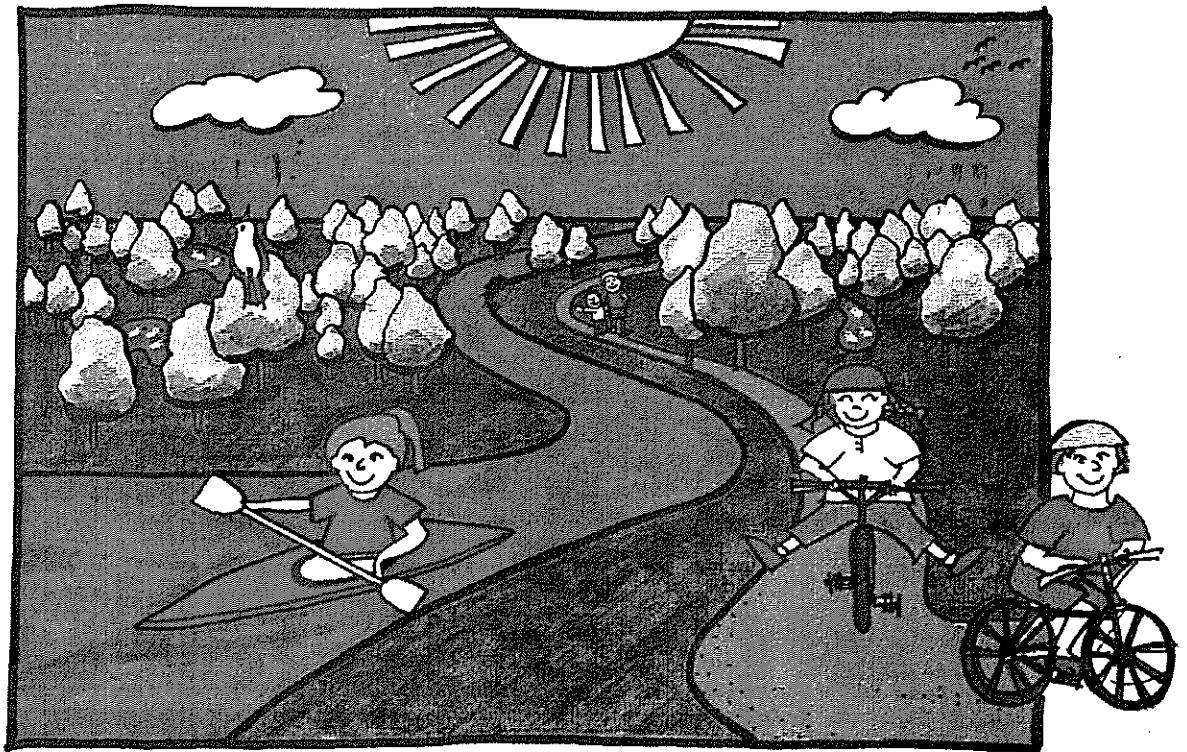


# THE MIDDLE YARRA CONCEPT PLAN - BURKE ROAD TO WATSONS CREEK

DECEMBER, 1993



MELBOURNE  
*Parks & Waterways*  
An Enterprise of the Melbourne Water Corporation



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**THE MIDDLE YARRA CONCEPT PLAN - BURKE ROAD TO WATSONS CREEK**



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**PART A**

**INTRODUCTION**

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## LOOKING AFTER THE YARRA

The Board of Works, as the former planning authority for Melbourne, began reserving open space along the Yarra River in the 1950s. This was the first move in reversing decades of degradation along the Yarra, which included garbage tipping and sand quarrying. Public interest groups, such as the Save the Yarra League, campaigned for the preservation of the Yarra Valley. A Statement of Planning Policy issued in 1971, which set down nature conservation and recreation as planning objectives, was a landmark in the process of preserving the Yarra.

During the 1970s, people became more aware and concerned about the environment. In Melbourne, a critical eye was directed to the quality of urban waterways. The Board of Works began developing plans for the river valley and established the Lower and Middle Yarra advisory committees.

The Yarra River and its open spaces are one of Melbourne's most important natural assets. It contains popular destinations for a wide range of recreational activities and is also of great historical and environmental significance. The Yarra Valley represents the heart of a 'green' network of open space in Melbourne, much of which follows the various river and creek valleys. Careful planning is necessary so that rapid urban growth and uncontrolled recreational use do not threaten the Middle Yarra's special characteristics.

### WHAT IS A CONCEPT PLAN?

Under the State Conservation Strategy, a concept plan defines broad land uses, circulation plans and management goals, but does not deal with detailed design. Statutory concept plans for the Yarra and Maribyrnong Rivers were previously required under the Town and Country Planning Act 1961. This act has been repealed and all planning actions required by concept plans now come under the Planning and Environment Act 1987.

Concept planning for all of Melbourne's waterways is now well advanced. The following plans have been completed for the Yarra River Valley:

- Upper Yarra River Management Strategy, UYVDRA, 1984.
- Middle Yarra Concept Plan (Dights Falls to Burke Road), MPE 1990.

- Lower Yarra River Concept Plan (Punt Road to Dights Falls) MPE, 1986
- Lower Yarra River Concept Plan (Spencer Street to Punt Road), MMBW, 1981

The concept plan in this report covers the length of the Yarra River Valley between Watsons Creek and Burke Road, which is the gap between the first two plans listed. Statutory plans now apply from the upper reaches of the Yarra River to Spencer Street and also the lower Maribyrnong River. Plans are now being prepared for the port area of the Yarra and Maribyrnong, and the Upper Maribyrnong.

The concept planning process is being extended progressively to tributaries of the Yarra, such as the Plenty River, and other waterways (see Map 1).

This document sets out how this part of the Yarra should be planned to make the most of its values and potentials. The concept plan and the associated planning scheme amendments have statutory force and all development and use of land, both public and private, will have to conform.

### THE POLICY CONTEXT

Government policies for the Yarra Valley began with the Statement of Planning Policy No. 4, 1971, which required that the Yarra River and its immediate environs be planned primarily as an open space system for nature conservation and recreation with provision (where appropriate) for primary production and forestry. In 1984, the State Environment Protection Policy No. W-29 set out specific standards for indicators to protect the Yarra's water quality, and in 1988 the EPA released a policy covering all the waters of Victoria.

The previous Government's Conservation, Economic, and Social Justice strategies, released in 1987, set out the broad planning framework for the Yarra Valley. More detailed policies included:

- Shaping Melbourne's Future.
- Melbourne Open Space Plan.
- Wetlands Conservation Program for Victoria.
- Finding Nature in the City.
- Melbourne Waterways Program.
- Management Plan for Warrandyte State Park.

(The final report of the Powerline Review Panel, July 1989, includes a useful description of the relevant policies contained in these documents).

The current Government is committed to a parks and waterways program for the metropolitan region which embraces the concept of a network linking the Bay to Ranges. The Government also supports protective and educative measures to help ensure the survival of Victoria's native flora and fauna.

These policies emphasise the importance of the Yarra Valley to Melburnians and the need to preserve and enhance its natural resources and recreational opportunities.

#### OBJECTIVE OF THE CONCEPT PLAN

The general objective of the concept plan is to implement Government policies for developing a continuous system of open space along the Middle Yarra Valley for conservation and recreation.

Specifically, the objectives are to:

- Protect and enhance the valley's air and water quality, soil resources, flora and fauna, and open space values.
- Enhance the valley as a corridor for the movement of native fauna.
- Protect sites and landscapes of Aboriginal, historic, cultural, educational and scientific importance.
- Provide and maintain opportunities for a wide range of outdoor land and water-based recreational activities, including some minimally developed areas for simple quietness and solitude.
- Maintain and improve public access to the Yarra River and its parkland.
- Provide a network of paths for cyclists, pedestrians, and (where appropriate) equestrians along the river valley, and recommend suitable connections to paths along tributaries and other linking open space corridors.
- Protect and enhance the appearance and landscapes of the valley and views from important recreation areas.
- Gradually moderate or eliminate intrusive elements over the long term.

In addition, the concept plan complements concept plans for the Yarra River Valley upstream and downstream and the Lower Plenty River Concept Plan.

*A billabong provides this young boy with some wriggling pets.*



### THE AREA COVERED BY THIS PLAN

The concept plan area includes the Middle Yarra River and adjoining land between Burke Road and Watsons Creek on the north bank, and between Burke Road and the City of Doncaster and Templestowe/Shire of Lillydale municipal boundary on the south bank. This area is situated within the Cities of Heidelberg, Camberwell, and Doncaster and Templestowe and the Shire of Eltham (see Map 2). The primary Study Area includes all public land and all privately owned recreational land adjoining or near the river, the lower sections of tributaries, all other private properties with a Yarra frontage, and all areas reserved as proposed public open space or zoned special conservation.

Much of this land is owned by public authorities, and includes Melbourne Parks and Waterways' Yarra Valley Park (formerly known as the Yarra Valley Metropolitan Park), the Warrandyte State Park, and other parklands managed by municipal authorities.

### PREPARATION OF THE CONCEPT PLAN

The concept plan was developed by a working group coordinated by the Office of the Environment. Representatives also included the Shire of Eltham and the Cities of Doncaster and Templestowe, Camberwell, and Heidelberg, the Department of Conservation and Natural Resources, Melbourne Parks and Waterways, the Middle Yarra Advisory Committee and the Department of Planning and Development (see Appendix A).

The working group drew extensively on published material (listed in the bibliography), on the expertise of staff within relevant organisations, and on the knowledge of various community groups and individuals.

A study specifically commissioned for this concept plan - the Middle Yarra Valley Visual Resource Study, Burke Road to Watsons Creek (Scenic Spectrums Pty Ltd, 1989) - was supervised by the working group. An archaeological survey of the Yarra Valley was completed by Victoria Archaeological Survey. Both studies have been published as separate supporting documents.

Public input was sought through local newspapers and an explanatory leaflet widely circulated throughout the valley and made available at council offices of the municipalities immediately affected. Submissions were received, and they provided valuable information that aided the working group in developing the concept plan.

Detailed planning for the Middle Yarra Valley parklands is well advanced.

Melbourne Parks and Waterways has recently completed its Management Plan for the Yarra Valley Park.

The Department of Conservation and Natural Resources has also prepared a management plan for the Warrandyte State Park which provides a detailed framework for the parklands between Pound Bend and Watsons Creek.

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**PART B**

**RESOURCE**

**DESCRIPTION**

**AND ISSUES**

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## GEOLOGY AND LANDFORM

The formations occurring in the Yarra Valley reflect a wide range of geological events during its development. The geology of the Middle Yarra Valley comprises sediment formation from three broad ages: Silurian, Devonian and Quaternary. There is:

- The Anderson Creek Formation: Silurian sandstones and siltstones that are part of the basement geology of the Melbourne region. The Warrandyte Anticline is a major feature.
- The Dargile Formation: Upper Silurian interbedded mudstones, siltstones, shales and sandstones.
- Porphyrite intrusions: Upper Devonian porphyrite intrusions consisting of quartz and feldspar, some being gold bearing. Located between Warrandyte and Watsons Creek.
- Alluvial deposits: Quaternary alluvial deposits infill much of the Yarra Valley and tributary valleys and vary in age from Recent to Pleistocene. These comprise river alluvium (sand, silt, clay and gravel), high-level alluvium (sand, silt and gravel), and fan and slump deposits (sand, silt and gravel).

Sites of special geological interest are shown on Maps 5a and 5b.

The form of the Middle Yarra Valley changes throughout its length as the Yarra River flows westward to Melbourne from the broad floodplain at Yarra Glen. At the eastern end of this Study Area, the main physiographic feature is the Warrandyte Gorge. It has deeply incised meanders (such as Pound Bend), steep slopes and cliffs on the surrounding hills, undercut bends and rapids. In other stretches, the river channel has gravel bars and islands.

The steep hills, with 20–40 per cent slopes west of Watsons Creek, become more moderate downstream. These hills contain a range of vegetation patterns, from large areas of sclerophyll forests to extensive areas of cleared farmland.

Downstream from Warrandyte to Westerfolds Park, the steeply rising hills gradually dissipate to more moderate undulating slopes, particularly south of the river, frequently with a steeper escarpment on the northern side. Remnant forest cover predominates on the northern side, whilst to the south of the river, downstream from Alexander Road, only remnant woodland patches remain among the areas of generally cleared paddocks, remnant orchards and recently established parkland.

At the western end of the Study Area, from just above the junction of Plenty River, the Yarra River enters a broad floodplain (part of the Chandler Basin), which was formed when the river was blocked by lava flows two million years ago in the Late Pliocene period. In this section, the Yarra River displays wide meanders and some significant billabongs survive, despite extensive landfilling in the past.

The hills to the north of the river tend to be steeper than on the south, but are generally covered by the suburbs of Heidelberg and Eltham. Open areas remain on the northern side, west of the Plenty River.

Throughout this length, the Yarra River is eroding steadily, particularly in the floodplain section of its course, and islands continually form and disappear.

## VEGETATION

The State Conservation Strategy, recognising that 150 years of European settlement has caused substantial changes, seeks to protect representative, viable samples of all Victoria's natural ecological systems and vegetation types. Considerable emphasis is placed on preserving remnant vegetation and the revegetation of river frontages. *The Flora and Fauna Guarantee Act* requires the protection of endangered native species.

The flora of the Middle Yarra Valley, although much altered by clearing and development and invaded by alien plants, is a valuable resource, not only for its genetic and visual diversity, but also as a habitat for local and transient fauna and as a key component of the landscape.

A survey of the Yarra Valley Park (Paget, 1988) identified five vegetation types (plant and tree communities) of regional significance, six rare species of state significance, and a considerable number of rare species of regional significance. The distribution of blocks of remnant vegetation and their significance are shown on Maps 3a and 3b. The major vegetation communities are river red gum, yellow box, red box, manna gum and swamp gum woodlands. (Maps 3a and 3b do not show individual trees of significance or native vegetation that has been planted).

The survey recommended that revegetation should be based on a reconstruction of the original vegetation types. The proper management and extension of good quality vegetation remnants is essential to this process as is the further study of designated reference areas for each vegetation type.

Warrandyte State Park is in a similar position, although no complete botanical survey has been carried out. The Warrandyte State Park Management Plan lists many species in categories ranging from very rare in Victoria to those of local significance.

The Yarra Valley Park protects and nurtures native grasslands, which is significant because grasslands have all but disappeared around Melbourne under the spread of suburbia and as a result of 'pasture improvement', superphosphate and weed invasion.

Invasion by weeds or alien species (from overseas as well as from other parts of Australia) is widespread; more than 160 alien vascular species have been identified in the Warrandyte State Park alone.

Eradicating or controlling these pest plants (such as blackbirds spreading blackberry seeds), is an ongoing problem for park management. A particular problem is the need to remove regularly, basket willows from the banks of the Yarra and tributaries.

Other difficult management problems include striking a proper balance between flora conservation and fuel reduction for fire management, and in the management of grassland. Some parkland maintenance systems, particularly grazing and mowing, can deplete the number of understorey plants and prevent natural regeneration of trees and shrubs. Even the unnatural absence of fire can severely deplete some plant communities.

Important issues for planning and management often occur at park boundaries. Unauthorised clearing, invasion by pest plants from surrounding gardens through seed dispersal or dumping, and effluent disposal, all threaten indigenous vegetation. On nearby freehold land, it is important to protect indigenous vegetation in order to buffer the flora within the parks from urban areas. It is now not unusual for planning controls to be adopted to prevent unnecessary clearing of native vegetation. In many of Melbourne's older suburban areas, the protection of exotic trees may also be important for historical and amenity reasons. Within the study area, exotic trees are important to the character of Heidelberg and Camberwell, while further upstream, native vegetation predominates. In fact, all mature vegetation contributes to the tree canopy that softens the harsh outlines of buildings when viewed from the park.

Park planning must specifically make provision for botanically significant areas, which should not be subjected to heavy (or perhaps any) use. Reference areas and quadrats need to be protected from the damage caused by vehicles, bicycles, and pedestrian traffic.

## FAUNA

Information on fauna within the Middle Yarra Valley is drawn from the study of vertebrate fauna of the Yarra Valley Park in 1976 and an unpublished study of vertebrate fauna in the Warrandyte State Park in 1988. Neither study covered invertebrate fauna or fish. In addition, both Melbourne Water and the Department of Conservation and Natural Resources maintain species lists of mammals, birds, reptiles, fish and amphibians.

Activities since European settlement, such as clearing, burning, grazing and logging, have drastically changed Australian ecosystems, depleting them of some species and adding others. The complexity of ecosystems has been reduced and their stability threatened.

Nevertheless, a surprising variety of species survives. The Melbourne Region Conservation Report (1971) classified the Middle Yarra Valley at the highest ranking for its conservation importance on the combined factors of mammal habitat, bird habitat, and botanical quality.

Fires and grazing have depleted the shrub and ground cover vegetation in many areas and only small patches of dense undergrowth remain to provide suitable conditions for native ground-dwelling species. The number of nesting hollows available for arboreal mammals and birds has also been reduced. Other hazards have resulted from the invasion of habitats by pest plants and animals.

### **Mammals**

There are more than 20 species of native mammals in the Study Area plus several introduced mammals (refer to Appendix B), and park management practices are improving their habitats. The State Park is one of the closest areas to Melbourne where visitors can view eastern grey kangaroos in their natural habitat. These kangaroos were introduced into the eastern end of the Yarra Valley Park (behind a dog-proof fence) in 1986. Swamp wallabies now live in the Park and depend upon a dense understorey of vegetation.

Brush-tailed phascogales and feathertail gliders occur both in the State Park and Yarra Valley Park. Sugar gliders were first identified in Westerfolds in 1985 and were encouraged with artificial nesting hollows. There are signs that platypuses are becoming increasingly common in downstream waters.

Koalas were reintroduced into the State Park in 1983 and 1985 and identified in the Yarra Valley Park as far down as Westerfolds in 1986. It is hoped that this animal will also extend its range downstream. 'Operation Koala' is a program designed by Melbourne Water to enhance the flora and fauna habitat within the Park so that a viable koala population can survive along with other indigenous species. The focus is on areas upstream of Petty's Orchard, and co-operative management with Warrandyte State Park will be essential. Melbourne Parks and Waterways and the Department of Conservation and Natural Resources also provide advice and support to councils and local residents.

Habitat disturbances have probably caused the population of several species to fall to dangerously low levels. Dangers still exist from wildfire, clearing under powerlines, predators, and roaming domestic pets.

### **Birds**

The Middle Yarra Valley is one of the best remaining habitats within the metropolitan area for both bush and water birds. The wetlands in the west of the Study Area are an important habitat, being all that remains of the once-extensive wetlands. Water birds represent around one-third of all the species in the valley and rely on wetlands for both food and shelter. Waterbirds, because of their size and number, are easily viewed and the wetland settings are both beautiful and accessible. Just under 200 species of birds have been counted, with the regent honeyeater in the State Park classified as being of state significance because it is endangered in Victoria.

The wetlands of the valley serve an important function by providing a refuge for water birds when drought conditions strike inland breeding areas. The river itself acts as a flyway corridor for birds and bats which move downstream to inner-city parks. The river also provides a breeding area for bush birds, which can then move out laterally into suitable parks and suburban gardens. Even farm dams in rural areas adjoining the Yarra Valley can provide a home for water birds.

### **Reptiles and amphibians**

Around 10 species of reptiles are found in the valley. Amphibians recorded include the long-necked tortoise in many billabongs and 10 species of frogs.

### **Fish**

Ten species of an original 14 native fish still survive, and 12 non-indigenous species have been introduced into the river. The river regime has changed since European settlement: snags, which provide shelter for fish, have been removed; willow trees have proliferated; and the increased turbidity has affected species that lay eggs on the riverbed or feed on bottom-dwelling invertebrates.

### **Pest animals**

Pest animals are a major threat to the continued survival of native fauna, although their effects vary along the length of the Middle Yarra Valley. Foxes and cats are ferocious predators of birds and small native animals while domestic dogs kill larger animals. Rabbits can degrade habitats as well as compete with native grazing animals.



Starlings and Indian mynahs aggressively displace native birds from nesting hollows, honey bees compete with native birds for nectar, and European wasps are at least an annoyance to park users.

## PLANNING AND MANAGEMENT ISSUES

The remaining timbered areas in the Yarra Valley Park may be too small and too disturbed to maintain viable populations of animals such as swamp wallabies and brush-tailed phascogales. To improve this situation, there should be enhancement rather than further destruction of timbered areas. Melbourne Water has a program to enhance the existing habitat, to create additional wildlife corridors, and to encourage public acceptance of, and involvement in, urban wildlife conservation.

Along river banks, it is important that snags and old trees are not removed so that riparian vegetation corridors are protected. Walking, bicycle and bridle paths should not pass through areas of dense streamside vegetation, nor pass very close to the river's edge, because platypus burrows, which are long and close to the surface, are susceptible to damage from heavy animals or traffic.

With proper management, the wetlands could support far larger numbers of water birds and provide improved refuge during drought for residual populations, which could later colonise inland breeding areas.

Wetlands and billabong edges generally should not be grazed, but some frontages could be mown or grazed to provide suitable habitat for grazing birds and waders. Promontories and bends provide suitable refuge areas if human access is restricted.

The following areas have been identified as being of special significance because of their biotic diversity, size, and because they allow an interchange between populations of different species and neighbouring populations of the same species:

- The north bank of the Yarra River east and west of Fitzsimons Land.
- The southern side of Banoon Road, Eltham.
- Griffith Park, Eltham.
- South of Yarra Braes Road between Sweeneys Lane and Reynolds Road.

- The area between the Yarra River, Reynolds Road and Laughing Waters Road.
- The timbered land on steeply sloped areas between Overbank Road, Glynn's Road and the Yarra River.

## WATERWAYS AND WETLANDS

The hydrological regime of the Yarra River and its tributaries in the Study Area has been vastly modified since European settlement. Water-supply works have reduced flow in the river, and the average flow at Warrandyte has been halved since the early 1960s. Clearing of vegetation, grazing, pasture improvement and the use of fertilisers have profoundly altered the surrounds of the river. River improvement works have altered the river and banks throughout its length. In the floodplain, fewer floods and residential drainage programs have lowered the watertable. Billabongs have been drained or filled with rubbish. In places, sand mining was authorised.

Government policy now recognises the need for conservation. The State Conservation Strategy aims 'to protect, restore and enhance rivers, wetlands and the coast to ensure that ecological processes, native species and features of scientific, cultural or scenic interest are maintained, and to provide for present and future recreational and commercial uses'. The government also has a clear program for reviving Melbourne's waterways.

### Floodplain management

Preserving and enhancing the river's environmental assets in the metropolitan area can conflict with the need to minimise the flood hazard to properties, buildings and services.

Snags in the river provide shelter for fish, but can reduce the carrying capacity during floods. Flooding river flats benefits billabongs and marshland and helps to regenerate native plants, and the Chandler Basin acts as a large-scale retarding basin in protecting downstream suburbs from flooding. Therefore, different management practices are appropriate in different sections of the river.

Thus, the policy for management of the Yarra River in the Study Area is to accept periodic flooding of the Chandler Flood Basin (downstream from Plenty River) and to maintain the hydraulic capacity of the river channel in this section. Upstream, the hydraulic capacity of the river channel should be maintained and improved when necessary. Generally, the aim should be to retain beaches, islands and rock bars where possible. Development that would interfere with the floodway or reduce flood storage capacity, or be seriously damaged by flood flows, should be prevented.

### Riverbed movement

Changes in the course of the river occur naturally, too slowly to see in the hilly upper section, but much more rapidly as the river meanders through the floodplain of the Chandler Basin. Where private property extends to the water's edge, movement of that edge leads to grievances and a community expectation that riverbanks should be fixed over time, perhaps by rubble filling or by armouring the bank. Riverbank stabilisation may possibly reduce siltation of the Yarra estuary further downstream. However, in addition to fundamentally changing the landscape and riverside vegetation, these practices can sometimes transfer erosion elsewhere.

If both banks are in public ownership, and there are no man-made features of importance, the river can be allowed to move naturally. Public ownership of the riverbanks has other benefits such as allowing consistent control of the introduced willows that blanket understorey vegetation, extend into the river channel and migrate downstream. Other benefits are the opportunity to revegetate with indigenous flora and form a wildlife corridor, and to allow recreational access. For the same reasons, substantial developments should not be located close to waterways. Examples of problem areas of this type along the Yarra are at the Warrandyte township and along Koonung Creek.

River movement has created two islands in the past 140 years, just north of Odyssey House and immediately south of the Banksia Street bridge. Two areas where meander cut-offs are likely in the future are in the narrow-necked meanders at Banksia Park and another just north-east of Odyssey House.

In earlier times, sandy beaches were quite numerous in the lower sections of the Study Area and were popular recreation spots. In the past few years, the beaches have either disappeared or become muddy. The reasons are not known, but may be associated with river clearance works, increased silt loads in run-off and reduced average flows. The first step in reversing this change would be a study to identify the causes.

### Wetlands

Wetlands, in the form of both billabongs and marshland, occur mainly in the Chandler Basin section of the Study Area (see Maps 4a and 4b).

Billabongs have considerable conservation, aesthetic and recreational values. They provide a diversity of flora and fauna that enriches the Yarra Valley. Perhaps their most obvious feature is their importance to water birds, giving the urban community access to a comparatively unspoiled natural world.

Unfortunately, filling and other works have greatly reduced the number of billabongs. A 1977 study (Natural Systems Research Pty Ltd) located five reasonably intact billabongs in the Study Area, including one in the Camberwell Golf Course. The other four, in the Yarra Valley Park, are Bolin Billabong (sometimes also referred to as White's Billabong) and the Billabong off Bulleen Road (the youngest of the four), the Annulus Billabong in Yarra Flats, the Viewbank Billabong in Birrarung Park. The Viewbank Billabong, perhaps because of its size, had the most species of native flora. The study's findings suggested fencing to protect the billabong from grazing and trampling.

These billabongs are a rare feature in Melbourne and will require careful management, perhaps including a restriction on human access permanently or temporarily (although perhaps hides for viewing birds could be provided). Billabongs are normally replenished with water, aquatic animals and seeds by periodic floods. Proper management may therefore require simulated floods.

Planting and fencing have been used to protect and improve these billabongs. In areas under agistment, Melbourne Parks and Waterways has also fencing off the riverbank from all grazing. Melbourne Water already replenishes some billabongs by windmill or motorised pumping for the river and has closed many drains installed in the past to empty billabongs.

The City of Heidelberg, in association with the Warringal Conservation Society, has carried out works over several years to re-establish the marshlands within Banyule Flats and Warringal Park.

Many possibilities remain for improving wetlands in the Middle Yarra Valley. The Wetlands Conservation Program for Victoria states: 'In urban areas, wetland systems should be incorporated, as far as possible, in the design of urban run-off systems or in urban creeks with low flow characteristics. This strategy will have long-term benefits in the reduction of the pollution flowing from urban areas.' Stormwater drainage systems could also be diverted through settling ponds to replenish existing bodies of water.

Existing mature billabongs might be rejuvenated and new billabongs or water bodies created - a fine example is at Petty's Orchard. The most obvious opportunities for creating new bodies of water or restoring earlier billabongs are in the river flats downstream of the Plenty River.

#### FIRE MANAGEMENT

A combination of low rainfall, indigenous vegetation, residential development and the use of bushland areas by people creates wildfire hazards. Much of the Warrandyte State Park was burned by wildfire in 1851, 1939 and 1962. The last fire in 1969 damaged or destroyed 70 homes.

The Fire Hazard Mapping of non-urban areas, using a scale from low to very high, rates the Shire of Eltham east of Reynolds Road (within the Study Area) as a high fire hazard. The remaining areas of Eltham in the Study Area are rated high moderate, as is the area east of Warrandyte in the City of Doncaster and Templestowe. The remaining non-urban area in the city, extending west to Fitzsimons Lane, is rated low moderate. The former Board of Works, the then planning authority for the metropolitan area (1984), recommended that in areas of high hazard:

- Applications for subdivision should be discouraged and in some cases prohibited.
- Developments involving large numbers of people, such as school camps, should not be permitted.

Much of the Middle Yarra Valley is parkland and park managers have the responsibility to protect life, property and assets from fire originating from within their parks. Park managers are also responsible for protecting areas of natural and cultural value from wildfire and must take account of fire risk in recreation planning. Both Melbourne Water and the Department of Conservation and Natural Resources have fire protection plans that are incorporated into the Regional Fire Protection Plan.

The fire protection plans include the development and maintenance of systems of fire breaks and access tracks for fire suppression and precautionary measures such as reducing combustible fuel for fires. Fuel reduction can be achieved by grazing, mowing, slashing, or burning. The park manager has to assess the effect of preventative burn-offs on different sorts of vegetation. For example, it is thought that riparian vegetation is less adapted to wildfire than woodland vegetation, but in fact, there is very little published information on the effect of the broad ranges of fire regimes available to park managers.

Planned burning is also carried out to promote revegetation of indigenous species, as many Australian plants depend on a fire's heat to stimulate seed germination. However, professional views differ and a study of flora within the Yarra Valley Park recommended that fire not be used as a tool to encourage regeneration in bushland remnants. This is because the fire itself, as well as the disturbance created for fire access trucks and fire breaks, gives weeds the opportunity to invade.

As there are several transmission lines that cross the Middle Yarra Valley, the SEC has regulations regarding clearing under high-voltage lines. The present clearing arrangements are necessary to protect these services.

## NOISE

The State Conservation Strategy aims to enhance our cities by reducing levels of air and noise pollution.

The Environment Protection Authority (E.P.A.) has not yet prepared policies for acceptable noise levels in parks, but the Scott and Furphy report of 1979 included a study of the acoustic environment from Burke Road to Pound Bend. It classified noise levels as 'quiet' (less than 45 dBA), 'intermediate' and 'noisy' (greater than 55 dBA). This report clearly showed that the greatest noise impact comes from road traffic where high-volume roads parallel or cross the park, particularly Fitzsimons Lane, Templestowe Road, Banksia Street, Bulleen Road, and the Eastern Freeway.

Quiet areas were identified from Pound Bend towards Fitzsimons Lane, the western end of Westerfolds, the northern end of the Viewbank area between Bonds Road and Banyule Road, the Banyule Flats area near Banyule Road and part of Yarra Flats half way between Burke Road and Banksia Street bridges. Future planning should aim to maintain this quality and extend these areas.

Increased traffic volumes could reduce the extent of these quiet areas, and an important issue is whether noise attenuation measures should be taken along freeways and main roads to protect quiet areas and reduce the noise pollution in intermediate and noisy areas. The Government has started a \$6 million program to restrict noise emanating from freeways, but barriers have not been fitted alongside freeways passing through parkland or along main roads.

The Scott and Furphy study forecast a need for noise attenuation measures around Fitzsimons Lane bridge as traffic over it increases. This river crossing has now been duplicated, but so far no practical solution to the question of noise barriers has been found.

Other aspects of the noise issue noted by the Middle Yarra Valley Visual Resources Study should be considered: the importance of views into the valley parkland from freeways and main roads; and the need for visual enhancement of a dominant road or freeway when viewed from the parkland. One solution might be to provide noise attenuation and visual screening measures that allow intermittent views or glimpses into the parkland.

The other source of noise pollution comes from the recreational use of the parklands. The Scott and Furphy study specified that motorised model aeroplanes and trail bikes would not be permitted anywhere in the Yarra Valley Park, and the Warrandyte State Park Plan prohibits off-road driving. As an example, the regular flying of motorised model aircraft in Bulleen Park impacts upon the quiet area within Yarra Flats. Possible solutions include enforcement of the hours licensed for this activity or phasing out or relocating the activity away from the Yarra Valley. The EPA could develop standards suitable for quiet parklands that noisy activities would be required to meet.

## WATER QUALITY

Before European settlement, the Yarra River was probably clear except during floods. However, its water quality and flow have been greatly reduced by practices such as vegetation clearing, intensive farming, overgrazing, river management practices, pesticides, and sewage and industrial effluent disposal. Run-off from construction sites and road verges have contributed to a high turbidity, which reduces the recreational potential of waterways, damages aquatic ecosystems and results in the need for dredging downstream.

*The State Environment Protection Policy W-29, (1984)*, identified several beneficial uses that must be protected (see Appendix D) by the quality of water in the Middle Yarra. To protect these uses, the policy sets out specific standards for a number of water quality indicators, including dissolved oxygen, bacteria, metals, turbidity, nitrogen and phosphorus. The policy also sets out a minimum daily flow.

*The State Environment Protection Policy for the Waters of Victoria, (1988)*, is a statewide management policy and is relevant to improvement of water quality in the Yarra and its tributaries. Several clauses from this policy are contained in Appendix E.

There has been some improvement in water quality in recent years; park rangers have observed that some forms of aquatic life (platypus, native fish) can now be found further downstream. However, the quality of water continues to decline downstream after more urban run-off enters the river, and much improvement is still required.

An Environmental Protection Authority pamphlet, *Reducing Turbidity in the Yarra*, discusses the sources of turbidity. Apart from increasing public awareness of the problem, it suggests that the planning process could be amended to include guidelines and specifications to prevent the run-off of clay and silt during subdivision, building operations, drainage trenching and pipelaying, and road construction and maintenance. In road construction, for example, it is important to encourage the revegetation of roadside batters. Sealed roads also have an advantage over unsealed roads in this respect, generating less clay and silt.

A further problem is pollution caused by litter, particularly plastic, washed off urban areas and entering the river via stormwater drains. Controlling this problem would improve environmental amenity, protect fauna and reduce clean-up costs.

The Environmental Protection Authority and Melbourne Water have recently completed a pilot study of litter control in urban waterways. This has led to recommendations for the use of litter traps on major stormwater outfalls and for volunteer clean-up days for the banks of urban streams. However, the study concluded that effective litter control needs to tackle litter at its source, including a public education campaign.

## VISUAL LANDSCAPE

The Yarra Valley is one of the major natural features of Melbourne, and the widely varying landscape of the Middle Yarra Valley is a rich resource and public asset, particularly as so much of it is coming into public ownership. This landscape is the background and setting for the experiences of people visiting the park, or living in and passing through the area. Viewing points include those looking out from the riverside parklands from walking and bicycle tracks, from adjacent hillsides looking into and across the river, and from roads crossing or passing along the valley.

However, the valley is still in transition, with a steady growth of suburban development. Even over the past 20 years, the character of much of the valley surrounds has changed from rural and semi-rural to suburban, as at Bulleen and Templestowe. This process will continue further upstream, and these areas will lose their distinctive sense of place unless adequate planning steps are taken.

Even in established suburban areas, change could adversely affect the valley. An example is the suburb of Eaglemont, which overlooks Yarra Flats. Some of this hillside has been gardened since the 1840s and some very old trees, both indigenous and exotic, remain. Generally, the hillside presents a well-treed appearance from the park. This effect could be lost unless adequate development controls are introduced.

Similarly, in the suburban development close to the Yarra alongside Templestowe Road, inappropriate development could prevent this hillside becoming more treed. It would be a great loss to Melbourne if uncontrolled development resulted in the valley becoming essentially urban in appearance.

The Middle Yarra Valley Visual Resource Study defined four areas or units each with its own distinct landscape character (see Maps 4a and 4b).

### Jumping-Watson's Creek Unit

Towards Warrandyte, the Yarra River cuts through steep topography with a pronounced gorge. Steep slopes occur north of the Yarra, and slightly more moderate slopes to the south. It has a rural-agricultural character and large areas of semi-natural forest landscape, relatively unaltered by residential development, roads and bridges. Public land in this area is mostly part of the Warrandyte State Park. The principal threats to this unit are the potential clearing of forested areas and higher density rural residential developments.

### Stony-Mullum Mullum Creek Unit

The river in this unit passes through hills that rise steeply in the east and become more moderate to the west. The Yarra continues in a sinuous pattern, breaking out of the gorge and becoming straighter west of Paddies. Its character is semi-rural, with cleared paddocks, orchards, woodlands, and forest substantially altered for suburban residential development. The remnant forest areas on the northern side of the river are susceptible to higher building densities and increased tree removal from private allotments. On the southern side, the character is threatened by residential development in former open or sparsely treed agricultural land.

### Plenty River Unit

The Plenty River Unit, which does not contain any reaches of the Yarra River, has a suburban and rural residential character. The rural-parkland appearance of cleared paddocks, red gum woodlands and golf courses that separate the Yarra River from the suburban portions of this unit are distinctive. The residential areas on the northern hills have a dense tree canopy of both exotic and indigenous species. Continued residential development pressure could have an adverse visual effect.

### Koonung Creek Unit

This unit contains much floodplain and is a major part of the Chandler Basin. The river is characterised by accentuated meanders and several distinctive billabongs, including Bolin Billabong and Banyule Flats. Its character is strongly influenced by suburban surrounds, golf courses and sports fields. However, there are extensive parklands (including Bulleen, Banksia, Birrarung, Yarra Flats, Westerfolds and Warringal Parks) of an informal, pastoral nature. Tree cover is fairly sparse within the floodplain, although there is a narrow strip of almost continuous riparian vegetation, scattered river red gums and exotic tree rows.

The character of this area could be threatened by the removal of the existing tree cover and increased building heights and densities in surrounding residential areas, by industrial development near the Banksia Street bridge, and by more sporting facilities and recreational structures. Major traffic routes already affect this unit.

### Viewing zones

The surrounding areas that affect the Middle Yarra Valley have been defined by the Middle Yarra Valley Visual Resource Study, which delineates the viewsheds visible from all public open space and proposed public open spaces along the river. These were categorised into three viewing zones:

- Viewing Zone A. The foreground and near middleground areas where natural landscape features and landscape attractions have an immediate visual presence and can exert a significant degree of visual influence on the experience of visitors.
- Viewing Zone B. The middleground and far middleground areas where natural landscape features have an intermediate visual presence and a more moderate degree of visual influence on the Yarra Valley landscape.
- Viewing Zone C. The background areas where landscape features and alterations are well removed in terms of their visual effects. Only major forms and basic colour hues are visible.

These viewing zones have formed the basis of the overlay planning controls introduced in the planning scheme amendments approved with this concept plan.

### Heritage landscape opportunities

In addition to values based on scenic beauty or nature conservation, landscapes can also have cultural values. This aspect was explored in the *Heidelberg Conservative Study Part 2 – Historic Riverland Assessment*, which concluded that landscape precincts in both the Plenty River and Koonung Creek units have great cultural significance.

Some of these landscape precincts, particularly those associated with the Heidelberg School of artists at Yarra Flats and Banyule Flats, are considered to be of state, and possibly national significance 'because they remain sufficiently intact, of a scale and in the locale of major events in Australia history . . . It was these landscapes which inspired Roberts, McCubbin, Streeton, Conder, Withers, Fox and others. The landscapes they painted remain sufficiently intact so that we can not only feel and see the spirit that moved them, but also virtually locate each major painting' (*Heidelberg Conservation Study Part 2, p17*). In these two landscape precincts, the report recommends measures to conserve the remnants of the historical landscape and to reconstruct the pastoral landscapes of the late 19th Century.

One of the planning options for the Middle Yarra Valley is to design particular landscape precincts to enhance those heritage values. However, total reconstruction would lead to significant conflicts with nature conservation objectives. The other extreme would be for heritage landscape restoration to focus purely on pre-European settlement. Some compromise position between the restoration of post-European heritage landscapes and nature conservation (i.e. pre-European) objectives needs to be established. The issue of heritage landscape and archaeology has been addressed in the Yarra Valley Park Management Plan.

### Localised threats and landscape enhancement

The Middle Yarra Valley Visual Resource Study identifies key features that adversely affect the landscape quality of the valley and which might be improved by landscaping and design.

These include features such as the Eastern Freeway and bridges over the Yarra River, unscreened residential areas, dominant sporting buildings, industrial structures adjacent to the parklands off Templestowe and Bulleen Roads, overhead power lines and the SEC Terminal Station at Doncaster. Although planting in the Yarra Valley Park and other parklands has improved the landscape, many intrusions and threats remain.

One of the most intrusive features is the line of SECV transmission towers that extends over large areas of the valley east of Paddles and within the Plenty River landscape unit, and particularly the line that crosses Westerfolds Park, runs west to Birrarrung Park and south to Burke Road. This latter line, constructed nearly 20 years ago, has a tower capable of transmitting 220 kv, but to date, operates at only 66 kv. The SECV wants to retain this extra capacity, however, as it could be needed after construction of the Kew Terminal Station near Burke Road bridge.

The final report of the Powerline Review Panel in July 1989 recommended that a line of transmission towers should not be constructed through Yarra Bend Park and down the Yarra Valley to the Richmond Terminal Station. The report documents changing community attitudes to the use of river valleys as utility easements and continued public opposition to that particular proposal.

Past practice allowed the establishment of an industrial enclave close to the Yarra River in Bulleen and an industrial zoning by the river flats off Templestowe Road. Both detract from the integrity of the Middle Yarra Valley and ideally should be relocated, although this may not be a feasible option in the foreseeable future.

The Warrandyte Townscape Improvement Report (1989) sets out measures for enhancing the landscape of Warrandyte by establishing a more integrated 'vegetation link' with the surrounding regional landscape, by strengthening the visual connection with the Yarra River and developing 'vegetation gateways' to the township. The area of Warrandyte in the City of Doncaster and Templestowe, zoned Warrandyte Residential, is a particularly sensitive area close to the Yarra River.

A survey for the City of Doncaster and Templestowe in 1987 concluded that because of steep slopes and soil erosion, fire hazard and extensive native vegetation and fauna, development should be carefully controlled.

There is strong support among Templestowe residents for stricter planning controls. This led to the preparation of Amendment L25 to the Doncaster and Templestowe Planning Scheme, which rezoned part of Templestowe from Residential C to Environmental Residential Zone. This zone recognises the area's special landscape significance. Generally, building size is limited in floor area and height, and not less than 50 per cent of each allotment may be garden, lawn or other previous open space. A permit is required for the destruction of all except small trees.

Another critical area is that between Odyssey House and Westerfolds Park, the Dellas Avenue-Unwin Street precinct, where some private residences extend to the water's edge and immediately overlook the river. The City of Doncaster and Templestowe has recognised the significance of this area, now zoned Residential C, by designating the area with the lowest density in its Flat Guide, and by carrying out a special study of the area. This study showed that the majority of residents wanted the area included in a special residential zone.

### ABORIGINAL ARCHAEOLOGICAL HERITAGE

An archaeological survey of the Study Area was carried out by the Victoria Archaeological Survey (VAS) in 1990 to assist this concept plan and more detailed planning requirements in the future.

The survey was based on a sampling approach, biased towards the sites most likely to have archaeological significance. The VAS survey has been produced as a background report to this concept plan and includes a description of historical research, discussions with several Aborigines and other people, and a review of previous surveys. Although this survey found only 14 archaeological sites (three artefact scatters, 11 scarred trees), the relatively small area surveyed indicates that many more sites would almost certainly exist.

Historical research shows that the whole of the flood-plain, with its billabongs and swamps, was rich in various foods and was much frequented by Aborigines. The Bulleen area was particularly important, not only to the local Wurundjeri, but also to other tribes from a large part of Victoria who visited at certain times for gatherings of religious and social importance. Historic records also show that some Dreamtime stories were located on the Yarra Flats.

Natural forces such as floods and fire have destroyed or silted over many sites. Extensive clearing and land erosion also destroys sites and in the valley, particularly in the western half, extensive cultivation for orchards, market gardens and crops will have destroyed, obscured or scattered some artefacts. The thick vegetation in many areas also makes the location of artefacts difficult.

Traditional Aboriginal meetings places were at Pound Bend (gazetted as an Aboriginal Reserve in 1841), alongside the Yarra in Warrandyte, and near Bolin Billabong in Bulleen. Maps 5a and 5b indicate areas of high, moderate and low archaeological sensitivity. Areas of high sensitivity include Birrarrung Park, the confluence of the Plenty and Yarra Rivers, the area west of Bonds Road, and the areas at the end of Alexander Road (next to the river) and east of Alexander Road.

One reason why only a few artefacts can be located is that items found during previous surveys were collected. This was the case with a survey of the valley in 1976-77 between Burke Road and Pound

Bend. This survey located 25 sites with lithic scatters, scarred trees and stone axe remnants, particularly in the area towards the southern end of Bonds Road, and in Birrarrung Park. Five scarred trees and two lithic sites were considered to be of the highest level of significance, warranting special efforts to prevent further deterioration because of their educational value or research potential.

The Victoria Archaeological Survey points out that ground-disturbing activities for pathways, vegetation clearing, erosion works or river management works are likely to disturb Aboriginal archaeological sites, and considers that these should only be carried out in consultation with VAS staff procedures, liaison with the VAS and site-specific actions, and are directed specifically at the park management agencies.

A museum of the Wurundjeri might be located in the Middle Yarra Valley to house artefacts and illustrate Aboriginal life, with an outdoor area to help interpret their relationship with the valley. Suitable locations could be next to Bolin Billabong in Bulleen, off Templestowe Road between Bulleen and Finns Reserve, or on Cocks land. Another possibility would be to establish some walks linking and interpreting the rather scattered Aboriginal archaeological sites.

### HISTORY OF EUROPEAN SETTLEMENT

Virtually every aspect of the Middle Yarra Valley has changed since the arrival of European settlers in the 1830s. Many of these changes are discussed in other sections of this report.

Many changes are obvious and are a part of our historic heritage. They reflect the changes that have led to the development of Australians' values, character and outlook. Indeed, the Yarra Valley has been of particular importance in the development of Australia.

Much of the history of the Middle Yarra Valley has not been researched or written. The Heidelberg Conservation Study of historic buildings, precincts and landscapes in the City of Heidelberg includes a valuable review of the history of the area. The City of Doncaster and Templestowe has recently completed a heritage study. The Shire of Eltham will have a cultural and heritage study available in early 1993. Known sites of historic significance are shown on Maps 5a and 5b. Sites with National Trust or Historic Buildings classifications are listed in Appendix C.



### 19th Century Settlement

Land sales in Heidelberg began in 1838 and attracted the prestige estates of wealthy men including Chartersville, Viewbank and Banyule. They were built in the English tradition of modifying and beautifying the landscape by their settings and gardens. The area prospered in the 1840s and 1850s, with intensive cultivation of the river flats by tenant farmers. After devastating floods in the 1860s, the emphasis became more pastoral.

Further upstream, sawyers were the first arrivals moving through the valley, felling the greatest and straightest of the eucalypts and she-oaks for building material and firewood.

They were followed by squatters, and the Pontville homestead at Paddles could date from this part of the 1840s. The owner bought part of his run when land sales began around 1850. Rosehill in Bonds Road and Sweeneys Homestead both date from the later 1850s. The first gold discovered in Victoria was in the Warrandyte area in 1851 and many sites and items remain within the Warrandyte State Park.

Many innovative methods were used to find gold. Much of the tree cover was cleared and the river dammed and diverted. In 1860, the Island was created when miners cut a canal at Thompsons Bend and diverted the river. In 1870, the Pound Bend Tunnel was created to assist in gold extraction from the riverbed.

From the 1880s, Doncaster and Templestowe became predominantly a fruit-growing district with distinctive windbreaks of *Pinus radiata*. Warrandyte became a popular tourist venue in the 1920s, boasting guest houses, cafes and tea rooms. The river developed as a popular focus for swimming and canoeing.

### The Heidelberg School

In 1889, the artists Arthur Streeton, Charles Conder and Tom Roberts, members of what became known as the Heidelberg School, established their famous camp at Eaglemont. When that camp ended, Withers, one of its members, started another at nearby Chartersville. Many other artists visited or stayed including Phillip Fox, Norman Lindsay and Max Meldrum.

They painted and repainted the landscape, changing the way Australians looked at their country. The type of landscape they painted can still be seen in the Heidelberg section of the valley. Indeed, the Heidelberg Conservation Study Part 2 identifies the exact location in Yarra Flats of some of Australia's best-loved pictures.

Other areas of the valley also attracted artists. Both Buvelot and Streeton, and particularly Davies, painted in Templestowe. In 1903, Withers moved to Eltham, and Clara Southern settled in Warrandyte at the turn of the century. In the 1930s, Jorgenson and others started the artists' colony at Montsalvat and Penleigh Boyd and Vassilieff moved to Warrandyte.

Heide 1 at Bulleen, just across the river from Heidelberg, was purchased by John and Sunday Reed in the 1930s, and in the 1940s was seminal in the development of Sidney Nolan's art, and influential in the art of Arthur Boyd and Albert Tucker; all artists who have achieved international recognition.

It is difficult to think of any other area in Australia that has attracted so many artists of national and international importance to live in or paint its landscape.

### The 20th Century

The valley has continued to be the scene of attempts at new ways of living and new landscapes. Estates designed by Water Burley Griffin border the Study Area and the Eltham tradition of building in mudbrick is now part of our heritage.

From the late 19th Century, Yarra Flats was again the scene of intensive farming by Chinese market gardeners, until swept away in the 1934 floods. Later, with increasing suburban development, the valley floor itself was changed by filling with rubbish for sports fields and golf courses; evidence of a period when Australians placed little value on the natural attributes of their waterways.

The Warrandyte State Park was created in 1975 from a combination of smaller reserves. Additional areas were added in 1981 and 1987. The first land for the Yarra Valley Park was reserved in 1971 and the first area to be opened to the public was Banksia Park in 1978.

### Heritage of the Yarra Valley

Relics from the past help to explain historic events or trends and to understand our social history. Sometimes these are particular buildings, such as Culla Hill (Thomas Sweeney's homestead), or specific sites, such as the ancient orchard at Sill's Bend. Or it may be the precinct or view we recognise from a painting. At another level, these may be quite isolated items that help to recall the past, such as the hedges which bounded old properties or old farm gates. Maps 5a and 5b show the locations of known heritage sites or items.

The Yarra Flats area has a range of heritage items: reminders of Aborigines, old trees associated with Chartersville, traces of boundary planting between the original prestigious estates, relics of the days of dairy farming and perhaps Chinese market gardening.

Moreover, it is the recognisable landscape of many of Australia's most famous paintings. Until relatively recently, the landscape continued across to the National Trust-recorded house of Springbank/Clarendon Eyre off Bulleen Road, but efforts to save its environs from subdivision were unsuccessful. Fortunately, there is little possibility of further degradation of this heritage area.

The possibility of conserving or restoring the landscape important to the Heidelberg School of artists in Yarra Flats and Banyule Flats is discussed elsewhere in the report under the heading 'Heritage landscape opportunities'.

It would be easy for development of a section of the Yarra Valley to remove unknowingly, some interesting, or even important, heritage items. So a prime issue is that an historic study should precede development. In the absence of thorough historic research, a conscious objective should be not to destroy or degrade historic sites or landscapes, or historic components of that landscape. That objective could operate to ensure that the 'sense' or 'spirit' of place - the combination of elements that make one place different from another - is recognised, and that dull uniformity of developments is avoided.

Another issue concerns the possibility of planning heritage walks, with suitable interpretation, perhaps in the Eaglemont-Chartersville area, and in the Banyule-Viewbank area. The latter could be greatly enhanced by a pedestrian bridge over the Yarra River providing access to the Heide Art Gallery, which has a fine collection of works by painters and sculptors, and Banksia Park.

A further issue concerns the suggestion that a memorial to the Heidelberg School of artists should be developed. The location of such a memorial would be critical as it could require access for cars and buses and parking facilities.

## RECREATION

A methodology commonly used in recreation planning is the Recreation Opportunity Spectrum (ROS) approach, which is described in a paper by Stankey and Wood (1982).

The basic assumption underlying the ROS is that quality recreational experiences can best be assured by providing a diversity of opportunities. A recreational opportunity represents a chance for a person to participate in a specific activity in a particular setting in order to realise a predictable recreational experience. The normal ROS approach involves the development of classes of recreation opportunities that provide different activities and experiences. The number of classes and the names associated with them can be adapted to any particular situation, although they usually range from the relatively remote (and primitive) settings to the more developed (or human-made) settings.

In essence, the ROS is a planning tool that can be used to assess recreation opportunities in a region, and for developing strategies to ensure that a range of opportunities can be provided and maintained.

### Recreation activities within the Yarra Valley Park and Warrandyte State Park

An increasing number of Melburnians visit these parks each year – around 300,000 a year to the Warrandyte State Park and around 625,000 to the Yarra Valley Park. They come for a very wide range of activities, including walking or jogging, picnicking, cycling, road skiing and roller skating, dog walking, nature study, organised 'Possum Prowls', fishing, swimming, playing in playgrounds, canoeing, horse riding, informal ball games, orienteering, parking, and flying kites or model aeroplanes.

Map 6 illustrates the existing facilities provided within parkland available for public or club use. Different user groups could conflict with each other – for example, horse riding with cycling, fishing with swimming, and a heavily used trail with bird watching. Some uses can directly threaten conservation objectives, for example, horses can disturb and erode sensitive areas, and digging for worms for use as bait damages riverside vegetation.

Planning and management need to balance conservation and recreation objectives by designating conservation areas and areas with different levels of activities – at the simplest level, areas for dispersed informal (non-competitive) recreation, areas for intensive informal recreation and also for organised sport. In the intensive informal recreation areas, facilities would be concentrated and designed to cater for heavy use, with car access, car parks, toilets, litter bins etc. In the dispersed informal recreation areas, there would be only limited provision of facilities such as walking tracks and on-site interpretation.

The process of management planning for parks carries the planning of such areas and facilities into finer detail, taking into account the distinctive 'sense of place', the physical characteristics and the general guidelines set out in this concept plan.

Group activities are very popular within Yarra Valley Park. Some of these are organised by park staff, such as 'Possum Prowls' and tree planting. A special event is the annual raft race at Westerfolds. Large group functions clearly have the potential to damage habitat if not carefully managed.

An important aspect of providing for recreation within parks is the interpretation of park resources; these need to be available to individuals and to organised groups such as school children.

Melbourne Parks and Waterways is investigating the need for a Yarra Park Centre on a site in the eastern section of Westerfolds Park. Such a centre could incorporate interpretive displays, a theatre, an education activity area, administrative space and light refreshments.

### Walking and cycling trails

A hierarchical network of tracks is desirable to cater for both cyclists and walkers. Access trails are needed to provide passage from adjacent residential areas and tributary paths such as along the Plenty River. In places, spur or short loop trails, such as at Banksia Park, can provide easy short walks suitable for older adults, young children, and people with disabilities.

The Main Yarra Trail forms the backbone of the Metropolitan Trail Network, which was defined in the Metropolitan Open Space Plan 1988. The trail is used by commuters as well as for recreation, although its primary purpose is recreational.

Much of the trail has already been constructed between the city and Banksia Park. An extension through this part of the Middle Yarra Valley to Warrandyte will complete a link of some 60 kilometres for cyclists and pedestrians. Planning for the trail in the Study Area has gone hand-in-hand with the preparation of this concept plan.

An important issue to be addressed in the detailed design of the Main Yarra Trail, and any other shared pathways, is the potential conflicts between cyclists and pedestrians. Depending on the expected use of a certain section of the trail, the width and surface need to be sufficient to accommodate all users. However, high-standard trails that encourage fast cycling create a greater degree of conflict with walkers, and if this is a continuing problem, then segregated routes may need to be considered.

In addition, low-key trails, perhaps only slashed or marked, can provide varied quiet walks. In places, these could be on the opposite side of the river to the Main Yarra Trail. Bridges over the river could offer the walker the opportunity of a loop walk rather than the 'out and back' walk. In addition, these would serve the surrounding residential areas.

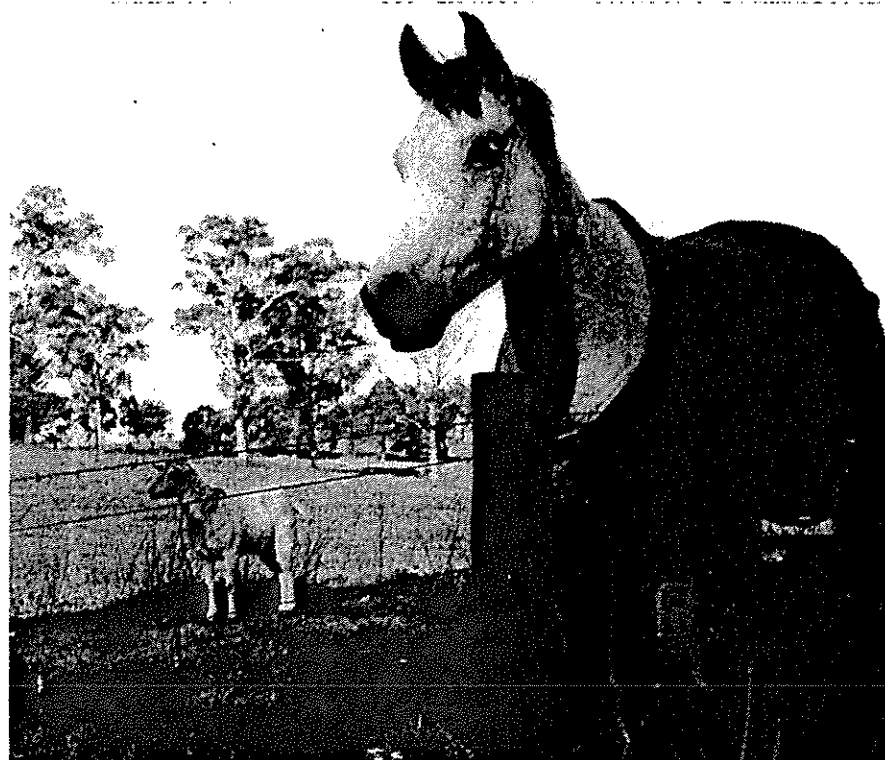
In all cases, track routes must not threaten landscape quality, and may need to avoid particularly sensitive areas, such as those identified as having significant vegetation (Maps 3a and 3b). Trails must also avoid known areas of Aboriginal archaeological significance and be located far enough from the riverbank so that platypus burrows are not endangered. Weed invasion caused by increased public access needs to be minimised through appropriate park management.

### Equestrian Use

Horse riding in the Middle Yarra Valley is coming under increasing pressure as the spread of residential buildings results in less land being available for keeping or agisting horses.

The management plan for Warrandyte State Park identifies a series of firebreaks and tracks linking into regional trail networks on which horse riding would be permitted. These routes largely separate horse riders from pedestrians. Melbourne Parks and Waterways also prefers to separate horses from pedestrians, and cyclists in particular. Access to water is important for horses who need to drink on hot days. A bridal-path circuit has been constructed at Westerfolds, but usage has been relatively low.

*The urban sprawl has put pressure on horse riding and agistment in the Middle Yarra Valley.*



A 'riding for disabled people' program is conducted from the Maplestone property near the entrance to Petty's Orchard and on the route of the possible bridal path between Westerfolds and Warrandyte. Several horse and pony clubs are located fairly close to the Yarra Valley Park and provide facilities such as a lunging ring, a manege, jumping area, toilets, club headquarters, storage shed and car parking. Few are able to provide cross-country tracks or long-distance riding trails. The Yarra Valley Park provides land for the North Eastern Horse and Pony Club, which has access to the public facilities and also provides limited agistment for its members.

The provision of private agistment within the Yarra Valley is a vexed question. One view is that the private occupation of public open space is contrary to the concept of acquiring land with public funds for the benefit of the general public, and excludes the public from beneficial use of the land. Another view is that if sufficient charge could be levied on horse owners to fully cover costs, and the alternative use is grazing by cattle, then perhaps it is appropriate to provide horse agistment.

### Golf

The floodplain at the western end of the Study Area contains many golf courses, with four located in the Study Area and three more further downstream. Indeed, the Chandler Basin has the second-greatest concentration of golf courses in Melbourne, exceeded only by the 'sandbelt' courses in the southern suburbs.

Of the seven golf courses mentioned, five are private clubs, although the Yarra Valley Country Club has only a nine-hole course. Only two are public, the Ivanhoe Golf Course just outside the Study Area and the Camberwell Golf Course. There is also a commercial golf driving range on land zoned proposed public open space off Templestowe Road.

There are no golf courses upstream of the Rosanna Golf Course, which is on the Plenty River; the Warrandyte Golf Course on Alexander Road, which was open to the general public, closed some years ago.

The City of Doncaster and Templestowe has been seeking to develop a golf course within the municipality and has raised the possibility of using the Melbourne Water owned Paddles property, where the Mullum Creek joins the Yarra River. This option has been rejected by Melbourne Water, but there are others available, both within or outside the Middle Yarra Valley. Within the valley, one possible site is the former Warrandyte Golf Course, possibly extended to the north and/or east. Another possibility is an arrangement with the Yarra Valley Country Club for co-operative use of its golf course, extended to an 18-hole course.

The golfing issue raises important questions. Should any further Yarra Valley land be devoted to golf? Further facilities may be used, but park visitor statistics show that other types of activities are also attracting increasing numbers of people. Should publicly owned land necessarily be committed to a particular recreational use now, or should options be kept open for future decisions? Attitudes to river valley land and the popularity of different types of outdoor activities have changed markedly in the past 20 years, and no doubt will continue to change.

### Other sporting activities

The floodplain of the Study Area is the main centre for other active recreational use. Private facilities just outside the primary Study Area include the sporting complexes of Carey and Trinity Grammar Schools, and the playing field of Marcellin College. Within the Study Area are the sporting areas of the Veneto Club and the Yarra Valley Country Club, and a possible sporting centre for the Greek community on the site of a former drive-in theatre.

Public facilities are provided by the municipalities at the Camberwell Tennis Centre, the multi-purpose Bulleen Park, Heidelberg Park and Warringal Parklands and at Banyule Flats. Students from Banyule Secondary College make use of some sporting facilities within Warringal Parklands.

### Water-based recreation

The Yarra River itself is an important recreation resource, particularly for canoeing. The Warrandyte State Park has canoe launch and retrieval ramps at Yarra Street, Warrandyte, and Pound Bend. Canoes are available for hire at Pound Bend. The Victorian Board of Canoe Education conducts training courses at Fitzsimons Lane, where canoes can also be hired.

The Middle Yarra Valley, particularly upstream of Westerfolds, is most suitable for canoeing. There are a series of rapids at Grade 1 and Grade 2 standard, which offer a challenge to all but the most expert canoeists. The river itself and the surrounding environment are also of a surprisingly high quality. The area offers an unexpected remoteness, tranquillity and a strong bushland character upstream of Fitzsimons Lane, considering the close proximity to the urban area. Scenic quality is high and the potential visual impact of any developments within the parkland corridor or adjoining private land needs to be kept in mind. Certain landscaping improvements could also help screen power lines and other unsightly intrusions.

The location and number of canoe ramps or access points will need to be reviewed periodically, as will the provision of camping facilities for overnight canoeing trips.

The Department of Conservation and Natural Resources encourages swimmers to use five designated locations within Warrandyte State Park. Melbourne Water has designated no recommended swimming locations, largely because of poor water quality and the possible threat of litigation following injury to swimmers. The State Environment Protection Policy applying to this section of the Yarra provides for swimming, boating and fishing as beneficial uses, but secondary contact activities only (e.g. fishing, wading) in the tributaries.

Both Melbourne Parks and Waterways and the Department of Conservation and Natural Resources discourage swing ropes on riverside trees, and both prohibit the use of commercial powered boats on any stretch of water in the Middle Yarra Valley.

Recreational fishing is a very popular activity, and the Yarra supports both native and introduced fish species. Although removing snags may benefit canoeists, they are an important part of fish habitat, so some balance needs to be found between these competing interests.

### Other recreational opportunities

Heide Park and Art Gallery, attractively located beside the river and adjoining Banksia Park, offers access to contemporary art exhibitions in a most interesting building, a sculpture display in the well-timbered garden and a fine herb garden. Heide 1, next to the art gallery, is a Victorian house with a splendid garden, which is expected to come into public ownership at some stage.

It is planned that Banyule Homestead, a historic building in its own right with outstanding views over the Yarra Valley, will house a permanent display of furniture and other artefacts.

Within the Yarra Valley Park and the Warrandyte State Park are many historic features and buildings. Some of these buildings could require extensive reconstruction. The future use and the extent to which these should be open to the public have been addressed on an individual basis in the Yarra Valley Management Plan.

Melbourne Parks and Waterways has done a lot of reconstruction to provide a working historic orchard at Petty's.

### Planning for recreation in the Yarra Valley

In developing a concept plan for an area such as the Middle Yarra Valley, the long-term interests of the community must be the fundamental concern. A recreation survey of local residents would inevitably show un-met demand for particular sporting facilities. On the other hand, many surveys (including a study of residents' attitudes undertaken for the Yarra Valley Park in 1977) indicate that preserving bushland and relatively natural environments is a high priority for a majority of people. A study by Nettleton (1987) highlighted the importance of natural spaces and elements of 'wilderness' - bushland, water and animals - for children.

Planning for recreational opportunities in the Yarra parklands must firstly reflect the fact these are metropolitan assets, established to serve at least the eastern region if not the whole of Melbourne. Their role is to provide recreational experiences beyond the scale of smaller parks. Therefore, these major parks do not necessarily have to provide for every type of recreational activity.

Secondly, park planning should capitalise on the unique opportunities offered by the Yarra Valley, with its extensive and relatively unspoilt natural and rural environments. Recreational pursuits and facilities that destroy the character should not be included. It is important to protect and maintain recreational settings at the 'natural' end of the Recreation Opportunity Spectrum. Whilst it is relatively easy to convert natural settings to urban ones, the reverse process is essentially impossible. Once these natural environments are developed and urbanised, their unique character is lost, future options are closed off and the diversity of opportunities is reduced.

Two factors appear certain. First, usage of the parkland will increase as Melbourne's population grows and as the population in the vicinity increases because of urban consolidation practices such as dual occupancy and reduced lot sizes.

Second, recreational patterns will continue to change in ways that cannot be predicted. It is almost certain, however, that community interest in, and need for, natural recreation settings is more likely to increase than decline.

Recreation planning for the major parks must be an on-going process and, as far as possible, planning should keep open options for changes of use. For example, any development on the floodplain should keep open the option of re-creating more wetlands.

## TOURISM POTENTIAL

Warrandyte township is an attractive and popular destination for visitors, and the recently opened Yarra Valley Scenic Drive, which signposts a route along the valley from Williamstown to Warrandyte, could increase the number of tourists.

Particular features along the route that could prove attractive include the galleries at Banyule House and Heide, the proposed centre for the Yarra Valley Park in Westerfolds, the historic orchard centre at Petty's, Pontville Homestead and Pound Bend.

Tourism in the Upper Yarra Valley has been increasing with visits to wineries, craft centres and plant nurseries. The scenic drive could well extend further upstream from Warrandyte.

The possibility of increased tourism has obvious implications for the provision of facilities, including spur access roads to and within the parkland, and provision of additional parking space.

*The Yarra River frontage at Warrandyte. The township is an attractive and popular destination for visitors and forms part of the Yarra Valley Scenic Drive.*



### LAND USE, OWNERSHIP AND ZONING

Present land use is shown on Maps 7a and 7b and land ownership on Maps 8a and 8b.

These maps, like all others accompanying the concept plan, are intended to be for descriptive purposes only. They are not intended to display fine detail. For further detail and reference purposes, the planning scheme maps located at the various council offices should be consulted.

Upstream of Warrandyte township, the valley is principally in private ownership with the exception of the Warrandyte State Park, which continues beyond the Study Area to Mount Lofty. South of the township, parts of the State Park, including Fourth Hill and the Common, are isolated areas of parkland away from the river.

From Pound Bend upstream, all of the strip of land along the southern bank of the Yarra River is in public ownership (managed by the Department of Conservation and Natural Resources or the City of Doncaster and Templestowe) except for a stretch from the Warrandyte-Ringwood Road east to Black Flat, which is zoned Conservation A. To the north of the river in this section, most of the riverside strip is Crown reserve, with the remaining pieces zoned proposed public open space.

Upstream of Warrandyte township, privately owned land to the south of the river is generally zoned Landscape Interest A, with the exception of the Conservation A zone already mentioned. North of the river, residential zones extend up to Blue Tongue Bend; further upstream it changes to Conservation A and Landscape Interest C.

At Warrandyte township, Yarra Street is located close to the river, and a small area is zoned Restricted Business. The rest of Warrandyte township west to Pound Bend has recently been rezoned to Special Residential No. 4 (Warrandyte), a new zone to encourage conservation and described under the heading 'Localised threats and landscape enhancement'.

Downstream from Pound Bend, a much wider area of the valley is reserved as public open space or proposed public open space, intended principally for development as the Yarra Valley Park. Significant areas of open space within the Park are managed by the Shire of Eltham and the Cities of Doncaster and Templestowe, Heidelberg and Camberwell. Maps 8a and 8b show that much of the land proposed for the Yarra Valley Park is already owned by Melbourne Parks and Waterways.

In many locations upstream of the Banksia Street bridge, the public open space reserves for the Yarra Valley Park include, or are flanked by, large areas zoned Yarra Valley Environs. Originally it was planned that these areas would be reserved as open space, but in 1975, it was decided, largely for cost reasons, that they be held in a zone that would allow virtually no change. That zoning which was originally known as Special Conservation was adopted as a holding zone pending a decision as to the ultimate use.

North of Overbank Road in the Shire of Eltham and as far west as the line of Sweeneys Lane, land is zoned Landscape Interest C and is used for hobby farms and rural residential purposes. Virtually no broad-acre grazing or other rural activities remain on private land downstream from Warrandyte.

To the south of the Yarra Valley Park, west of Pound Bend Road to Fitzsimons Lane, the land is zoned mainly Residential D. This lightly timbered grazing country is becoming urbanised rapidly, and this change has much potential to reduce the quality of the park's visual landscape.

This stretch of Residential D zoning is interrupted at Mullum Mullum Creek by public purpose reservations for the quarry of Doncaster and Templestowe Council, the SECV's Doncaster Terminal Station (the focus of transmission towers within the Yarra Valley Park) and the proposed depot of the City of Doncaster and Templestowe.

North of the Yarra Valley Park in the Shire of Eltham, from Sweeneys Lane west to the area of Montpelier Drive, the land is also zoned Residential D2. The impact that Residential D development can have on this park is clearly evident in the Fitzsimons Lane and Montpelier Drive areas.



Further downstream on both sides of the open space are the developed suburbs of Templestowe and Heidelberg, zoned Residential C. At this western end of the Study Area, the Yarra Valley contains many public and private sporting facilities. Among the private facilities are the Heidelberg Golf Club, the Rosanna Golf Club, the Yarra Valley Country Club and Golf Course, the playing fields of Carey and Trinity Grammar Schools and the Veneto Club facilities. There is a proposal for another facility on the old drive-in theatre site south of Banksia Street bridge. Facilities open to the public are the Camberwell Golf Course, the City of Camberwell tennis courts, Bulleen Park and a privately operated golf driving range. This pattern of both public and private sporting facilities continues downstream of the Study Area.

The Heide property, adjacent to Banksia Park, is Crown land. Management is vested in a company limited by guarantee and administered by a board that is assisted by the Ministry of the Arts.

Some of the few remaining private agricultural pursuits include Henderson's Seed Farm in Templestowe Road and cattle grazing at Banyule Flats. Melbourne Parks and Waterways continues grazing in several areas and leases Petty's for orcharding.

Near the Banksia Street bridge at Bulleen are the only intrusions of industry into the Middle Yarra Valley. These two areas are zoned Restricted Light Industrial. Immediately downstream of the Study Area at the southern end of the Burke Road bridge is the Kew Terminal Station, from where the transmission line extends through the valley to the Doncaster Terminal Station.

Sections of the City of Heidelberg immediately adjacent to the Yarra Valley Park have overlay controls as urban conservation areas. These apply from Banyule Secondary College south to Mossman Drive.

## MAIN FEATURES OF EXISTING PLANNING CONTROLS

### A. ZONES

#### Residential C

The main residential zoning for suburban Melbourne. No planning permits are required for the development of a detached house (provided no part of the building is more than 12 metres above the natural surface of the ground) or for works on the land. Subdivision requires a permit.

#### Residential D

Caters for low-density residential development without reticulated sewage. Subdivision requires a permit. Houses are generally allowed on lots of more than 0.4 hectares. No permits are required for works or removal of vegetation.

#### Residential D1

Provides for low-density housing in a treed setting, whilst conserving and enhancing the environmental qualities of the area. A permit is required for a detached house, removal of native vegetation and subdivision. The minimum size for new lots is 0.4 hectares.

#### Residential D2

As for Residential D, but a house requires a permit if the land area is less than 0.6 hectares and removal of native vegetation requires a permit. The minimum size for new lots is 0.4 hectares.

#### Landscape Interest A

The objectives are to maintain and conserve the existing environmental characteristics, e.g. landscape, soil, water, vegetation, air, and to control noise pollution. A detached house generally requires a minimum of eight hectares. Subdivisions, buildings, works, and removal of native vegetation within 20 metres of a road or watercourse all require permits.

#### Landscape Interest C

The objectives are to conserve and maintain, as far as practicable, existing rural uses, landscape quality and other environmental assets. Subdivision and removal of native vegetation require permits. The nominal minimum size for new lots is eight hectares.

#### Conservation A

The objectives include the conservation of indigenous flora and fauna and are generally similar to Landscape Interest A. A detached house generally requires a minimum of 40 hectares, and this is generally the minimum subdivisional area. Subdivision, building, works and removal of native vegetation all require permits.

#### Yarra Valley Environs

This zone was recently introduced to replace the Special Conservation Zone. Its objective is to ensure that development is compatible with adjoining parkland and disturbance to flora and fauna is minimal. Most uses, and the creation of new allotments, are prohibited. Afforestation, agriculture, buildings, works and removal of native vegetation all require permits.

### **Special Use 1 (Religious and Education Institutions and Private Sports Grounds)**

This zone caters for private uses as described. Subdivision, buildings, and works are all subject to planning permit.

### **Restricted Light Industrial**

This is designed for industrial activities in sensitive locations. All buildings and works (with minor exceptions) require permits.

## **B. Reservations**

### **Public Open Space**

This reservation is for existing open space. A permit is required for uses such as community halls.

### **Proposed Public Open Space**

This indicates a future intention to buy the land for open space.

### **Public Purpose 18 (Melbourne Water)**

This is for existing Melbourne Water utilities such as easements and pipe tracks.

## **C. Overlay Controls**

### **Urban Conservation Area**

The objectives are to conserve and enhance areas of architectural or historic character and to encourage development to be in harmony with existing character and appearance. A planning permit is required for subdivision and most activities, including new buildings and works.

## **UTILITIES**

A number of SECV transmission lines traverse the Study Area downstream of Alexander Road. Maps 8a and 8b show the location of 500 kv and 220 kv easements. The SECV has a terminal station at Templestowe and a zone substation at Heidelberg, and there is provision for a future zone substation at Lower Plenty.

All 500 kv easements at present are occupied, with transmission lines and in several cases also contain 66 kv lines. The 66 kv easement is unoccupied and there are no immediate plans for its use.

Defined future developments for 220 kv and 500 kv lines in the Study Area include the construction of an additional double circuit 220 kv line from Templestowe Terminal Station on the existing easement heading south-east from Templestowe. This barely encroaches into the secondary area of concern.

In addition, the easement to the south-west of the Study Area also includes provision for a further 500 kv line. The easement to the north from the Templestowe Terminal also includes provision for a further double circuit 200 kv line. The two 220 kv lines in the easement to the west may be reconstructed to a higher capacity. None of these proposals are likely in the next 10 years.

The growth of vegetation on the easements is controlled to maintain sufficient clearances for the safe operation of the transmission line. Open vegetation that does not exceed three metres in height can generally be retained on the easement provided that access to the towers and line is not impeded. At river crossings and in gullies where larger than normal clearances to the conductors are available, increased tree height is permitted, subject to individual consideration of each location by the SECV.

The density of vegetation on the easement must be restricted to minimise the quantity of fuel available in the case of fire. During construction of lines, some additional clearing may be required to enable access to tower sites by vehicles and equipment. After construction is completed, some regrowth is permitted. A clear area of approximately 20 metres is generally required around towers for maintenance purposes.

The impact of transmission lines and towers on river landscapes is discussed under 'Localised threats and landscape enhancement' in the section on visual landscape.

## **ROADS**

The duplication of the Fitzsimons Lane bridge and its approaches has recently been completed; otherwise the Government's intent remain in accord with Melbourne's arterial road strategy. *The Next Ten Years - the METRAS Report M6*, includes no other changes to the arterial roads in the study area, and in particular, no new crossing of the Yarra River.

Bulleen Road has already been widened south of Bolin Billabong. Proposals to widen the road up to Bridge Street are being considered, as are proposals to duplicate Templestowe Road and upgrade Bridge Street. If or when the Eastern Freeway is extended, there is a proposal to provide a full diamond at the Bulleen/Thompsons Road intersection.

Roads within the Yarra Valley need to be designed to minimise any visual conflicts with the parklands. In particular, new local roads could be designed to reflect the serpentine qualities of the river and techniques such as variable medians and planting should be considered.

Aesthetic objectives may suggest that many local roads within the semi-rural areas in the eastern part of the study area should remain unsealed. As mentioned in the section on water quality, unsealed roads contribute to high turbidity levels in the Yarra River and its tributaries. Therefore, some balance needs to be found between visual quality and water quality.

#### THE PUBLIC/PRIVATE INTERFACE

Many of these issues have been mentioned in other parts of this report, but for convenience they are summarised under this heading.

When private land is subdivided, the possible impact on adjoining parkland needs to be addressed, particularly in the design of drainage systems that can disrupt established patterns of run-off into parkland and in effluent disposal, as much land adjoining the Study Area has no reticulated sewerage. The Middle Yarra Valley will be better preserved if indigenous vegetation is not damaged by these changes.

Another issue at this stage is that of fencing and access from private land. It could be inappropriate for people within new estates or properties adjoining these parks to have direct access, for reasons such as protection of sensitive sites or areas being revegetated. In many cases, a substantial fence should prevent movement across the boundary.

These issues raise the questions of the need for permits at the subdivision stage and later for house building and associated works, which also have the potential to damage the visual impact and surface drainage of parkland.

If indigenous vegetation extends across the boundary from parkland into private land, the vegetation of the parkland is better protected and habitat for native fauna is enhanced. On the other hand, fire management measures may require particular attention.

In places, vegetation within the parkland has been damaged by unauthorised clearing on adjacent privately owned land. The invasion of pest plants from seed dispersal or dumping of garden rubbish also causes problems. Solutions could best be found through a program of co-operation with adjacent land owners.

Another issue is that of roaming domestic pets, which can prey upon fauna within the park. Councils have the powers to place various restrictions on the ownership of domestic pets and relatively strict controls have been introduced further upstream in the Bend of Isles area. A substantial fence around sensitive areas of the Yarra Valley and State Parks would at least assist in combating this problem.



■

**PART C**

**THE CONCEPT PLAN**

**POLICIES AND**

**RECOMMENDATIONS**

■

The significance of the Middle Yarra Valley as a key component of Melbourne's open space network derives from its many unique and outstanding features and qualities. These attributes need to be preserved, protected and enhanced to ensure that the experiences offered by this area are not lost to future generations.

To secure the ongoing integrity of the valley and its special character, a series of policies have been developed to ensure that sound environmental judgement and management practices are adopted and implemented. These policies will provide the requisite guidance to Councils, government agencies owning land within the study area and private landowners involved in the planning, development and management of land in the valley.

#### GEOLOGY

- Identify and protect all significant geological and geomorphological sites.
- Highlight these features through park interpretation and establish viewing opportunities.

#### VEGETATION

- Ensure that remnant indigenous vegetation of state, regional or high local significance is protected. Reference areas and quadrats must also be protected and monitored.
- Encourage the restoration of indigenous species where practicable, particularly in degraded areas. Regeneration should be guided by detailed surveys of reference areas.
- Continue a minimum disturbance policy in all vegetation remnants. Fire, blackbird and rabbit control measures should be initiated where appropriate.
- Produce a revegetation master plan, linking large blocks of good-quality indigenous vegetation by corridors. A riparian bushland corridor alongside the Yarra River is an essential part of this plan.

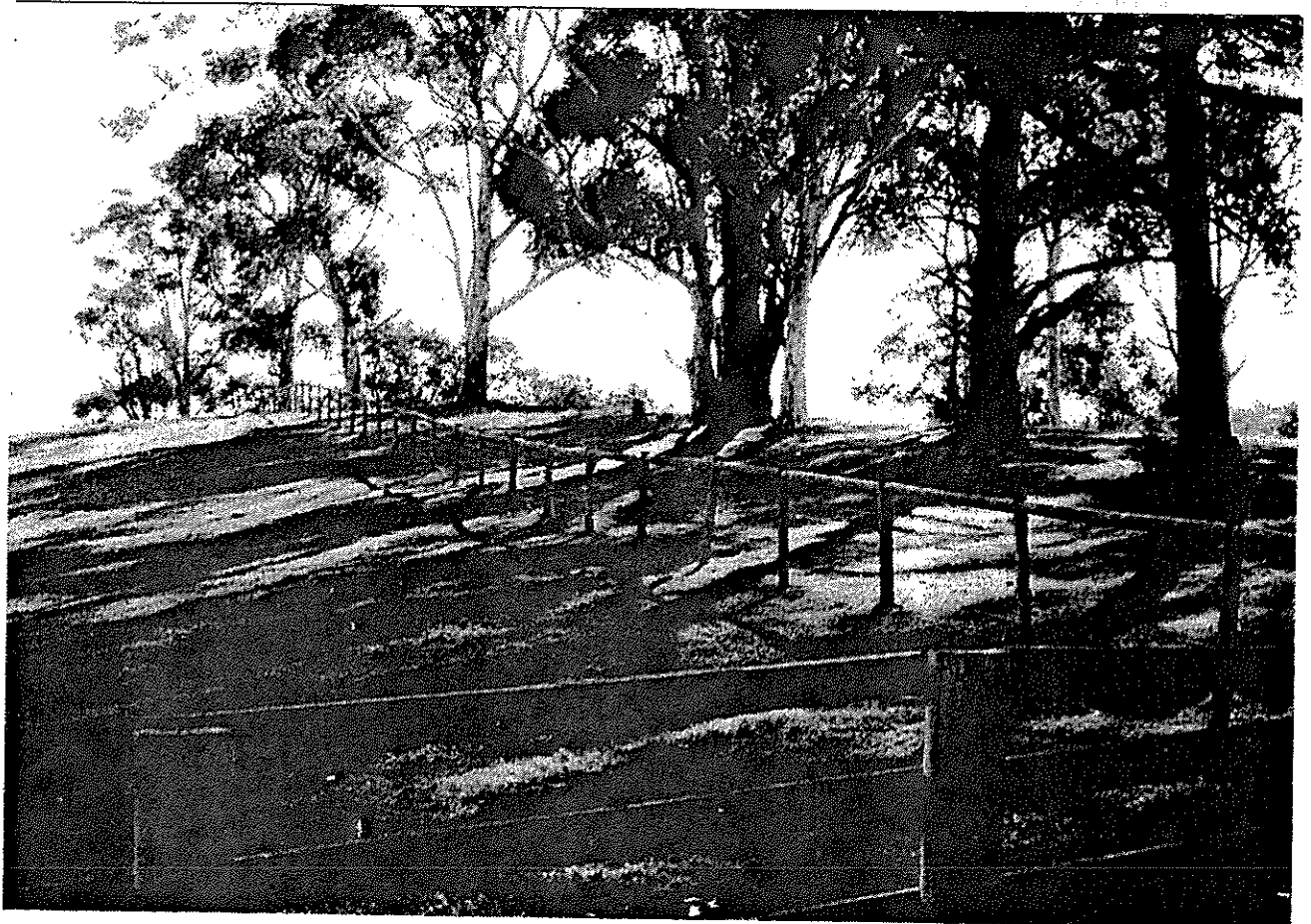
- Control or eradicate alien plant species that have the potential to cause serious weed problems. In particular, basket willow trees should be removed from the banks of the Yarra River and tributaries. Snags that provide shelter for fish should be retained as far as possible, taking into account flooding problems and the safety of swimmers and canoeists.
- Discourage or restrict public access where any significant remnants or revegetation areas could be threatened.
- Encourage the planting of appropriate species on private land adjoining existing and future parklands.

#### FAUNA

- Enhance and protect wildlife corridors based on a revegetation master plan, which should include the immediate environs of the Yarra and its tributaries.
- Protect all remaining areas of potential value as wildlife habitat. Indigenous animals should be reintroduced where appropriate.
- Retain nesting hollows suitable for arboreal mammals and birds unless the trees or limbs are a safety hazard to park visitors.
- Control and eliminate pest animals from open space areas wherever possible.

#### WATERWAYS AND WETLANDS

- Protect and enhance all existing wetlands and billabongs.
- Develop a community information program about the values of the Yarra Valley wetlands and opportunities for viewing birds.
- Retain some options for creating new wetlands, particularly downstream of the Plenty River.
- Prohibit grazing by domestic stock next to wetlands, billabongs, the Yarra River or tributaries.
- Maintain the hydraulic capacity of the Middle Yarra River floodplain downstream of the Plenty River. Improve the river's hydraulic capacity further upstream as necessary.



- Prohibit development that would interfere with the floodway function.
- Restrict development of land subject to flooding consistent with the designated management areas and site specific recommendations in this concept plan.

#### FIRE MANAGEMENT

- Use fire as a tool for encouraging bushland and grassland regeneration only as part of an approved management plan.
- Implement fire prevention works to minimise any risks to park users. Fire protection plans should be prepared for the Yarra Valley and State Parks in consultation with local municipal fire prevention committees.
- Encourage adjoining landowners to provide adequate fire protection on their own land.
- Ensure that park visitors in the more remote areas are aware of fire-related procedures, evacuation routes and refuge areas.
- Formalise arrangements between Melbourne Water and the SECV regarding clearing under overhead wires.

#### NOISE

- Ensure that protection of 'quiet' areas within parkland by appropriately locating noisy activities and facilities that may attract crowds, and by dense screen planting and mounding.
- Use mounding and fencing wherever possible to reduce the impact of traffic noise on open space.

#### WATER QUALITY

- Protect the beneficial uses defined in the State Environment Protection Policy W-29 for the Yarra River and tributaries. The relevant uses are listed in Appendix D.
- Ensure that new subdivisions are adequately sewered at the time of subdivision, or that domestic wastewater is adequately retained and treated within each allotment.

- Planning authorities will consult with the EPA to amend local planning schemes to ensure that polluted run-off and erosion is minimised. Land-disturbing activities will be carefully controlled and appropriate soil conservation measures taken to minimise erosion and sediment run-off. The EPA is preparing guidelines for planning controls.

- Stabilise eroding streambanks by appropriate planting and structural works where necessary. However, natural stream bank erosion should be allowed to take place unless recreational, conservation or public safety concerns require it to be stabilised.

- Any litter traps or settlement ponds should be installed in consultation with Melbourne Water. Before they are installed, responsibility for cleaning them should be resolved.

Refer also to the State Environment Protection Policy: *Waters of Victoria (1988)*.  
See Appendix E.

#### VISUAL LANDSCAPE

- Establish screen planting along park boundaries with adjoining residential, commercial, and industrial land, generally using indigenous plants.
- Ensure that the positive and distinguishing characteristics of the four landscape character units are retained, while the negative features are minimised. Positive characteristics and the 'sense of place' of smaller sub-areas should be maintained. (Refer to site recommendations and the Visual Resource Study).
- Conserve and reconstruct historical landscapes, particularly those associated with the Heidelberg School of artists, consistent with the protection and enhancement of natural features.

#### HERITAGE

- Protect and enhance all significant sites of historical, archaeological and cultural value where appropriate.



- Ensure that any works which could potentially disturb Aboriginal archaeological sites are only carried out in consultation with VAS staff.
- Use appropriate park interpretation to highlight historical and archaeological sites within the Yarra Valley.

## RECREATION AND TOURISM

- Ensure that open space is protected consistent with the Government's Metropolitan Open Space Plan (1988).
- Ensure that the construction of trails, buildings and other facilities associated with recreational activities does not damage streamside vegetation, the river banks, or areas of floral significance.
- Ensure that areas with a high fire hazard rating are not used as major recreation areas for large numbers of people, at least during the fire season.
- Improve access for disadvantaged groups, including people with limited mobility.
- Encourage the provision of public transport to major recreation sites.
- Provide and maintain a range of outdoor settings for recreation, ranging from quiet, relatively natural areas to intensively developed recreation areas. Conflicts between recreation activities should be minimised.
- Continue to support the work of existing Friends groups for the parks.
- Foster an increased sense of awareness and commitment to the Middle Yarra within the community. Visitor information should cover both the natural features and heritage of the Yarra Valley Park and Warrandyte State Park.
- Investigate and promote opportunities for tourism that are consistent with park management objectives.
- Investigate opportunities for providing adventure play facilities for all age groups and particularly older children and teenagers.

- Consider opportunities for an internal transit system (e.g. mini railway or mini bus) to provide access between different segments of both Yarra Valley Park and Warrandyte State Park.

## ROADS AND UTILITIES

- No new road crossings of the Yarra River will be constructed in the foreseeable future. If any new crossings were to be contemplated, all relevant options should be subject to an Environmental Effects Statement and any existing or proposed public open space taken should be replaced according to clauses 5.1 and 5.5 of the Metropolitan Open Space Plan (1988).
- Ensure that the design and construction of roads located within or near the Yarra Valley takes into accounts conservation values and tourist or recreational function. Planting along roadsides and medians should harmonise with adjoining parkland and techniques such as variable medians should be considered.
- Locate and construct streets and roads in ways that minimise soil erosion. It is important that roads are sited to minimise earthworks. Techniques to control erosion involve drainage control, revegetation of batters and sediment traps. All existing streets and roads should be upgraded to minimise erosion and river siltation as soon as practicable (refer clause 47, Appendix E).
- New transmission lines should be (wherever practicable) placed underground. Existing towers and wires should be screened as far as possible, whilst retaining the option of replacing 220 kv towers with lower voltage transmission systems requiring only poles (which might be located along roads outside the park). In the long term, all existing transmission lines should be placed underground. Priority should be given to the use of low-voltage bundled cables where distribution lines are being installed or replaced. These allow tree pruning to be substantially reduced.

### THE PUBLIC/PRIVATE INTERFACE

- Ensure that the adverse effects of drainage run-off and effluent disposal from residential properties bordering the parks are minimised through planning and building controls.
- Park management agencies will initiate community education programs with neighbouring landowners to combat clearing of native vegetation, rubbish dumping and stray cats.
- Consider fencing sensitive parts of the Yarra Valley Park to protect wildlife habitat and reduce rabbit populations, dog access, litter and theft.
- Consider declaring a dog-free area within the Yarra Valley Park upstream of Fitzsimons Lane. The Warrandyte State Park Management Plan has defined dog-free areas.
- Enforce regulations to prevent illegal shooting, trail bike and mini bike riding.

*Park management plans will encourage the formation of 'friends' groups to help care for the parks.*



One of the main objectives of this concept plan is to suggest a basic network of paths for recreation use within the valley, and to recommend suitable connections to trails along tributaries and other open space corridors (refer Part A, and the policies in Chapters 1 and 3 of this Part). The more detailed master and management plans for particular areas will refine this network and add extra local routes and special-purpose trails (e.g. for equestrians). Traffic circulation and car access points to the parkland along the Yarra Valley are considered very broadly and must be addressed in detail during the preparation of master plans. Water-based activities are also considered in this section.

Co-ordinating the development among the relevant management agencies is particularly important for activities that involve access along the entire valley corridor using land owned by different agencies. Possible access points and circulation routes are shown on Maps 9a and 9b.

### PEDESTRIANS AND CYCLISTS

The Metropolitan Open Space Plan (1988) designated the Yarra River Trail as a major open space trail, forming the backbone of a network of trails throughout the northern and eastern suburbs.

Forty kilometres of shared-use pedestrian and cycle pathways have already been completed downstream of Banksia Street and in sections of the Yarra Valley Park. A proposed 23 kilometres of extra trail would extend the system to Warrandyte, with provision for linkages to subsidiary trails along the Plenty River, Mullum Creek, Diamond Creek, Ruffey's Creek and Pound Bend. The location of the Main Yarra Trail and the necessary bridge crossings are shown on Maps 10a and 10b.

In general, the design of major trails will comply with the Victorian State Bicycle Committee's planning and design guidelines. There may be some limited sections however, where optimum requirements for cyclists cannot be met without unacceptable environment changes. For example, compromise may be necessary to avoid ecologically sensitive areas or to reach interesting vantage points. The selection of appropriate gradients is important and will be geared to the need of cyclists and wheelchairs where possible. The design standards of shared bicycle/pedestrian trails will need to take account of potential conflicts between these user groups.

The width of the Main Yarra Trail will generally be 2.5 metres and the surface will be appropriate to local environmental conditions. A light-coloured sealed surface is proposed over most of its length. Construction will include all necessary fencing and some screen planting. Signs will also be installed at suitable locations in accordance with the Metropolitan Trail Network Signage Manual (1990).

The recommended route for the Main Yarra Trail is described in Appendix F. Several factors were considered when determining the most appropriate course. These included:

- **Feasibility and cost.** Structures such as board walks are relatively expensive and steep slopes require extensive earthworks.
- **Safety.** Most road crossings are potentially dangerous unless controlled by traffic lights.
- **Land availability.** Using publicly owned land would enable the trail to be completed much earlier than if extensive land acquisition was required.
- **Sites of environmental significance.** Areas or features of high nature conservation, historical or archaeological value should be avoided. Protection, as well as the enhancement of wildlife corridors, should be ensured.
- **Protection of river banks and soil erosion.** Public access should not damage river banks, riparian vegetation, cause soil erosion or drainage problems.
- **Maintain development options.** It is important that options are not closed off for the types of development which could be considered as part of the Yarra Valley Park Management Plan.
- **Route directness.** The advantages and disadvantages of relatively direct routes versus those which follow contours.
- **Connections to other trails and external (road) access points.**

### Other pedestrian trails

Possible pedestrian-only trails are also shown on Maps 9a and 9b. These are generally on the opposite side of the Yarra River from the Main Yarra Trail and go further upstream from the Warrandyte township. Trails proposed within Warrandyte State Park are consistent with that park's management plan. The style of these trails could vary from a formed trail in areas where high numbers of people are expected (such as between Banksia and Birrarrung Parks) to simple, unformed tracks to cater for the more adventurous.

In areas where walking tracks would pass close to homes, careful planning will be required to minimise the track's impact. Secure fencing and screen planting would be necessary, and in some areas, perhaps restrict access after dark. A major objective of the pedestrian-only route is to provide an alternative for walkers who would prefer a quieter, more remote experience than would be possible on the Main Yarra Trail. A hierarchy of trails that address varying needs has been developed as part of the Yarra Valley Park Management Plan.

Maps 9a and 9b show recommended connecting routes with existing or proposed trail systems along various tributaries - Koonung Creek, Plenty River, Ruffey Creek, Diamond Creek, Mullum Mullum Creek, Stony Creek, Andersons Creek, Jumping Creek, and Watsons Creek. Proposed routes are described in Appendix F.

### Ancillary Facilities

The provision of ancillary facilities such as toilets, drinking fountains, rest areas and car parks must be considered during the detailed planning and construction of the trails. Appropriate entry/exit points to the road system must also be defined.

Although these needs have been addressed in the Yarra Valley Park Management Plan, it is appropriate for some broad recommendations to be made here based on a strategic overview of the network. The Bicycle Institute of Victoria suggests that water and toilets are only required every 10 kilometres for experienced cyclists, but because many children and families use the Main Yarra Trail, a spacing of five kilometres would be more appropriate.

Some facilities (such as those within Warringal Parklands and Westerfolds Park) already exist, whereas others will need to be constructed. To achieve a reasonably even spacing of rest areas along the Main Yarra Trail at a maximum separation of every five kilometres, it is suggested that facilities be established at the following places (where they do not already exist): Yarra Flats, Warringal, Viewbank or Cocks, Westerfolds, Petty's, Paddles, Reynolds Road, Longridge Farm, Pound Bend, Warrandyte, Black Flat, and Jumping Creek.

Sites for overnight camping by walkers, canoeists and equestrians have been identified in the management plans. The Warrandyte State Park Management Plan has recommended that group camping be phased out at Black Flat (this will continue in the short-term with monitoring) and that camping be permitted at the Bend of the Isles. Within the Yarra Valley Park, sites will be established at Longridge, Petty's, Montpelier Reserve, Glynn's and Yarra Flats for small groups and, for large groups, at Glynn's and Kearney's (when ownership permits).

### EQUESTRIANS

Maps 9a and 9b show existing bridle trails within the concept plan area. These routes should be completely separate from the Main Yarra Trail (with the possible exception of Warrandyte township) and, in most cases, separate from other pedestrian routes. The equestrian routes shown are consistent with the City of Doncaster and Templestowe's equestrian strategy and the Warrandyte State Park Management Plan.

Melbourne Water's interim equestrian strategy identified routes, but there are several unresolved problems, such as the unsuitability of bridges over the Yarra for equestrian use. An equestrian link between Westerfolds Park and Pound Bend in Warrandyte is possible, but it will be dependant upon the City of Doncaster and Templestowe's equestrian centre development. It has been proposed that a bridle trail be connected to the planned bridge trail along the Mullum Mullum Creek Valley to the south of the Study Area.

The design of bridle paths should include provision to water horses. In some areas, troughs could be combined with facilities for pedestrians and cyclists, where bridle trails are reasonably close to the Main Yarra Trail. Bridle trails should not provide access downstream of Fitzsimons Lane, with the possible exception of the Viewbank area.

The bridal paths proposed for Warrandyte State Park limit access to areas south of the Yarra and west of Jumping Creek.

### RIVER AND CREEK CROSSINGS

The recreational trail network shown on Maps 9a and 9b would require additional bridges or fords over the Yarra River and tributaries. These are:

#### The Yarra River

- Pedestrian/ bicycle bridge at Reynolds Road.
- The possibility of three other bridges should be further investigated: one from Banksia Park to provide access to Warringal and Banyule; another at Pound Bend (refer State Park Management Plan); and, in the longer term, a footbridge near Watsons Creek to provide access to a proposed walking trail along the creek to Kinglake National Park.

#### Tributaries

- Pedestrian bridge or ford over Koonung Creek just east of its confluence with the Yarra.
- Pedestrian (and possibly equestrian) crossing over Plenty River at Martins Lane.
- Pedestrian bridge over Ruffey Creek east of Finns Reserve.
- Pedestrian bridge over Diamond Creek near the Yarra confluence.
- Pedestrian/ bicycle bridge over Mullum Mullum Creek from SECV terminal station into Deep Creek Reserve.
- Pedestrian bridge over Stony Creek near the Yarra.
- Pedestrian bridge over Jumping Creek near the Common.

### WATER-BASED USES

The stretch of the Yarra River between Burke Road and Watsons Creek should not be used for any form of power boating, including passenger ferries. These activities would be incompatible with the quiet parkland environment and conservation values. Prohibiting these activities is not seen as a problem here because of the absence of launching ramps, insufficient water depth and the barrier at Dights Falls.

The river is an excellent venue for canoeing and kayaking. These activities are compatible with the area and could be further encouraged without compromising conservation and recreation objectives. In particular, the Main Yarra Trail will be located away from the river bank between Warrandyte and Paddles, which will ensure that the wilderness-type experience available for canoeists is maintained.

Several canoe launching/retrieval sites are proposed in the Warrandyte State Park Management Plan. Those within or near the study area, together with other sites within the Yarra Valley Park are shown on Maps 9a and 9b. These are, proceeding downstream: Bouchiers Road, Sandy Bay, Warrandyte township, Pound Bend, Reynolds Road, Sweeneys Lane, Griffith Park, Westerfolds Park and Kiwanis, Finns Reserve, and Banksia Park.

The next launching/ retrieval site downstream is immediately west of Burke Road; this is included in the Middle Yarra Concept Plan (Dights Falls to Burke Road).

These sites essentially reflect existing access points with convenient road access and the paddling distance from one to the next is not excessive.

The Yarra Valley Park Management Plan examines canoeing needs in more detail, particularly whether existing access points are adequately developed or need ramps. Care must be taken with ramp design to ensure that power boats cannot make use of them. There are several other sites than can be used for emergency access or retrieval. Warning signs about low water levels are required along the river and removal of basket willows is a high priority to reduce potential hazards.

Ideally, a few safe swimming areas should be provided along the Yarra River. Access for anglers to both the Yarra and its tributaries should be made easier in a variety of locations. An investigation of why the beaches along the Yarra have disappeared in recent years should be conducted.

## ROAD ACCESS

The adjoining road network, as well as existing entry roads to the Yarra Valley parklands, are indicated on Maps 9a and 9b. The degree to which car access is provided to a particular site will depend on the intended use for each site and is addressed in more detail in the Yarra Valley Park Management Plan. Areas designated for intensive informal recreation and organised sports will generally have direct car access and extensive car parks. At the other extreme, the conservation management areas are more likely to have road access to peripheral areas only, with internal access by non-motorised means.

There are many potential access points to the suggested trail network, also shown on Maps 9a and 9b. Each will need to be considered in more detailed planning. It could be appropriate for those access points which are also rest areas (see 'Ancillary facilities' section) to be the only ones where car parks are provided. Detailed planning and design of particular areas should aim to minimise the impact of roads and car parks on parkland and adjacent residential areas.

Opening hours for the Yarra Valley Park will be flexible and will essentially be based on the time of sunset.

The Yarra Scenic Drive, which extends from Williamstown to Warrandyte, is also shown on Maps 9a and 9b. This route complements the Main Yarra Trail and aims to encourage visitors to the various parks and features of the valley, highlight its tourist potential, and increase public appreciation. Although the drive ends at Warrandyte, it could be designed as a gateway to the Upper Yarra Valley and extended further downstream to relieve tourist pressure at Warrandyte. Landscaping plans for open space within the Yarra Valley should retain and enhance views from the Yarra Scenic Drive and other roads.

*Pound Bend picnic area. The Yarra Valley Scenic Drive aims to encourage visits to the various parks on the route.*



The Middle Yarra Valley has been divided into a number of management areas (refer Maps 10a and 10b) which generally reflect their proposed ultimate use. Different segments within the same management area type have similar characteristics and environmental settings.

These management units provide a broad framework for the future use, development and management of the primary study area. Many management areas contain specific sites of nature conservation, historical or archaeological significance. Recommendations for these particular sites – such as billabongs or canoe trees – are not necessarily covered by the broadly based policies in this chapter, but are dealt with in site-specific recommendations (the chapter following). Likewise, other site-specific recommendations may deal with exceptions to the general management objectives, such as retaining some exotic vegetation in selected areas.

Management areas in some locations will largely reflect existing use, requiring little change. In other areas, some degree of change will be necessary. The management areas are shown on Maps 10a and 10b, and specific site recommendations include private land that is reserved and proposed to be reserved in this concept plan. The management areas also take account of existing sections of proposed public open space that may be rezoned for other uses.

There are nine management areas divided into three broad groups that reflect the primary purpose of each area:

**Conservation management areas:** bushland conservation, riparian conservation, heritage conservation, rural conservation.

**Recreation management areas:** dispersed informal recreation, intensive informal recreation, organised activities.

**Non park management areas:** public facilities, private development.

## CONSERVATION MANAGEMENT AREAS

### 1. Bushland conservation

This applies to areas of remnant indigenous bushland vegetation with significant conservation values. These are valuable as wildlife habitat, for scientific study, education, low-key recreation and landscape quality.

The primary purpose is to maintain natural and semi-natural bushland environments by protecting and enhancing remnant indigenous vegetation.

The management policies are to:

- Conserve existing indigenous vegetation and reinforce it with new indigenous plantings. Temporary fencing may be necessary to allow regeneration.
- Control pest plants and animals, erosion and drainage.
- Protect sites of historic, archaeological or cultural significance.
- Protect residential areas from bushfires occurring within parkland.
- Provide for dispersed, non-mechanised, informal (i.e. non-sporting) recreation which is compatible with conservation. Park users should encounter few other people and minimal intrusion of human sights and sounds.
- Control access by humans and domestic animals to sensitive areas to minimise damage to native vegetation and wildlife.
- Restrict facilities generally to unsealed trails and signs that harmonise with the bushland environment. Vehicular access, where provided, should be confined to peripheries.

The recreation experiences available to park visitors should include exercise and fitness, appreciation of nature (particularly bushland environments), peace and quiet, exploration, small group affiliation, acquisition of knowledge, and relaxation.

### 2. Riparian conservation

This category applies to the Yarra River and its tributaries within the study area and their immediate environs. These environments are highly valued for nature conservation, as wildlife corridors, for scientific study, education, aesthetic qualities and for a range of recreation activities.

The primary purpose is to protect and enhance indigenous riparian vegetation and associated wetlands, water quality and landscape values.

The management policies are to:

- Conserve existing indigenous riparian and wetland vegetation and reinforce with new plantings of indigenous species. The riparian conservation area should be as wide as possible and generally extend at least 20 metres either side of the watercourse, unless otherwise stated in the site-specific recommendations.
- Undertake river maintenance works in a way that enhances, rather than destroys wildlife habitat. Where possible, bank stabilisation works should not destroy native fish habitat, and logs and snags should be left (refer clause 41, SEPP, Waters of Victoria, Appendix E).
- Manage waterways and their environs to maintain water quality consistent with EPA objectives and to meet flood control objectives.
- Control pest plants (including basket willows and blackberries) and animals, erosion of river banks and drainage. Restrict grazing areas to away from river and creek banks.
- Provide for non-mechanised, informal recreation which is compatible with conservation. With the exception of areas in the vicinity of the Main Yarra Trail, sports grounds or developed picnic areas, park users should not encounter many people and minimal intrusion of human sights and sounds.
- Restrict land-based access along the riparian strip to pedestrians, except on trails specially designed for cyclists.

The recreation experiences in this area should include exercise and fitness, appreciation of nature (particularly riverine and wetland environments), peace and quiet (in most sections), exploration, small group affiliation, acquisition of knowledge, and relaxation.

### 3. Heritage conservation

Heritage conservation applies to semi-natural or modified rural landscapes with significant historical value that relates to either Aboriginal or post-European contact. These areas often contain culturally significant wetlands or billabongs, which are also important for nature conservation, landscape, scientific study, education and low-key recreation.

The primary purpose is to protect and enhance historic landscapes and particular sites with archaeological or historical significance, whilst recognising any nature conservation values.

The management policies are to:

- Protect and enhance landscapes and features of historic, archaeological or scientific significance.
- Conserve and enhance existing indigenous vegetation, wetlands and billabongs, and reinforce with new planting of indigenous species.
- Restrict grazing to areas away from wetlands.
- Provide for informal recreation and interpretation compatible with heritage and nature conservation. Park users should expect to encounter moderate numbers of other people. The intrusion of sights and sounds of human activity should be kept to a minimum.
- Restrict human access to sensitive wetlands or archaeological sites where necessary to prevent degradation.
- Ensure built facilities are designed to harmonise with historic landscapes.
- Restrict vehicular access to peripheral areas only and access by cyclists or equestrians to designated areas.

The recreation experiences in this area should include exercise and fitness, appreciation of nature, Aboriginal and European history and rural landscapes, peace and quiet in some areas or at certain times, exploration, small group affiliation, acquisition of knowledge, and relaxation.

### 4. Rural conservation

The category applies to land that has largely been cleared and supports viable agricultural activities such as horticulture, grazing and orchards. Maintaining these activities is important because they add variety to the landscape and provide community education and agricultural research.

The primary purpose is to help maintain viable rural activities and rural landscapes.



The management policies are to:

- Ensure rural activities do not damage any remaining indigenous vegetation, wetlands or other sites of significance.
- Provide for compatible informal recreation, interpretation and education programs.
- Encourage rustic styles of built facilities that harmonise with the landscape.
- Restrict human access where necessary to protect the viability of rural industries.

The recreation experiences in these areas should include appreciation of agricultural industries and rural landscapes, encounters with farm animals and agricultural products, small and large group affiliation, exercise and fitness, and the acquisition of knowledge.

## RECREATION MANAGEMENT AREAS

### 5. Dispersed Informal recreation

This category applies to semi-natural areas that generally have scattered remnant vegetation. Such areas provide a suitable environment for low-intensity recreation and allow for conservation of significant natural and historic features.

The primary purpose is to provide for low-intensity informal recreation in a semi-natural setting.

The management policies are to:

- Provide park interpretation and education. Park users should encounter low to moderate numbers of other people. The sights and sounds of human activity should be kept to a minimum.
- Protect and enhance any existing indigenous remnant vegetation (including the removal of noxious and environmental weeds) of landscape or historical value.
- Protect and enhance features of historic, archaeological, or cultural significance.
- Minimise the construction of facilities. Any that are necessary should harmonise with the landscape.
- Restrict vehicular access to peripheral areas only and access by cyclists or equestrians to designated areas.

The recreation experiences in these areas should include appreciation of semi-natural environments and other features of conservation value, small and large group affiliation, peace and quiet in some areas or at certain times, exercise and fitness, exploration, and relaxation.

### 6. Intensive Informal recreation

Intensive informal recreation applies to semi-natural or parkland environments with scattered native or exotic trees and shrubs. These areas play an important role in catering for large numbers of visitors and a wide variety of activities.

The primary purpose is to provide a wide range of informal recreational activities catering for relatively large numbers of people in a pleasant semi-natural or developed parkland setting.

The management policies are to:

- Define areas suitable for large groups to congregate and provide intensive park interpretation programs.
- Provide facilities and other conveniences or comforts in a way that is sensitive to the landscape. Commercial activities relating to the parks may be appropriate in some areas.
- Design internal car access to minimise adverse aesthetic effects and noise. Internal access should cater for pedestrians, bicycles and wheelchairs.
- Protect and enhance any significant vegetation, landscapes, historical, archaeological or cultural features.

The recreation experiences in these areas should include exercise and fitness, small and large group affiliation, appreciation of parkland environments and features of conservation value, relaxation, and enjoyment of food and drink.

### 7. Organised activities

This category applies to areas for formal outdoor sporting activities such as golf, football, cricket, or other group activities such as orienteering, horse riding or environmental education.

The primary purpose is to cater for organised sporting and group recreational activities.

The management policies are to:

- Define areas suitable for team or individual sports, recreational and educational activities for groups.
- Encourage architecturally sensitive facility design, appropriate screening and vegetation that blends in with the surrounding landscape.
- Cater for informal recreation wherever possible.
- Minimise the effects of organised activities, such as noise, on surrounding areas.
- Protect any significant vegetation, landscapes, historical, archaeological or cultural features.

The recreation experiences in these areas should include exercise and fitness, watching sports, large group affiliation, enjoyment of food and drink, and appreciation of parkland environments.

## NON PARK MANAGEMENT AREAS

### 8. Public facilities

This category applies to land used by state or local government agencies that is generally not accessible unless special arrangements are made.

The primary purpose is to cater for existing public agency activities without compromising the landscape and conservation values of the Yarra Valley.

The management policies are to:

- Preserve features of nature conservation, historic, archaeological or cultural significance.
- Encourage screen planting with suitable species and landscaping to help integrate these uses with the surrounding parks and bushland.
- Ensure that the scale and style of any new buildings or structures complement the landscape.

### 9. Private development

Private development applies to residential, industrial and commercial properties that are not accessible to the general public.

The primary purpose is to cater for existing private residential, industrial and commercial properties located within the study area.

The management policies are to:

- Encourage landowners to plant indigenous or other appropriate species on their properties to screen buildings, provide wildlife habitats and generally complement the Yarra Valley environment. Suitable guidelines should be prepared by Melbourne Parks and Waterways and the Department of Conservation and Natural Resources.
- Ensure, through the use of suitable planning controls, that new developments do not significantly conflict with the Yarra Valley landscape and that existing bushland is preserved.

A Visual Resource Study was commissioned from a consultant, Scenic Spectrums Pty Ltd, to assist with the preparation of this concept plan. The report divides the primary study area into four landscape character units that reflect similar characteristics in terms of landform, waterform, vegetation and land use. The four units are shown on Maps 4a and 4b (and also on Map 3 in the consultant's report). They are: the Koonung Creek Unit, the Plenty River Unit, the Stony-Mullum Mullum Creek Unit, and the Jumping-Watsons Creek Unit.

A brief summary of the character of these units is given in Part B, Chapter 1, under the heading visual landscape. For a more detailed description, refer to the consultant's report.

This chapter contains a summary for each unit of the major planning opportunities, based on the background information presented in Part B as well as the consultant's report, and specific site recommendations for each sub-area (refer Maps 10a and 10b). The relevant management areas are listed at the beginning of each sub-area. All recommendations must be taken into account during the preparation of future master or management plans for areas within this section of the Yarra Valley.

Note that most sub-areas also include a portion of the riparian conservation management area, although these are not listed unless the particular sub-area comprises riparian conservation only.

#### KOONUNG CREEK UNIT

Within this unit, there is an opportunity to:

- Maintain and improve the diverse and reasonably harmonious blend of natural and cultural features.
- Protect historically significant remnants of pastoral landscapes and resolve possible conflicts with nature conservation projects.
- Enhance and protect billabongs and wetlands.
- Resist pressures for development of additional sports fields and associated structures, except on areas nominated in this concept plan.
- Minimise the impact of existing industrial uses, major roads and SECV transmission lines.
- Minimise the impact of increasing residential development and loss of tree cover on private land.
- Regenerate river red gum woodland communities.
- Provide linear access along most of both sides of the Yarra and make connections with the Koonung Creek, Ruffeys Creek and Plenty River systems.
- Minimise noise intrusion from traffic and model aeroplanes.

#### Site prescriptions

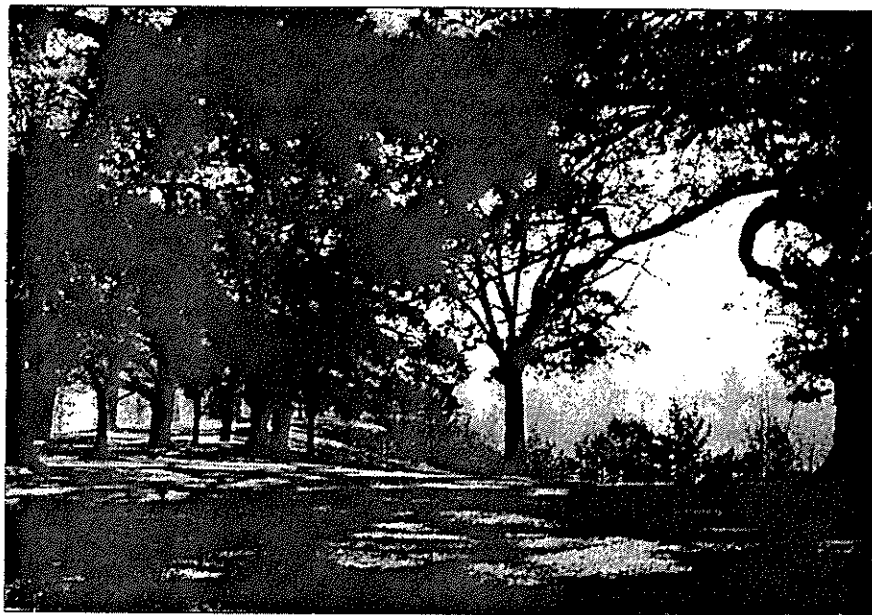
(Numbers refer to Maps 10a and 10b)

1. **Burke: Management area – dispersed informal recreation**
  - Remove major weed species and replant with indigenous species, giving particular attention to screening of the Eastern Freeway.
  - A pedestrian/ bicycle trail will connect the new footbridge west of Burke Road and the Main Yarra Trail with the Koonung Creek Trail.
2. **Camberwell Golf: Management area – organised activities**
  - Protect and enhance existing billabongs within the golf course.
  - The Camberwell Golf Club will be encouraged to remove major weed species around the billabongs and revegetate them with native grasses.
  - Retain native riparian vegetation, and undertake further planting, particularly to screen the Eastern Freeway.
  - The proposed Koonung Creek Trail will begin north of the freeway, crossing via the tunnel into parklands south of the freeway (refer Map 9a). In the long term, the preferred option is to locate a trail next to the creek.
  - Provide a low-key walking track along the Yarra River.

3. **Carey: Management area – organised activities**
  - Carey Grammar will be encouraged to plant vegetation sympathetic to the landscape character of this part of the Yarra Valley.
  - Protect existing indigenous riparian vegetation and wetlands.
4. **Bulleen: Management area – organised activities**
  - Undertake additional landscaping and screen planting between the ovals, around the existing buildings and alongside the Yarra River.
  - Provide for existing sporting and picnic facilities.
  - The conditions relating to model aircraft operations will be strictly enforced. In the long term, every effort will be made to relocate model aeroplanes away from the Yarra Valley unless noise levels can be significantly reduced as a result of design improvements.
  - Protect and enhance existing river red gums and other indigenous riparian and wetland vegetation.
  - An unsealed walking path will be maintained alongside the Yarra River.
  - The SECV transmission towers should be screened as far as practicable, and the lines preferably placed underground in the long term or on poles in the street.
  - An unsealed walking path will be provided alongside the Yarra River.
5. **Marcellin and Trinity: Management area – organised activities**
  - Trinity and Marcellin Colleges will be encouraged to plant vegetation sympathetic to the landscape character of this part of the Yarra Valley.
  - Existing indigenous vegetation and wetlands must be protected.
6. **Veneto: Management area – organised activities**
  - An unsealed walking path will be provided on Melbourne Water land alongside the Yarra River.
  - Protect and enhance existing riparian vegetation and undertake revegetation with indigenous species.
  - Ensure the provision of suitable screening (with plants sympathetic to the park) of buildings and sporting facilities, particularly along the Veneto Club's western and northern boundary.
7. **Bolin Billabong: Management area – heritage conservation**
  - The Aboriginal heritage of the site will be protected and appropriate interpretation provided.
  - An unsealed walking path will be provided alongside the Yarra River.
  - The wetlands (see Map 4a), which include Bolin Billabong, will be protected and enhanced. They will be revegetated with river red gums and appropriate native grasses to enhance habitat for birds and aquatic life.
8. **Yarra Flats: Management areas – heritage conservation and bushland conservation**
  - The existing picnic area at the northern end of Yarra Flats will be maintained in its present style, although additions/ facilities such as picnic shelters may be provided in the future.
  - The existing bicycle path will be maintained as part of the Main Yarra Trail.
  - Retain cattle grazing in Yarra Flats, except in sensitive riparian and wetland areas. The Yarra Valley Park Management Plan examines the long-term desirability of equestrian use and agistment.
  - Protect and enhance indigenous, riparian vegetation. The river red gum woodlands surrounding the Annulus Billabong and other wetlands will be protected and revegetation carried out.
  - The SECV transmission towers should be screened as far as practicable, and the lines preferably placed underground in the long term.
  - Scarred trees will be preserved as important relics of Aboriginal heritage.

- Establish vegetation buffers to screen Burke Road and Banksia Street, and also along Yarra Boulevard.
  - The development of Yarra Flats will complement the pastoral landscape, which is strongly related to the Heidelberg School artists, and historical or archaeological features will be protected.
9. **Greenaway: Management areas – dispersed informal recreation and organised activities**
- An unsealed walking path will provide access to the Banksia Street bridge and to Banksia Park.
  - Protect and enhance existing riparian vegetation. Major weed species in Riddles Island should be controlled and revegetation undertaken.
  - Provide appropriate landscape screens to minimise the visual intrusion of the industrial development.
10. **Dora: Management area – dispersed informal recreation**
- The Main Yarra Trail will traverse this site, connecting Yarra Flats with Heidelberg Park and Warringal Parklands.
  - Provide for canoe launching and retrieval near Dora Street.
11. **Banksia: Management area – intensive informal recreation**
- Banksia Park will be maintained as an intensively developed recreation area. As it is showing sign of over-use, Melbourne Parks and Waterways will investigate strategies to divert some visitors to other parts of the Yarra Valley.
  - A new entrance to Banksia Park from Bridge Street will be investigated by Melbourne Parks and Waterways in consultation with the Vicroads Corporation and the City of Doncaster and Templestowe.
  - The trail system in the park will connect with the walking track proposed for south of Banksia Street, on the east side of the river.
  - Protect remnant vegetation and revegetate the riparian strip with indigenous species.

*The Main Yarra Trail will go through the Warringal Parklands, avoiding the sensitive wetlands areas.*



**12. Heide: Management area – heritage conservation**

- Heide will continue to operate as an art gallery under the control of the State Government.
- The buildings and kitchen garden will be preserved.
- Establish a riverside walking path to link Banksia and Birrarrung paths. The riverside area will be fenced off and access into the grounds of Heide will only be available when the gallery and grounds are open to the public.

**13. Country Club: Management area – organised activities**

- The Yarra Valley Country Club, which includes a nine-hole golf course and other sporting facilities, is an appropriate use for this site.
- In the long term, a walking track will be developed alongside the Yarra River. Screen planting between the trail and the country club will then be established.

**14. Heidelberg: Management areas – organised activities and intensive informal recreation**

- Maintain the existing Heidelberg Cricket Ground in its present form. Additional sporting facilities will not be developed.
- Conserve historical landscape attributes, including exotic planting, and ensure any developments are sympathetic to this character.
- Retain existing picnic facilities to complement sporting activities.

**15. Warringal: Management areas – organised activities, heritage conservation, and intensive informal recreation**

- The Main Yarra Trail will traverse Warringal parklands, avoiding the significant wetland areas.
- The existing trotting track and oval will be maintained, but additional sporting facilities will not be developed.
- Protect and enhance the Warringal wetlands and riparian strip with additional plantings of indigenous species.

- Conserve historic landscapes, including the old orchard in Sills Bend and exotic planting. Any further development should be sympathetic to this historical character.

**16. Negri: Management area – organised activities**

- The Negri sub-area and adjoining industrial land provides an opportunity to expand the Yarra Valley Country Club golf course to 18 holes. Expanding it to the other side of the Yarra River would be inconsistent with this concept plan. If the Yarra Valley Country Club vacates its site at some future time, reserving it as proposed public open space should be seriously considered. Any proposed expansion of the golf club should demonstrate broad community benefits in keeping with the proposed public open space reservation.
- In the long term, it would be desirable for the industrial land between the country club and Negri to become part of the Yarra Valley Park, either as public land or for private sporting facilities and/or compatible commercial uses such as restaurants.
- A walking track will be developed alongside the Yarra River. Screen planting between the trail and adjoining sporting activities will be established through liaison between Melbourne Water and relevant operators.

**17. Banyule: Management area – heritage conservation**

- The historic pastoral character of Banyule will be preserved and enhanced as far as practicable without compromising wildlife habitats associated with the billabongs and wetlands. Historic features include deciduous trees such as oaks and willows, fence lines, grazing cattle, hedgerows and agricultural relics.
- Protect and enhance the wetlands and billabongs through revegetation with indigenous species. Cattle grazing will be restricted to defined areas away from billabongs, wetlands and the river. Heidelberg Council and Melbourne Parks and Waterways will develop a management plan which will ensure a co-operative management approach to the wetlands and billabongs.

- Protect and enhance the river red gum woodland with weed eradication as a high priority.
  - Banyule Homestead, which is on the Government Buildings Register, will be protected. Continued use of the building as a gallery or other community purpose is most desirable. Alternatively, a use that is sympathetic to the park environment and allows some public access will be sought. A strong visual link between Banyule Homestead and Banyule Flats should be maintained and providing access from the gallery grounds to Banyule Flats during gallery opening hours will be considered.
  - The integrity of the Banyule Native Gardens will be preserved and appropriate screening provided between the gardens, wetlands, existing ovals and residential areas. Native species that could threaten nearby wetlands should be contained.
  - Provide interpretation and educational opportunities, focusing particularly on the Heidelberg School of artists.
  - The Main Yarra Trail will be constructed around the northern section of Banyule, connecting Viewbank with Warringal Parklands.
- 18. Birrarrung: Management area – Intensive Informal recreation**
- Birrarrung Park will be maintained as an intensively developed recreation area. It has scope to be further developed so that it attracts more people and absorbs more of the overflow from Banksia Park. The installation of a large, diverse playground catering for a wide age range will be considered, as the Middle Yarra Valley lacks this type of facility.
  - Ensure that detailed planning and further development of Birrarrung Park is in sympathy with the area's Aboriginal heritage and historical landscape values.
  - The wetlands, although of low significance, will be protected and revegetated with native species as far as practicable, given the nature of recreational use within Birrarrung Park.
  - In the long term, a walking path near the river will provide a connection between Banksia Park and Finns Reserve.
- 19. Henderson: Management area – rural Conservation**
- The existing Henderson seed farm and market garden will eventually be removed to allow for revegetation of the site as a wooded parkland.
  - A riverside walking path will be provided to link Birrarrung Park and Finns Reserve. There should be minimal disruption to the operation of the seed farm and market garden.
- 20. Toolome: Management area – dispersed informal recreation**
- In the long term, a walking path alongside the river will provide a connection between Birrarrung Park and Finns Reserve.
  - Protect and enhance indigenous riparian vegetation.
- 21. Finns: Management area – Intensive Informal recreation**
- The development of Finns Reserve as a sensory park, as proposed by the City of Doncaster and Templestowe, is consistent with this concept plan. The sensory park would cater for people with intellectual, visual, mobility, and aural disabilities. Wetlands, picnic, and barbecue facilities, toilets, canoe launching and retrieving facilities, and car parking will be provided.
  - To provide some ecological continuity with the remainder of the Yarra Valley, some indigenous species will be planted, particularly in the riparian strip and around the park perimeter.
  - Establish vegetation buffers and landscaping along Templestowe Road and Union Street to minimise traffic noise and adverse visual impacts.
  - The City of Doncaster and Templestowe will liaise with Melbourne Parks and Waterways about appropriate species for planting.
- 22. Cocks: Management area – dispersed informal recreation**
- The Main Yarra Trail will traverse the southern portion of Cocks, veering north before crossing Bonds Road.

- The area will provide for passive recreation in a rural setting, with minimal provision of facilities. Any facilities provided should harmonise with the rural landscapes.
- Continue cattle grazing as an interim use.
- Protect the scarred trees as important relics of the area's Aboriginal heritage.

**23/24. Montpelier and Odyssey: Management areas – dispersed informal recreation, bushland conservation, private development**

- The Main Yarra Trail will be constructed close to the banks of the Yarra River through most of this sub-area.
- Provide appropriate screen planting between the Main Yarra Trail and Odyssey House. Melbourne Parks and Waterways will liaise with Odyssey House staff on this matter.
- In the long term, the Odyssey tennis courts and picnic area should be relocated further back from the river.
- Protect and enhance existing riparian vegetation and woodlands, particularly on Montpelier Island.
- Protect the historic landscape character and appropriate exotic trees.

**25. Deltas: Management area – dispersed informal recreation**

- Ensure proper management of private properties adjoining the river to protect remnant vegetation and provide continuity in the landscape character along the river corridor.
- Protect and enhance views of river rapids.
- A connecting trail will be provided alongside Ruffey Creek.

**26. Westerfolds: Management areas – dispersed informal recreation, intensive informal recreation**

- Preserve and enhance the panoramic views from Westerfolds Park. Appropriate landscape screens will be provided to minimise the visual intrusion of new residential areas and SECV transmission towers and lines. Internal roads and car parks should be screened from key viewing points.

- Residential development east of Fitzsimons Lane will be screened, as far as practicable, from key viewing points within Westerfolds Park. Melbourne Water, Vicroads, and the City of Doncaster and Templestowe have developed a program for this work.
- Protect and enhance existing remnant vegetation, which includes eucalypt woodland and kangaroo grass. Revegetation with indigenous species will be carried out where appropriate.
- Continue providing canoe launching and retrieval facilities near Fitzsimons Lane.
- Building a Yarra Valley Orientation Centre in Westerfolds Park will be considered.
- Provision of tea rooms and/or an outdoor restaurant, at the orientation centre should be considered.

**27. Backdrop: Management area – bushland conservation**

- Ensure that the existing indigenous vegetation and bushland character is retained. Major weed species should be removed and additional planting with appropriate native species undertaken. In particular, tall trees should be planted to help screen the Montpelier Drive subdivision from viewing points in Westerfolds Park.
- A rough walking track will be considered between the new bridge from Montpelier to Westerfolds and Fitzsimons Lane.

**PLENTY RIVER UNIT**

Within this unit there is an opportunity to:

- Maintain the rural atmosphere of rolling hills which provides a visual buffer between the Yarra River and residential development to the north.
- Protect scattered river red gums and riparian vegetation along Plenty River and Diamond Creek.
- Maintain and enhance tree cover to screen residential developments.
- Reduce the impact of prominent radio antennae on cleared hilltops and SECV powerlines.
- Capitalise on the excellent long-range views available from the unit.



## Site prescriptions

### 28. Viewbank: Management area – rural conservation

- Cater for informal recreation and rural activities compatible with landscape and nature conservation.
- Historic elements such as the Viewbank silos, foundations of the Viewbank Homestead, and remnant exotic vegetation will be protected and interpreted where appropriate.
- Ensure that any developments are sympathetic to the historic landscape character.
- Establish vegetation screening to minimise the impact of the radio antennae and SECV transmission towers.
- Protect and enhance existing yellow box woodland and riparian vegetation along the Plenty River.
- The Plenty River Trail will be located in the Viewbank sub-area, joining the Main Yarra Trail in the south and coming close to the Plenty River near Martins Lane. The trail should be designed to minimise steep gradients, but take advantage of the excellent views from the top of the valley escarpment.
- Preserve and enhance the views across the Yarra Valley and consider the provision of suitable lookouts.

### 29. Rosanna Golf: Management area – organised activities

- The golf club will be encouraged to protect and enhance existing riparian vegetation and remove invasive weed species.

### 30. Plenty: Management area – dispersed informal recreation

- Protect and enhance existing riparian vegetation along the Plenty River.
- The Seymour Road/ Banyule Road intersection is a traffic hazard and should be improved by the City of Heidelberg.

- Consider providing an unsealed walking trail along both sides of the Plenty River with a connecting link across Banyule Road bridge. The bridge needs to be upgraded for safe pedestrian use.
- Melbourne Water will liaise with private landowners with frontages on the Plenty River south of Banyule Road about possible management agreements or covenants to plant indigenous vegetation next to Plenty River.

## STONY-MULLUM MULLUM CREEK UNIT

Within this unit there is an opportunity to:

- Protect remnant forest cover, particularly in the eastern and northern portions.
- Maintain the strong sense of spatial enclosure and the natural amphitheatre effect created by steep forested hills, particularly between Longridge and Warrandyte.
- Maintain a recreation setting which, in some areas, provides opportunities for remoteness and solitude.
- Protect riparian tree cover along the Yarra River and its tributaries.
- Preserve and enhance the rustic, historic character of Warrandyte township and resolve possible conflicts with nature conservation.
- Retain the rural character and spaciousness created by extensive open paddocks and orchards south of the river.
- Prevent the visual encroachment of new housing developments and alleviate adverse effects already present.
- Minimise the visual impact of SECV transmission lines and towers and other public and private developments.
- Maintain tree cover on private land and reduce the visual impact of roads and car parks.
- Minimise the possible adverse effects of bushfire.
- Resist pressures for development of additional sporting facilities except on areas nominated in this concept plan.

## Site prescriptions

### 32. Kiwanis: Management area – dispersed informal recreation, bushland conservation, and rural conservation

- Protect and enhance the remnant woodlands and grasslands.
- Locate the Main Yarra Trail so as to minimise any impact on sensitive vegetation.
- Extensive planting will be carried out to shield the SECV transmission towers from the river, trails and other key points.
- Maintain the canoe launching and retrieval facilities near Fitzsimons Lane.
- Extensive revegetation of the river banks with indigenous species will be carried out near Kiwanis community farm. The appropriateness of the farm should be reviewed by the City of Doncaster and Templestowe, given its closeness to the Yarra River.

### 33. Lenister: Management area – bushland conservation and rural conservation

- Protect and enhance the manna gum and yellow box woodlands.
- Lenister farm will continue to be used for educational purposes.
- An unsealed walking path will be provided, consistent with nature conservation objectives. This will connect with the Diamond Creek Trail and a bridge will be constructed over Diamond Creek.

### 34. Griffith: Management area – bushland conservation and dispersed informal recreation.

- Protect and enhance indigenous vegetation. In addition, exotic trees in Griffith Park (such as cypress, hawthorn, elms, cherry plums) will be retained, but managed so that remnant native species are not threatened.
- An unsealed walking path will be provided, consistent with nature conservation objectives.
- Maintain provision for canoe launching and retrieval at Griffith Park.
- Protect and enhance views of Petty's Orchard and rapids in the Yarra River.

### 35. Petty's: Management areas – rural conservation and bushland conservation

- Petty's Orchard will be encouraged to continue operating in its present form as a commercial and demonstration orchard.
- Protect and enhance the visual amenity of the surroundings and entry to Petty's through appropriate planning controls and liaison with landowners.
- The Main Yarra Trail will be constructed close to the river and will probably require some modification to orchard activities.
- Basket willows should be removed from the river banks and views of the orchard from the river enhanced.
- The use of the area south of Petty's Orchard, including some future public land, by the riding for disabled school is appropriate.
- The possibility of establishing a visitors' centre/ agricultural museum on the eastern portion of the site will be considered.

### 36. Sweeneys: Management area – bushland conservation and dispersed informal recreation

- Protect and enhance the yellow box woodland and billabong.
- The protection of native orchids near Sweeneys Lane will be a top priority and public access to sensitive areas will be discouraged or restricted if necessary.
- Continue to provide canoe launching and retrieval facilities at Sweeneys Lane. Car parking should be upgraded and a road closure made.
- An unsealed walking path will be provided, consistent with nature conservation objectives.

### 37. Paddles: Management areas – dispersed informal recreation and bushland conservation

- Protect and enhance the manna gum and yellow box woodlands and riparian vegetation along Mullum Mullum Creek.
- The Main Yarra Trail will be sited to avoid any sensitive vegetation. Construction of a footbridge over the Yarra at Reynolds Road will be considered.

- The Main Yarra Trail will connect with a shared pathway along the Mullum Mullum Creek Valley and a bridle trail could link into the Mullum Mullum Creek Trail.
  - The feasibility of restoring the Pontville Homestead and its gardens (possibly involving the local historical society) will be investigated.
  - Protect scarred trees as important relics of Aboriginal heritage.
  - Preserve the rural atmosphere around the Pontville Homestead, but reinforce conservation and habitat values on remainder of sites.
  - Consider retaining some exotic trees with historical value (e.g. quince).
  - Screen SECV transmission towers and lines as far as practicable, both from the river and key points in the Paddles site.
  - Protect and extend the riparian vegetation. Revegetation of the woodland areas should also be considered.
38. **Mullum: Management area – organised activities**
- The western boundary of this unit will be used to provide an entry road to Paddles.
  - Screen SECV transmission towers and lines as far as practicable.
  - Design and locate any future sports facilities in a sensitive manner, set back a suitable distance from Mullum Mullum Creek and landscaped appropriately.
  - The council depot site and SECV terminal station immediately south will be screened to minimise visual impacts on visitors entering the Mullum and Paddles units. Melbourne Water will liaise with the City of Doncaster and Templestowe and the SECV about suitable screening.
  - Provision of some picnic facilities will be considered if Regional Equestrian Centre does not proceed.

*Pettys Orchard will be encouraged to continue as a commercial and demonstration orchard.*



**39. Reynolds: Management areas – bushland conservation and dispersed informal recreation**

- Protect and enhance the yellow box woodland near Reynolds Road.
- The development of the Reynolds Road area as a simple picnic ground with canoe launch and retrieval facilities will be considered.
- Construction of a pedestrian and bicycle bridge over the Yarra at Reynolds Road will be considered when the proposed pipe bridge is completed.
- An unsealed walking path will be provided, consistent with nature conservation objectives. This should allow opportunities for access to the Wild Cherry rapids east of Sweeneys Lane.

**40. Overbank: Management area – bushland conservation**

- This extensive area will be managed primarily as wildlife habitat and will provide opportunities for environmental education.
- An unsealed walking track will provide access from Reynolds Road along the northern boundary of Glynn through to Warrandyte State Park, consistent with nature conservation objectives.
- The Killeavey Homestead and traditional garden will be preserved and could be used for accommodation and park interpretation.
- Provide opportunities for enjoying the views from the Overbank Road area. A simple picnic area in the cleared land opposite Seward will be considered in the longer term.
- Melbourne Parks and Waterways and relevant municipalities will consider measures to control dogs and cats.

*Longridge Farm, in Alexander Road, Warrandyte, will probably provide some degree of public access and lookouts.*



**41/42. Seward and Abbott: Management areas – dispersed informal recreation, bushland conservation, organised activities**

- In the long term it is proposed that the Main Yarra Trail will run close to the western boundary of Abbott, then turn eastwards along the ridgeline in Seward. It will be designed so that it is essentially invisible from canoeists using the river and sufficiently distant to minimise possible noise intrusion on the river environment.
- Long range views of the Abbott and Seward land from the river should be enhanced.
- Closure of the northern section of Alexander Road will be considered.
- Screen SECV transmission towers and lines, both from the river and from key public areas.
- The construction of intensive urban sporting facilities, such as playing fields or tennis courts, will not be permitted.

**43. Longridge: Management area – bushland conservation and rural conservation**

- Protect and enhance the yellow box and red box woodlands.
- Preserve scarred trees and Aboriginal artefact scatters.
- Extend revegetation from the adjoining Seward and Abbott Management Area.
- Protect and enhance views of Longridge Farm from the river.
- Consider providing lookouts from Longridge Farm.

**44. Glynn: Management area – bushland conservation**

- This area will be managed in a similar manner to Overbank, with the emphasis on wildlife habitat and environmental education. Public access should continue to be restricted.
- The Glynn property will be investigated as a base for environmental camps.
- Further development of the area will capitalise on the excellent views from Glynn, particularly of Longridge Farm and the river flats.

- The Crown land between Glynn's Road and the Yarra River (included in the Pound Bend Unit) may be more appropriately managed by Melbourne Water.

**45. Pound Bend: Management area – Intensive informal, recreation, dispersed informal recreation, bushland conservation, and organised activities**

- The Pound Bend sub-area incorporates block A in the Warrandyte State Park Management Plan and includes Pound Bend, Norman Reserve, Andersons Creek Reserve and Warrandyte Reserve. Management must be in accordance with the Warrandyte State Park Management Plan.
- Develop the old Pound Bend orchard for day use with picnic facilities, toilets, car park and walking tracks as outlined in the Warrandyte State Park Management Plan. The establishment of a wetland near the eastern end of the Pound Bend loop will be investigated.
- The Pound Bend Orchard area will be revegetated and the remaining old fruit trees should be retained if found to be significant.
- Protect and interpret the Pound Bend Tunnel and associated geological features.
- Make provision for swimming at a number of locations, including Norman Reserve, and for canoe launching and retrieval at Pound Bend Reserve.
- Rehabilitate degraded areas, control river bank erosion, rabbits and weeds.
- Manage the area to provide suitable habitats for native birds and mammals.
- The need for a footbridge (e.g. a small swing bridge) between Pound Bend (near Gallatlys Lane) and the north bank will be investigated.
- Unsealed walking tracks will be developed along both sides of the Yarra, with the northern track connecting with a future trail along Stony Creek.
- Warrandyte Reserve will continue to be used for sporting activities.

**46. Warrandyte township: Management area – intensive informal recreation**

- The Warrandyte township sub-area corresponds to block B in the Warrandyte State Park Management Plan. The riparian conservation management plan area applied throughout most of the concept plan area does not apply to this sub-area. Management must be in accordance with the approved Warrandyte State Park Management Plan.
- Upgrade visitor facilities consistent with the area's tourist potential and high use. This includes picnic tables, modified parking, and a canoe launching area east of the bridge. Development should be consistent with the Warrandyte townscape Improvement Report (July 1989).
- Ensure that new buildings and adjoining commercial development harmonise with the rustic character of the area. Existing buildings should be retained, removed or remodelled as recommended in the Townscape study.
- The tennis courts adjacent to the bridge will not be expanded.
- Seek a suitable site for a tourist information centre within Warrandyte township. Visitor information should be provided on the important features and history of Warrandyte.
- Minimise potential conflicts between different recreational uses including walking, cycling and horse riding.
- Rehabilitate degraded areas, giving special attention to erosion control, weed removal and revegetation.
- The Department of Conservation and Natural Resources and the City of Doncaster and Templestowe will encourage the planting of suitable indigenous species in adjoining residential areas.
- The views of the Yarra River and hillsides beyond will be reinforced and extended.
- The Main Yarra Trail will terminate at the car park next to the tennis courts. The pedestrian trail will continue under the bridge and further east to the island.

**47. Northern Frontage: Management area – bushland conservation**

- The Northern Frontage sub-area corresponds to block C in the Warrandyte State Park Management Plan, stretching from Norman Reserve to the island (including the island itself). Management must be in accordance with the Warrandyte State Park Management Plan.
- Retain this river frontage as an important landscape backdrop, relatively inaccessible and densely vegetated.
- An unsealed walking track from Norman Reserve will terminate at the water wheel foundation (opposite Andersons Creek confluence).
- Historic mines and geological formations will be made safe, protected and interpreted, especially at the island. A footbridge will be constructed between the township river frontage and the island.
- Implement a pest control program, giving special attention to the island. The Department of Conservation and Natural Resources will liaise with Melbourne Water about removing willows. Adjoining landowners will be encouraged to remove invasive garden plants and control wandering pets.

**JUMPING-WATSONS CREEK UNIT**

Within this unit, there is an opportunity to:

- Protect dense forest cover, particularly alongside the Yarra River.
- Protect the integrity of Warrandyte Gorge with its rock cliffs, rapids, gravel bars and islands.
- Minimise the visual impact of housing developments through additional screening.
- Enhance the existing agricultural lands so that they blend harmoniously with the forest areas.
- Maintain a recreation setting that provides opportunities for solitude, remoteness and adventure.
- Maintain tree cover on private land and reduce the visual impact of roads and carparks.
- Minimise the possible adverse effects of bushfire.

## Site prescriptions

### 48. Fourth Hill and Timber Reserve: Management area – bushland conservation and dispersed informal recreation

- The Fourth Hill, Timber Reserve and Scotchmans Hill sub-area corresponds to block D in the Warrandyte State Park Management Plan. Management must be in accordance with that plan.
- Protect and enhance indigenous plant species and geological features.
- Protect and interpret historical features related to gold discovery and mining.
- Develop a picnic area at Whipstick Gully and upgrade the Gold Memorial picnic area.
- Horse riding will be catered for on designated tracks.

### 49. The Common: Management area – bushland conservation

- The Common corresponds to block E in the Warrandyte State Park Management Plan. Management must be in accordance with that plan.
- Suitable habitat will be maintained for the eastern grey kangaroo population by appropriate burning regimes.
- Provide opportunities for walking, nature studies, and horse riding on designated tracks.
- The feasibility of developing a walking track from Potters Cottage, through the Common to Jumping Creek will be investigated.

### 50. Black Flat: Management area – bushland conservation

- Black Flat includes block F in the Warrandyte State Park Management Plan and additional land along the Yarra to connect with Warrandyte township, and along Jumping Creek to connect with the Common. Management must be in accordance with the approved Warrandyte State Park Management Plan.
- Protect and enhance significant plant species and riparian vegetation.

- Current levels of camping do not require formal closure of sites at Black Flat. However, use as a camping site should continue to be monitored.
- Rationalise the track network and consider closing tracks not required for fire protection or recreation.
- An unsealed walking track will be developed alongside the Yarra River between the island (which will link with Warrandyte) and Jumping Creek Reserve. A possible connecting track along Jumping Creek to the Common and Potters Cottage will be investigated.

### 51. North-Western Frontage: Management area – bushland conservation and riparian conservation

- North-Western Frontage includes land along the north bank of the river between the island and Watsons Creek, including Koorngong. Management must be in accordance with the approved Warrandyte State Park Management Plan.
- The river frontage will be retained as a bushland backdrop, relatively inaccessible and densely vegetated.
- Formalised trails will not be provided, except in the Koorngong area. The beach and carpark at Koorngong will be upgraded.
- In the long term, an unsealed walking trail should be provided along Watsons Creek to connect Warrandyte State Park with Kinglake National Park. When this occurs, it will be desirable to construct a footbridge over the Yarra near Watsons Creek.

### **PARK PLANNING AND MANAGEMENT RESPONSIBILITIES**

Almost all of the public open space within the concept plan study area lies within the Yarra Valley Park and a major portion of the Warrandyte State Park. The agencies with overall responsibility for these parks are Melbourne Parks and Waterways and Department of Conservation and Natural Resources respectively. There are still extensive tracts of private land within both parks. These areas are reserved as proposed public open space and are being acquired as circumstances permit.

The Yarra Valley Park contains areas under the direct control of Melbourne Parks and Waterways, as well as parks owned and managed by the Cities of Camberwell, Heidelberg, and Doncaster and Templestowe, and the Shire of Eltham. The State Park (the portion within the study area) is mostly under the direct control of the Department of Conservation and Natural Resources, but relatively small sections are managed by the City of Doncaster and Templestowe.

Although the inclusion of council reserves within metropolitan or state park boundaries does not have any legal implications, it does recognise their importance as part of a major parkland system along the Yarra Valley. Management plans for the state parks should reinforce this relationship, improve co-ordination between park managers and result in a more integrated park system.

In some sensitive areas, particularly along the riparian strip, Melbourne Parks and Waterways and the Department of Conservation and Natural Resources will share available expertise with councils. An alternative could be to transfer management responsibility for council parkland to Melbourne Parks and Waterways to ensure consistent standards.

The Environment Protection Authority has several responsibilities, particularly relating to the water quality of the Yarra and its tributaries. Melbourne Water has the responsibility for drainage and floodplain management of the entire Yarra River and tributaries and for controlling boating through river by-laws. Melbourne Parks and Waterways has established the Middle Yarra Advisory Committee to advise it on issues concerning the river valley between Dights Falls and Warrandyte.

Officers from Melbourne Parks and Waterways and the Department of Conservation and Natural Resources should continue to work closely during detailed park planning and management to ensure that resources and knowledge are shared and management practices are complementary. Close liaison is also required between these agencies and local councils over council-managed land within or adjoining these parks, the maintenance of trails, the linking of bicycle and equestrian trails with local networks, traffic management issues and by-law enforcement.

Concept plans prepared for tributaries and detailed planning of connecting trails by government or state agencies must take into account the recommendations of this plan. Further funding will need to be considered to complete the construction of the Main Yarra Trail and connecting trails.

### **LAND ACQUISITION**

The future boundaries for both the Yarra Valley and State Parks were reviewed during the preparation of this concept plan. The changes include reservation of one of the few remaining Yarra River frontage areas not already reserved as proposed public open space (in the vicinity of Tills Drive in Warrandyte).

The local planning schemes have been amended to reflect these revised park boundaries.

### **COMMUNITY INFORMATION AND INVOLVEMENT**

Melbourne Parks and Waterways has completed the management plan for the Yarra Valley Park, which is a more detailed plan for future management and development based on the guidelines established by this concept plan. A management plan has already been prepared for Warrandyte State Park and this concept plan will be an integral part of preparing the master plan and any future review of the State Park Management Plan.

Providing information services, park interpretation, educational programs and materials for visitors should be a top priority in both the Yarra Valley Park and the Yarra Valley State Park. A specific program for these aspects has been developed as part of the Yarra Valley Park Management Plan. Community involvement should be fostered by encouraging 'Friends' and other community groups.



Strategies for the sharing of resources between the two parks should be investigated, as should a complementary approach to information, interpretation, and education. For example, ranger services, school holiday programs and park signage are three aspects that could benefit from co-ordination.

The Department of Conservation and Natural Resources and Melbourne Parks and Waterways should encourage complementary management of adjoining private and public agency land. An information brochure should be produced including responsible pet control, removal of invasive pest plants, and use of indigenous species.

Local Councils in consultation with Melbourne Parks and Waterways and the Department of Conservation and Natural Resources should prepare guidelines for local residents to assist in understanding the need for special planning controls over areas near the Yarra parklands. These could suggest preferred building design and siting concepts.

#### **STATUTORY CONTROLS**

The area covered by this concept plan is within the planning schemes of the Cities of Camberwell, Heidelberg, and Doncaster and Templestowe, and the Shire of Eltham. Each of these councils is the responsible authority for its scheme.

These planning schemes have been amended to introduce special controls which are designed to ensure that future development is consistent with the concept plan. In addition, the concept plan is incorporated into the relevant local planning schemes by reference, as has been the practice with previous Yarra and Maribyrnong Concept Plans. This means that the responsible planning authority must consider all recommendations and policies contained in Part C of this concept plan when making decisions on planning applications.

Additional formal mechanisms can be used to ensure consistency with the concept plan. These include administration of river by-laws by Melbourne Water and the drawing up of management agreements involving Melbourne Water, Department of Conservation and Natural Resources, councils, and private landowners.

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THE MIDDLE YARRA CONCEPT PLAN - BURKE ROAD TO WATSONS CREEK

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**PART D**

**PLANNING**

**SCHEME**

**AMENDMENTS**

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New planning controls have been introduced into the Local Planning Schemes to regulate the use and development of the Middle Yarra Valley region. They are designed to encourage development consistent with the concept plan under each council's local planning scheme. The concept plan is also incorporated into the local planning schemes.

The controls are designed to protect the visual and natural qualities of the Yarra and its environs and make appropriate floodway and drainage provisions. These kinds of controls have been previously been introduced for areas downstream of Burke Road and along the lower Maribyrnong River.

The Streamside Environment and Yarra Valley Backdrop areas are based on recommendations in the Middle Yarra Valley Visual Resource Study, Burke Road to Watsons Creek, by the consultants Scenic Spectrums Pty Ltd.

As the Cities of Heidelberg, Camberwell, and parts of Doncaster and Templestowe have a more urban character than much of the Shire of Eltham, the proposed Yarra Valley Backdrop and Streamside Environment area controls vary. For example, there are controls on the removal of exotic trees in Heidelberg, Camberwell, and Doncaster and Templestowe. In Eltham, the controls reflect the semi-rural bushland character of the Yarra Valley and strongly emphasise the retention of native vegetation. The Floodway Management Area controls for the entire concept plan area are similar to those already imposed further downstream.

### **Why are these controls needed in the Middle Yarra?**

The Middle Yarra is well known for its scenic beauty. It is one of the few places in metropolitan Melbourne that has extensive areas of native riverside and woodland vegetation and a long frontage where it is easy to access the river.

It is important that the river and its banks are not polluted or degraded and that the area's tranquil appearance and sense of place are not destroyed by inappropriate developments. New developments should not create any flooding, drainage, or effluent disposal problems.

As Melbourne's population grows and leisure takes on greater significance, the number of people coming to the Middle Yarra will increase. Most of us take for granted that it will always be a beautiful place to visit.

However, if we do not take precautions now, excessive or inappropriate use could damage or degrade its beauty. The controls aim to safeguard those aspects of the Middle Yarra we value the most.

The Streamside Environment Areas cover most of the parkland along the Yarra Valley, much of which is already in public ownership. It is envisaged that once more detailed master or management plans are approved for these areas, then the relevant state and local government agencies should be exempted from planning permission for developments consistent with these plans.

### **FLOODWAY MANAGEMENT AREAS**

This is an overlay control which will apply to land which has been identified by Melbourne Water as being within the floodway of the Yarra River. The controls to be introduced for these areas are similar to the floodway management areas that apply to other sections of metropolitan watercourses. The controls are intended to protect the capacity of the floodplain to carry floodwaters whilst also protecting the environmental and landscape features of the area. A permit is required to construct any buildings or works and all applications must be referred to Melbourne Water before the Council can make its decision. Some works undertaken by public authorities are specifically exempted by the controls.

### **STREAMSIDE ENVIRONMENT AREAS**

The overlay control for these areas covers most of the publicly owned parkland along the middle section of the Yarra River.

The controls seek to protect the environmental and landscape features of the river and adjoining land and to protect attractive vistas as seen from the river.

Within these areas, a permit will be required to construct buildings or works. No permit will be required for routine repairs and maintenance to existing buildings or works. Some public authority works are also exempted if they comply with development plans approved by council.

A permit will be required to remove, destroy, or lop any exotic trees or native vegetation, although some exemptions are specified in the controls.

A permit will be required to subdivide land.

All applications must be referred to Melbourne Parks and Waterways for land downstream of Pound Bend and to the Department of Conservation and Natural Resources for land upstream of Pound Bend.

The controls contain general guidelines to be used in considering applications.

### **Yarra Valley Backdrop Areas**

This control generally applies to land adjoining the Streamside Environment Areas. These areas provide a visual backdrop to the river and its floodplain.

The control will enable Council to assess the effect of new development on the views outward from the river and adjoining parkland. The controls also enable the Councils to consider the effect new development will have on adjoining riverside parkland.

A permit will be required to construct buildings and works although most single storey houses and many two storey houses are exempted from the control. Other exemptions apply to routine repairs and maintenance and some minor structures such as telephone antennas and chimneys.

The controls also contain guidelines to be used in considering applications.

### **ADMINISTRATION OF THE CONTROLS**

This is a brief outline of the process of considering development proposals; for more detail, refer to the statutory controls.

Local councils have the authority to consider any development applications on land affected by the Yarra Valley Backdrop, Streamside Environment and Floodway Management controls.

Proposals for development in Floodway Management Areas must be referred to Melbourne Water for its comments. Melbourne Water will then advise the council that it may either grant the permit, grant the permit subject to specific conditions, or must refuse to grant the permit.

Development proposals in the Streamside Environment Areas will be referred to Melbourne Parks and Waterways or the Department of Conservation and Natural Resources for comment as park management agencies, depending on whether the land is located near the Yarra Valley Park or the Warrandyte State Park.

Before commencement of works, most new developments or renovations in any of the control areas will need a permit. To find out whether a planning permit is needed, it is best to contact your local council. The officers will be able to tell you what planning controls, if any, apply to the land and who administers them.

Before you make a formal planning application, discuss it with officers from the planning authorities. They will be able to give you advice and details on the sorts of developments that would be considered complementary to the surrounding area; for example, information relating to suitable trees and shrubs, setbacks, and basic site and design guidelines. They can also tell you how much detail you will need to supply, how many copies of the plans are required, and what other material will be necessary. You may, for example, need to present drawings of building elevations for a proposed house.

For help and information, contact:

City of Heidelberg  
Civic Centre  
Upper Heidelberg Road  
Ivanhoe 3079

City of Camberwell  
Municipal Officers  
350 Camberwell Road  
Camberwell 3124

City of Doncaster and Templestowe  
Civic Centre  
699 Doncaster Road  
Doncaster 3108

Shire of Eltham  
Shire Offices  
895 Main Road  
Eltham 3095

The future of the special conservation zone was reviewed during the preparation of this concept plan. The zone was put in place in 1975 as a holding mechanism to prevent further subdivision and inappropriate development that would have had a detrimental visual impact on the Park.

This zone has been reasonably successful in achieving this purpose, in contrast to some nearby residential zones where recent development has had a negative effect on the park environment. The new Yarra Valley Environs zone is a replacement for the special conservation zone as a permanent, semi-rural type of classification. This zoning will no longer be a temporary holding mechanism and planning scheme controls are generally unchanged.

## **APPENDICES**

- APPENDIX A: MEMBERS OF THE WORKING GROUP**
- APPENDIX B: FAUNA LIST**
- APPENDIX C: LIST OF HERITAGE SITES**
- APPENDIX D: SEPP - WATERS OF THE YARRA RIVER AND ITS TRIBUTARIES**
- APPENDIX E: SEPP - WATERS OF VICTORIA, 1988 - EXTRACTS**
- APPENDIX F: DESCRIPTION OF RECOMMENDED TRAIL ROUTES**

## APPENDIX A

### MEMBERS OF THE WORKING GROUP

Sonia Rappell	City of Doncaster and Templestowe
Roger Collins and Peter Brown	Shire of Eltham
Ed Thexton and Greg Buchanan	City of Heidelberg
Hank Van Apeldoorn and Gwenda Kullen	City of Camberwell
Paul Schleiger and Pat Fricker	Melbourne Parks and Waterways
Alan Bunbury and Graeme Nyberg	Middle Yarra Advisory Committee
Channa Wimalaratna and Helen Blazek	Department of Planning and Development (Northern and Western office)
Rob Gluyas and Graham Bower	Department of Planning and Development (Eastern office)
Neil McCarthy, Peter Stoddart and Michelle deLeeuw	Department of Conservation and Natural Resources (Melbourne Region)
Rhonda Boyle and Nancy Parks	Office of the Environment (study co-ordinator)
Colin Leigh	Office of the Environment (working group chairman)



## APPENDIX B

### FAUNA LIST

This listing is a combination of fauna lists prepared for the Yarra Valley Park and the Warrandyte State Park.

#### MAMMALS

Brown Antechinus  
Brush-tailed Phascogale  
Bush Rat  
Chocolate Wattled Bat  
Common Bent-wing Bat  
Common Brush-tail Possum  
Common Ringtail Possum  
Common Wombat  
Eastern Grey Kangaroo  
Eastern Quoll  
Feathertail Glider  
Gould's Wattled Bat  
Grey-headed Flying Fox  
Koala  
Large Forest Eptesicus  
Lesser Long-eared Bat  
Little Forest Eptesicus  
Long-nosed Bandicoot  
Platypus  
Short-beaked Echidna  
Sugar Glider  
Swamp Wallaby  
Water Rat  
White-striped Mastiff-bat  
Black Rat\*  
Brown Rat\*  
House Mouse\*  
Fox\*  
Rabbit\*  
Brown Hare\*  
Feral Cat\*  
Feral Dog\*

\* Introduced species

#### BIRDS

Blackbird\*  
Darter  
Dollarbird  
Galah  
Greenshank  
Hardhead  
Mallard\*  
Mistletoebird  
Silvereye  
Skylark\*

Weebill  
Olive-backed Oriole  
Buff-banded Rail  
Rainbow Bee-eater  
Blue-billed Duck  
Yellow-billed Spoonbill  
Little Black Cormorant  
Pacific Black Duck  
Southern Boobook  
Chestnut-breasted Mannikin  
Horsfield's Bronze-Cuckoo  
Shining Bronze-Cuckoo  
Brush Bronzewing  
Common Bronzewing  
Red-browed Firetail  
White-browed Woodswallow  
White-browed Scrub Wren  
Grey Butcherbird  
Painted Button-Quail  
Spiny-cheeked Honeyeater  
Pink Cockatoo  
Eurasian Coot  
Little Corella  
Great Cormorant  
Pied Cormorant  
Australian Crake  
Baillon's Crake  
Spotless Crake  
Sulphur-crested Cockatoo  
Purple-crowned Lorikeet  
Brush Cuckoo  
Pallid Cuckoo  
Eastern Curlew  
Grey Currawong  
Pied Currawong  
Peaceful Dove  
Maned Duck  
Musk Duck  
Little Eagle  
Black-eared Cuckoo  
Pink-eared Duck  
Cattle Egret  
Great Egret  
Intermediate Egret  
Little Egret  
Black-faced Cuckoo-shrike  
White-faced Heron  
Yellow-faced Honeyeater  
Superb Fairy-wren  
Brown Falcon  
Peregrine Falcon

Grey Fantail	Spotted Nightjar
Rufous Fantail	Barking Owl
Zebra Finch	Barn Owl
Leaden Flycatcher	Powerful Owl
Restless Flycatcher	Australian Owlet-nightjar
Satin Flycatcher	Spotted Pardalote
Little Friarbird	Striated Pardalote
Tawny Frogmouth	Swift Parrot
Black-fronted Plover	Red-rumped Parrot
White-fronted Chat	Australian Pelican
Gang-gang Cockatoo	Little Pied Cormorant
European Goldfinch*	Feral Pigeon*
Brown Goshawk	Richard's Pipit
Little Grassbird	Brown Quail
Australian Grebe	Spotted Quail-thrush
European Greenfinch*	Stubble Quail
Silver Gull	Lewin's Rail
Marsh Harrier	Australian Raven
Brown-headed Honeyeater	Little Raven
Golden-headed Cisticola	Clamorous Reed-Warbler
Hoary-headed Grebe	Flame Robin
Pacific Heron	Hooded Robin
Australian Hobby	Pink Robin
New Holland Honeyeater	Rose Robin
Regent Honeyeater	Scarlet Robin
Glossy Ibis	Eastern Yellow Robin
Sacred Ibis	Crimson Rosella
Australian Kestrel	Eastern Rosella
Australian King Parrot	Buff-rumped Thornbill
Azure Kingfisher	Yellow-rumped Thornbill
Sacred Kingfisher	Pectoral Sandpiper
Black Kite	Australian Shelduck
Whistling Kite	Black-shouldered Kite
Red-kneed Dotterel	Australasian Shoveller
Laughing Kookaburra	Crested Shrike-tit
Banded Lapwing	Grey Shrike-thrush
Masked Lapwing	Varied Sittella
Port Lincoln Ringneck*	Latham's Snipe
Little Lorikeet	Brown Songlark
Musk Lorikeet	Rufous Songlark
Rainbow Lorikeet	House Sparrow*
Australian Magpie	Tree Sparrow*
Australian Magpie-lark	Collared Sparrowhawk
Fairy Martin	Eastern Spinebill
Tree Martin	Royal Spoonbill
Bell Miner	Common Starling*
Noisy Miner	Banded Stilt
Dusky Moorhen	Welcome Swallow
Common Mynah*	Purple Swamphen
White-naped Honeyeater	Black Swan
Straw-necked Ibis	Black-tailed Native-hen
Rufous Night Heron	Fan-tailed Cuckoo

Fork-tailed Swift  
 Sharp-tailed Sandpiper  
 Wedge-tailed Eagle  
 Yellow-tailed Black Cockatoo  
 Chestnut Teal  
 Grey Teal  
 Brown Thornbill  
 Striated Thornbill  
 Yellow Thornbill  
 White-throated Gerygone  
 White-throated Nightjar  
 White-throated Needletail  
 White-throated Treecreeper  
 White's Thrush  
 Song Thrush\*  
 Spotted Turtle-Dove\*  
 Willie Wagtail  
 Speckled Warbler  
 Little Wattlebird  
 Red Wattlebird  
 Eastern Whipbird  
 Golden Whistler  
 Olive Whistler  
 Rufous Whistler  
 Plumed Whistling Duck  
 Black-winged Stilt  
 Blue-winged Parrot  
 White-winged Chough  
 White-winged Triller  
 Jacky Winter  
 Dusky Woodswallow

° Aviary escape

\* Introduced species

#### REPTILES

Copperhead Snake  
 Eastern Small-eyed Snake  
 Tiger Snake  
 Red-bellied Black Snake  
 Brown Snake  
 Garden Skink  
 Southern Water Skink  
 Blotched Blue-Tongued Lizard  
 Eastern Blue-Tongued Lizard  
 Jacky Lizard  
 White-lipped snake  
 Marbled gecko  
 Long-necked tortoise  
 Grass skink  
 Short-necked tortoise

Lined earless dragon  
 Amphibians  
 Brown or Ewings Tree Frog  
 Green and Golden Bell Frog  
 Verreaux's Tree Frog  
 Victorian Froglet  
 Eastern Banjo Frog  
 Brown-Striped Frog  
 Spotted Grass Frog  
 Brown Toadlet  
 Southern Toadlet  
 Common Eastern Froglet

#### FISH

Yarra Pygmy Perch  
 Southern Pygmy Perch\*  
 Macquarie Perch°  
 Small-mouthed Hardyhead  
 Australian Grayling  
 Australian Smelt  
 River Blackfish  
 Short-finned eel  
 Tupong  
 Common Galaxias  
 Mountain Galaxias  
 Pouched Lamprey  
 Murray Cod°  
 Goldfish\*  
 Common Carp\*  
 Roach\*  
 Tench\*  
 Rainbow Trout\*  
 Brown Trout\*  
 Mosquito Fish\*  
 Redfin\*  
 Loach\*

\* Introduced species

° Native fish introduced to Yarra River

## APPENDIX C

### LIST OF HERITAGE SITES

This listing refers to sites with National Trust, Historic Buildings or National Estate classifications within the study area and its immediate environs (Refer also to Maps 5a and 5b).

#### CITY OF HEIDELBERG

Banyule	National Trust classified Register of Government Buildings
Old Court House	National Trust classified
Old Police Station	National Trust classified
St John's Anglican Church	Register of National Estate

#### CITY OF DONCASTER AND TEMPLESTOWE

Springbank/Clarendon Eyre	National Trust recorded
Heide 1	National Trust classified Register of Historic Buildings
Heide 11	National Trust classified Register of Government Buildings
Pontville	National Trust recorded
Post Office, Warrandyte	National Trust recorded Register of National Estate
<i>Cupressus macrocarpa</i> , Yarra Street, Warrandyte	National Trust recorded
<i>Eucalyptus camaldulensis</i> , Bridge St/Manningham St, Bulleen	National Trust recorded
<i>Eucalyptus camaldulensis</i> , Porter Street, Templestowe	National Trust recorded
<i>Eucalyptus camaldulensis</i> , Fitzsimons Lane, Templestowe	National Trust recorded
Smith House, Templestowe	National Trust recorded
Pound Bend Tunnel	National Trust recorded

#### SHIRE OF ELTHAM

Rosehill Homestead	National Trust classified
Sweeney's	National Trust classified

## APPENDIX D

### STATE ENVIRONMENT PROTECTION POLICY NO. W-29 (WATERS OF THE YARRA RIVER AND TRIBUTARIES)

#### BENEFICIAL USES TO BE PROTECTED

Beneficial use	Middle Yarra	Urban tributaries
Potable water supply		
– without treatment	No	No
– with treatment	No	No
Agricultural water supply		
– Farmstead	Yes	Yes
– Stock water	Yes	Yes
– Irrigation	Yes	Yes
Watering of parks and gardens	Yes	Yes
Industrial water supply		
– Steam, cooling	Yes	No
– Other	Yes	No
Navigation and shipping	No	No
Recreation		
– Primary contact	Yes	No
– Secondary contact	Yes	Yes
– Passive	Yes	Yes
Passage of fish	Yes	Yes
Production of edible fish	Yes	Yes
Maintenance and preservation of foreshore vegetation	Yes	Yes
Scientific and educational	No	No
Scientific reference	No	No
Maintenance and preservation of aquatic ecosystems and associated wildlife	No	No
Maintenance of modified aquatic ecosystems	Yes	Yes

## APPENDIX E

### STATE ENVIRONMENT PROTECTION POLICY WATERS OF VICTORIA (1988)

#### EXTRACTS

#### Catchment management

##### 34. Land Use

In the development and administration of land use planning schemes, the appropriate authorities, in consultation with the authority, shall ensure that land use is planned and managed in such a way that polluted run-off, both from specific sites and within the catchment as a whole, is reduced as far as practicable.

##### 38. Wetlands

The management of the State's wetlands shall be carried out in accordance with the State Wetland Conservation Policy or any management plans developed for specific wetlands and adopted by Government.

The authority shall keep under review appropriate water quality criteria for wetlands and shall conduct research into the impact of waste discharges on wetlands.

Wastes shall not be discharged to high-value wetlands or wetlands with a high priority for restoration unless such discharges would be permitted under the State Wetland Conservation Policy.

As sufficient information becomes available, high-value wetlands where water quality has not been substantially modified by human activities, shall be included in the aquatic reserves segment of the policy.

##### 40. Provision of sewerage

(a) Responsible authorities shall ensure new sub-divisions of land are provided with sewerage at the time of sub-division or that the allotments created by the sub-division are capable of adequately treating and retaining domestic wastewater within the boundaries of each allotment.

(b) In determining whether domestic wastewaters are capable of being adequately treated and retained within the boundaries of each allotment, responsible authorities shall have regard to the Codes of Septic Tank Practice to be developed under clause 52 and in particular, such factors as the dimension and area of the allotment, the intensity of the proposed use, climatic and soil considerations, water supply conditions and physical characteristics of the site.

(c) Sewerage shall be provided as soon as possible to all existing sub-divisions of land where domestic wastewaters cannot be adequately treated and retained within the boundaries of each allotment. Where possible, sewerage shall be provided prior to the commencement of building works. High priority should be given to sewerage existing sub-divisions where building works have already commenced.

(d) Where sewerage is not available within two years, the minimum acceptable treatment for all domestic wastes shall be a sewage treatment process approved under the Health (Septic Tank) Regulations, as amended.

Detailed consideration and encouragement shall be given to the reclamation and reuse of wastewater and, in particular, to the discharge of treated sewage effluent to land.

(e) In sewered areas, appropriate steps shall be taken by sewerage authorities to ensure all premises are connected to the sewerage system for the purpose of domestic wastewater disposal.

##### 41. Impacts of works on plant and animal habitat

Dredging, construction, river management, reclamation, nuisance weed control measures, soil disposal and other works should be carried out in a manner which causes minimal disturbance of plant and animal habitats. Where practicable, dredged soil shall be disposed of on land above high water mark, clear of floodways and floodplains (as defined by an average flood recurrence interval of 100 years).

**42. Recreation activities**

Recreation activities shall be subject to regulations and/or guidelines administered and publicised by the appropriate management bodies. In particular:

- (a) Swimming, boating, and camping may be prohibited or otherwise controlled as appropriate to protect the quality of potable water supplies and other beneficial uses.
- (b) Where sewage treatment is not available, sewage and sullage wastes generated by campers, boat users, and others shall be disposed to land at approved locations and in such a manner as to prevent adverse effects on watercourses and water storage. Management bodies shall provide appropriate disposal facilities where there are identified needs.
- (c) The use of power boats shall be restricted in locations where the resulting wave action may result in unacceptable levels of streambank or foreshore erosion, or where exhaust discharges may adversely affect the beneficial uses.
- (d) Roads not designated and maintained for continuous use shall be closed off to prevent access by recreational vehicles.

**43. Litter**

Management of streams, lakes, coastal areas and environs shall include the formulation and implementation of a litter control strategy, which will make provision for community education and for the regular collection and removal of litter or debris, and to ensure that sufficient resources are devoted to the enforcement of the *Litter Act, 1987*, (as amended).

**Control of diffuse source pollution**

**44. Diffuse source control**

Where run-off of water from the land surface is causing or is likely to cause non-compliance with policy objectives, control measures such as elimination or treatment of sources of contaminated run-off and/or changes to land use or land management practices (as outlined in clauses 45 to 50) shall be applied where practicable.

**45. Land disturbance and erosion**

Land disturbance activities shall be carefully controlled and appropriate soil conservation measures shall be taken in order to minimise soil erosion and subsequent run-off of suspended, dissolved, floatable, and settleable matter.

- (a) Construction works, including building activities and provision of services, should be carried out in accordance with *Guidelines for Minimising Soil Erosion and Sedimentation from Construction Sites in Victoria, (1979)* and *Control of Erosion from Construction Sites, (1982)*, published by the Department of Conservation, Forests and Lands.
- (b) Eroding streambanks shall be stabilised by planting appropriate vegetation or by other means as outlined in *Guidelines for River Management, (1980)* and *Revegetating Victorian Streams, (1982)*, published by the Rural Water Commission. Where stock access is contributing to the degradation of water quality or the erosion of streambanks, stock shall where practicable, be restricted to stabilising watering and crossing points or provided with off-stream watering points and stock access to the stream prevented.
- (c) Methods for the control of streambank vegetation and nuisance aquatic plant growths should minimise the exposure of streambanks to increased risk of erosion and avoid significant effects on aquatic ecosystems and associated wildlife.
- (d) Land disturbance activities, particularly excavation or soil removal along streambeds and banks and lake shores, shall be conducted in accordance with guidelines to be developed by responsible river management boards.

**46. Drainage**

Drainage system design shall ensure that the erosion of streams and other drainage lines is minimised and shall make allowance, where practicable, for the attenuation of peak run-off and the retention and trapping of contaminants, including litter, in run-off.

Input of these contaminants to the drainage system should be minimised by the control of activities within the catchment. Regular street sweeping, provision of detention basins and other measures designed to reduce pollutant loads from urban drainage are encouraged.

The design and siting of stormwater drainage lines on coastal Crown land (excluding land within Port Phillip Bay) which discharge to the coastal segment shall be carried out in accordance with guidelines to be developed by the Coastal Management Co-ordination Committee.

**47. Road construction**

New streets and roads shall be constructed in ways which minimise soil erosion. All existing streets and roads should be upgraded to minimise erosion as soon as practicable. Such construction and upgrading should be carried out in accordance with *Guidelines for Minimising Soil Erosion and Sedimentation from Construction Sites in Victoria, (1979)*, published by the Department of Conservation, Forests and Lands. In steep locations, particularly those close to watercourses, roads and roadsides should be stabilised so as to minimise soil erosion.

Surface drainage from unmade or partially constructed streets and roads should be conveyed through or across appropriate sediment and erosion control structures, including grassed buffer zones and fence to natural drainage lines.



## APPENDIX F

### DESCRIPTION OF RECOMMENDED TRAIL ROUTES

#### THE MAIN YARRA TRAIL

- **Burke Road to Banksia Street**  
This section has already been constructed within Yarra Flats
- **Banksia Street to Fitzsimons Lane**  
This section of the trail has been constructed along the north side of the Yarra River, through the Warringal Parklands and across the Banyule Flats to a bridge crossing into Westerfolds Park, near Odyssey House. The trail then continues around to Fitzsimons Lane, forming part of the Park's internal trail network.
- **Fitzsimons Land to Mullum Mullum Creek**  
The trail will continue under Fitzsimons Lane bridge and divert inland to follow a Melbourne Water pipetrack for some distance, which provides an opportunity for panoramic views of the river valley. It will then curve downhill again to Petty's Orchard and pass by it close to the Yarra River towards Mullum Mullum Creek. Some minor modifications to orchard activities will be necessary.
- **Mullum Mullum Creek to Alexander Road**  
The trail will cross Mullum Mullum Creek via a timber bridge and continue to wind along reasonably close to the river through Paddles' land. This route will avoid some sensitive vegetation opposite Reynolds Road. A new pedestrian bridge over the Yarra is proposed at the end of Reynolds Road. The trail will then continue alongside the river to the boundary of the Seward land, then turn east along the ridgeline until reaching Alexander Road, where it will turn south along the unused section of Alexander Road to the Longridge property. This will avoid sensitive vegetation and steep slopes near the river on both sides of Alexander Road.

- **Alexander Road to Warrandyte township**  
Turning south through Longridge Farm, the trail will continue along a ridge to the highest point in the trail, overlooking Glynn's Reserve. It will then turn south-east and continue along a ridge to Hutchinson Avenue and Everard Drive, where appropriate signage and traffic management measures will be needed. One option is to close Everard Drive at its intersection with Pound Road, making Everard Road a no-through road. This would significantly reduce traffic travelling along Everard Drive to Pound Bend. A local traffic-management study should be undertaken to resolve problems associated with the use of Everard Drive.

#### KOONUNG CREEK

- This trail joins the Yarra Trail at the existing footbridge west of Burke Road, follows the south bank of the Yarra under Burke Road and north of the Eastern Freeway. The existing tunnel under the Eastern Freeway would then be used to cross under the freeway, then the trail continues east within the existing open spaces along the southern side of the Eastern Freeway. Bulleen Road would be crossed at the lights. Connection with the existing bicycle path would be made via the footbridge north of Boroondah North Primary School.

#### PLENTY RIVER

- The proposed Plenty River Trail joins the Yarra Trail west of the Plenty River. The route north climbs up the escarpment in the Viewbank area and takes advantage of the outstanding views in this region. The trail location should be carefully designed to minimise steep climbs. A scheme to slow traffic should be used at the Banyule Road crossing. The trail will veer north-east towards the Plenty River, coming close to the river north of Martins Lane. It will continue north along the river bank to Lower Plenty Road, connecting with the existing trail. Land acquisition will be necessary between Bannockburn Road and Old Lower Plenty Road.

### RUFFEY CREEK

- It is intended that a future walking trail along Ruffey Creek be constructed from Finns Reserve to the Doncaster Municipal Gardens. Between the Yarra River and Foote Street, this would probably be located along the south side of the creek where some land acquisition will be necessary.

### DIAMOND CREEK

- An existing pedestrian/ bicycle path circles Eltham Lower Park and Lenister Farm, then continues north along the creek valley to Eltham Central Park and on to Diamond Creek township. This path will connect with the proposed trail along the north bank of the Yarra. The connection with the Main Yarra Trail is via Fitzsimons Lane bridge.

### MULLUM MULLUM CREEK

- The connecting pedestrian/ bicycle path will follow the eastern side of Mullum Mullum Creek at a suitable distance from the creek bank, so that any sensitive riparian vegetation is not damaged. South of Paddles Reserve, the creek flows through private land (zoned Stream and Floodway) before bisecting SEC land. Land will need to be acquired on both sides of the creek in the Stream and Floodway zone to provide for the trail.

Within the SEC land, there is already a maintenance track on the eastern side of the creek, which can be suitably modified for pedestrian and bicycle use. The actual terminal station is confined to the western side of the creek and is securely fenced. Even if the SEC at some time expands its works to the eastern side of the creek, Melbourne Water will continue to require safe access alongside the creek for protection of the floodway. This requirement would not conflict with public use of the maintenance track. Immediately south of the SEC land, a bridge is required for the trail to transfer to the south side of the creek into Deep Creek Reserve.

### STONY CREEK

- A low-key walking track should be provided along Stony Creek, connecting with the walking trail along the north bank of the Yarra at Pound Bend. This trail should probably be located on the eastern bank of the creek, at least up to Research-Warrandyte Road. How far it could extend further north should be the subject of further investigation.

### ANDERSONS CREEK

- A walking trail along Andersons Creek should connect with the Main Yarra Trail north of Everard Drive, on the western side of Andersons Creek south through Warrandyte Reserve. East of Harris Gully Road, walkers should use Gold Memorial Road on the southern boundary of the State Park.

### JUMPING CREEK

- A low-key walking trail along the east side of Jumping Creek should continue to the border of the Shire of Lillydale and Warrandyte State Park. Minor land acquisition and a bridge are needed to link this path with another section of Warrandyte State Park, The Common.

### WATSONS CREEK

- In the long term, a low-key walking track could be established along Watsons Creek to provide a link to Kinglake National Park. When this eventuates, provision of a footbridge over the Yarra to link the Watsons Creek Trail with the Warrandyte State Park trails on the southern side of the river should be considered.

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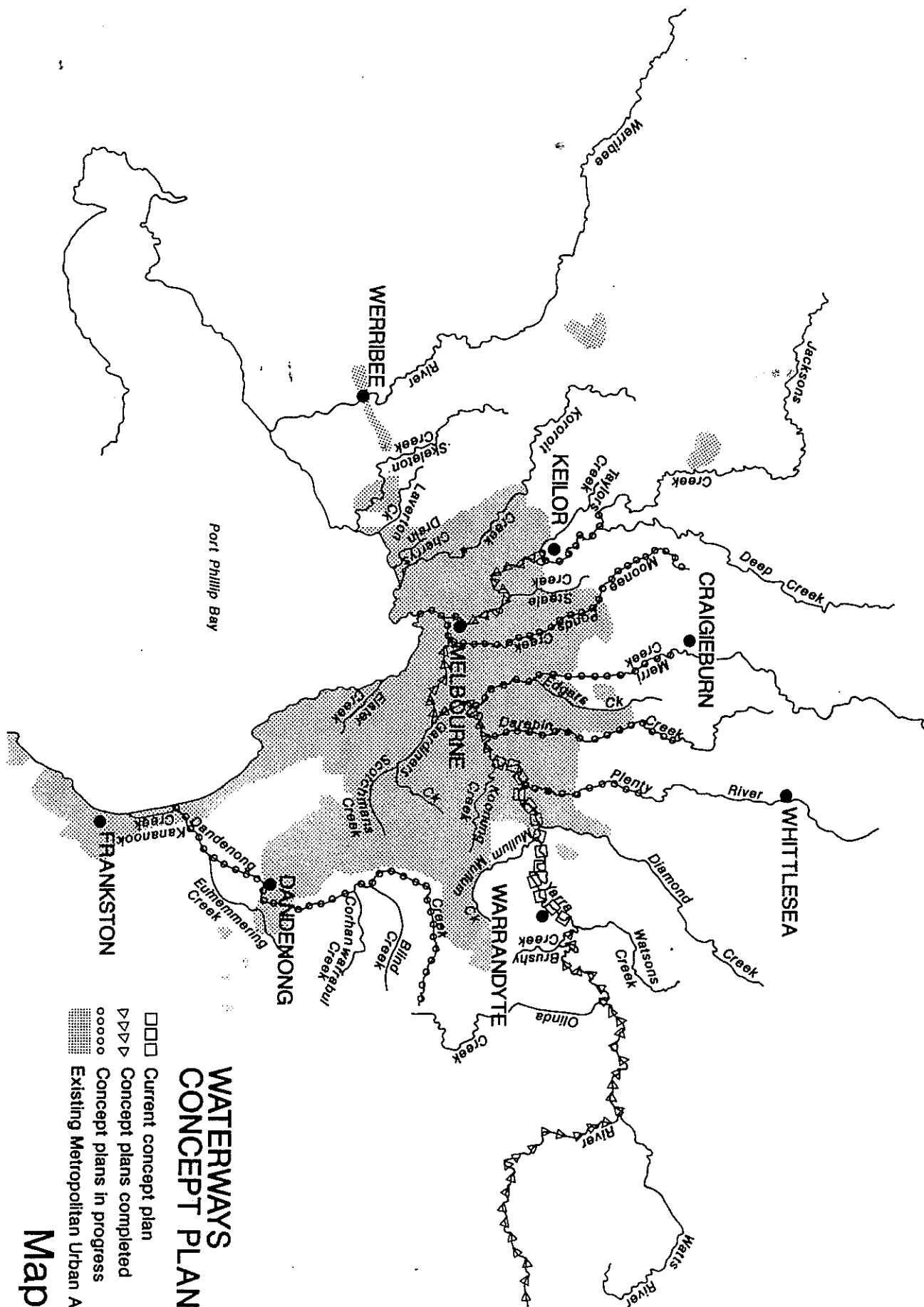
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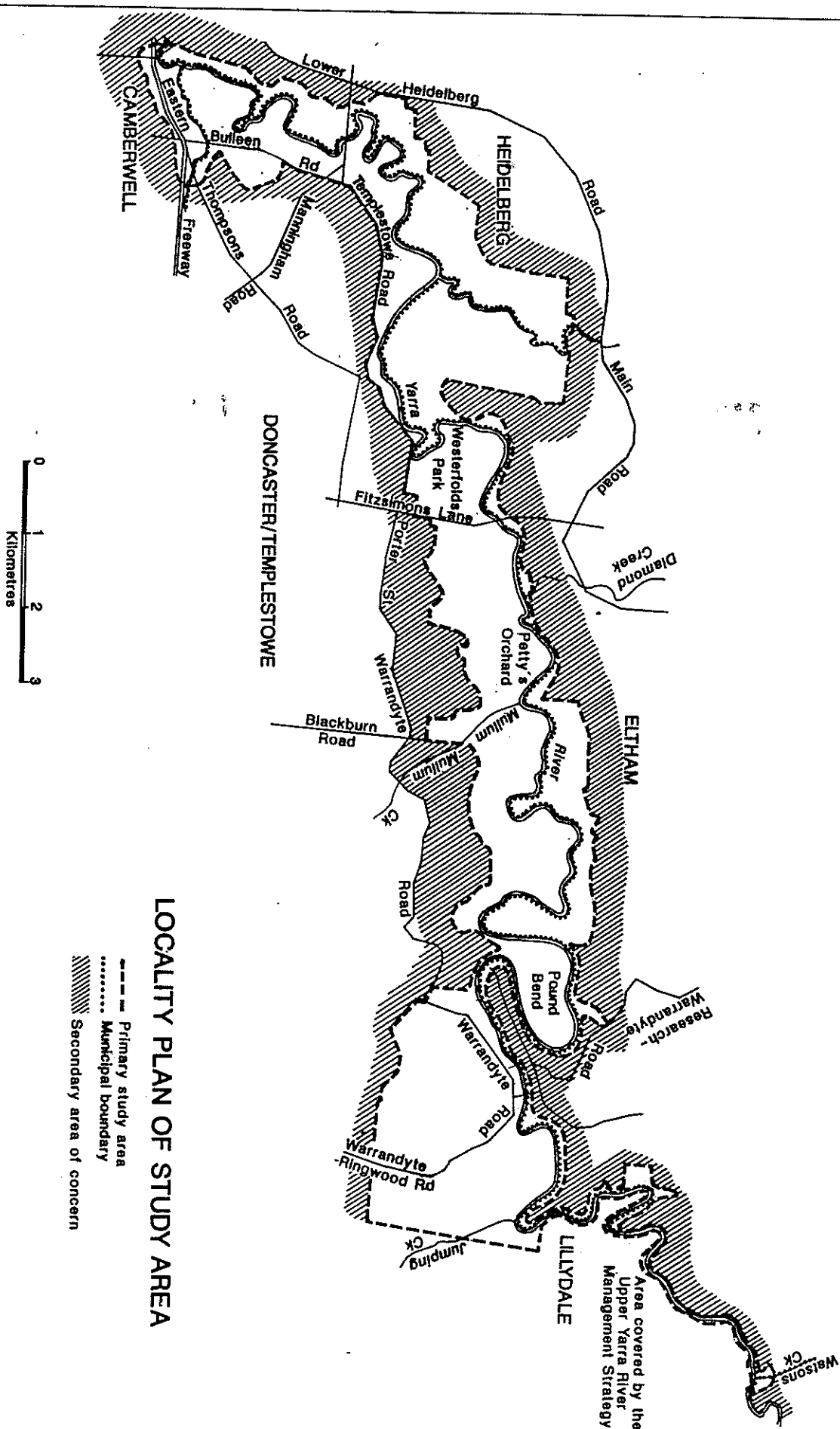
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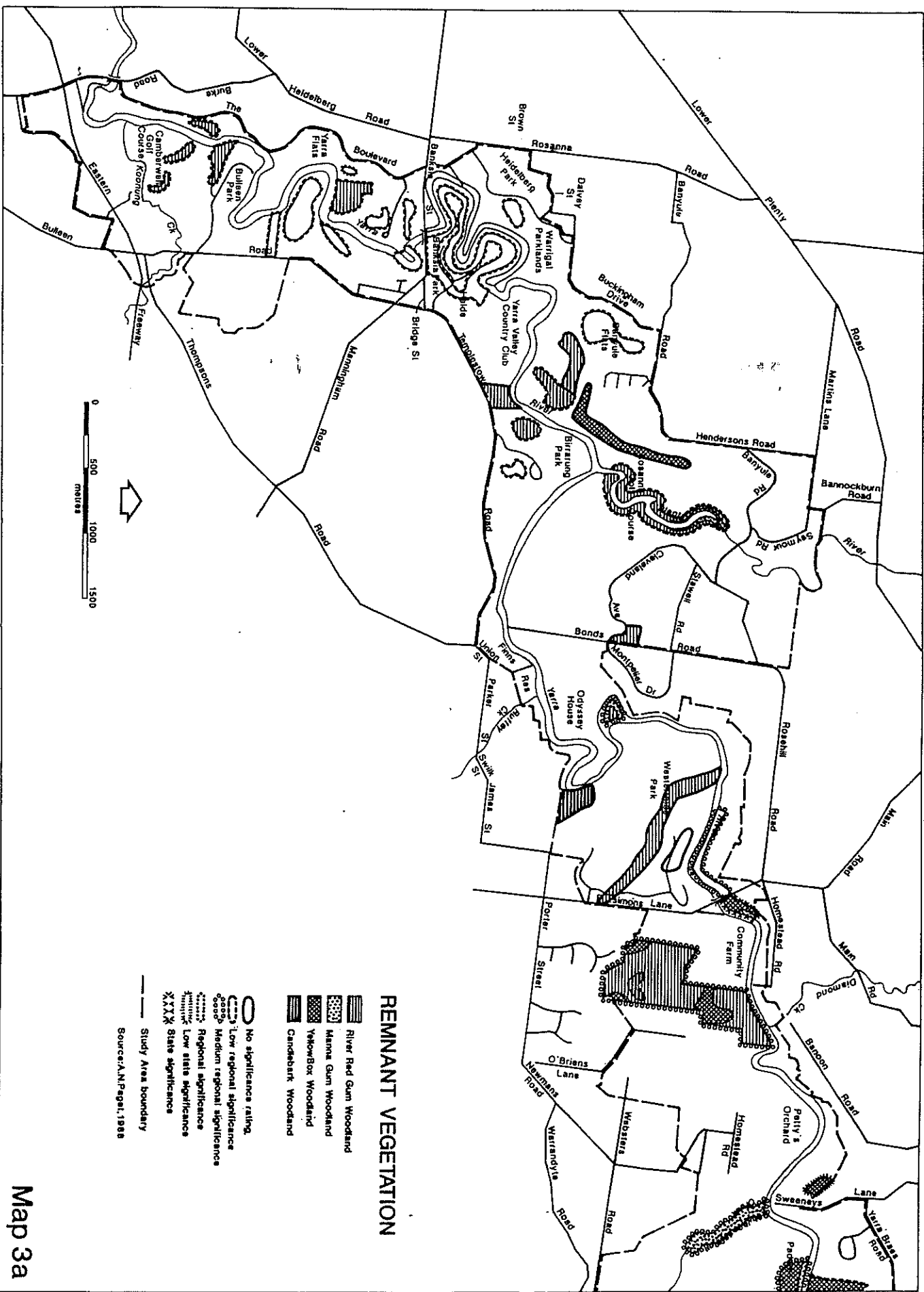
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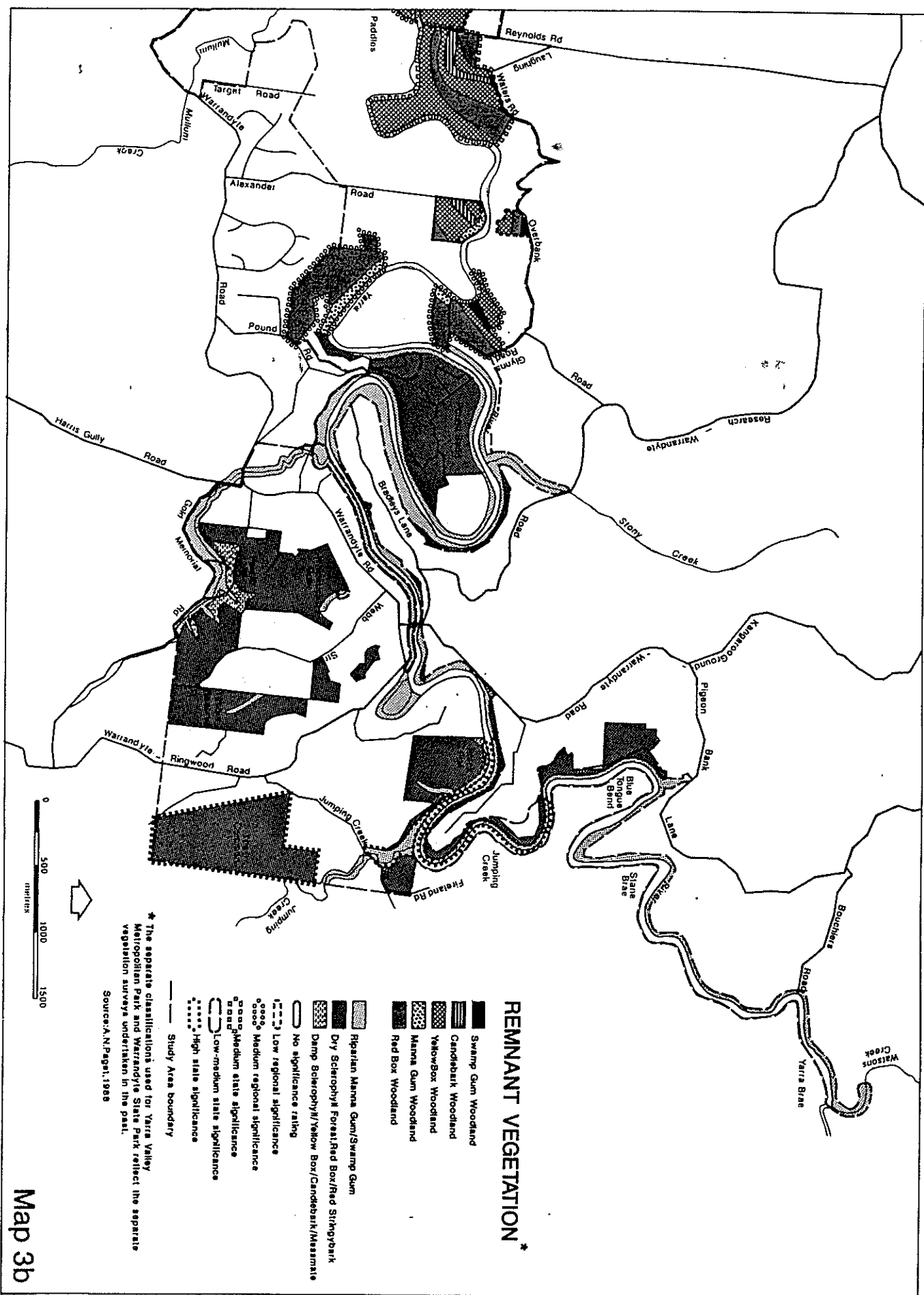


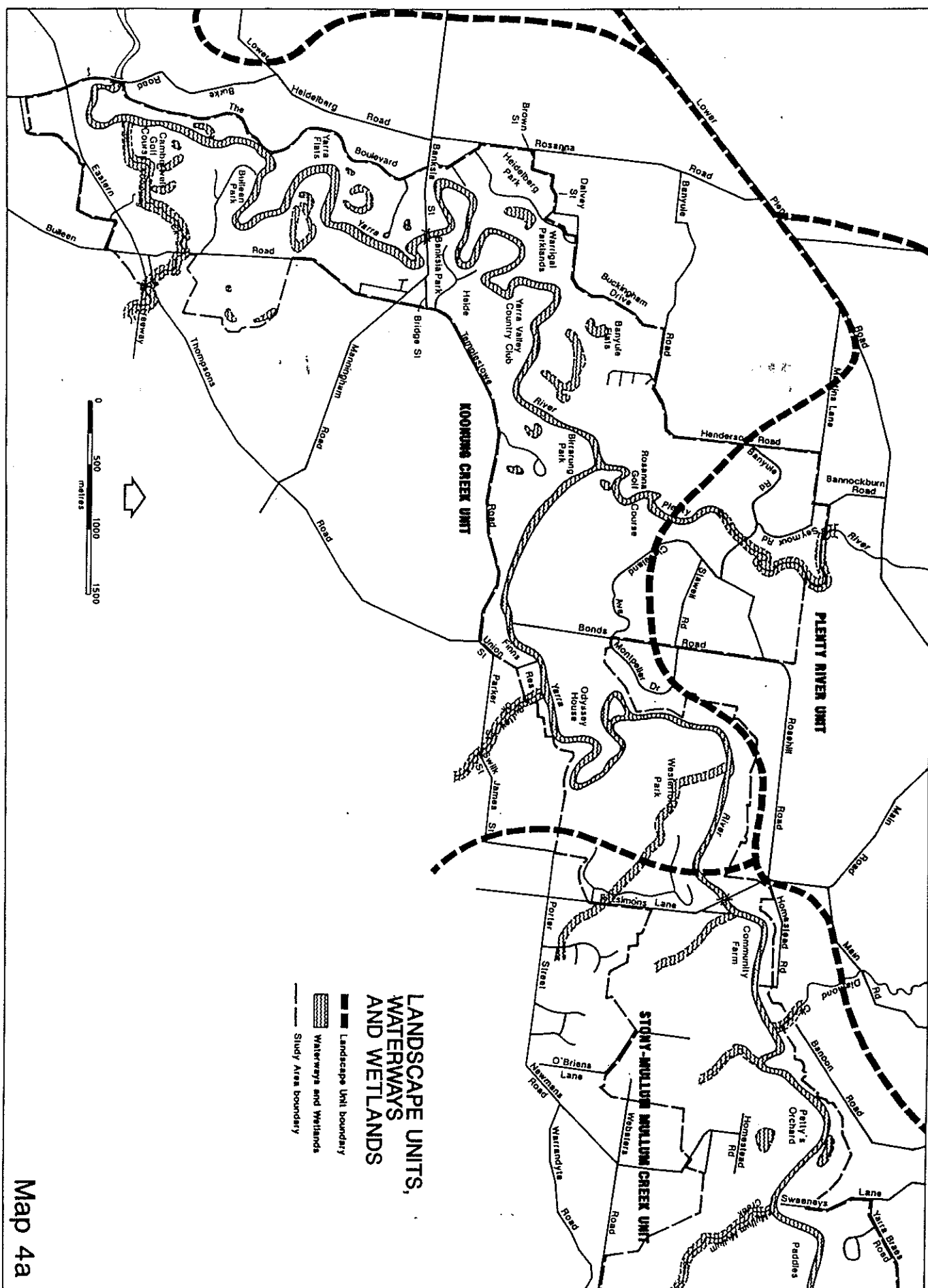
## Map 2

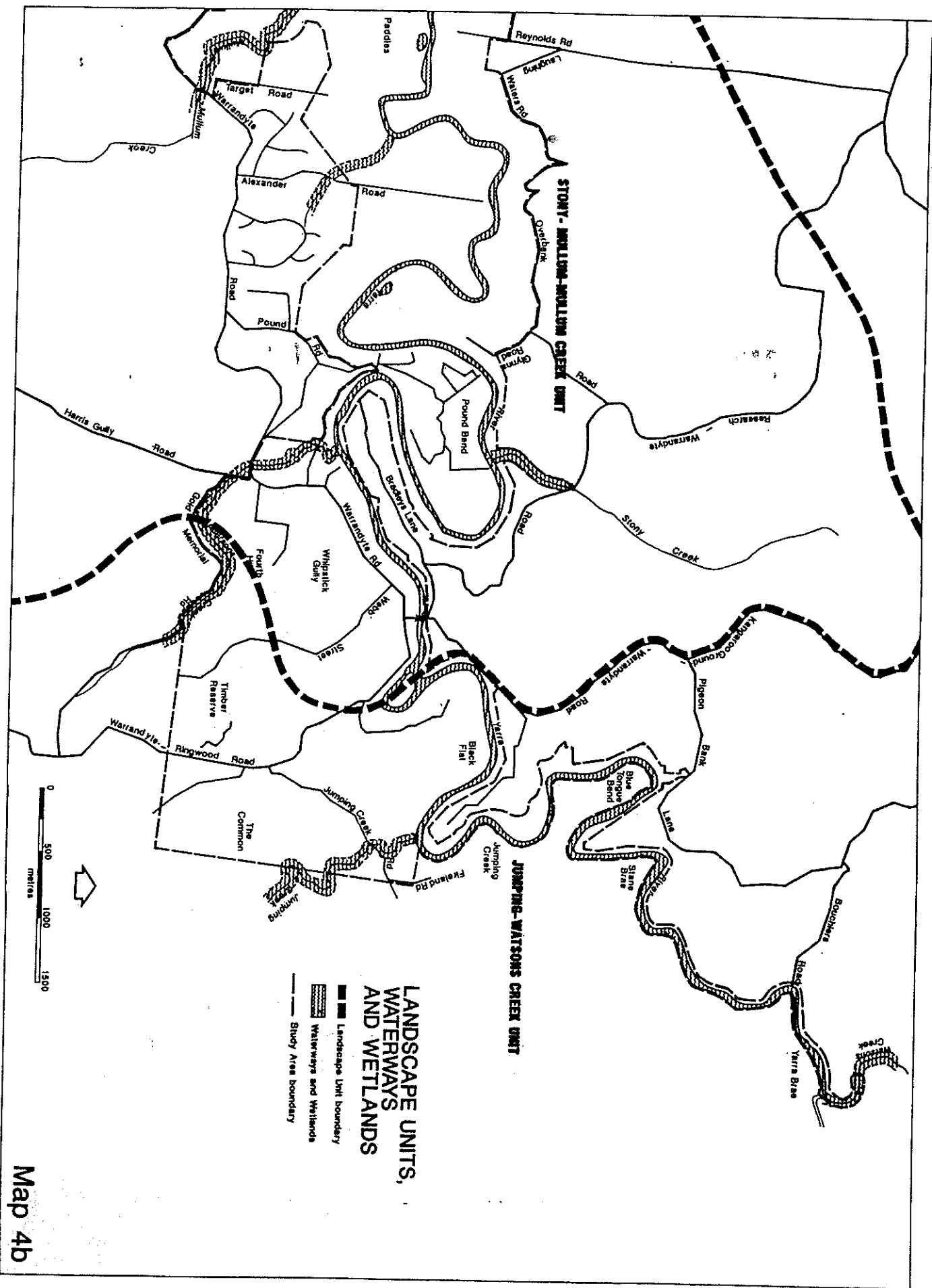


Map 3a









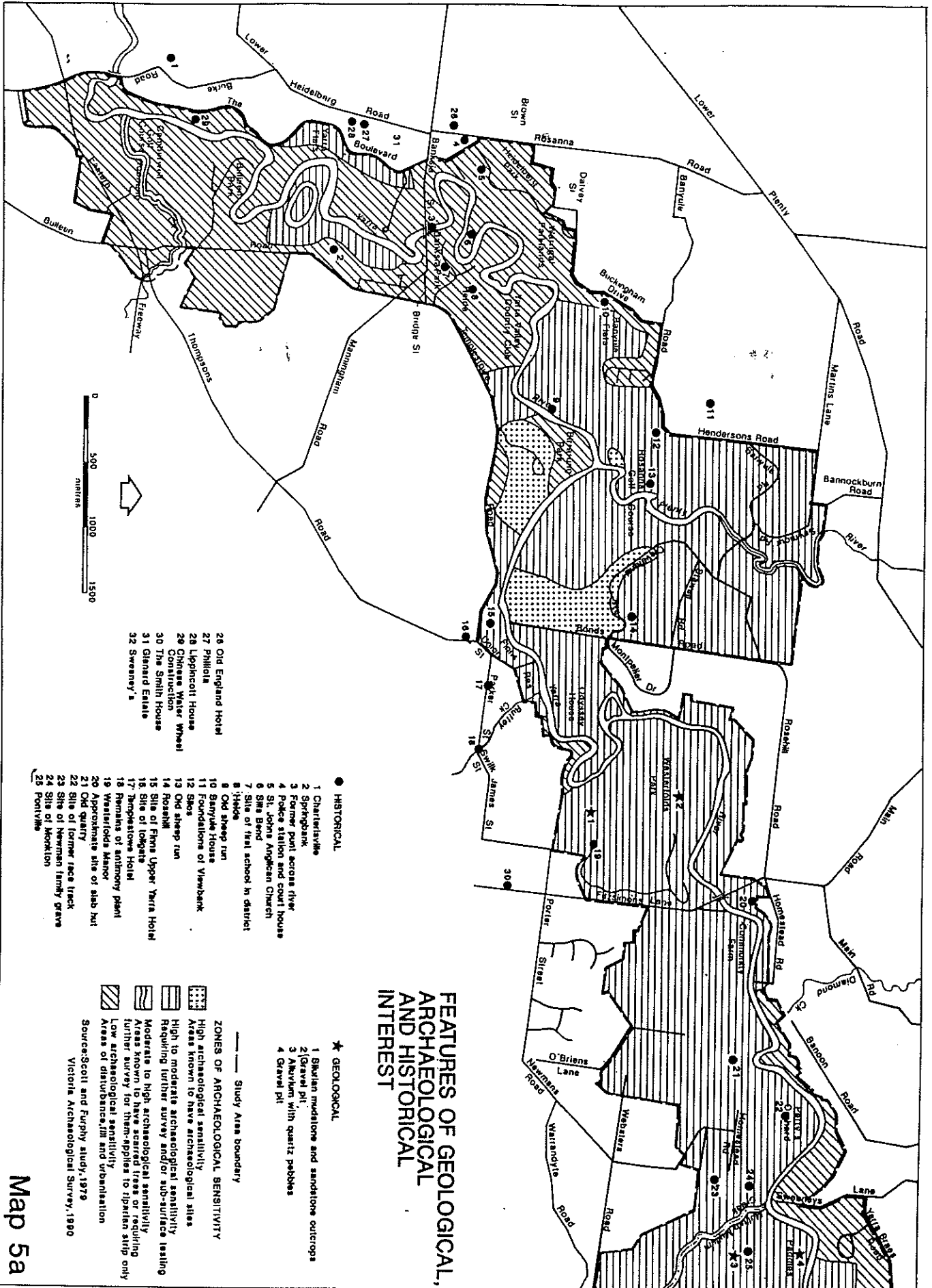
LANDSCAPE UNITS,  
WATERWAYS  
AND WETLANDS

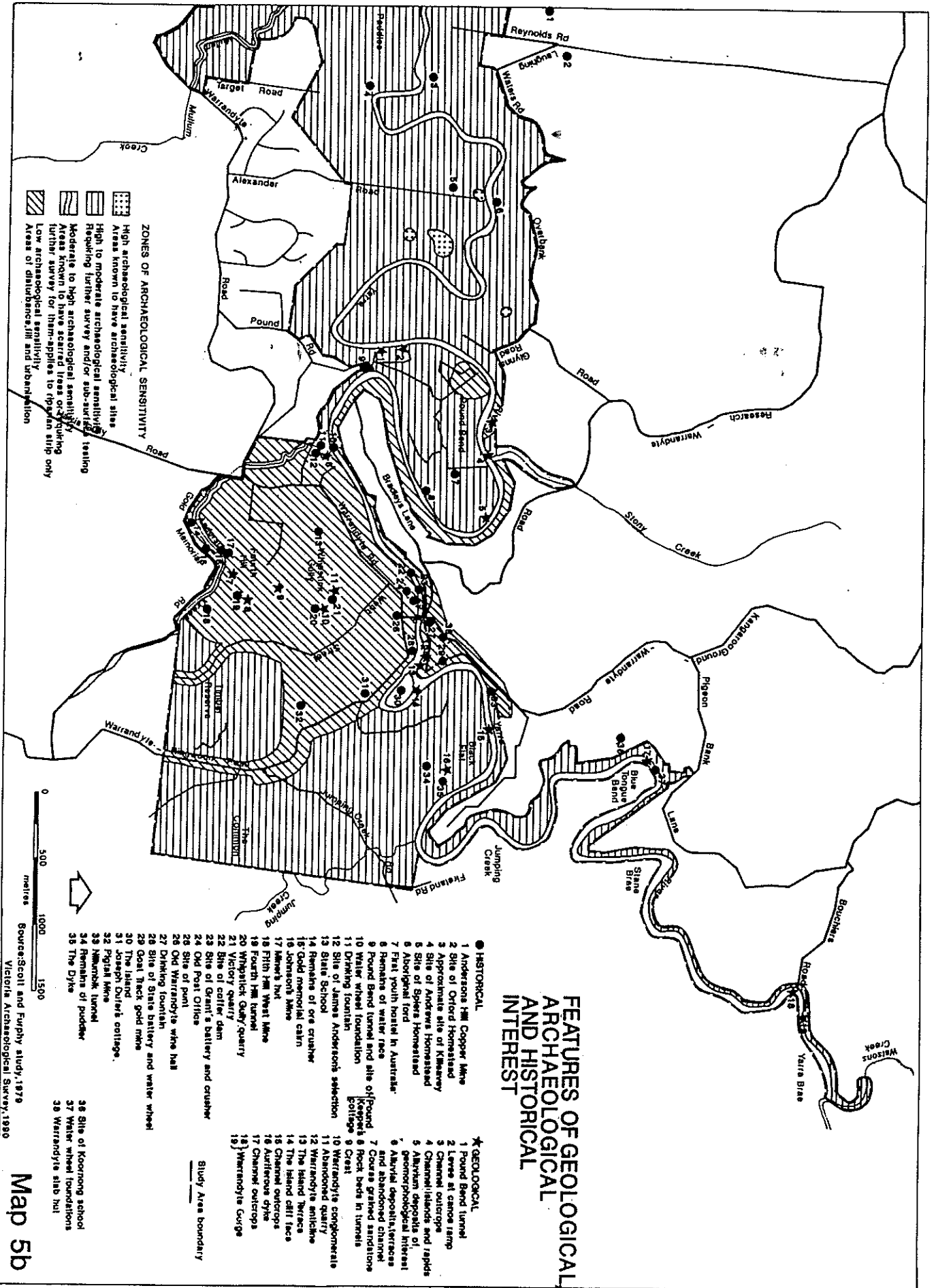
- Landscape Unit boundary
- Waterways and Wetlands
- Study Area boundary

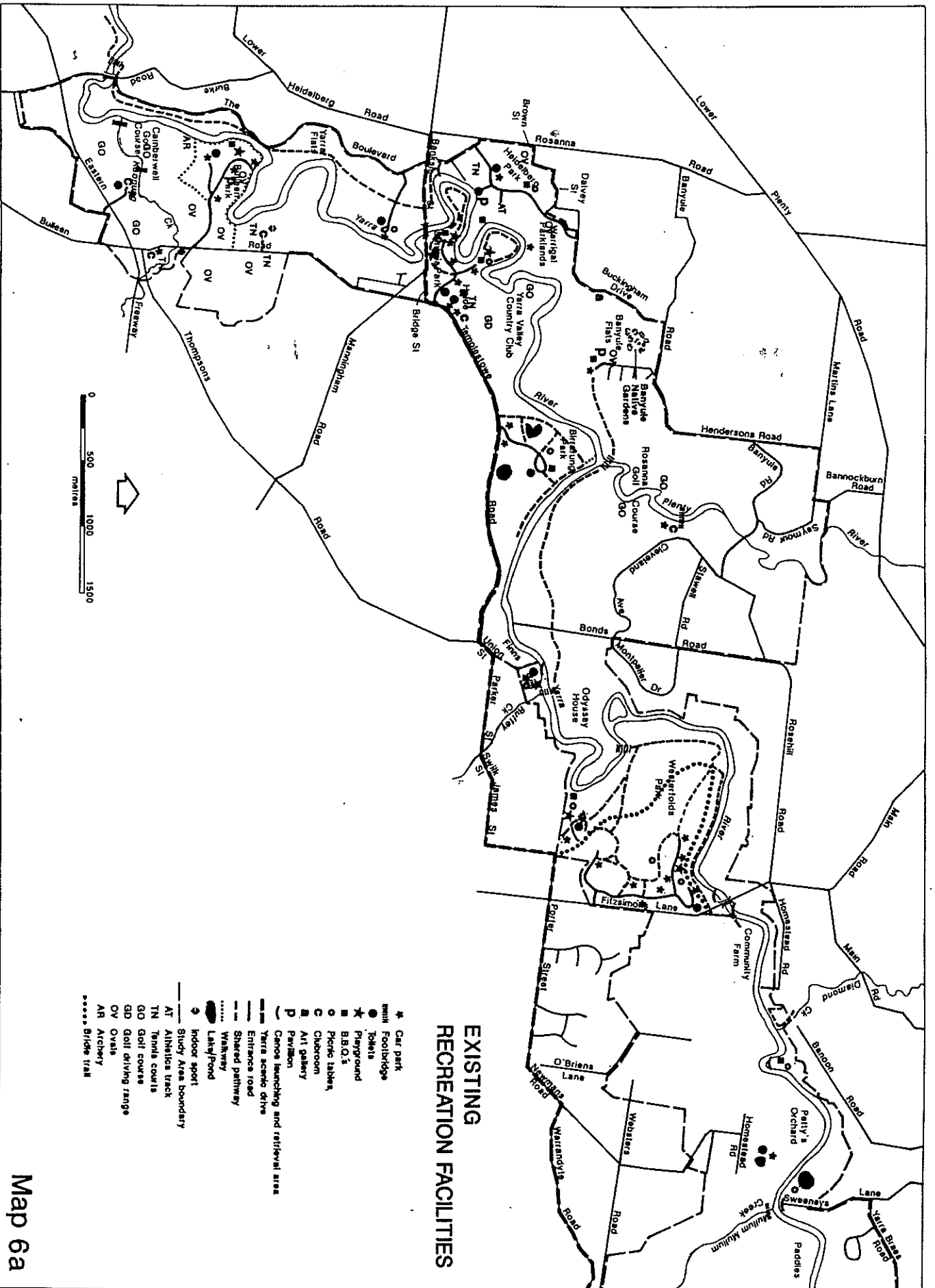
0 500 1000 1500  
metres

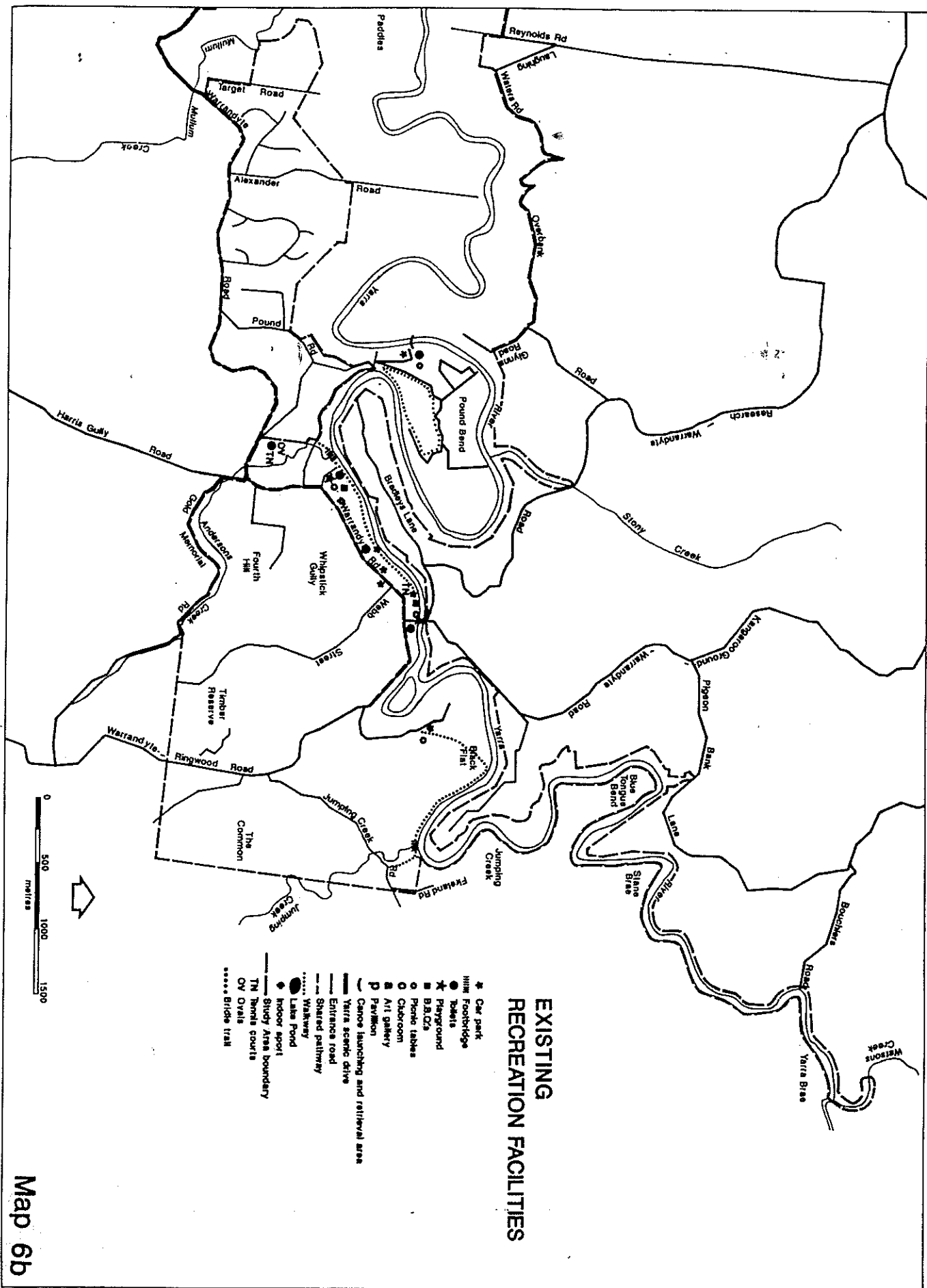


Map 4b





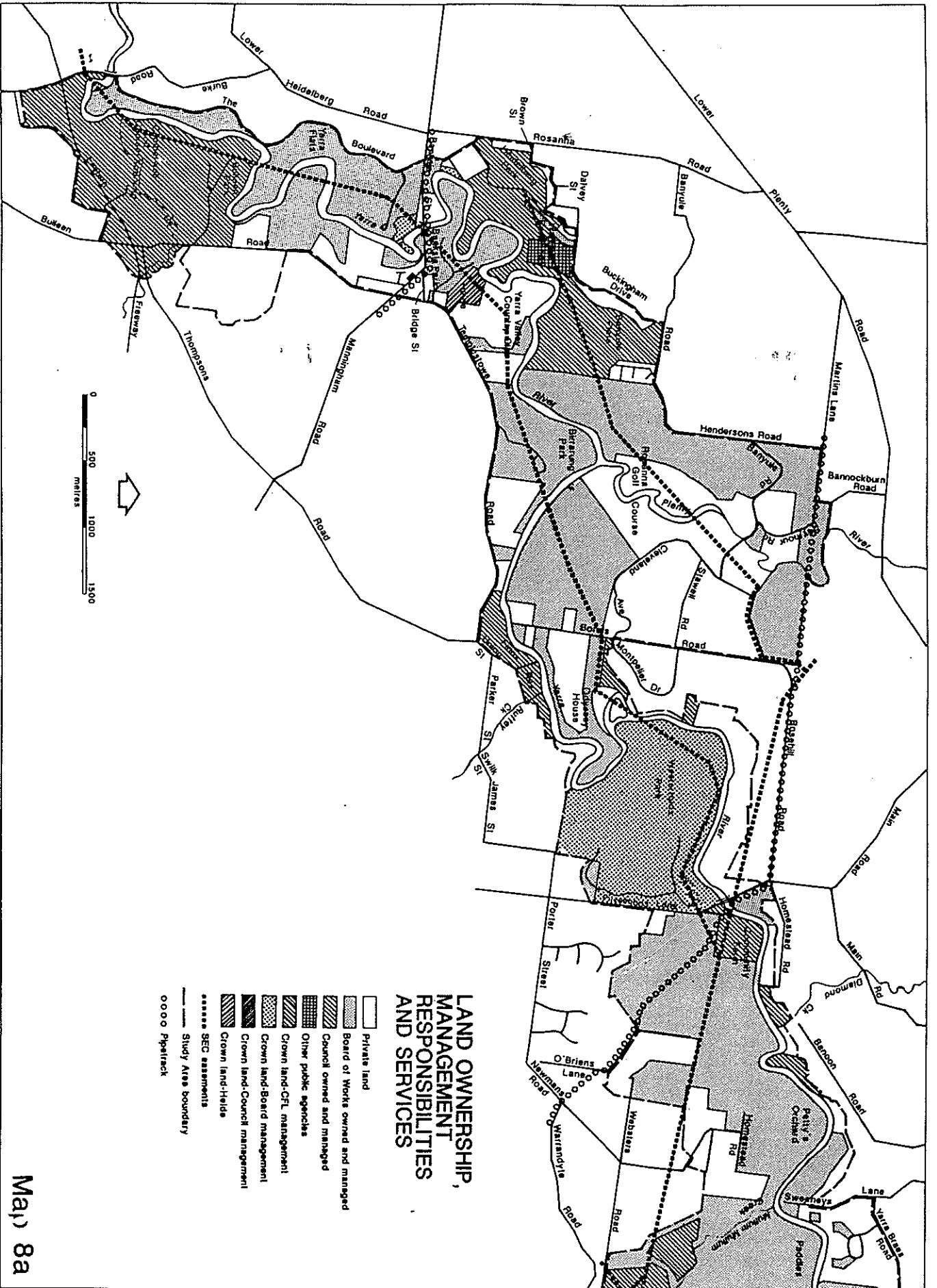


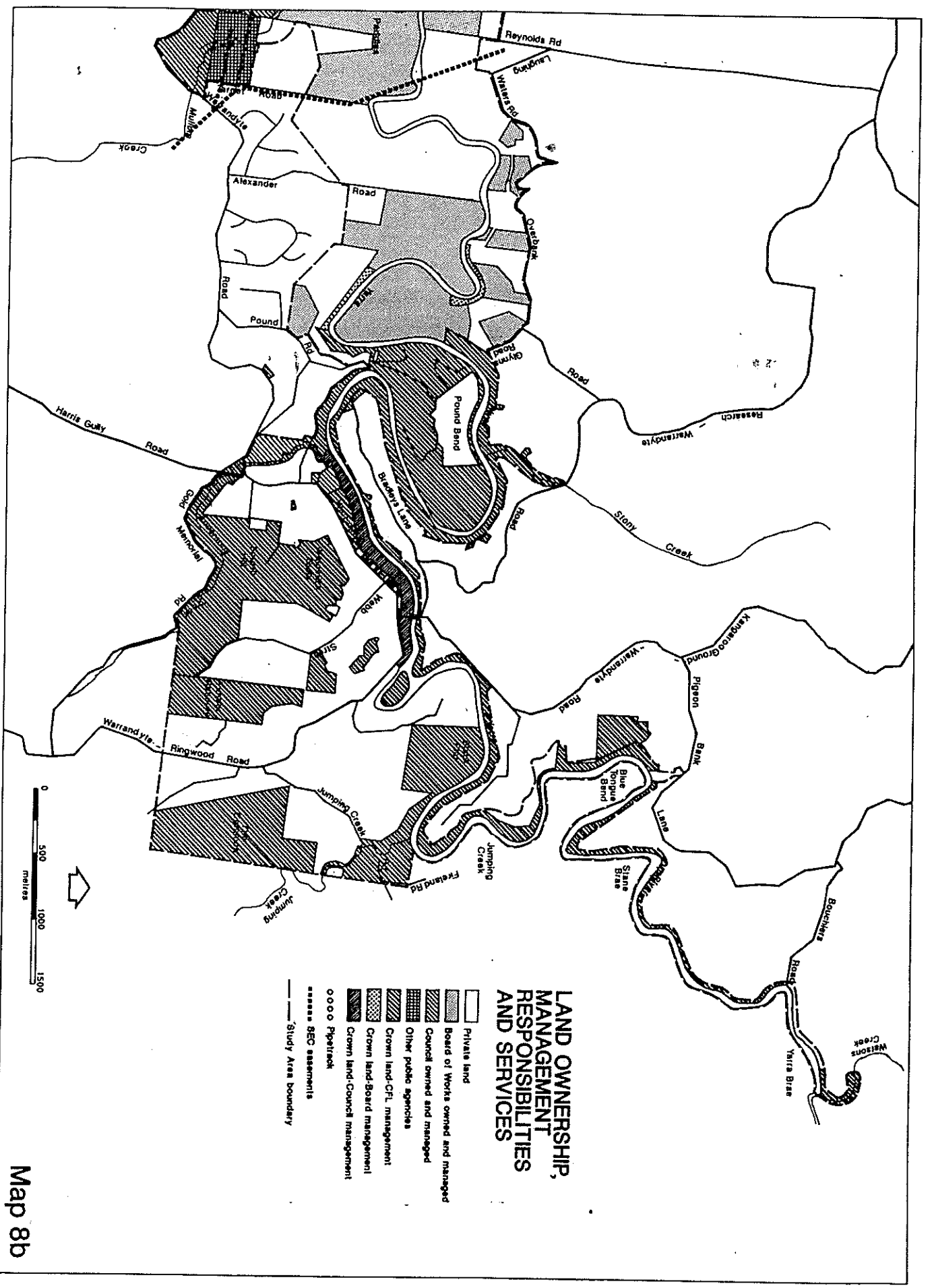




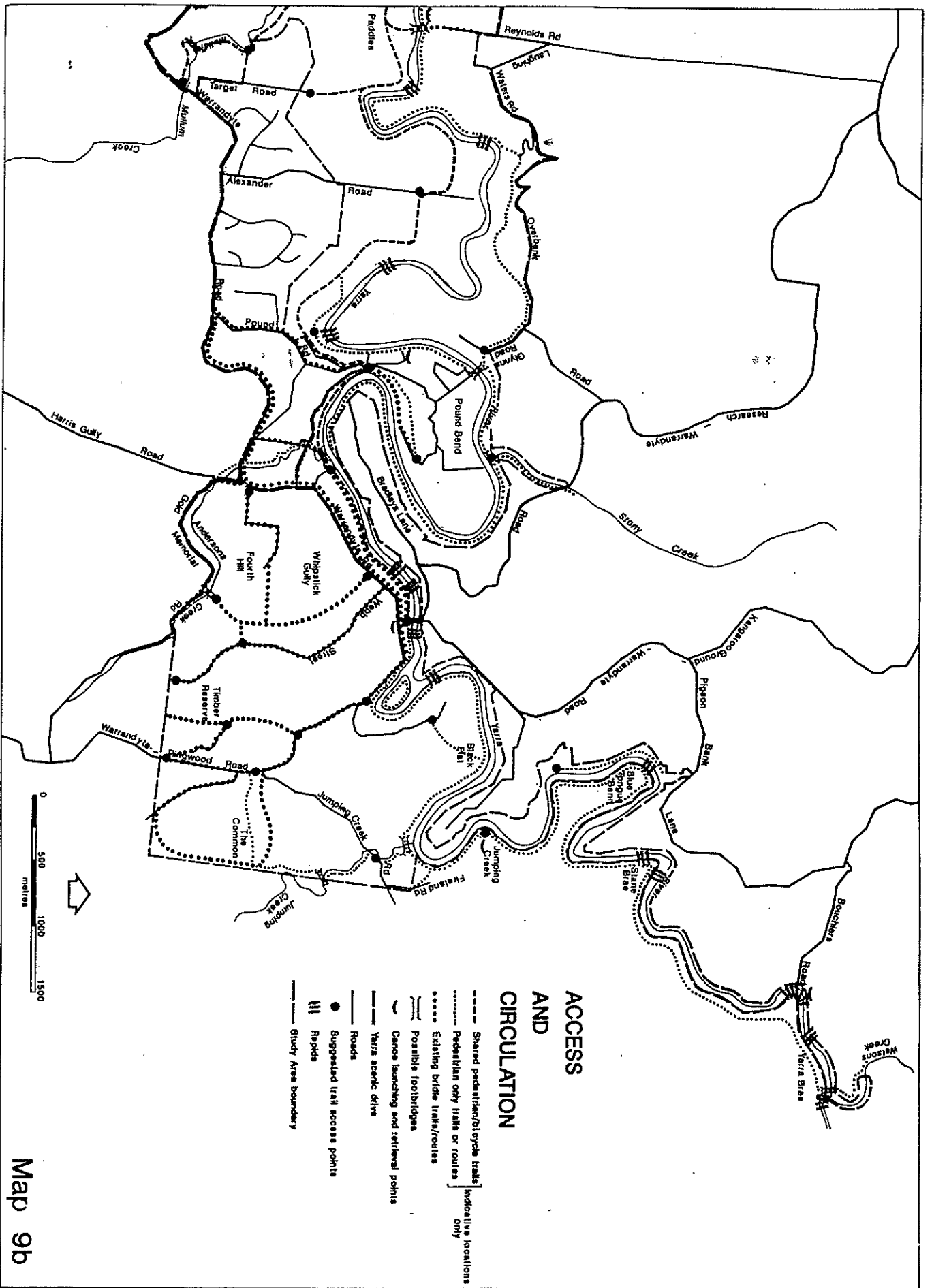




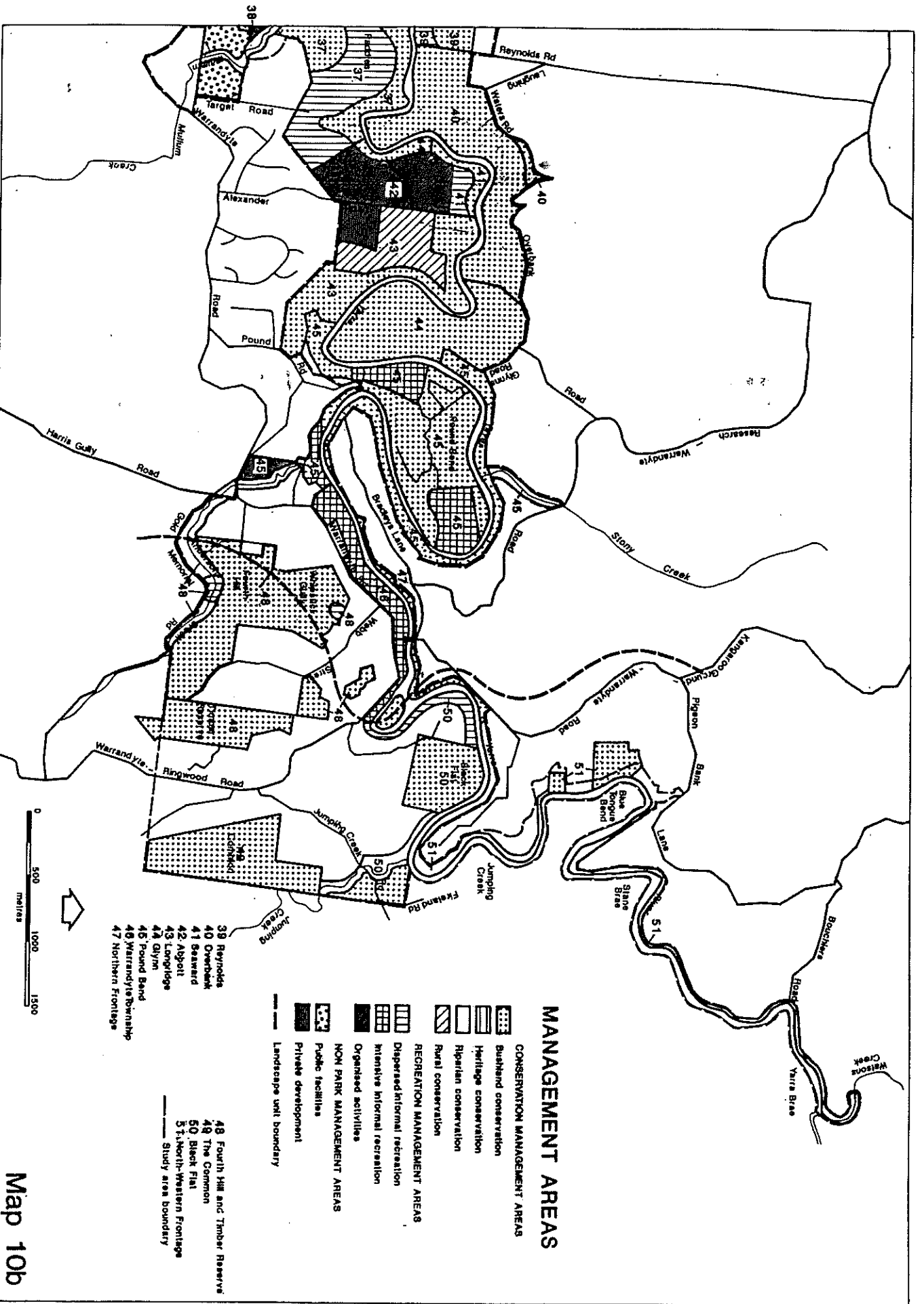


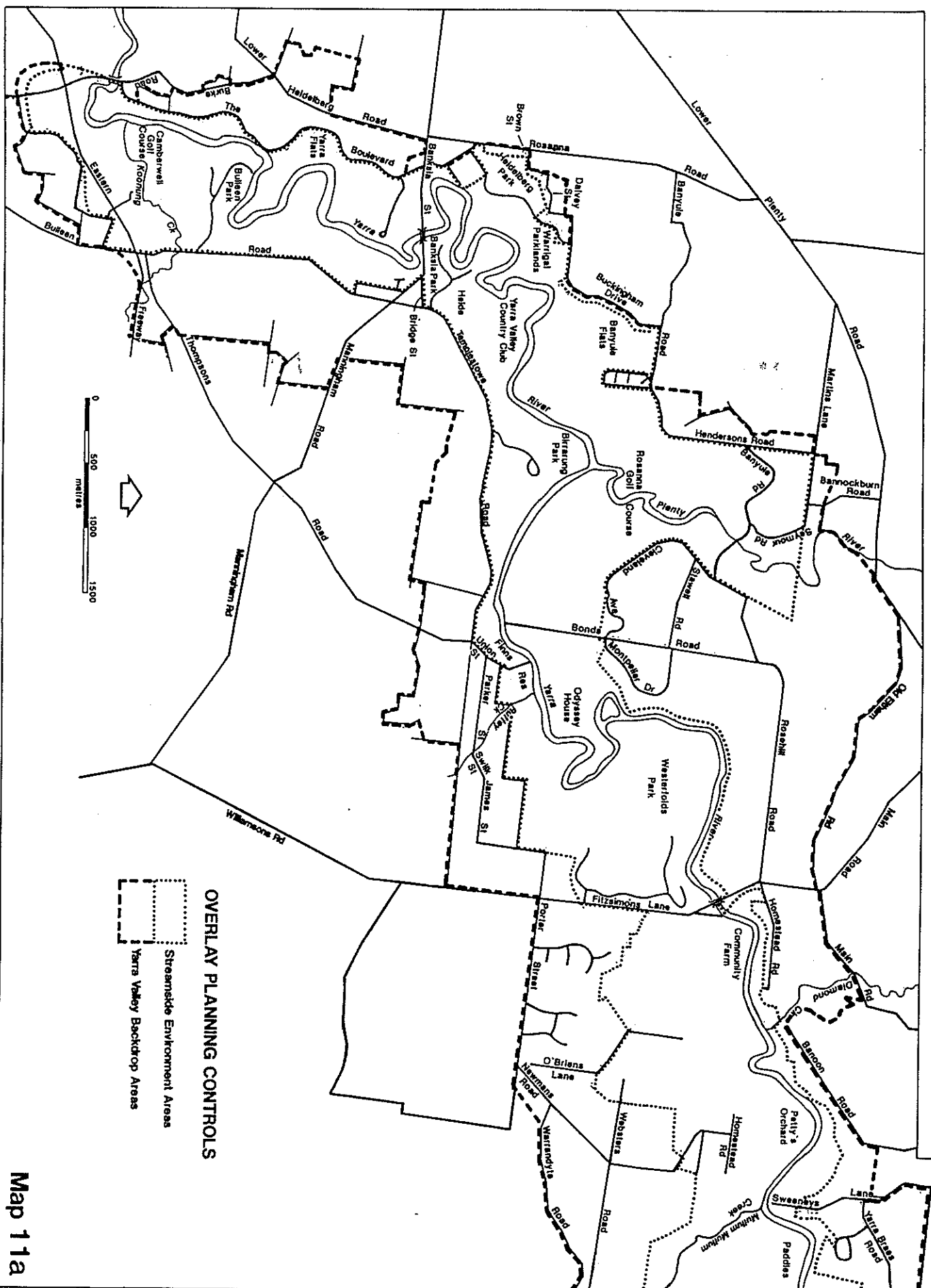




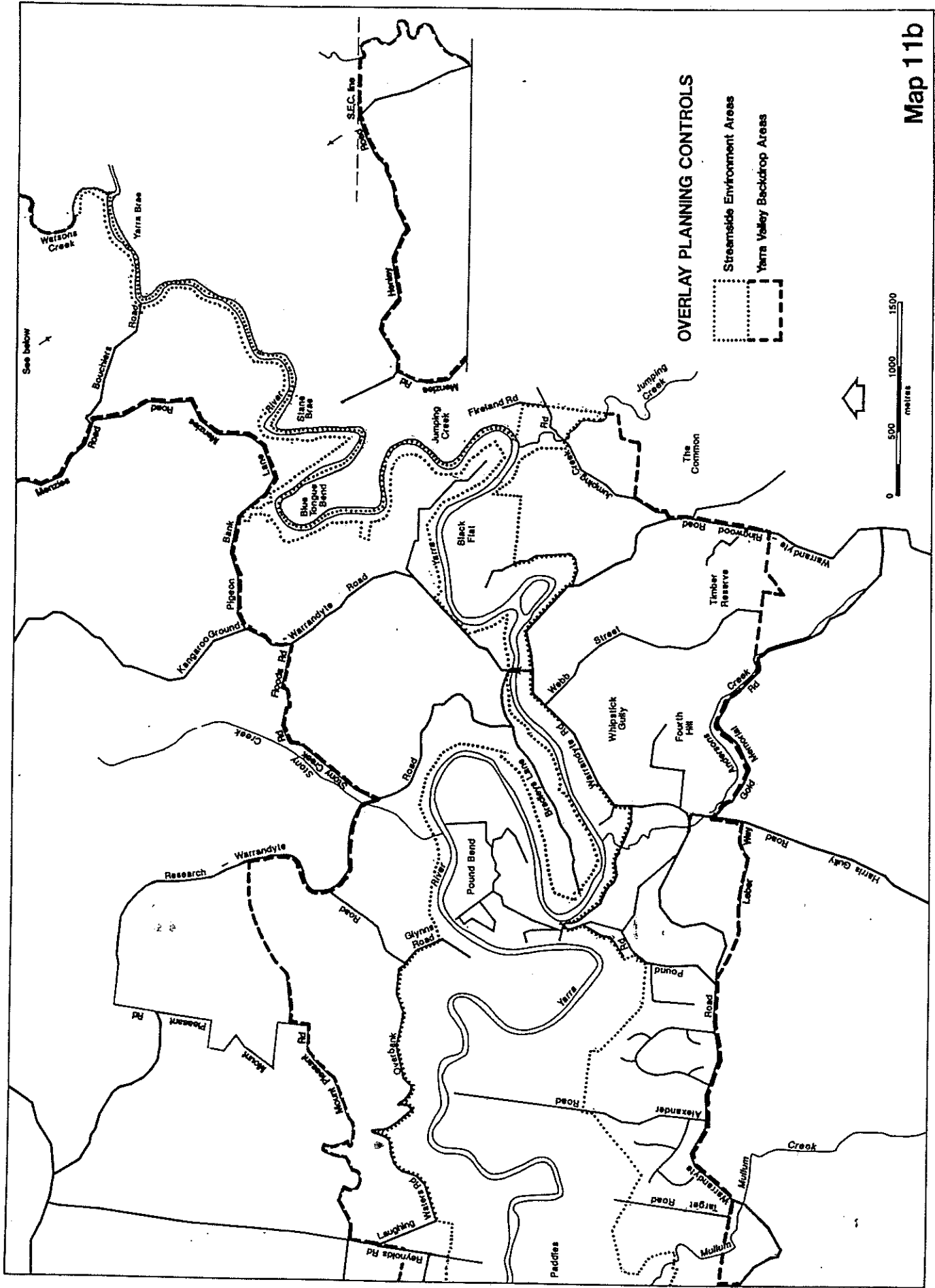














OVERLAY PLANNING CONTROLS

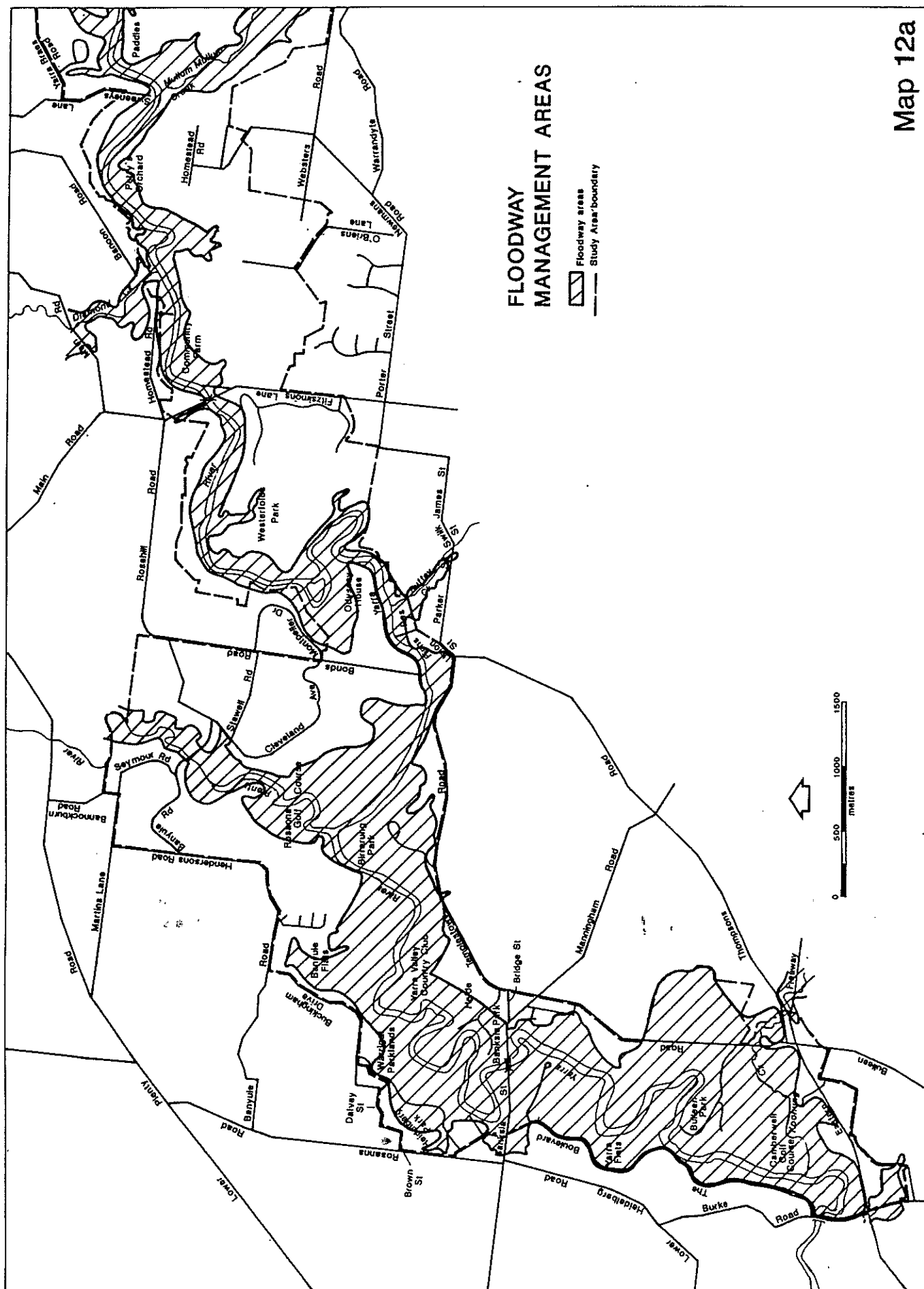
- Streamside Environment Areas
- Yarra Valley Backdrop Areas

Map 11b



# FLOODWAY MANAGEMENT AREAS

 Floodway areas  
 Study Area boundary

Map 12a



# FLOODWAY MANAGEMENT AREAS

-  Floodway areas
-  Study Area boundary

