Drosera glanduligeri</i>	Scarlet sundew	2
<i>Drosera macrantha</i> ssp. <i>planchonii</i>	Climbing sundew	1
<i>Drosera peltata</i>	Pale sundew	2
<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented sundew	1
* <i>Ehrharta calycina</i>	Perennial veldt grass	2
<i>Epacris impressa</i>	Common heath	1
<i>Eucalyptus arenacea</i>	Brown stringy-bark	1
<i>Eucalyptus leucoxylon</i> ssp. <i>leucoxylon</i> (ssp. <i>pruinosa</i> ?)	S.A. Blue gum	1
<i>Eucalyptus viminalis</i> ssp. <i>cygnetensis</i>	Manna gum	1
<i>Exocarpos cupressiformis</i>	Native cherry	1
<i>Geranium potentilloides</i> var. <i>potentilloides</i>	Downy geranium	1
<i>Glossodia major</i>	Purple cockatoo	2
<i>Goodenia geniculata</i>	Bent goodenia	3
<i>Goodia medicaginea</i>	Golden-tip	1
<i>Helichrysum scorpioides</i>	Button everlasting	3
<i>Hibbertia riparia</i>	Guinea - flower	2
<i>Hibbertia sericea</i> var. <i>scabrifolia</i>	Rough-leaf guinea-flower	2
<i>Hibbertia sericea</i> var. <i>sericea</i>	Silky guinea-flower	1
<i>Hibbertia</i> sp.	Guinea-flower	3
<i>Hydrocotyle callicarpa</i>	Tiny pennywort	2
<i>Hydrocotyle laxiflora</i>	Stinking penny-wort	2
<i>Hypericum gramineum</i>	Small St. John's wort	3
* <i>Hypochoeris radicata</i>	Deep-rooted catsear	1
<i>Hypolaena fastigiata</i>	Tassel rope-rush	1
<i>Hypoxis glabella</i> var. <i>glabella</i>	Tiny star	2
<i>Isolepis nodosa</i>	Knobby club – rush	1
<i>Isopogon ceratophyllus</i>	Horny cone bush	1
<i>Kennedia prostrata</i>	Scarlet runner	1
<i>Kunzea pomifera</i>	Muntries	1
<i>Lagenifera huegelii</i>	Coarse bottle-daisy	1
<i>Lepidosperma carphoides</i>	Black rapier-sedge	1
<i>Lepidosperma concavum</i>	Sand-hill sword-sedge	1
<i>Leporella fimbriata</i>	Fringed hare-orchid	3
<i>Leptospermum myrsinoides</i>	Heath tea – tree	1
<i>Leucopogon ericoides</i>	Pink bearded – heath	1
<i>Leucopogon virgatus</i>	Lance bearded – heath	1
<i>Lomandra nana</i>	Pale mat – rush	1

Menkea sp.	Fairy spectacles	?	2
Microlaena stipoides var. stipoides	Weeping rice-grass		1
Microseris lanceolata	Yam daisy		1
Microtis unifolia complex	Common onion-orchid		2
Millotia muelleri	Common bow-flower		2
Millotia tenuifolia var.	Soft millotia		2
Muehlenbeckia adpressa	Climbing lignum		1
Myosotis australis	Austral forget-me-not		2
*Myrsiphyllum asparagoides	Bridle creeper		1
Ophioglossum lusitanicum	Austral adder's tongue	N/U	2
Oxalis perennans	Oxalis		1
Pelargonium rodneyanum	Magenta pelargonium		2
Pimelea humilis	Low riceflower		2
*Pinus radiata	Radiata pine		1
Plantago gaudichaudi	Narrow-leaf plantain		3
Poa rodwayi	Velvet tussock-grass	R/R	3
Poranthera microphylla	Small poranthera		2
Pteris tremula	Tender brake	R/R	1
Pteridium esculentum	Bracken		1
Pterostylis pedunculata	Maroon-hood		2
Ptilotus macrocephalus	Feather-heads	U/U	2
Pultenaea prostrata	Silky bush-pea		2
Pyrorchis nigricans	Black fire-orchid		3
*Scabiosa atropurpurea	Purple pincushion		2
Schoenus apogon	Common bog-rush		1
Senecio glomeratus	Swamp groundsel		2
Senecio picridioides	Purple-leaf groundsel		1
Senecio quadridentatus	Cotton groundsel		2
Senecio tenuifloris	Woodland groundsel		3
Stipa pubinodis	Long-shaft spear-grass	U/R	2
Stylidium graminifolium	Grass trigger-plant		1
Tetratheca ciliata	Pink – bells		1
Thelymitra rubra	Salmon sun-orchid		3
Thelymitra sp.	Sun-orchid		2
Thomasia petalocalyx	Paper – flower		1
Thysanotus patersonii	Twining fringe – lily		2
Vittadinia gracilis	Woolly New Holland daisy		3
Wahlenbergia multicaulis	Tadgell's bluebell		3
Wahlenbergia stricta ssp. stricta	Tall bluebell		2
Wurmbea dioica ssp. dioica	Early star-lily		1
Xanthorrhoea caespitosa	Sand-heath yacca		1

Interim conservation significance codes are shown where warranted as a state and region rating in the format SA/SE.

Code E – Endangered
V – Vulnerable
T – Threatened, ie. either Vulnerable or Endangered
K – Uncertain, but likely to be Rare or Threatened
R – Rare
? – Not rated, but of possible significance
U – Uncommon
Q – Not yet assessed but flagged as being of possible significance
N – Common

2000 Update of Conservation Status Codes Report by Lang, P.J. and Kraehenbuehl, D. N.
– Department for Environment and Heritage.

* = Introduced

1. ForestrySA Survey, 2000 (Barrie Grigg).
2. Kath Alcock September 2000.
3. Naracoorte/Lucindale Field Naturalists 18.6.2001.

TABLE 2**BIRD SPECIES RECORDED FOR
CAVE RANGE NATIVE FOREST RESERVE**

	<u>Scientific Name</u>	<u>Common Name</u>	<u>Conservation Status</u>
1	<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill	
3	<i>Acanthiza lineata</i>	Striated Thornbill	
1	<i>Acanthiza pusilla</i>	Brown Thornbill	
3	<i>Acanthiza reguloides</i>	Buff-rumped Thornbill	
1	<i>Acanthorhynchus tenuirostris</i>	Eastern Spinebill	
3	<i>Accipiter fasciatus</i>	Brown Goshawk	
1	<i>Anas superciliosa</i>	Pacific Black Duck	
1	<i>Anthochaera carunculata</i>	Red Wattlebird	
3	<i>Anthochaera chrysoptera</i>	Little Wattlebird	
1	<i>Artamus cyanopterus</i>	Dusky Woodswallow	
3	<i>Artamus superciliosus</i>	White-browed Woodswallow	
3	<i>Aquila audax</i>	Wedge-tailed Eagle	
3	<i>Cacatua galerita</i>	Sulphur-crested Cockatoo	
1	<i>Cacatua roseicapilla</i>	Galah	
1	<i>Cacatua tenuirostris</i>	Long-billed Corella	
1	<i>Cacomantis flabelliformis</i>	Fan-tailed Cuckoo	
2	<i>Calyptorhynchus banksii</i>	Red-tailed Black-Cockatoo	E
3	<i>Calyptorhynchus funereus</i>	Yellow-tailed Black-Cockatoo	V
1 *	<i>Carduelis carduelis</i>	European Goldfinch	
3	<i>Cecropis nigricans</i>	Tree Martin	
1	<i>Chrysococcyx basalis</i>	Horsefield's Bronze-Cuckoo	
3	<i>Chrysococcyx lucidus</i>	Shining Bronze-Cuckoo	R
3	<i>Climacteris picumnus</i>	Brown Treecreeper	
1	<i>Colluricincla harmonica</i>	Grey Shrike-thrush	
3	<i>Coracina novaehollandiae</i>	Black-faced Cuckoo-shrike	
1	<i>Corcorax melanorhamphos</i>	White-winged Chough	
1	<i>Cormobates leucophaeus</i>	White-throated Treecreeper	
3	<i>Corvus coronoides</i>	Australian Raven	
1	<i>Corvus mellori</i>	Little Raven	
3	<i>Corvus tasmanicus</i>	Forest Raven	
2	<i>Dacelo novaeguineae</i>	Laughing Kookaburra	
1	<i>Daphoenositta chrysoptera</i>	Varied Sittella	
1	<i>Dicaeum hirundinaceum</i>	Mistletoebird	
1	<i>Eopsaltria australis</i>	Eastern Yellow Robin	
3	<i>Epthianura albifrons</i>	White-fronted Chat	
3	<i>Falco berigora</i>	Brown Falcon	
3	<i>Falcunculus frontatus</i>	Crested Shrike-tit	V

3	<i>Geopelia striata</i>	Peaceful Dove	
3	<i>Gerygone olivacea</i>	White-throated Gerygone	R
3	<i>Glossopsitta concinna</i>	Musk Lorikeet	
3	<i>Glossopsitta porphyrocephala</i>	Purple-crowned Lorikeet	
3	<i>Grallina cyanoleuca</i>	Magpie Lark	
1	<i>Gymnorhina tibicen</i>	Australian Magpie	
3	<i>Haliastur sphenurus</i>	Whistling Kite	
3	<i>Hieraaetus morphnoides</i>	Little Eagle	
1	<i>Hirundo neoxena</i>	Welcome Swallow	
3	<i>Hylacola pyrrhopygia</i>	Chestnut-rumped Hylacola	V
1	<i>Lichenostomus chrysops</i>	Yellow-faced Honeyeater	
3	<i>Lichenostomus penicillatus</i>	White-plumed Honeyeater	
1	<i>Malurus cyaneus</i>	Superb Fairy-Wren	
3	<i>Manorina melanocephala</i>	Noisy Miner	
3	<i>Merops ornatus</i>	Rainbow Bee-eater	
3	<i>Melanodryas cucullata</i>	Hooded Robin	
3	<i>Melithreptus brevirostris</i>	Brown-headed Honeyeater	
3	<i>Melithreptus gularis</i>	Black-chinned Honeyeater	V
2	<i>Melithreptus lunatus</i>	White-naped Honeyeater	
3	<i>Microeca fascinans</i>	Jacky Winter	
3	<i>Myiagra cyanoleuca</i>	Satin Flycatcher	R
3	<i>Myiagra inquieta</i>	Restless Flycatcher	
3	<i>Neochmia temporalis</i>	Red-browed Finch	
1	<i>Pachycephala pectoralis</i>	Golden Whistler	
1	<i>Pachycephala rufiventris</i>	Rufous Whistler	
1	<i>Pardalotus punctatus</i>	Spotted Pardalote	
1	<i>Pardalotus striatus</i>	Striated Pardalote	
1	<i>Petroica multicolor</i>	Scarlet Robin	
1	<i>Phaps chalcoptera</i>	Common Bronzewing	
1	<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater	
1	<i>Platycercus elegans</i>	Crimson Rosella	
1	<i>Platycercus eximius</i>	Eastern Rosella	
3	<i>Podargus strigoides</i>	Tawny Frogmouth	
3	<i>Pomatostomus superciliosus</i>	White-browed Babbler	
3	<i>Psephotus haematonotus</i>	Red-rumped Parrot	
1	<i>Rhipidura fuliginosa</i>	Grey Fantail	
2	<i>Rhipidura leucophrys</i>	Willie Wagtail	
1	<i>Sericornis frontalis</i>	White-browed Scrubwren	
3	<i>Smicronis brevirostris</i>	Weebill	
1	<i>Strepera versicolour</i>	Grey Currawong	

3	* <i>Sturnus vulgaris</i>	Common Starling
1	<i>Tadorna tadornoides</i>	Australian Shelduck
3	<i>Todiramphus sanctus</i>	Sacred Kingfisher
3	<i>Trichoglossus haematodus</i>	Rainbow Lorikeet
1	* <i>Turdus merula</i>	Common Blackbird
3	<i>Tyto alba</i>	Barn Owl
1	<i>Zosterops lateralis</i>	Silvereye

Status of species in South Australia under the *National parks and Wildlife Act 1972 – Schedules 7, 8 and 9* are shown as :

E = Endangered In danger of extinction if the causal factors continue to operate.

V = Vulnerable Likely to move into the 'Endangered' category in the near future
If the causal factors continue to operate.

R = Rare Occurs in small populations that are not at present 'Endangered' or
'Vulnerable' but are at some risk due to their rarity (i.e. low numbers).

Surveys by :

1. Bob Green and Bryan Haywood September 2000.
2. Barrie Grigg September 2000.
3. Naracoorte Field Naturalists Club and H. P. Possingham (undated) for the adjoining Naracoorte Caves Conservation Park.

TABLE 3**MAMMAL SPECIES RECORDED FOR CAVE RANGE NATIVE FOREST RESERVE**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Conservation Significance</u>
Macropus fuliginosus	Western Grey Kangaroo	C
Macropus rufogriseus	Red-necked Wallaby	R
*Oryctolagus cuniculus	Rabbit	-
Petaurus breviceps	Sugar Glider	R
Tachyglossus aculeatus	Short-beaked Echidna	C
Trichosurus vulpecula	Common Brushtail	C
*Vulpes vulpes	Fox	-

* = Introduction

Status of species in South Australia under the National Parks and Wildlife Act 1972 – Schedules 7, 8 and 9 are shown as:

R = Rare

C = Common

7. APPENDICES

APPENDIX I

FORESTRYSA – Community Forestry – Legislation and Policy

The management actions proposed in Section 5 of this plan are supported by Regulations under the Acts, and guidelines from the Policies in the following list.

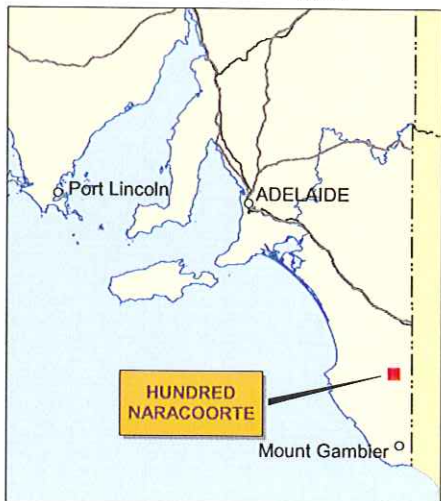
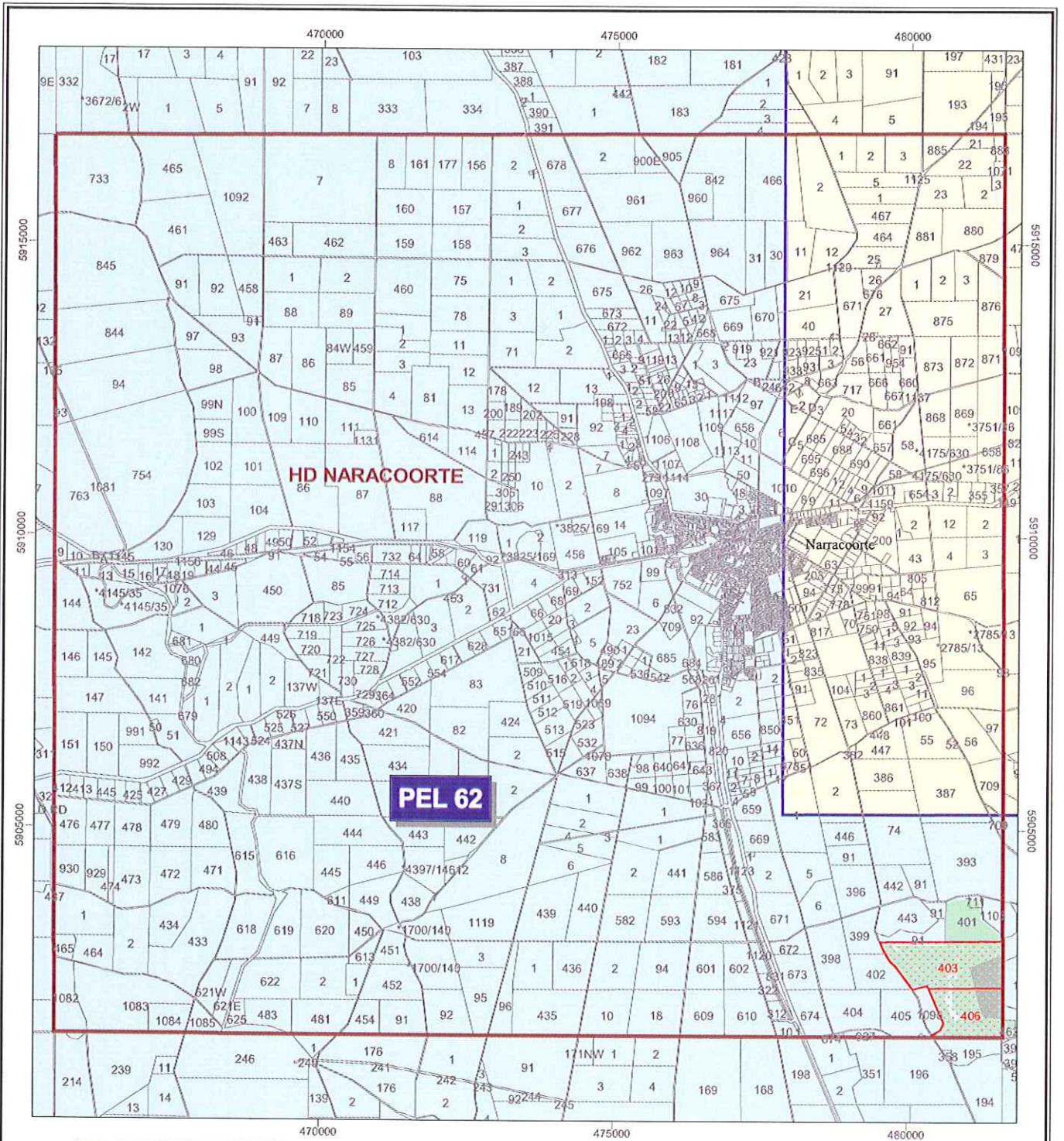
Forestry Act 1950

National Parks and Wildlife Act 1972

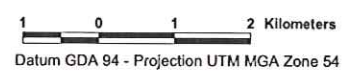
Country Fires Act 1989

Native Vegetation Act 1991

ForestrySA	Policy Name	Policy Number
Corporate	- Community Use	CF – C1
	- Law enforcement	CF – C4
	- Information Signs	CF – C5
Recreation	- Day Visitors	CF – R2
	- Camping	CF – R4
	- Orienteering & Rogaining	CF – R6
	- Pets in the Forest	CF – R7
	- Horse riding in SE Forests	CF – R9
	- Bicycling	CF – R10
	- Public Vehicle Access	CF – R11
	- Policy for Motor Sport	CF – R12
	- Cave Exploration	CF – R14
	- Policy on Military Exercises	CF – R15
- Public Events Policy	CF – R16	
Native Forest Management	- Native Forest Management	CF – NF1- Pending
	- Prescribed Burning	CF – NF2
	- Seed collection	CF – NF4 – Pending



- Selected section
- Native vegetation
- Pine plantation
- Petroleum Exploration Licence (PEL)



**HUNDRED OF NARACOORTE
Topography and Petroleum Tenements**

APPENDIX III**PRESCRIBED BURNING SCHEDULE FOR CAVE RANGE NATIVE FOREST RESERVE**

- Compartment B 2005 – Autumn, to meet policy objectives and to remove pine debris and probable pine regeneration from mature pine trees proposed for harvesting in northern part of the compartment.
- Compartment C 2001 – Spring, to meet policy objectives.

REFERENCES

- Boardman, R (1992) Unpublished report. ForestrySA
- Croft, T., Carruthers, S., Possingham, H. and Inns, B. (1999). Biodiversity Plan for the South East of South Australia. Department for Environment, Heritage and Aboriginal Affairs.
- Murdoch, J., and Parker, H. (1963) History of Naracoorte. Naracoorte : Naracoorte Chamber of Commerce.
- National Parks and Wildlife Service: A Division of the Department of Environment and Planning (1986) Draft Management Plan – Naracoorte Caves Conservation Park – South East, South Australia.
- Tindale, N B (1974) Aboriginal Tribes of Australia. Their Terrain, Environment Controls, Distribution, Limits, and Proper Names. (Australian National University Press, Canberra.)
- Tyler, M J, Twidale, C R, Ling, J K, and Holmes, J W (1983) Eds. Natural History of the South East. (Roy. Soc. S.A. (Inc) 237pp).

ACKNOWLEDGEMENTS

This plan has been prepared by ForestrySA staff. Principal author B.R. Grigg, with contributions from B. C. Gepp, R. Boardman, L. Kettle and L. Osborne.

Comments from Allan Kay and Hugh Crawford, land owner neighbours, have made an important contribution to the historical content of this plan.