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Forests Department of Western Australia

CONCEPTUAL LAND MANAGEMENT PLAN

KEMERTON AREA

FEBRUARY 1985

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February, 1985

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PREFACE

This publication is a conceptual Plan for the future management of an area which is under consideration for purchase by the Government of Western Australia.

The Plan sets out how the area would be managed on a multiple use basis that is compatible with the surrounding land uses. The conceptual Plan has been produced by the Forests Department but further development and implementation will be undertaken by the forthcoming Department of Conservation and Land Management.

It is hoped that the publication of this Plan will stimulate constructive input from the community which will assist the Department to make any necessary adjustments before a further draft Plan is developed.

This conceptual Plan will be open for public comment until 5th May, 1985. Written comments should be directed to Department of Conservation and Land Management, P.O. Box 104, Como, Western Australia, 6152, in line with the provisions of the Conservation and Land Management Act, 1984.

P.J. McNAMARA

ACTING CONSERVATOR OF FORESTS

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1. INTRODUCTION

This conceptual Land Management Plan deals with an area within the Harvey Shire centered on land presently owned by Alcoa Ltd. and referred to as Kemerton. The nominal boundary of the area is shown in Figure 1 and for convenience, the entire area is referred to as the Kemerton locality in this document. The area covers parts of both the Parkfield and Wellesley districts and as Kemerton is closely associated with the area through common usage, that name is used here.

The Government has announced that it is purchasing land in the area to accommodate this Plan and the site for a potential aluminium smelter. The Plan recognises this potential land use but is to a large extent independent as it is proposed to proceed with or without a smelter. The land uses proposed are generally unaffected by the smelter decision although their boundaries and extent are likely to be influenced.

The broad concept of the Plan is to manage the area on a multiple use basis for purposes which will be determined by such productive and protective uses as the land capability can provide. Most of the uses recommended here are already pursued in the general vicinity and can be seen as comfortably

fitting into an established and proven land capability and into an existing management infrastructure.

It is only a conceptual plan at this stage. Its final form will depend on a number of factors, including a decision to construct an aluminium smelter at the site, the amount of land finally purchased by the State and the responses of the Harvey Shire and people living in the area.

It is intended this Plan will be open for public comment for two months. Public input will be taken into account and a final Plan will be produced and published when it is clear whether or not a smelter will proceed at this site in the short term.

2. THE KEMERTON SITE

2.1 Landscape Description

The Kemerton area (Fig. 1) straddles a number of different landforms and vegetation communities, ranging from undulating wooded dunes to broad, open flats and permanent wetlands.

On the western and southern perimeters of the site, low partially forested sandhills rise gently above

the surrounding landscape. This tertiary dune system, which in places supports a tall woodland of jarrah interspersed with marri, tuart and peppermint, provides filtered views of the estuary and coastline to the west.

Immediately east of this wooded ridge, a chain of semi-permanent wetlands fringed by paperbark thickets and sedges extends in a north-south direction. This is the southern extension of Myalup Swamp and Mialla Lagoon, an important wetland complex of the Coastal Plain (Anon. 1981).

Paralleling this wetland system is a second ridge of sandhills rising to 40 metres in elevation. Portions of this ridgeline support extensive areas of remnant open forest comprised of jarrah, marri and peppermint, often with a second storey of banksia, snottygobble and woody pear. The distant uplifted landforms of the Ridge Hill Shelf and Darling Scarp are clearly visible from a number of positions along this dune.

Still further east, the landscape flattens out into a broad undulating plain which has been subjected to extensive agricultural clearing. Isolated remnants of the original jarrah and marri woodland are scattered throughout this flat together with occasional clumps of paperbark along the major

drainage lines. However, much of this tree cover is mature to over mature and is suffering from extensive crown decline. The eastern extremity of the site is marked by the Wellesley River, a narrow meandering watercourse lined with flooded gum.

The Kemerton site thus occupies a broad transitional zone between the more visually prominent coastline and Darling Scarp. It is a subdued landscape which has been extensively altered by agricultural land use. Much of the original woodland and forest cover has been progressively lost to pasture development while portions of the wetlands (particularly to the north of Kemerton) have been drained and placed under cultivation. In the remaining areas of woodland, timber cutting coupled with frequent fires, grazing and the invasion of introduced grasses have further altered the landscape.

The resulting mosaic of undulating pasture, woodland and seasonally wet flats is, however, an attractive setting. The increasing number of farmlets and residential developments which have developed in this and similar areas in recent years is perhaps the best indicator of the general appeal this type of landscape holds for the public.

2.2 Current Land Tenure and Use

The bulk of the Kemerton area is zoned by the Harvey Shire as "General Farming". Two holdings along Marriott Road have special zonings to accommodate an abattoir and a piggery.

There are three areas zoned "Special Residential" for development of farmlets and rural retreats, one on the west, one on the north and one on the east of the Plan area. Some of these sub-divisions are only partly developed. Apart from these, the general pattern of land use is livestock grazing. The largest individual holding, the Kemerton block itself, is largely unused, apart from an area south of Marriott Road which is leased for grazing purposes.

3. LAND USE PROPOSALS

3.1 General Objectives

The management proposals for the Kemerton site are, insofar as is practical, designed to complement the inherent character of the surrounding landscape. Specifically, the land management programme would entail the following:

1. Development of appropriate recreation facilities in an area where there are limited facilities at the present time.
2. Retention of the amenity value of significant forest and woodland areas. The remnant tracts of forest and woodland situated between the Coast Road and the Mialla Lagoon wetland chain would be retained and managed for their amenity and conservation value.
3. Wetland enhancement for the chain of wetlands which would be afforded protection from further clearing and drainage works. Access by both livestock and the public would be carefully controlled.
4. The establishment of extensive tracts of pine on the cleared and semi-cleared land as a means of contributing to the State's requirement for increased softwood supplies. The layout and design of the pine forest would be done in accordance with accepted landscape planning principles. The size and shape of planting cells would respect existing landscape boundaries and features such as drainage lines, pockets of remnant vegetation, etc.

5. Treatment of road corridors involving the establishment of indigenous species along the major public roads. This planting would be designed so as to complement and build upon existing groves of trees.

Figure 2 outlines the proposed land use priorities for the area, placing it in the context of existing land use in the district as well as present land ownership boundaries. The following sections briefly describe proposed management in each zone. It is important to note that the boundaries to the various zones are approximate only. Final delineation of boundaries awaits detailed field surveys and negotiations with landowners.

3.2 Recreation Development

The coastal areas to the north of Bunbury attract a wide range of recreational uses, the majority of which are water-based. The sheltered waters of Leschenault Inlet are extensively used for fishing, crabbing and sailing.

Further north, coastal developments of Binningup, Myalup and Preston beaches offer facilities for swimming, boat launching, picnicking and camping. These areas also serve as access points for beach fishing along the coast south of Cape Bouvard.

This development is complemented by an extensive network of coastal reserves, the largest being Yalgorup National Park and the Clifton, McLarty and Myalup Management Priority Areas in State forest.

To the east, the forested ranges of the Darling Plateau also support a variety of outdoor recreational activities. These are predominantly land-based, with the most popular uses being picnicking, sightseeing, camping and bush-walking. The main focal point for this activity is the lower Collie River Valley, which is less than an hour's drive from Bunbury.

In contrast, the coastal plain north of Bunbury is largely unused by the recreating public at present. This is in part due to the existing pattern of land ownership and use (most of which is privately owned agricultural land) and the beach, estuarine and forest attractions previously described.

This largely pastoral landscape of undulating dunes interspersed with remnant areas of woodland and wetland vegetation, while bereft of any outstanding landscape features, does have the potential to support some passive forms of recreation. On or adjacent to the Kemerton site, both the Wellesley

River and portions of the chain of wetlands south of Mialla Lagoon could be managed jointly for recreational and conservation purposes.

Any recreational developments would, by necessity, need to be planned and managed in such a way as to safeguard existing conservation values.

Consequently, passive day use activities like picnicking, walking and nature study are seen as being most compatible with this dual objective.

3.3 Recreation Management

Two separate developments are proposed for the Kemerton site as follows:

1. Wellesley River - develop a day use facility adjacent to the river near its junction with Wellesley Road. This development would entail the provision of visitor carparking, picnic facilities, ablutions and a network of loop walk tracks along the Wellesley River. This development could be eventually linked to a more extensive trail system connecting with the Brunswick River and the Australind townsite.
2. Mialla Lagoon - develop an interpretative trail linking the southern extension of Mialla Lagoon to a small day use facility along the wooded

ridge to the south of Treasure Road. As with the Wellesley River site, this development would include the provision of parking and ablution facilities. Interpretation facilities would include the provision of a small visitor information shelter and a signposted trail system. The trail system could incorporate the use of short sections of boardwalk to enable visitors access to a limited portion of the wetland area.

These proposals are in line with recommendations C63.1 and C67.1 of the System 6 Study Report (Anon, 1981).

Routine management and maintenance of both of these developments could be undertaken by Departmental staff employed on other functions such as fire control and tending of pine forest. Should it prove necessary, an Information Officer could be employed on a part-time basis to assist in the organisation of a more structured visitor information programme.

3.4 Amenity Priority Area

An important management objective of the area would be to protect and enhance the existing landscape character along the Old Coast Road. The wetland

areas would be maintained in their present condition but with some attention given to weed control.

Some enrichment plantings of tuart and peppermint might be required in the more open areas and grazing would be used judiciously to ensure low fire hazards in the area.

The Plan also envisages the planting of vegetation screens along the other roads around the site, namely Wellesley, Treasure and Marriott Roads.

3.5 Wetland Priority Area

This zone includes the north-south chain of wetlands leading into the Mialla Lagoon and scattered areas to the east and south of the site. The Lagoon in particular has high conservation value for waterbirds. It is highly desirable that some agreement be reached with the owners of the land on which the Mialla Lagoon lies, to integrate its management with that of the proposed wetland management zone. It is envisaged that active measures would be taken to manipulate the water level and manage vegetation to optimise this system as a waterfowl habitat. Grazing and weed invasion would need to be strictly controlled and adjacent land uses would need to be considered in the light of their impact on groundwater levels. Adequate buffer zones from adjacent land uses would need to be provided.

Within the other wetland areas in the eastern and southern parts of the Plan area, it is proposed to attempt to preserve existing wetland flora and fauna. This will entail some regeneration of native flora to protect the wetlands from the influence of adjacent land uses. No further drainage would take place and it may be desirable to close-off some existing drains. While the principal objective would be to protect the wetland, some provision for passive recreation is likely to be a compatible activity, although perhaps this recreation might be seasonal in nature. Additional fencing would be required to exclude grazing.

3.6 Forest Production Priority Area

Given that it is Government policy to continue with a pine planting programme to meet the State's future timber requirements, and to locate that programme primarily on repurchased private property, the Kemerton site has the potential to make a useful contribution to timber supplies. The soils of the areas are of very low fertility and pine productivity would not be high, but pine forest development would be economic due to its close proximity to large wood processing developments at Dardanup.

While the establishment of pine forest would require the clearing of some native woodland, no serious adverse effects on conservation values are foreseen. Coastal Plain dryland ecosystems are well represented in much less disturbed form in Yalgorup National Park and in the Myalup and McLarty Management Priority Areas.

The Plan envisages planting pines over most of the area allocated to forest production, with the exception of some areas where soil quality or other factors prevent satisfactory growth. Planting would take place over a period of at least five years. Land which is already good pasture would be managed in an agro-forestry system with the pines at relatively wide spacing, permitting intermittent grazing between the trees. This will minimise fire hazards in the area and enable continuing agricultural production. It is likely grazing would be on a leasehold system and be largely confined to the winter and spring periods, before the grass dries off.

It is likely that areas carrying poor pasture, or have been partly cleared in the past, will undergo a period of one or two years under legume pasture before pine establishment, in order to improve soil productivity.

4. OTHER CONSIDERATIONS

4.1 Hydrology

It is recognised that any proposals for a significant alteration of land use in the Kemerton area must consider possible impacts on the groundwater table. Only the pine afforestation proposal in the conceptual Land Management Plan could have an impact on groundwater levels. It is considered there is adequate research and operational experience over the last 20 years from the Wanneroo area to guide management in this respect (Butcher, 1979). Management guidelines would be developed in consultation with water authorities.

4.2 Compatible Land Uses

Some of the existing land uses in the Kemerton area are quite compatible with this Plan. For example, the piggery and abattoir on Marriott Road, being industries which tend to keep other land uses at a distance could continue operations. The broadscale land management proposals set out here would have no impact on them.

The existing rural retreat and farmlet developments near Kemerton can be accommodated in this Plan, although they probably represent

a degree of fire risk to the forest production zone. Any misgivings those land-owners may have as to the presence of pines in the area should be counter-balanced by the marked improvement in fire detection and fire control capacity which will result from the changed tenure of the land. Particular attention would be paid to the maintenance of low fire risks in the forest production priority area.

5. CONCLUSION

This conceptual Land Management Plan proposes a realistic balance of land uses for the Kemerton area.

It sets out to optimise the benefits to the State as a whole through a mixture of forest production, wetland conservation and provision for visual amenity and recreation. The Plan takes into account the perceived requirements of people for the protection of amenity values, the possibilities for improvement and protection of waterfowl habitat and the provision of recreation facilities in an areas where there are now none. It also makes provision for some on-going agricultural use of the land and for meeting the Government's requirements for land for pine afforestation.

These proposals are broadly in sympathy with the planning approach of the Harvey Shire (Anon. 1983) and in particular with the Shire's concept of the land between the Old Coast Road and the sea as a place of heritage value.

Final development of this Plan awaits a decision on the smelter proposal, input from the Harvey Shire and from interested members of the public.

6. REFERENCES

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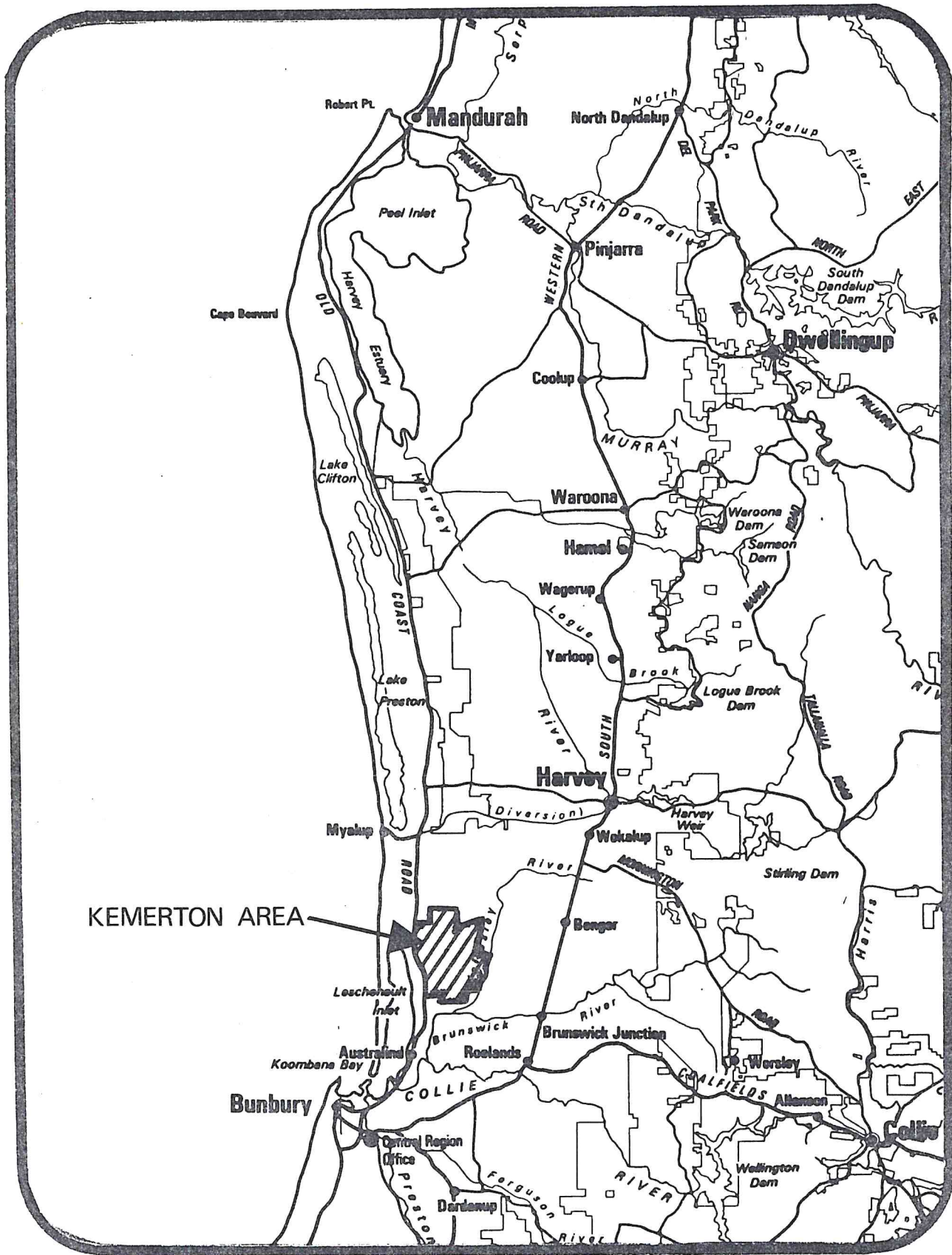


FIG. 1 LOCALITY PLAN OF KEMERTON AREA

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