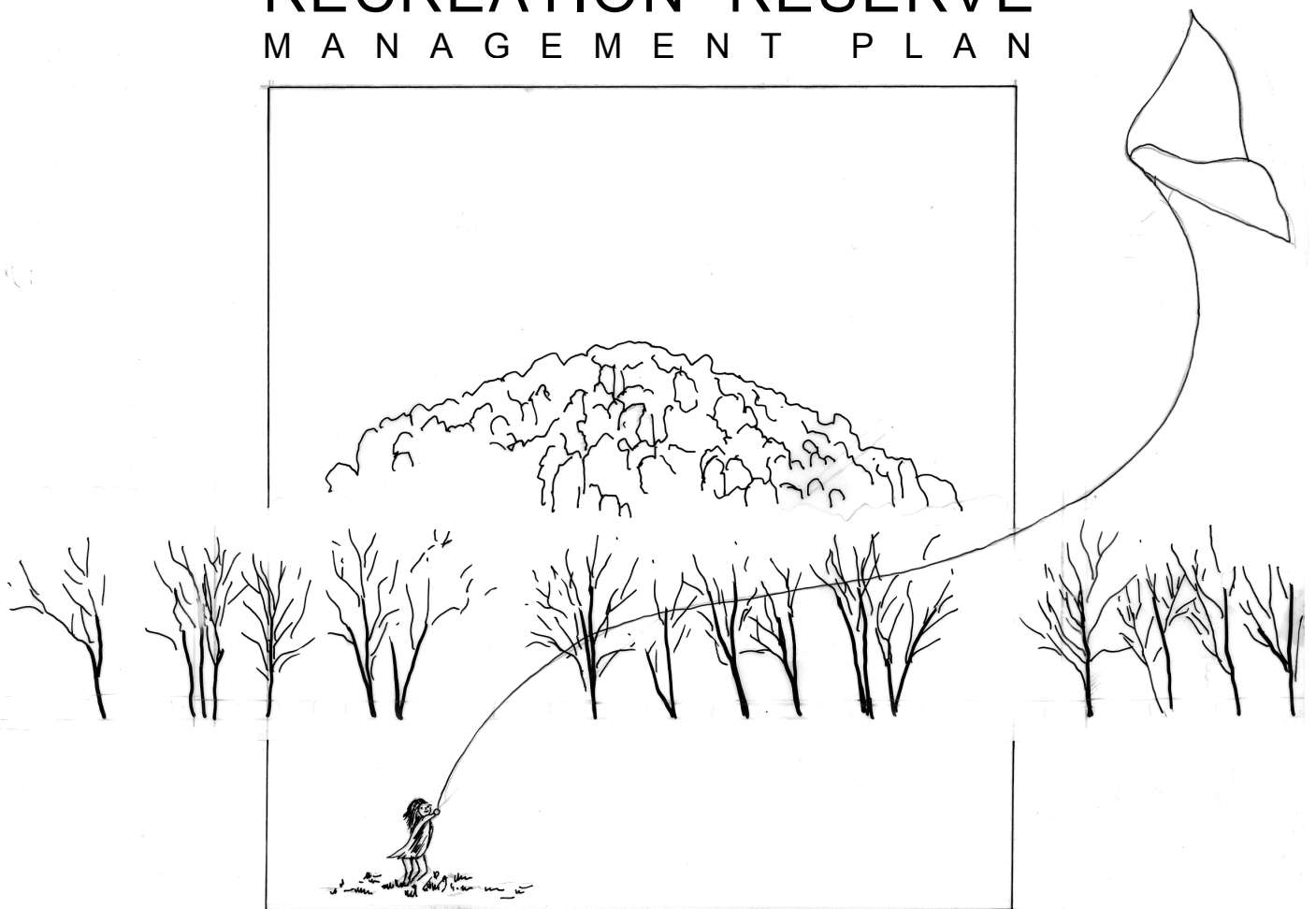


H A N G I N G
R O C K
RECREATION RESERVE
M A N A G E M E N T P L A N



A Report to the Committee
of Management by the

LODER & BAYLY
Consulting Group

September 1993

CONTENTS

	Page
Table of Contents	i
List of Figures	ii
1. INTRODUCTION	
2. LOCATION & CONTEXT	3
3. PHYSICAL DESCRIPTION	5
4. HISTORY	10
5. SITE ANALYSIS	12
6. OPPORTUNITIES AND CONSTRAINTS	15
7. VISITOR SURVEY	20
8. LANDSCAPE MANAGEMENT UNITS	25
9. ISSUES IDENTIFICATION	31
10. SITE ACCESS & CIRCULATION	34
11. REVENUE COLLECTION AND ACCESS	41
12. MANAGEMENT PLAN RECOMMENDATIONS	43
13. STAGING OF WORKS/PRIORITY OF ACTIONS	61
14. STANDARD DETAILS	63
APPENDIX	
FLORA AND FAUNA	
REVENUE COLLECTION AND ACCESS	
WEED CONTROL IN NATURAL BUSHLAND AREAS	
CURRENT RESERVE REGULATIONS	
CURRENT RESERVE FIRE MANAGEMENT PLAN	
POSSIBLE RECREATIONAL/OPPORTUNITIES	
VISITOR SURVEY FORM	
REFERENCES	

LIST OF FIGURES

	Page
SITE LOCATION	2
REGIONAL CONTEXT	4
VEGETATION	8
VISUAL ANALYSIS	14
SITE OPPORTUNITIES	18
SITE ISSUES AND CONSTRAINTS	19
LANDSCAPE MANAGEMENT UNITS	29
EXISTING CIRCULATION AND PARKING	33
MAJOR EVENTS CARPARKING	34
ACCESS AND CIRCULATION	35
ROAD CLOSURE BEHIND RACE ENCLOSURE	36
SW. PICNIC AREA	37
EASTERN PICNIC AREA	38
RACE DAY VIEWING	39
ACCESS TO ROCK	40
MASTERPLAN	44
STANDARD DETAILS	from 63 onwards

1. INTRODUCTION

The Loder & Bayly Consulting Group were commissioned by the Hanging Rock Recreation Reserve Committee of Management to prepare a Landscape Management Plan for the Hanging Rock Recreation Reserve.

The timing of this study is opportune, as it co-incides with the realization of a long term goal of the Committee of Management to purchase the adjacent property of 22 hectares to the east of the Reserve and incorporate this land into the existing Hanging Rock Recreation Reserve. The new land acquisition is a real asset, as it facilitates the easier implementation of the main study goal as recommended by the Land Conservation Council in its review of District 1 of the Melbourne Area:-

" That the area continue to be used for the purposes approved by Government following publication of the final recommendation for the Melbourne area in 1977.

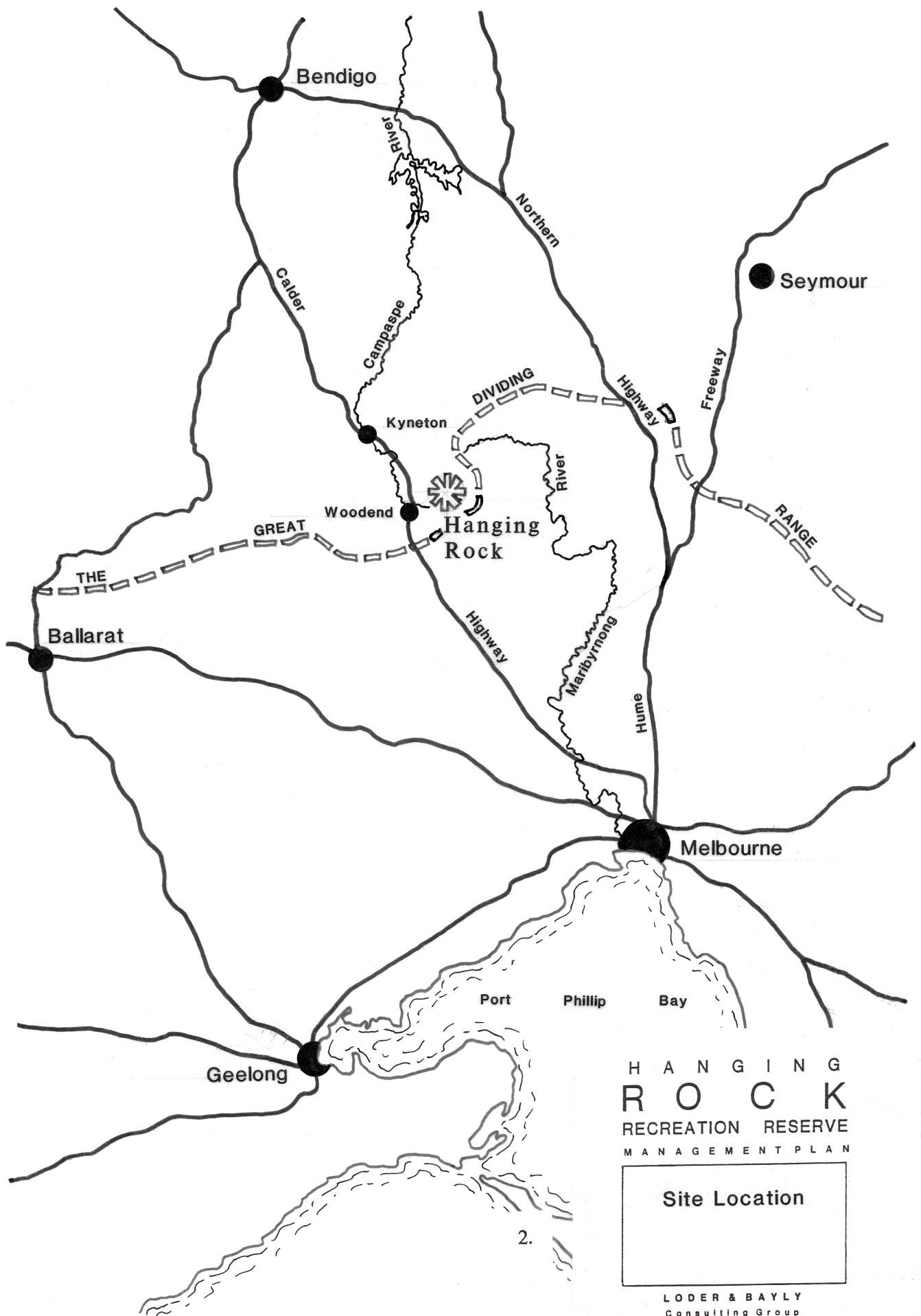
Notes:

1. The existing recreation reserve, Parish of Newham, encompasses Hanging Rock. The significant geological, scenic, historical and floristic values of Hanging Rock should be protected. "

It does this by allowing greater scopes for the dispersal of activities which are currently concentrated close to the base of the rock, exerting pressure on the values requiring protection.

In addition to the protection of natural values, major historical values to be preserved are the bi-annual picnic race meetings which have been run for over 100 years on the site and are of significant tourism and cultural value.

The study brief aims to achieve a balance between natural and cultural values so that both are enhanced by implementation of the final management plan which will be developed following a public review phase.



2. LOCATION AND CONTEXT

Hanging Rock Recreation Reserve is located in a rural farmland setting approximately 80km N.N.W of Melbourne, generally one hour drive. It is 7km E.N.E. of Woodend, accessed by the Calder Highway and roughly half way between Melbourne and Bendigo.

To the south of the Rock, the Macedon Ranges run East to West, with their most prominent points, the Camel's Hump and Mt. Macedon easily seen from the Rock Reserve. To the north-east the Cobaw Range runs parallel with the Macedon Ranges, providing a forested background to the rural areas surrounding the Rock.

The surrounding area is mainly cleared, undulating grazing land with some cropping. Being reasonably close to Melbourne, the area has seen an increase in commuter residents and the resultant growth in hobby farming and small rural residential properties.

The Victorian Tourism Commission and the local tourist authorities heavily promote the area for day tourists, in conjunction with Mt. Macedon, (although this has been far less of an emphasis after the Ash Wednesday bushfires) Gisborne, Woodend, Kyneton etc. The growth of a high quality wine industry is likely to attract many more tourists to the district.



H A N G I N G R O C K RECREATION RESERVE MANAGEMENT PLAN

Regional Context

LODER & BAYLY
Consulting Group

3. PHYSICAL DESCRIPTION

3.1 THE SITE

The Hanging Rock Recreation Reserve is now comprised of two distinct areas. The first area, the original reserve, is 66 hectares in area and is comprised of the Rock, racecourse and picnic areas. The second area of 22ha is the newly acquired property to the east which is almost entirely treeless, having been used for grazing purposes.

The Rock and its surrounding bushland is located near the north-western boundaries of the reserve, the rock itself covering approx. 9 hectares and its summit of 711 m A.H.D. jutting 100 metres above the surrounding plain.

Five mile creek, a tributary of the Campaspe River, flows from east to west through the southern portion of the site, filling 3 dams in the process. Little more than an open channel drain in its central stretch, the creek stops flowing in the drier months. A water reserve at the point where the creek enters the property from the east has more of an overgrown/semi-natural feel.

The racetrack, located in the north-eastern corner close to and parallel to the eastern boundary, takes up a very large proportion of the reserve.

Detail about specific site characteristics follows.

3.2 SOILS AND GEOLOGY

Hanging Rock is a 100 metre high volcanic mamelon lying on the time boundary between the older volcanics and a newer series. It is part of an area with affinities with other volcanic provinces in N.S.W. and Queensland and it has resulted from a process of Lava differentiation that is restricted to two small areas of Victoria, those two being Gisbourne/Woodend and Daylesford.

On eruption approximately 6 million years ago, small volumes of silica rich soda-trachyte lava were produced. Hanging Rock is the only recorded location of this rock in Australia. The Lava was of a higher viscosity than most, and the greater resistance to flow caused a dome to form around the point of eruption, on cooling producing a steep

sided, fractured mass which has been exaggerated by weathering to produce the rock as we know it today.

During the initial weathering process, a solution rose to the surface to form an erosion resistant crust. Where the crust has been disturbed, the erosion process has been accelerated. As a generalisation sods are deepest where the vegetation is most substantial, these areas being the central area forest and around the base of the Rock.

The local soils are moderately fertile with those derived from the soda-trachyte being less so with lower levels of Phosphorus and Calcium.

3.3 CLIMATE

The climate is fairly typical of inland cool temperate areas with cool wet winters and warm/hot dry summers. Climate data for Kyneton, 14 kms to the north-west follows:

RAINFALL

Mean monthly	-	Highest	-	Jun 90mm
		Lowest	-	Jan 38mm

TEMPERATURE

Mean max	-	Lowest	-	Jul 10°C
	-	Highest	-	Jan 26°C
Mean min	-	Lowest	-	Jul 20°C
	-	Highest	-	Feb 10.5°C

3.4 VEGETATION

The vegetation of the Hanging Rock Reserve constitutes one of the few remnant pockets on the plain between the Macedon and Cobaw Ranges and it is of great importance as it forms part of a movement corridor for indigenous fauna.

The least disturbed parts of the site are the foot slopes to the Rock, and the native grasslands inside the racecourse. The grassland is in good condition and is floristically the most important plant community in the reserve. The next least disturbed area are the boundaries to the north-east and south-west. The remainder of the site is heavily disturbed, particularly the area each side of the entry drive and the

racecourse. The newly acquired property is an almost completely treeless field of long pasture grass.

The Rock vegetation is typified by scattered and slightly stunted trees and shrubs growing between the boulders, with the central forest area with its deeper soils and protected aspect being an exception to this.

The upper slopes of the Rock are highly exposed, dry and the soils shallow. Species found here include *Eucalyptus pauciflora*, and *Eucalyptus rubida*, *Exocarpus cupressiformis* and *Acacia dealbata*.

The mid slopes and central forest area with their deeper sods and increased run-off retention are able to promote a greater variety and density of vegetation. Species found here include *Eucalyptus rubida*, *E. Radiata*, *Acacia dealbata*, *A. melanoxylon*, *Exocarpus cupressiformis* and *Pomaderris aspera*. The upper limit of bracken, *Pteridium esculentum* is found here.

The footslopes and flats around the rock are more fertile, have a greater depth of soil and higher and more consistent moisture levels. The density of vegetation is greater on the south-side of the rock than the north side due to it being shaded and therefore moister, although the vegetation variety is greater on the north side where more annual species are encountered especially in spring and summer. Typical species include: *Eucalyptus radiata*, *E. rubida*, *E. ovata*, *E. obliqua*, *E. viminalis*, *Acacia dealbata*, *A. melanoxylon*, *A. mearnsii*, *Pomaderris aspera*, and *Cassinia s.p.* Bracken is at its densest around the base of the rock and on the lower slopes.

The grassland to the north of the centre of the race track is an example of remnant native grassland that would have existed in the area prior to European settlement. Major species present include *Themeda triandra* and *Danthonia sp.* This grassland is worthy of protection due to its relative scarcity and is considered to be of national significance.

The main southern entry drive is lined by an avenue of exotic tree species – *Cupressus macrocarpa* "lambertiana" aurea and *Populus canescens*.

The main carpark has a variety of *Eucalyptus* species planted in rows between the bays, some of these being: *Eucalyptus globulus*, *E. cinerea*, *Acacia bailyana*.

Recent plantings in the area of the creek flat have tended to include a greater use of indigenous species.

A list of flora is included in the appendix.

1. The Rock

E. rubida
E. radiata
E. pauciflora
A. melanoxylon

2. Northern Slopes

E. viminalis
E. rubida
E. radiata
E. ovata
A. dealbata
A. melanoxylon
Excoecaria agallochiformis

3. Southern Slopes

E. viminalis
E. rubida
E. radiata
A. melanoxylon
Pomadouris aspera
Pteridium esculentum

4. Creek Flats

E. radiata
E. rubida
E. ovata
A. dealbata
A. nearnsii
A. melanoxylon

5. Northern Flats

E. radiata
E. rubida
A. dealbata
A. nearnsii
A. melanoxylon

6. Racetrack Grassland

E. radiata
E. rubida
A. dealbata
A. melanoxylon
Themeda triandra

7. Race endosaur

Quercus robur
Ulmus procera
Ulmus van heutii

8. Main Carpark

Eucalyptus sp.
Salix fragilis
Populus canescens

9. Entry Driveway & Carpark

Cupressus lambertiana aurea
Eucalyptus sp.

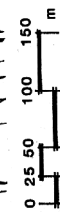
HANGING
ROCK
RECREATION RESERVE
MANAGEMENT PLAN

Vegetation

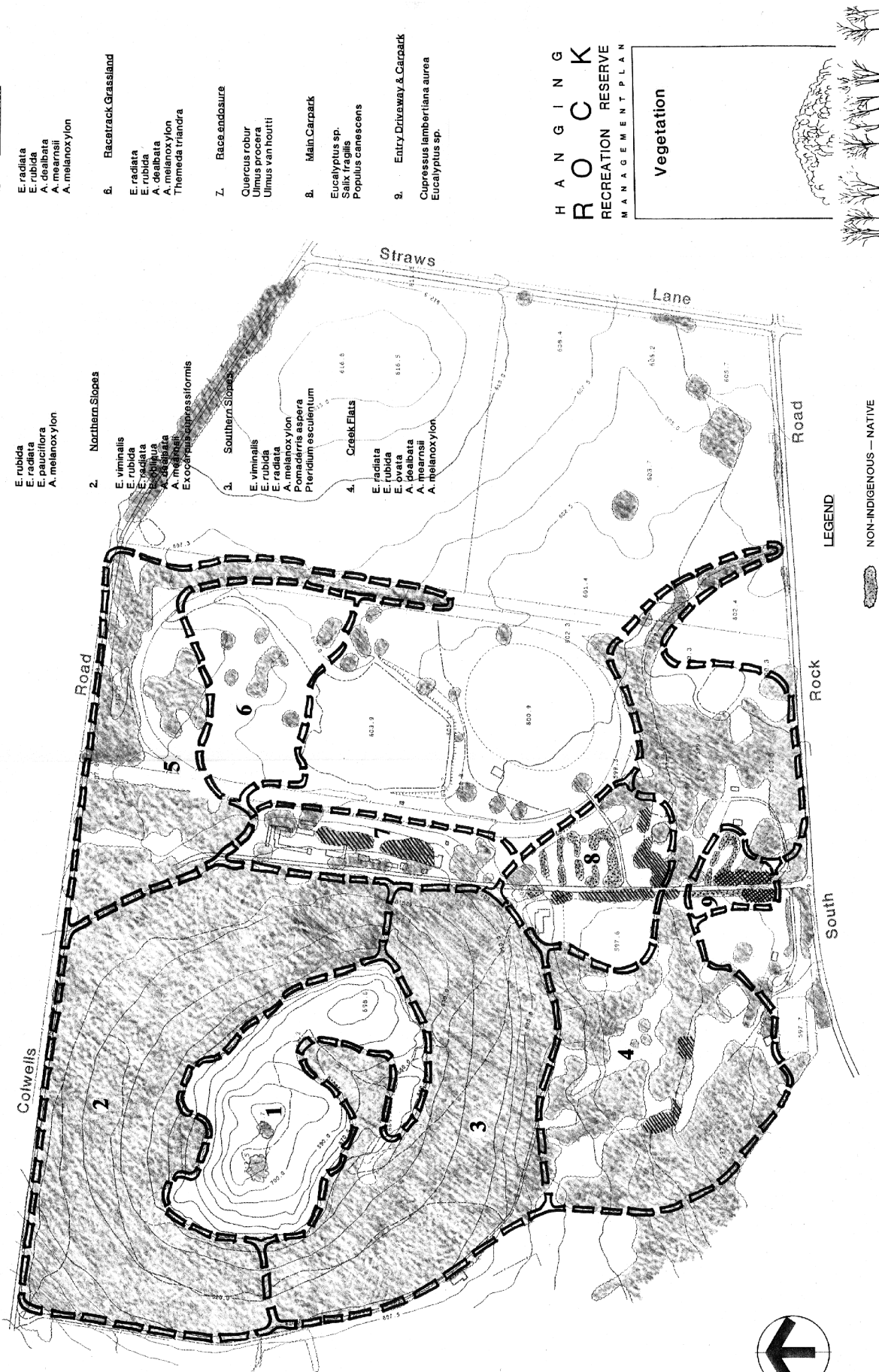
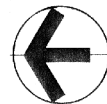
LEGEND

- NON-INDIGENOUS — NATIVE
- INDIGENOUS — NATIVE
- DECIDUOUS — EXOTIC
- EVERGREEN — EXOTIC

8.



LODER & BAYLY
Consulting Group



3.5 FAUNA

For such a relatively small area, and one that is subject to such visitor pressure, the Reserve is a well endowed with wildlife. The most notable, and the one most sought by tourists, is the Koala, a dozen of which live in the more heavily vegetated and undisturbed areas. Released Wallabys used to live within the reserve but these were attacked and killed by dogs prior to the current protective fence being erected.

The reserve is valuable as a wildlife corridor, as it forms part of a link between the Macedon and Cobaw Ranges and is a refuge for species such as the Black Wallaby. It is also important as a transit area for migratory birds.

The dam in the centre of the racecourse and the nearby mature and dead trees form an important bird habitat area.

A list of fauna present in the reserve is included in the appendix.

4. HISTORY

ABORIGINAL

Hanging Rock is located on what was the north western boundary of the Wurundjeri tribal area. It does not appear to have had any spiritual significance other than it being a "special" place for the Wurundjeri, but any future development should be undertaken in consultation with the Victorian Archaeological Survey.

Archaeological surveys, particularly the discovery of Keilor Man, date an established human presence in the approximate area 36,000 years ago.

EUROPEAN

In 1836 Major Thomas Livingston Mitchell on a journey that would lead to the opening up of the Port Phillip District gave the Rock its official name, Mount Diogenes, in keeping with historical Greek names he gave other areas in the district.

In 1837, settler Edward Dryden established a squatters run in the area and for a while "the rock" was named Dryden's Rock after him. 1857 saw a high demand for land in the area with the larger squatter's runs being sub-divided into smaller farms. William Adams purchased the farm surrounding the Rock and, realizing its potential as a tourist attraction, set about developing it as a resort. A dam across Five Mile Creek created a lake of about a hectare in area which was stocked with swans and other waterbirds. Exotic plants were introduced to give the area a European flavour.

A carriage track was constructed running to the flat area above the Southern line of pinnacles and in 1877 a racecourse was laid out on the western side of the rock.

In 1884 the property was purchased by the Victorian Government, added to an existing water reserve to the east of the Rock and named Hanging Rock Recreation Reserve. The Reserve was then placed under the control of the local Council as Committee of Management appointed by the Minister for Lands.

In 1885 the Hanging Rock race club was formed and the racecourse laid out in its current location in 1909.



The Rock is said to have been used as a look-out by at least two Bushrangers, McDonald and the more infamous Dan "Mad Dog" Morgan.

"Hanging Rock" was a name given to a formation over the path at the top of the stairway where a large boulder is wedged between two vertical columns.

The Reserve was managed by the Council of Newham and Woodend until 1959 when three members of the Hanging Rock Race Club were added to the Committee of Management. The management of the reserve reverted to council in 1990.

Joan Lindsay's book "Picnic at Hanging Rock" published in 1967 and the film based on the book, first screened in 1975 both heavily publicized the Rock and led to increased visitation.

5. SITE ANALYSIS

5.1 VIEWS TO THE ROCK

The first glimpses the tourist gains of "the Rock" are from the distance on the approach roads from Woodend, Newham and Macedon. The closer one gets to the entry off South Rock Road, less of "the Rock" is visible as it is hidden by the concentration of vegetation in the immediate vicinity. Once within the boundaries of the reserve, the best views are from the small hill to the east, located on the recently purchased property, where the Rock can be seen rising above its skirting vegetation. There are also excellent views from this hill down the valley toward Woodend.

5.2 VIEWS FROM THE ROCK

Given its elevation of some 100 metres above the surrounding plain, the views are, as could be expected, quite superb, being spoilt only by the short distance views to the west of the rural residential subdivision at the foot of "the Rock".

To the south is the Camel's Hump and the Macedon Ranges, to the North, the Jim Jim and Cobaw Range. From the eastern edge of the summit, the views over the reserve and racecourse are breath taking, with the racecourse buildings almost entirely hidden from view at the foot of "the Rock".

5.3 INTERNAL VIEWS

The semi-vegetated riverflats form a pleasant backdrop to views from the entry road, particularly where they form a partial visual enclosure to the play meadows.

The actual creek is unattractive, drain-like and weed infested, particularly in the section to the south of the racetrack.

Carparking areas to the south of the rock are bare, eroded and visually intrusive. The access road to these carparks and the connection to the northern picnic areas crowd the bottom of the rock intruding on the natural resources.



Many structures over the site, particularly the toilet blocks and corrugated fences and iron sheds of the racecourse, detract from the visitor experience and should be removed or renovated.

To The Jim Jim

To the Cobaw Range

Conwells

Road

Straws

Lane

Road

Rock

South

To Brock's Monument

Visual & noise intrusion from road

Unsignify creek surrounds

Views of wooded flood plain

Drain-like creek

Exposed tennis facilities

To Camel's Hump

Views of Macedon Range

Visually intrusive Bar@ carparks

Excellent views across Racecourse

Ground plane seen from rock

Bare carpark/ Toilet Block

Rural setting views

Short distance intrusion from Hobby Farms

Excellent views of Rock & Racecourse

Visual intrusion

Visual enclosure

Major viewpoint

View lines

Visual intrusion

Visual enclosure

LEGEND

- MAJOR VIEWPOINT
- VIEW LINES
- VISUAL INTRUSION
- VISUAL ENCLOSURE

HANGING ROCK RECREATION RESERVE MANAGEMENT PLAN

Visual Analysis



0 25 50 100 150 m
LODER & BAYLY
Consulting Group



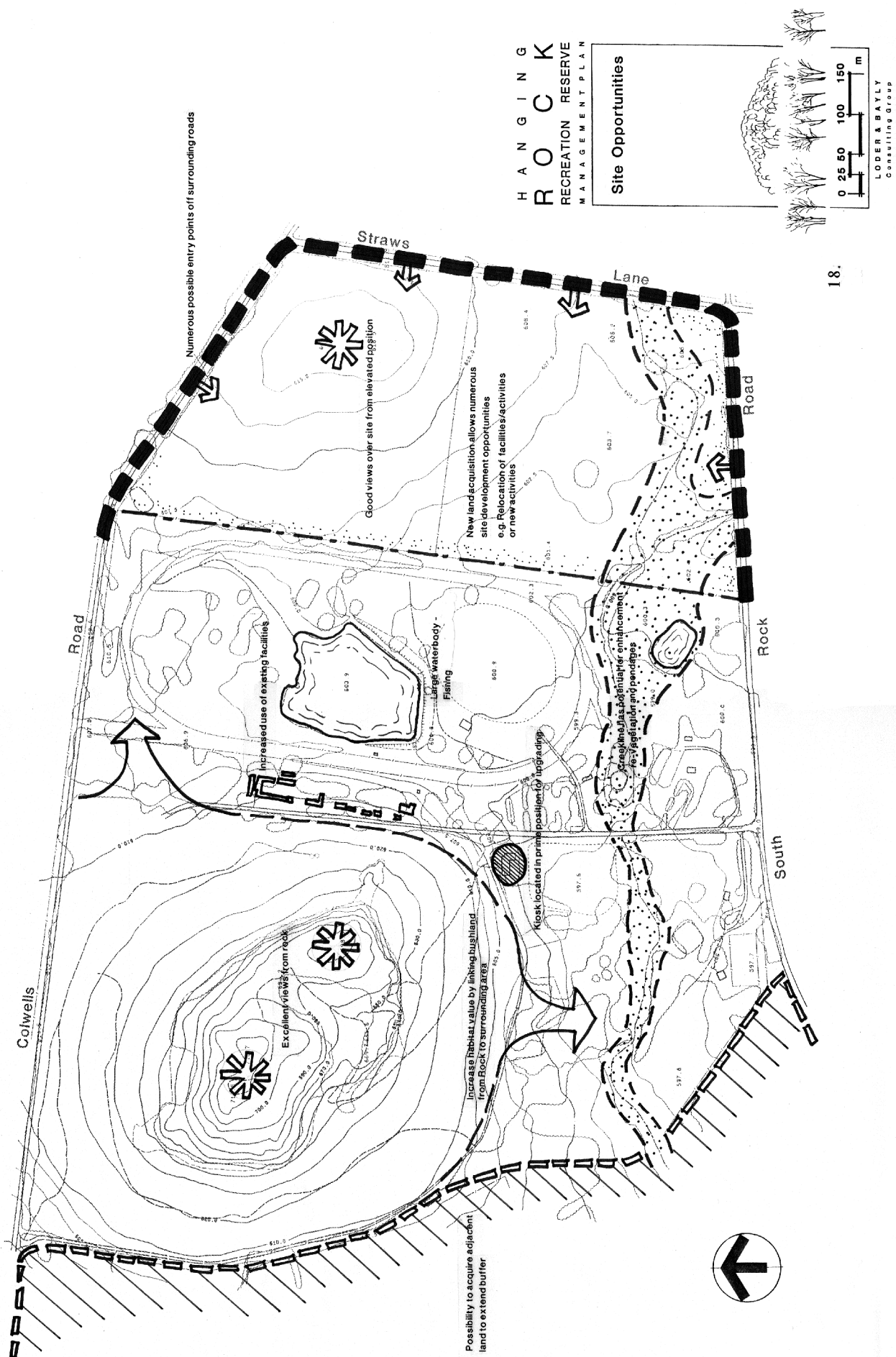
6. OPPORTUNITIES AND CONSTRAINTS

The preceding analysis of the sites content, history and natural, physical and perceptual components reveals the various opportunities and constraints pertaining to the site in terms of its future use and management. The following tables outline the sites opportunities and constraints:

OPPORTUNITIES AND CONSTRAINTS

OPPORTUNITIES		CONSTRAINTS
Contextual	• A resource of national geological significance in such close proximity to Melbourne. • Within a short distance to other tourism features in the area e.g. Mt. Macedon. • Current zoning will ensure rural setting remains intact.	• Past zoning has allowed development at an undesirable density to encroach on site - minimal or no buffer.
Historical	• Opportunity to promote to tourists based on past cultural events • such as picnic race meeting and the book and film "Picnic at Hanging Rock". • Opportunity to provide interpretation based on geological and cultural history.	• Historical use of the site by the race club has meant that much of the site has been alienated.
Physical	• Purchase of "22 ha" allows significant restructuring to take away picnicking pressure from close to rock and more natural environments. • Surrounding road system could double as the reserves circulation system. • Opportunity for increased use of existing racecourse facilities by public. • Kiosk located in prime position for up-grading. • Toilet blocks are structurally sound and could be retained and renovated.	• Current rock access system is congested on busy days. • Creek flat area is flood prone with a low carrying capacity in winter. • Race track buildings enclosure and track fence alienate large areas of land from public.
Physical continued	• Dam in centre of race track could be developed with board walks and jetties.	• Shape of race track blocks movement into new property from west to east. • Race track location squeezes movement north-south between itself and base of rock. • New property virtually treeless and won't be suitable for relocating picnic activities for a considerable time. • Current access fee collection system means Ranger is inhibited from undertaking other tasks. • Roads outside kiosk make it a user "unfriendly" location.

OPPORTUNITIES		CONSTRAINTS
Natural	• Opportunity to increase habitat value of reserve by linking bushland from Rock to surrounding area, making it more inviting to roosting birds etc. • The race track has protected a natural grassland area in the centre from trampling. • The creek has the potential to be re-shaped with ponds and wetlands along it. • Less disturbed parts of the reserves vegetation may be suitably restored as quality bushland. • Regular burning has aided Themeda grassland regeneration	• Current rock climbing access to the base of rock is causing damage to vegetation. • Rock climbing may disturb nesting birds e.g. Wedge-Tail Eagle • Riverflat area poorly drained. • Dam in middle of race track used for irrigating track - not a source of permanent water for fauna. • High numbers of tourists can create erosion on highly erodible rock summit and sideslopes. • Quality of water in creek is uncertain due to possible effluent run-off from septic tanks on site. • Weeds are a problem along creek. • Creek is moderately eroded • Lack of creek flow over summer. • Rigorous fire prevention measures such as burning-off and fire tracks impact on habitat and flora regeneration.
	• Hill on new property has excellent views of rock and has the potential to be developed as an activity node.	• Boundary roads to north-east, east and south are visually intrusive. • Large numbers of visitors using Rock access stairs cause congestion and therefore loss of experience.



7. VISITOR SURVEY

7.1 INTRODUCTION

The survey was conducted for 7 days, commencing on Saturday 18th January 1992 and finishing on Friday 24th January 1992 (just before the Australia Day Races).

Questionnaires were handed to drivers of vehicles by the park ranger, as the vehicles entered the park. One questionnaire was handed to drivers of buses to fill out on behalf of the passengers.

Visitors were asked to complete the questionnaire and place it in one of the boxes provided before they left the park that day.

Posters at strategic locations in the park reminded visitors to complete the questionnaire.

Several hundred questionnaires were handed out and a total of 238 usable questionnaires were returned. A copy of the questionnaire is included in the Appendix.

As it was entirely at the discretion of the visitor whether or not they returned the questionnaire, the responses obtained cannot be regarded as statistically representative of the total visitor population. They provide instead an indicative picture of the type of visitor, why they come to the park what they do there and improvements they would like to see.

7.2 ANALYSIS OF RESULTS

- The weekend is the most popular time to visit the park (despite the fact that the survey took place in school holidays).

Monday	14	replies
Tuesday	16	"
Wednesday	13	"
Thursday	18	"
Friday	45	"
Saturday	55	"
Sunday	61	"
(No reply by 16)		

- Cars represented the most frequent form of travel to the park, although 10 buses were recorded in the sample.

Car	224	(94%)
Bus	10	(4%)
Bicycle	2	
Other/No answer	2	

The cars accounted for 1,027 visitors – this represents an average car occupancy rate of 4.5 people. The 10 buses accounted for 164 people, an average of 16 per bus, although actual numbers ranged from less than 10 to 30 people per bus.

- A large spread of ages was contained in the sample, as follows:

0-4	years	48	(4%)
5-17	"	320	(26%)
18-24	"	165	(14%)
25-45	"	403	(33%)
46-60	"	154	(13%)
Over 60	"	118	(10%)

Visitors by bus tended to be older, on average, with a significant number being over 60.

0- 4	years	1	(1%)
5-17	"	30	(18%)
18-25	"	15	(9%)
26-45	"	18	(11%)
46-60	"	36	(22%)
Over 60	"	64	(39%)

- A large number of visitors by car and by bus came from both overseas and other parts of Australia.

Came by car/bicycle from:

Local area	34	(15%)
Melbourne Metro area	104	(46%)
United Kingdom	20	(9%)
Other overseas	3	(1%)
Sydney	5	(2%)
Other NSW	6	(2%)
Brisbane	5	(2%)
Other Qld.	5	(2%)
Tasmania	6	(2%)

Adelaide	7	(3%)
Other S. A.	4	(2%)
Perth/Western Australia	9	(4%)
Bendigo/Ballarat	7	(3%)
Other Victorian	11	(5%)
Other Australian	2	(1%)

Note: Some interstate/overseas visitors were brought by Melbourne residents.

Came by bus from:

Europe/America/Australia	2
Darwin/England	1
Australia Wide	2
Adelaide	1
Perth	1
Melbourne Metro area	3

Most people (other than those living locally) were visiting the area as part of a day trip or passing through the area as part of an extended trip.

On a day trip	152	(64%)
Staying in local area	38	(16%)
Passing through as part of an extended trip	48	(20%)

About half the sample were spending less than half a day at the reserve – the same was true for bus visitors.

Spending all/most of day at reserve	35	(15%)
Spending half a day at reserve	83	(35%)
Spending less than half a day at reserve	119	(50%)

Many different activities were undertaken during the visit to the Reserve - with a large percentage of the sample going up the rock.

Climbing/going up Rock	198	(83%)
Walking around	152	(63%)
Sightseeing	147	(62%)
Picnicking/BBQ	125	(53%)
Relaxing	112	(47%)
Social- with family/friends	69	(29%)
Nature study	34	(14%)
Informal games/ball games	22	(9%)
Formal sport	2	(1%)

Note: Multiple answers.

- Clearly the desire to climb and/or see the rock and visit the area made famous by the book and the film are the main reasons for coming to Hanging Rock Reserve (rather than some other place). Main reasons are shown in detail below:

Main Reasons for Coming To-day

To see/Climb rock/Hanging Rock	38	(16%)
The film/the movie/to find Miranda, "A Picnic at Hanging Rock"/The Book	32	(14%)
Recreational activity/something to do/ For enjoyment/Sightseeing	29	(12%)
Never been before	21	(9%)
To bring overseas visitor/interstate visitor/tourists	20	(8%)
Natural bush setting/beautiful spot	12	(5%)
On route back to Melbourne/on tour/ on way home	11	(5%)
Read/heard a lot about it/famous place	10	(4%)
Place for Picnic/BBQ	9	(4%)
A place to walk and climb/exercise	7	(3%)
Family outing/group outing/nice setting for family outing	7	(3%)
Live locally/not far from home	6	(3%)
A days outing	8	(3%)
Close to Melbourne	6	(3%)
Recommended by a friend	5	(2%)
Been before and liked it	5	(2%)
Historical area/part of Australian history	4	(2%)
Mystery/Adventure	3	(2%)
Other comments	17	(7%)
No answer	29	(1%)

Note: Multiple answers

- On ways to improve the area, nearly half the sample had either no opinion, or felt that the area was good as it is. The entry fee was mentioned as a problem by a small number of people.

Improvements to the walking trails, the map/pamphlet and naming of significant areas on the rock were among some of the constructive suggestions made. Others were keen to see the area kept natural and revegetated with native plants, or native animals and birds encouraged back to the area. The table below shows details.

How to Improve the Area

Don't change it/Nice as it is	30	(13%)
No answer	85	(36%)
Better walking tracks/less difficult walking tracks/better signposted tracks/walking distances and difficulty defined/colour coded walking tracks	20	(8%)
Reduce/remove entry fee	18	(8%)
Naming of locations at sites on rock/naming locations referred to in film/book	13	(5%)
Better litter control ban bottles on rock/more bins	11	(4%)
Keep it natural/don't develop	11	(5%)
More native animals/birds/sanctuary for native animals/birds/bring back koalas	10	(4%)
Get rid of flies	6	(3%)
Childrens play equipment/more for kids	7	(3%)
Better pamphlets/more information on pamphlets/on map	7	(3%)
Get rid of ugly sheds/ugly toilets/ugly wire fences	6	(3%)
More BBQs/Electric BBQ's	5	(2%)
Improve toilets	5	(2%)
Handrails for older/disabled people	5	(2%)
Lift/chairlift up rock	4	(2%)
Maintenance of existing paths, handrail, fences/tables	4	(2%)
Get rid of Racecourse	4	(2%)
Revegetate with native trees/plants/plant native trees in picnic area	4	(2%)
More information about history of the area/aboriginal history	3	(1%)
Swimming area	3	(1%)
Refreshments/water at top	3	(1%)
Improve area for tourists	2	(1%)
Rock impressive but surroundings devastated	2	(1%)
Information leaflets on arrival/map on arrival	2	(1%)
Modernise/clean-up the shop/better food shop	4	(2%)
Other comments	10	(4%)



8. LANDSCAPE MANAGEMENT UNITS

A site such as the Hanging Rock Recreation Reserve contains a variety of landscape types and settings, each of which are quite individual in the way in which they respond to public use and in the maintenance they require. It is necessary therefore to break the site up into landscape management units. The objectives for management and the proposed management actions for each are set out in the following table as well as a Landuse Strategy/Planning Matrix.

OBJECTIVES AND ASSOCIATED ACTIONS FOR LANDSCAPE MANAGEMENT UNITS

PRESCRIBED ACTIONS

BROAD MANAGEMENT OBJECTIVES	EROSION CONTROL	VEGETATION/RESTORATION	VEHICLE ACCESS AND CARPARKING	VISITOR MANAGEMENT
1 Natural Dominant To maintain and manage as a natural bushland habit and threatened species habitat area	Fencing is required in some area to limit access and control damage. Allow natural regeneration. Construction of stairway up rock may be required in places.	- Remove all weeds and allow natural regeneration. - Supplement with indigenous species where re-generation will not take place naturally. - Adopt measures to control future weed invasion. - Retain dead trees as habitat value except where of danger to public.	None — all located outside of perimeter,	- Discourage people from using area except where formed paths are present. - Interpretive trail will aid in directing pedestrian flow.
2 Semi-Natural To provide for passive recreation in an open woodland setting and to restore and rehabilitate creek edge and surrounds. Will also act as a buffer to the threatened species habitat area.	Re-profile Creek banks and stabilize with planting and local rock where appropriate.	- Remove dead or dangerous tree limbs. - Remove weeds along creekline. - Restore indigenous vegetation along creeklines and around boundaries. - Revegetate picnic area and carpark on new property. - Picnic areas to be predominately of open upperstorey with grassed understorey regularly mown to 25-50mm. - Adopt weed control measures appropriate to the specific problem species.	- Sealed access road with turn loops at ends. 4m wide for 1 way. 6m wide for 2 way roads. - Sealed or gravelled 90° off road parking bays grouped in 3-4s. - No major concentrated carparks. - Removable bollards or barriers. Allow access for major event overflow parking.	Park in bays and walk to picnic areas. Vehicles contained by marked bays and vehicle barriers/bollards.

PRESCRIBED ACTIONS

BROAD MANAGEMENT OBJECTIVES	EROSION CONTROL	VEGETATION/RESTORATION	VEHICLE ACCESS AND CARPARKING	VISITOR MANAGEMENT
3 Intensive Use Picnic To maintain and manage as a high capacity carpark and central activity node.	- Formalise edging of carparking areas and seal surface to reduce dust. - Construct defined paths to heavily trafficked areas such as kiosk and start of Rock Walk. - Formalise drainage of carpark and picnic areas to reduce damage to grass surface.	- Ensure vehicles don't compact soil around existing trees by employing appropriate surfacing techniques. - Slowly replace invasive non-indigenous trees with indigenous, - Indigenous middle and lower storey plants should be used where appropriate around carparks and buildings. - Retain Poplars, Cypress Oaks and Non- indigenous natives.	- Sealed major entry road and sealed major carpark located opposite kiosk. - Only carpark where buses are allowed to park	- All large buses (not mini-buses) must park here. - Due to formalised nature of area with hard surfacing, little management will be required. - Signage required to direct to rock and picnicking. - Formalise and harden landscape treatments to creek edge for increased pressure of use.
4 Racecourse To maintain and manage as a race course, for periodic events, casual picnicking, and the oval for year round sporting use.		- Allow selective regeneration of appropriate large tree species that will develop large, clean trunks and still allow views across race track - Race track to have an even grass cover aided by supplementary irrigation in summer, - Oval lawn to be kept cut short. - To remove invasive weed species. - To investigate the possibility of regenerating indigenous grassland species. - To maintain a cut or grazed height of 200mm. - To reduce cut height in summer to 100mm to reduce fire risk. - In the short to medium term fence with electric fencing and allow cattle to graze on a seasonal basis.	- Vehicle access to stables and course facilities allowed only on race days. - Road open to management vehicles only and walkers for the remainder of the year. - Major events parking allowed on oval.	Picnic areas within race enclosure are to be opened up to general public use - walk in only.
5 Open Grassland To maintain and manage as informal grassland.				Do nothing to encourage use, but don't stop public access.

PRESCRIBED ACTIONS

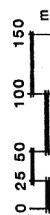
BROAD MANAGEMENT OBJECTIVES	EROSION CONTROL	VEGETATION/RESTORATION	VEHICLE ACCESS AND CARPARKING	VISITOR MANAGEMENT
6 Open Native Grassland To restore and manage as an indigenous grassland.		- Remove all weeds and debris and manage to control future invasion, - Allow selected larger tree species to regenerate which have clean hunks and allow views across track. - Conduct mosaic burns of grassland on a 5 yearly rotation to reduce biomass, increase inter nodal spaces and encourage regeneration. - Implement an ongoing monitoring program.	No vehicle access allowed.	Current location of race course running rail discourages public access. No special management required to correct this. Trampling and rubbish dumping and burning to be avoided.
7 Bush Regeneration To restore and manage as a eucalypt woodland with shrubby understorey.		- Replant tree and shrub species using appropriate weed/grass suppressing matting. - Fence with electric fence to exclude cattle. (In short term) - Once upper storey is established start to develop a lower storey. - Once established employ a 6-10 year rotation mosaic burn.	No vehicle access allowed.	Public access not encouraged.

LEGEND

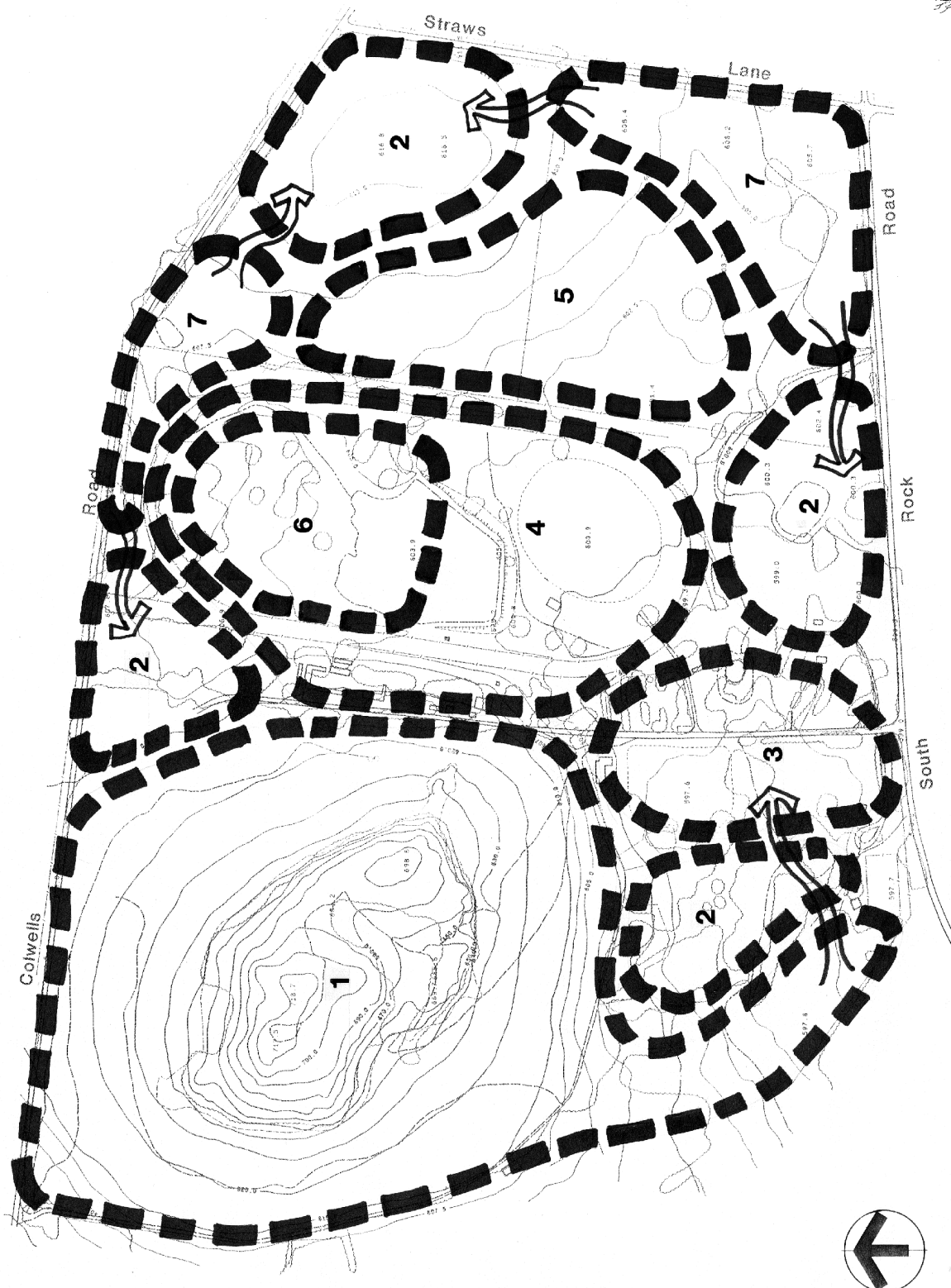
1. Natural dominant
2. Semi Natural
3. Intense use - picnic
4. Race course
5. Open grassland
6. Open native grassland
7. Bush regeneration

H A N G I N G R O C K RECREATION RESERVE MANAGEMENT PLAN

Landscape Management Units



LOOPER & BAYLY
Consulting Group



LANDUSE STRATEGY / PLANNING MATRIX

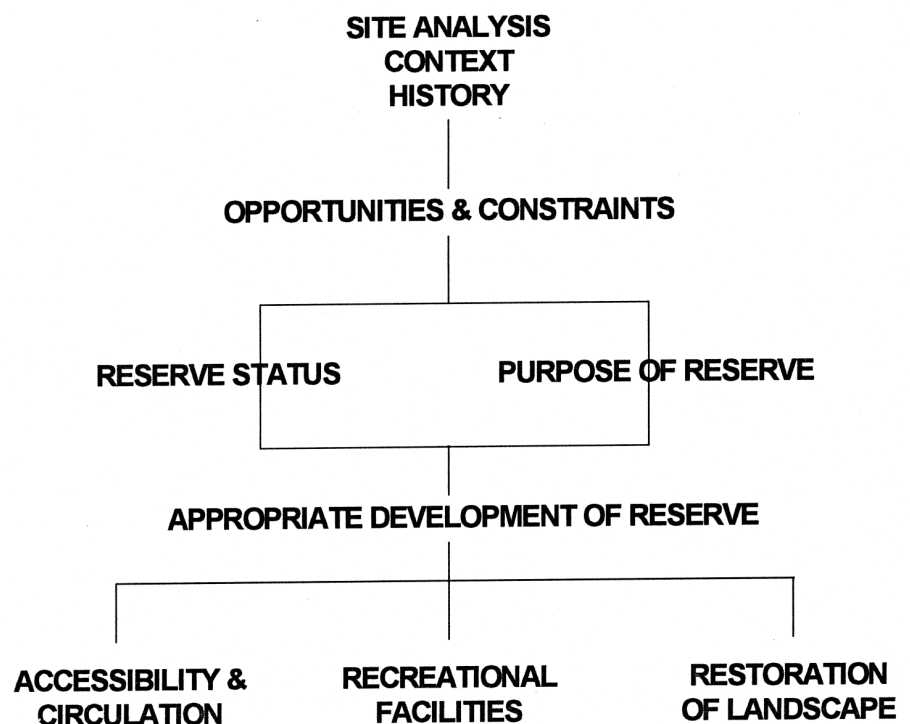
	NATURAL DOMINANT & OPEN SPACE GRASSLAND	SEMI-NATURAL & BUSH REGENERATION	INTENSE USE PICNIC & RACECOURSE
Landscape Changes	habitat rehabilitation plus controlled access/management devices	some habitat rehabilitation plus changes to increase carry capacity - essentially a modified ground plane	some habitat rehabilitation plus significant changes to maximise carrying capacity
Structures	signage & staircases only	common but merged with the landscape	very common and conspicuous
Access	pedestrian, education and management only	all modes to trail heads plus extensive trail networks	all modes
Facilities	NIL	minor level	extensive
Social	low level contact and managed capacity	high probability of social interaction; occasional peak time overloading	other people always present; high level of social interaction; likely peak time overloading
Control	controlled access and maximum habitat management	conspicuous control to protect conservation values	possible 24 hour access and control mostly related to health and safety

9. ISSUES IDENTIFICATION

The issues of primary concern in the formulation of an appropriate management plan for the reserve are listed on the following page.

One of the key issues of Reserve Status, i.e. does it serve local, district or regional population, has been established by anecdotal evidence as well as being confirmed by the results of the Visitor Survey. The other key issue is the purpose of the Reserve, i.e. will the reserve be used for passive or active recreational pursuits. This has been confirmed by the L. C. C. Melbourne Area Final Recommendations, that the reserve is a recreation reserve but that its significant natural values be protected. In other words, the right of the Hanging Rock Racing Club to conduct race meetings at the reserve is acknowledged, but the environment of the rock, its flora, fauna and geological features, must be protected.

The following chart sets out the issues identification process:



ISSUES

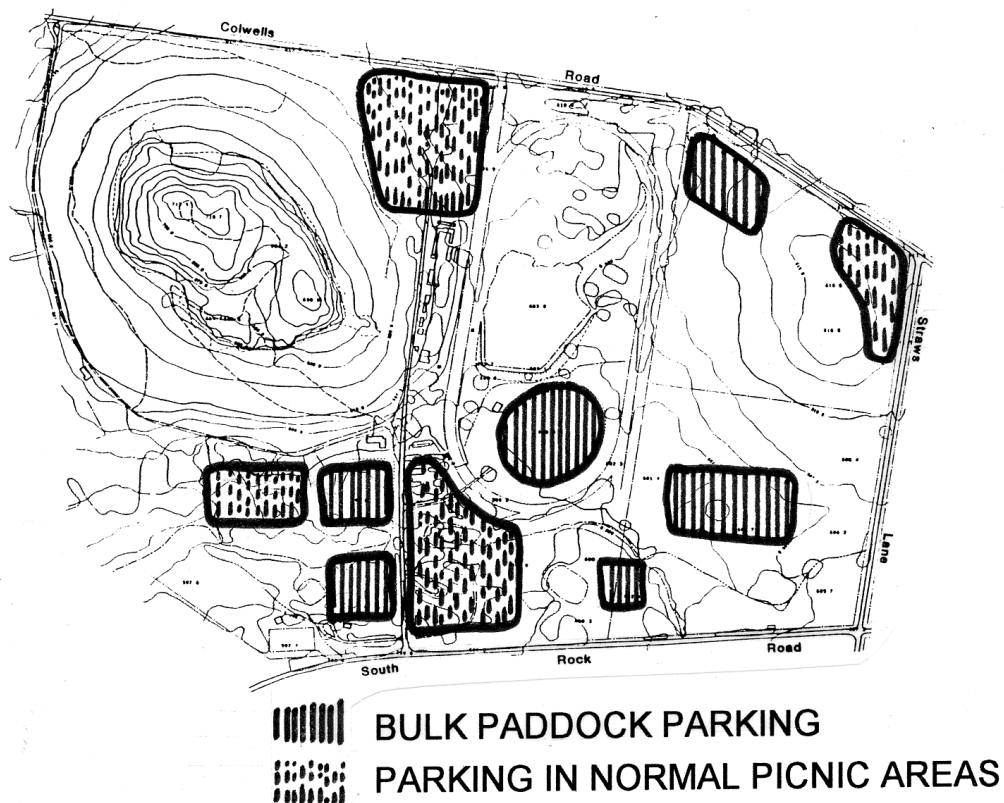
ACCESSIBILITY AND CIRCULATION	RECREATION ACTIVITIES/FACILITIES	RESTORATION OF LANDSCAPE
• Removal or upgrading of existing access roads. • Location of new access roads. • Fee collection and number of entries. • Upgrading of existing carparks and standards for new ones. • Upgrading of signage - need for standardised sign styles. • Increased area of race day parking spaces. • Any limit to numbers of people on site?	• Control of pedestrian movement around rock. • Conflict between rock climbers, and the general public and vegetation and fauna especially avi-fauna. • Standard design details required for park furniture. • Upgrading of site structure, particularly toilet blocks. • Freedom of movement by sporting club members to Tennis and Cricket facilities. • Best use of kiosk and vacant Rangers residence. • Upgrading of Picnic facilities. • Provision of Playground equipment to comply with Draft Australian Standards.	• Upgrading of creek. • Weed control • Conflict between fuel reductions, burns/fire breaks and site vegetation restoration. • Should new property be fenced like existing? • Short term management of new property - Revegetation - Grazing to reduce fire risk • Erosion control - on rock - high use picnic areas - creekline



10. SITE CIRCULATION & ACCESS

This chapter addresses the responses to the emerging issues at the reserve, particularly those of access and circulation in the light of opportunities created by the purchase of the new property and existing constraints around the rock.

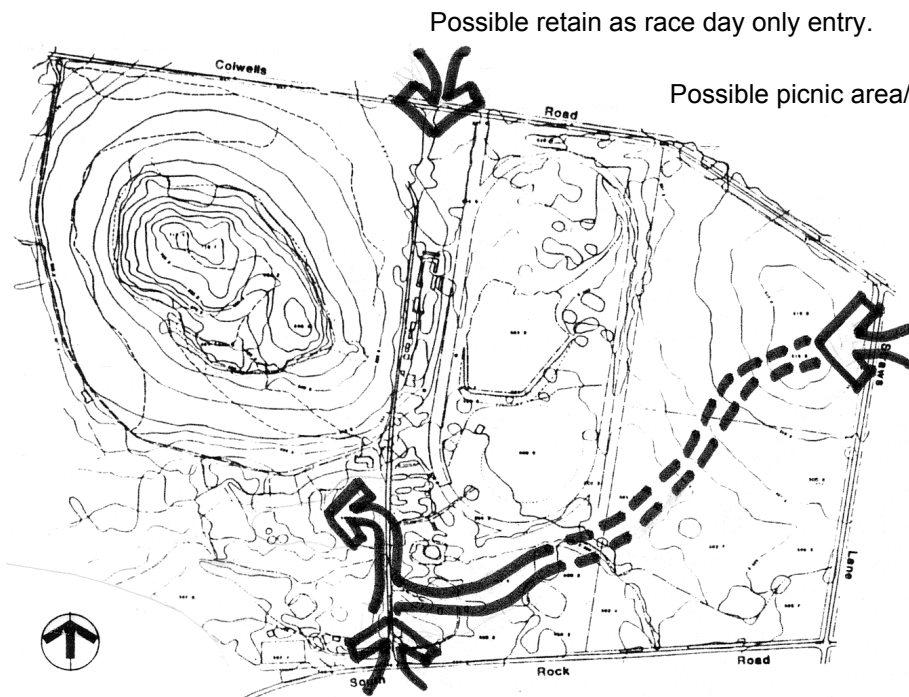
Other scenarios were explored but were not considered appropriate.



Major Events Parking



Existing public road system used as the parks circulation system to access the new property. Avoids construction of costly roads through the site although would require money collection at separate carparking areas.



Possible retain as race day only entry.

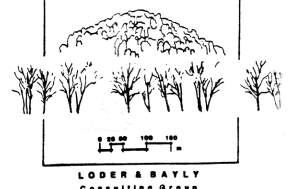
Possible picnic area/carpark off Straws Lane.

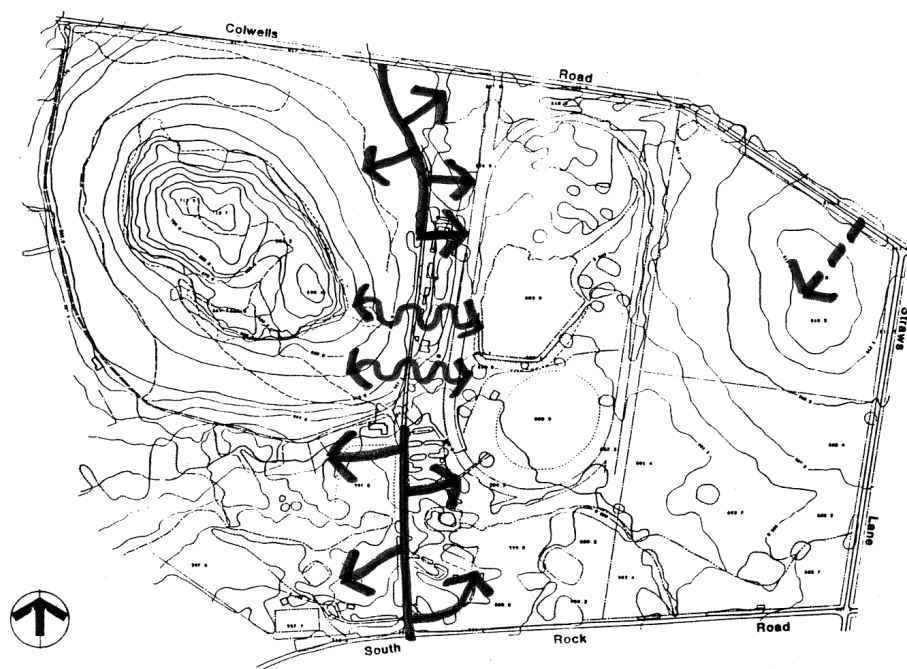
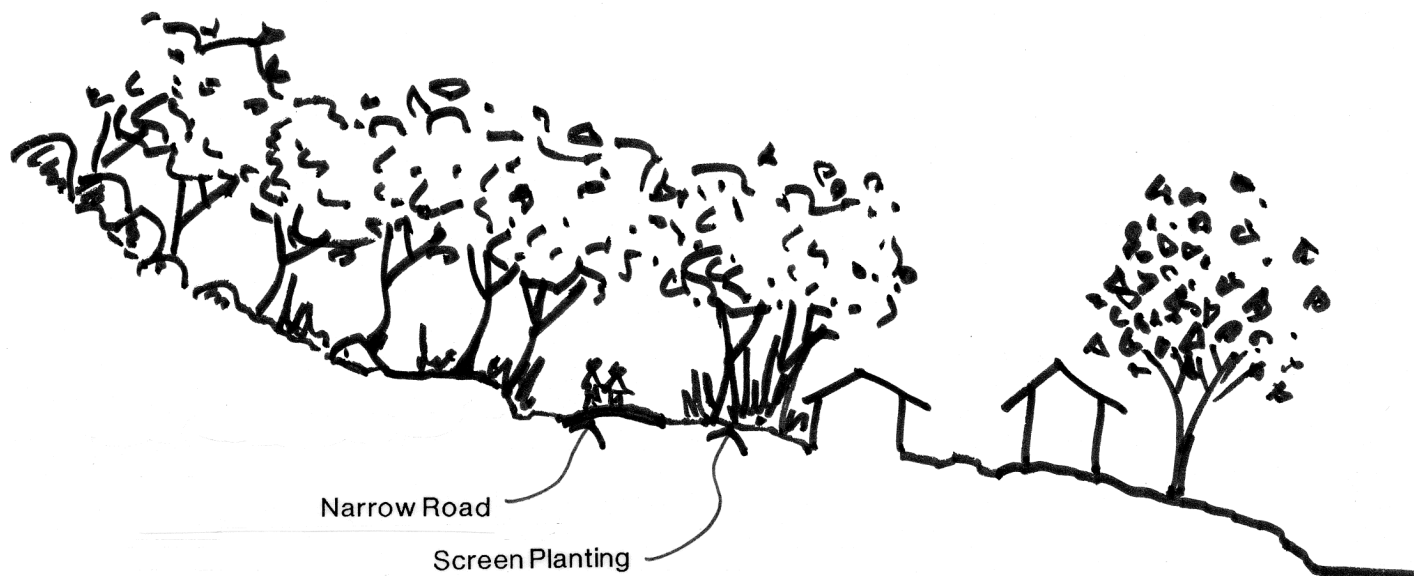
Main controlled access at existing South Rock Road entry.

Adoption of Boom Gates at entries may avoid internal roading.

H A N G I N G
R O C K
R E C R E A T I O N R E S E R V E
M A N A G E M E N T P L A N

Access & Circulation

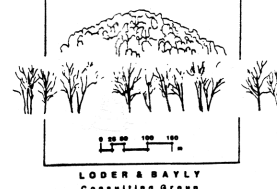




The current north-south road connection severely cramps the space between the racecourse buildings and the eastern flank of "the Rock". This connection should be broken, with the road downgraded to a narrowed walking track/emergency vehicle access. Indigenous planting would be used to screen racetrack buildings and to encroach down from "The Rock" to soften the experience.

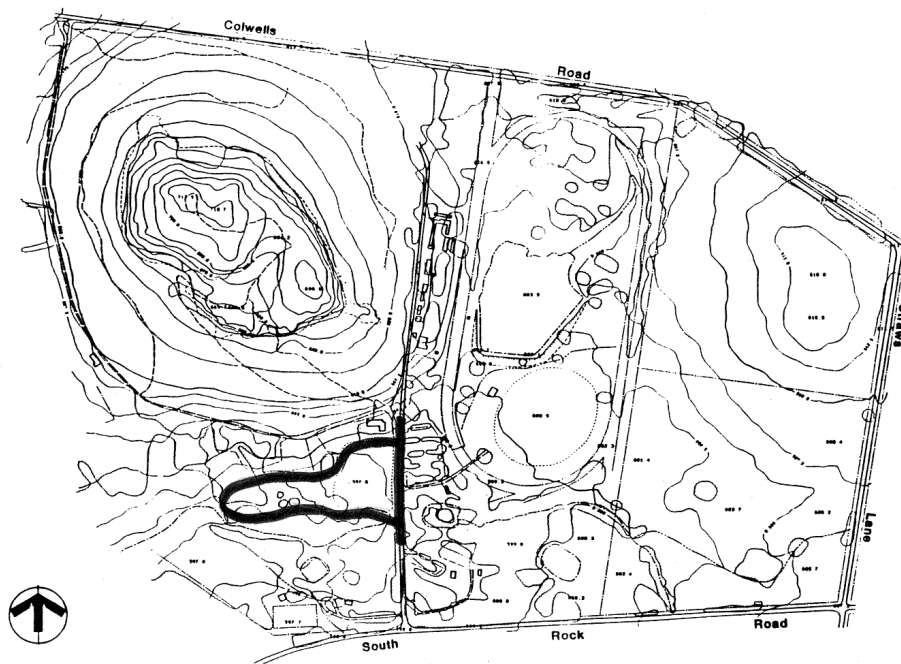
H A N G I N G
R O C K
RECREATION RESERVE
MANAGEMENT PLAN

**Road Closure
Behind Race
Enclosure**





One-way loop track entering along toe of slope and exiting beside creek would solve the problem of the current road being too close to the base of the rock.



H A N G I N G
R O C K
RECREATION RESERVE
MANAGEMENT PLAN

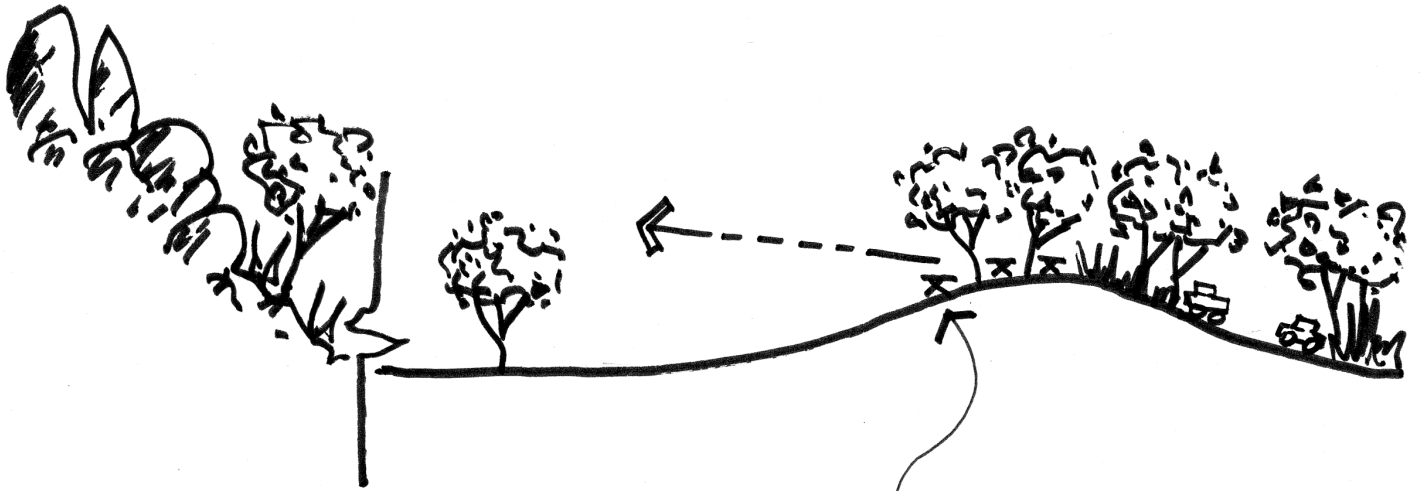
S.W. Picnic Area



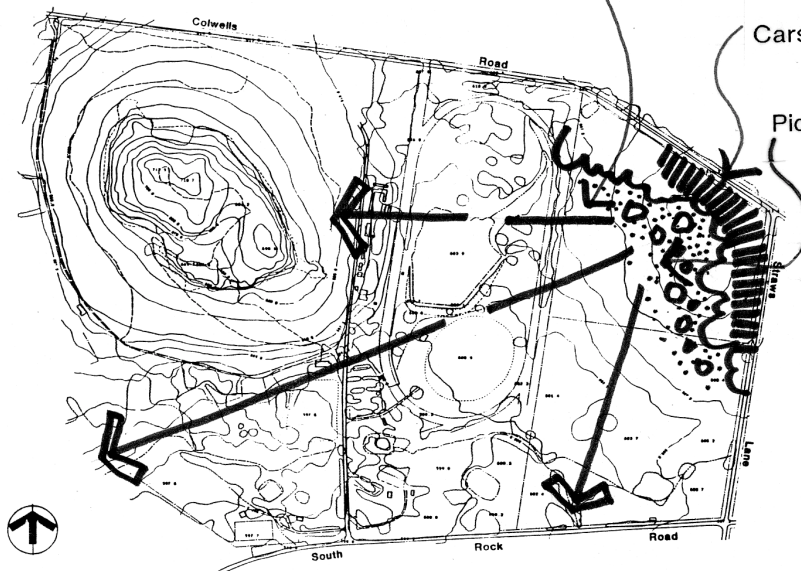
L & B

LODER & BAYLY
Consulting Group

Picnic area developed on the hill in the new property. The major initial goal is to re-vegetate this area in order to introduce picnicking as soon as possible. Cars would be located in trees on the side of the hill, reducing visual intrusion to view from "The Rock".



Good long views to Rock and down valley



Cars hidden behind hill in woodland

Picnicking at top of hill in scattered trees

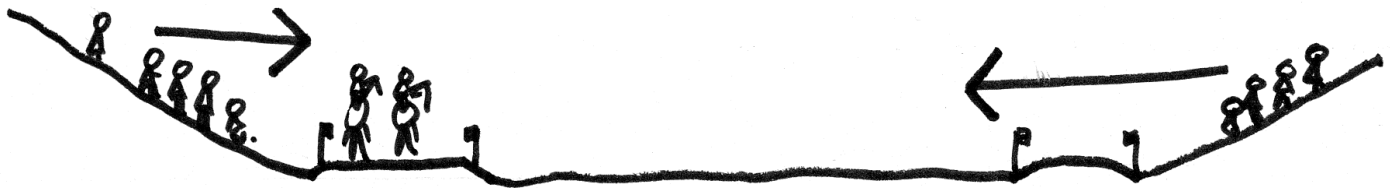
H A N G I N G
R O C K
RECREATION RESERVE
MANAGEMENT PLAN

Eastern
Picnic Area

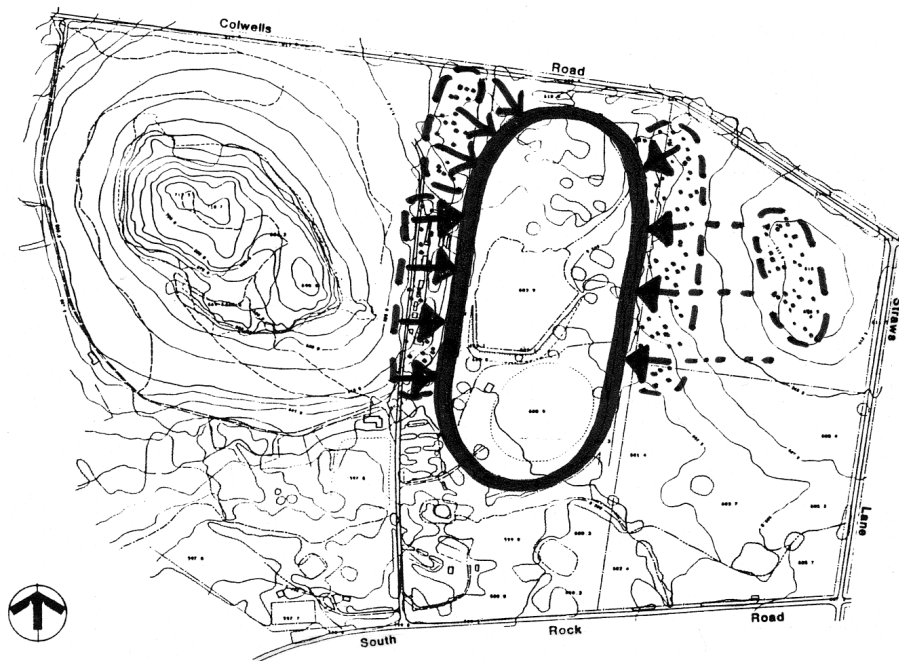


L & B

LODER & BAYLY
Consulting Group



views over track from elevated picnic positions



← Minor Views - Informal Picnic Areas

← Major Elevated Views

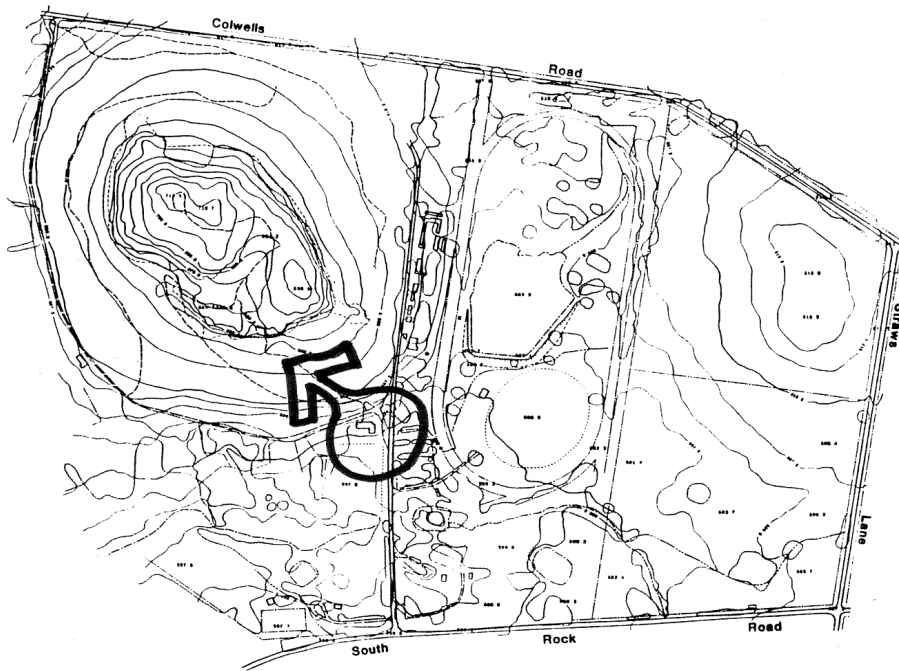
H A N G I N G
R O C K
RECREATION RESERVE
MANAGEMENT PLAN

Race Day Viewing

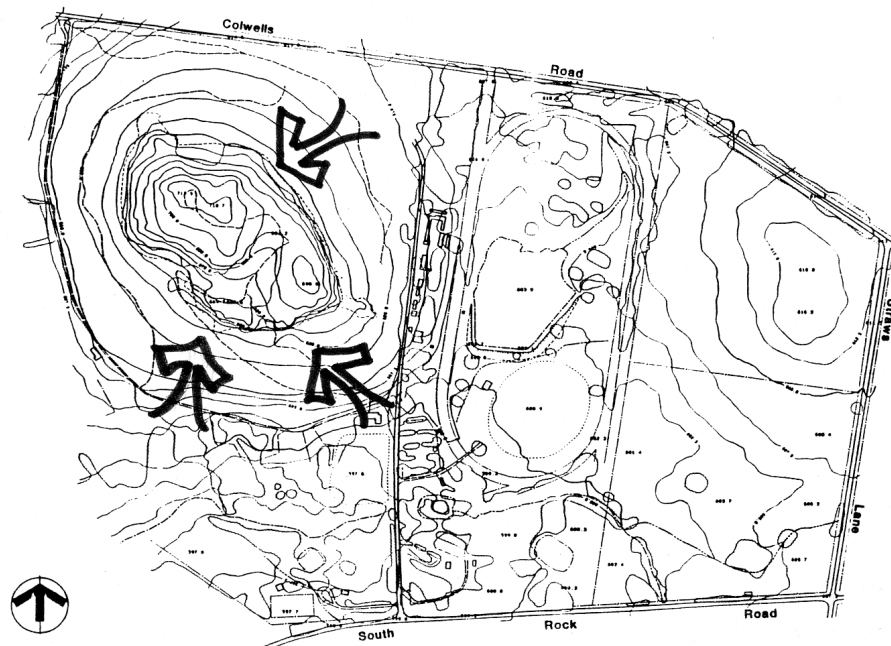


100 200 300

LODER & BAYLY
Consulting Group



controlled single entry to rock walk through
interpretive centre



multiple entries to rock walk would help to
spread visitor loads away from the stairway,
but would be difficult to control

HANGING ROCK RECREATION RESERVE MANAGEMENT PLAN

Access to Rock



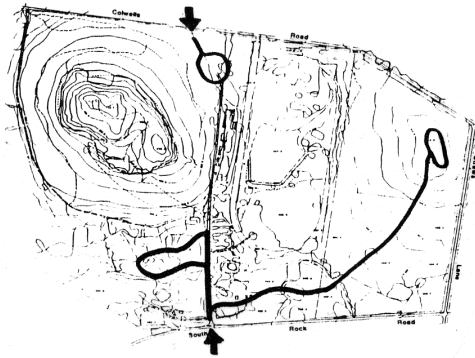
0 50 100 150

LODER & BAYLY
Consulting Group

11. REVENUE COLLECTION AND ACCESS

5 options for revenue collection and access were considered and are included in the appendix. The preferred option is a modification of one of these and is outlined below.

11.1 REVENUE COLLECTION AT OUTER PERIMETER — PREFERRED OPTION



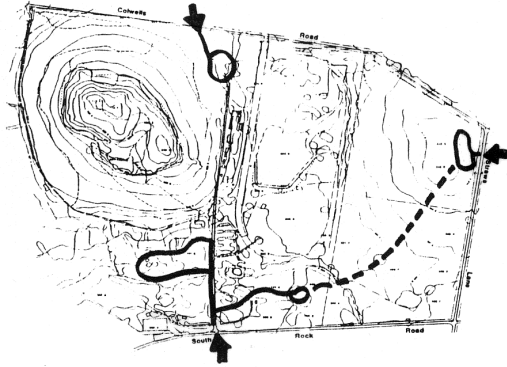
The need to collect an entry fee from visitors greatly affects the management as well as access and circulation options for the reserve.

An entry fee to access the reserve means that fencing is required around the entire reserve and money collection points need to be positioned at every entry. Given the current practice of manning the gates, this expensive and labour intensive process, potentially limits the number of entries, increasing internal road costs.

It is possible to make use of access control systems such as multiple-coin operated boom-gates at the entries, freeing-up staff to go about other tasks. This system has been applied successfully at the You Yangs State Park. The all-up cost of a multi-denominational coin collector and associated entry road works comes to approximately \$12 — \$15,000, an economically realistic alternative to a rangers wage spent doing the same thing.

The preferred option proposes retaining the existing 2 entries, but installing a boom gate at the southern entry. The northern road and access gate would remain as is, servicing the picnic area to the north-east of "The Rock" on race days only. A new connection road could link the eastern riverflat picnic area to the picnic areas on the hill of the new property in the future as the area is developed.

Boom Gates (including ass. road works)	
\$15,000 each x 1	\$15,000.00
Riverflat to Hill access road	
650 linear metres x \$120/m	\$78,000.00
Estimated total	<u>\$93,000.00</u>



11.2 ALTERNATIVE OPTION

This option proposes 2 entries, one from the south - (for which no new costing has been calculated as it already exists), accessing the main picnic area, and a new road coming in from the east off Straws Lane. This new entry point would access the new picnic area on "the hill" and could link through the new property to the existing main picnic areas.

Boom Gates (including ass. road works)	
\$15,000 each x 2	\$30,000.00
New carpark for 50 cars at picnic area on "the hill" and access roading	\$30,000.00
Optional access road from "the hill" to the existing main picnic area	
650 linear metres x \$120/m	\$78,000.00
Estimated total	<u>\$138,000.00</u>

