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.

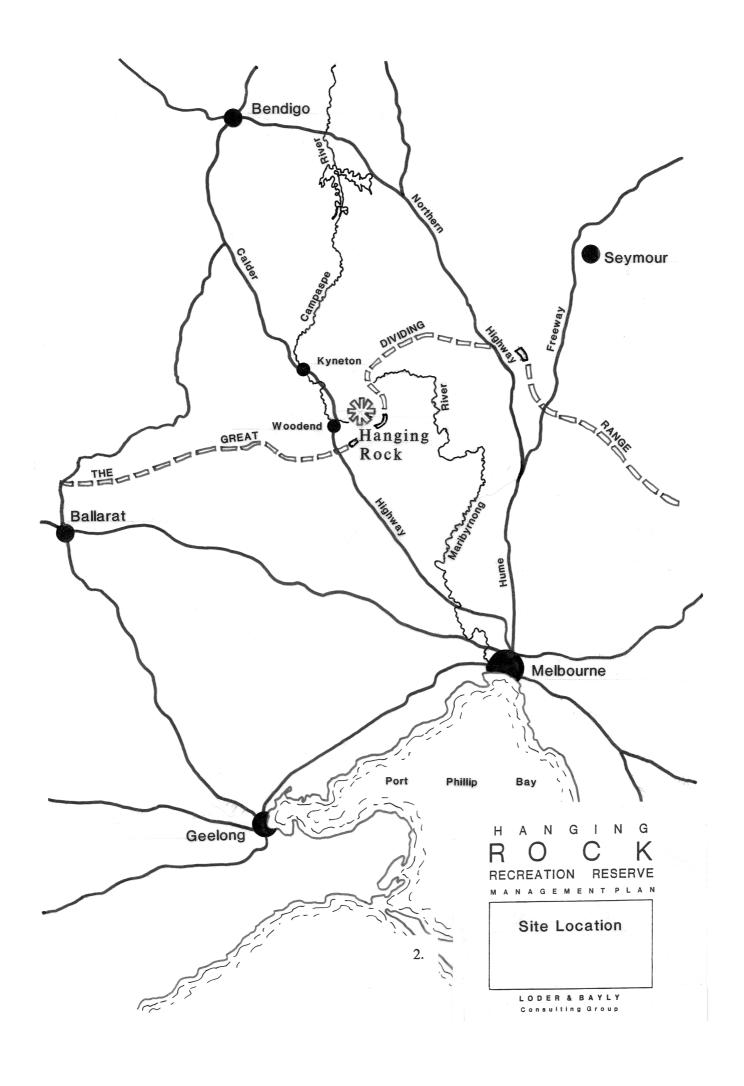
Notes:

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.



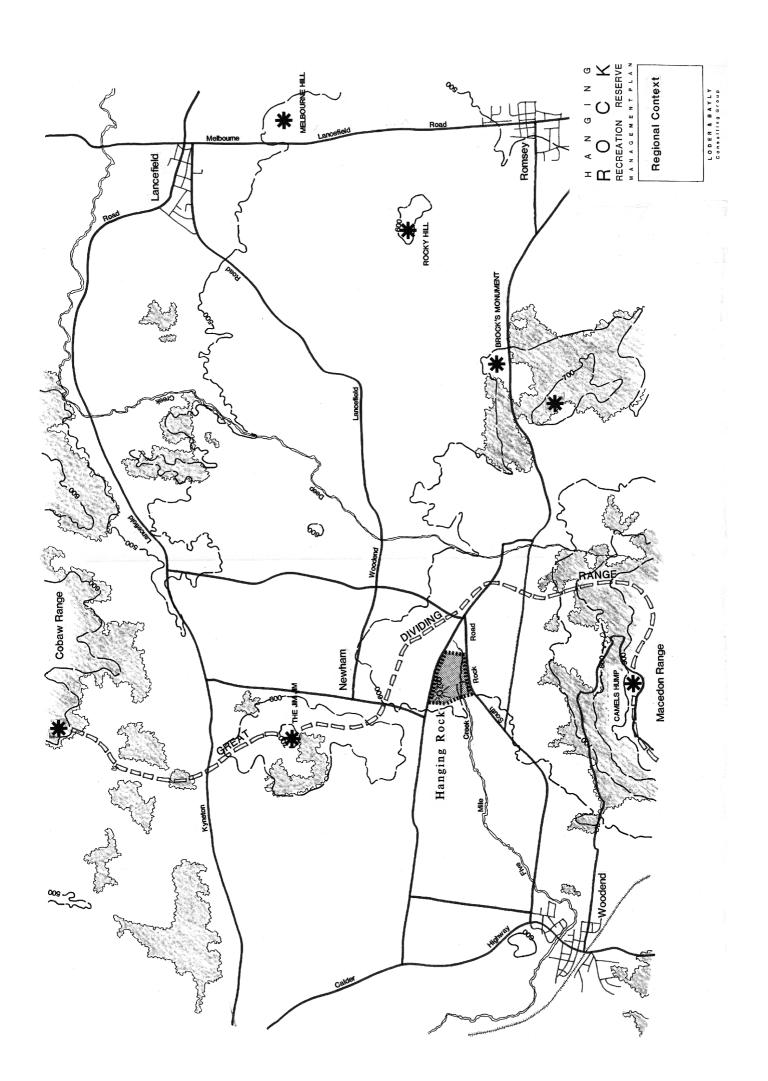
2. LOCATION AND CONTEXT

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.



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 Gisboume/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 cuppressiformis 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 cuppressiformis 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.

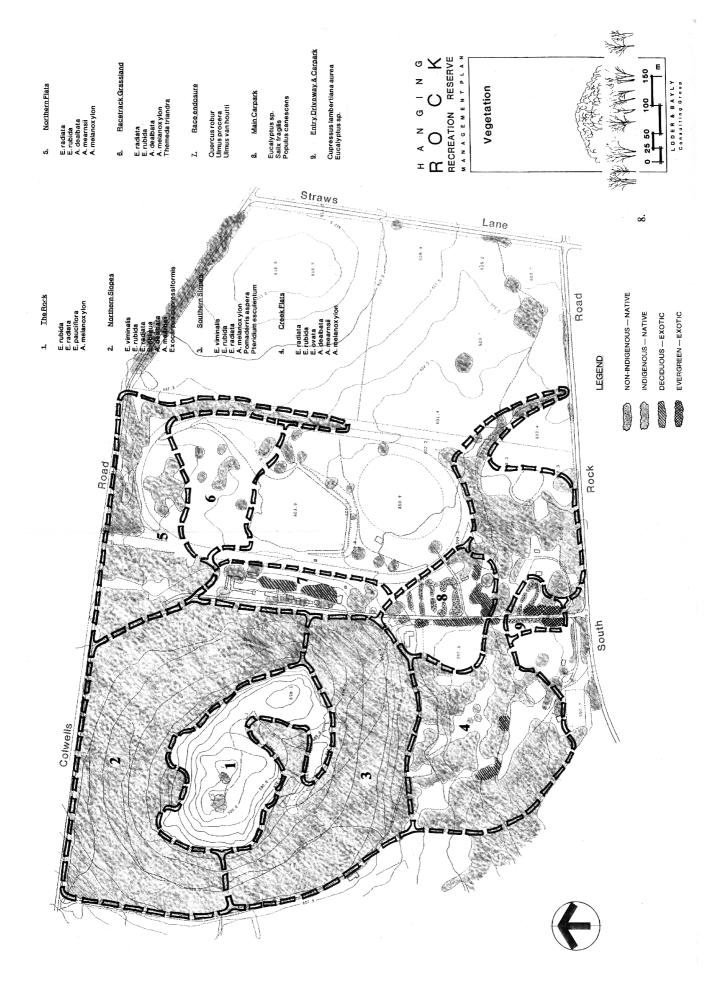
The grassland to the north of the centre of the race track is an example of remnant native grassland that would have existed in the area prior to European settlement. Major species present include Themeda triandra and Danthonia sp. This grassland is worthy of protection due to its relative scarcity and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



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.