



Department of Conservation and Land Management, W.A.

# *Nature Reserves of the Shire of Wyalkatchem*



Summary of Public Submissions  
DECEMBER 1985



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COMO RESOURCE CENTRE  
DEPARTMENT OF CONSERVATION  
& LAND MANAGEMENT  
WESTERN AUSTRALIA

NATURE RESERVES OF THE SHIRE OF WYALKATCHEM

SUMMARY OF PUBLIC SUBMISSIONS

DECEMBER 1985

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MANAGEMENT PLAN NO. 2

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## INTRODUCTION

This summary of public submissions is part of the Management Plan series produced by the W.A. Department of Conservation and Land Management (CALM). Each plan in the series is published as a draft for public comment. Following at least two months of public comment (as specified by Section 58(a) of the Conservation and Land Management Act, 1984) a summary of public submissions, incorporating all comments received is prepared. At the same time an amended draft is prepared, based on the original and influenced by the public submissions. The amended draft, accompanied by the summary of public submissions, is then submitted to the National Parks and Nature Conservation Authority, Minister for Conservation and Land Management and Bush Fires Board for approval. Once approval has been given the plan is published in its final form.

## DISTRIBUTION OF THE DRAFT PLAN

The draft plan for nature reserves in the Shire of Wyalkatchem was published on 8 December 1984 and was available for comment for three months, from 8 December 1984 to 8 March 1985. A photographic display was shown in the Wyalkatchem Library for the first three weeks of the three month submission period. On the late-night shopping night preceding Christmas, the display was moved to the main street. Here, officers from the Reserve Management section of the Department of Fisheries and Wildlife were available to discuss management concerns with passers-by.

Both display locations and attendance by Reserve Management representatives were well advertised in the Wylie Weekly (the local paper). The late-night shopping display proved to be an ideal presentation for discussing management concerns with reserve neighbours and other members of the local community.

The plan was distributed to two groups:

### 1. Standard Mailing List

This is a standard list formerly held by the Department of Fisheries and Wildlife, and now held by the Department of Conservation and Land Management. It includes Commonwealth and State Government

organisations, tertiary institutions and conservation groups as well as naturalists and members of the public who have expressed a general interest in management plans for conservation areas.

## 2. Reserve Neighbours and Local Authorities

This list includes adjacent landholders and all local Authorities who may have an interest in the management proposals for nature reserves in the Shire of Wyalkatchem.

The establishment of a standard mailing list ensures that all interested parties receive copies of management plans and are hence encouraged to comment. In this way individuals and groups, from widely different backgrounds and with different areas of expertise, can contribute to the management planning process, significantly enhancing plan preparation.

The practice of distributing copies of the draft plan to reserve neighbours and local Authorities encourages all concerned to consider nature reserves as an integral part of their local environment. It also maximises opportunities for the local community to participate in the planning process.

Submissions were received from the following bodies and individuals:

### 1. Standard Mailing List

#### State Government Organisations

Bush Fires Board  
Department of Conservation and Environment  
Department of Lands and Surveys  
W.A. Museum - Division of Natural Science

#### Conservation Groups

The Tree Society  
West Australian Wildflower Society

## 2. Members of the Local Community

### Local Authority

Wyalkatchem Shire Council

## 3. Other

W.J. McNee, M.L.A., Member for Mount Marshall

W.A. Museum - Department of Aboriginal Sites

### ISSUES RAISED IN THE SUBMISSIONS AND AMENDMENTS TO DRAFT PLAN

The tone of all submissions was favourable, indicating a positive response to the draft management plan (DMP). The following comments by the Wyalkatchem Shire Council and The Tree Society are good examples of the tone and sentiments expressed in many of the submissions:

'... I would like to extend our congratulations for the presentation of the draft management plan for the various nature reserves located within the Shire of Wyalkatchem.

'The draft report and display received very favourable comment from the locals and this reflects the work undertaken by the Officers of your Department.

'I again thank you for your efforts to date, and assure you that you will continue to receive the support of the Council in the implementation of this management plan.'

(Wyalkatchem Shire Council)

'You are to be congratulated on providing such comprehensive management plans, and number 8 of the series is no exception.'

(The Tree Society)

In the remainder of this document issues are treated under the headings and in the order they appear in the management plan. A final section on general considerations covers issues of a less specific nature.

#### PART 1: INTRODUCTION - THE SHIRE OF WYALKATCHEM

The Wyalkatchem Shire Council (WSC) clarified, with both this Department (CALM) and the Australian Bureau of Statistics, that the Shire of Wyalkatchem has an area of 1 743 km<sup>2</sup>, not 1 307 km<sup>2</sup> as initially given by the Bureau of Statistics.

##### 1. CLIMATE

The Department of Conservation and Environment suggested that:

'This section requires a more objective structuring to clearly highlight the various climatic factors and variables. The following is suggested.

'The Wyalkatchem Shire has a typical wheatbelt climate with hot and dry summers and mild wet winters and is more specifically defined by Bagnovis and Gaussen, 1975, as being within a zone characterised by seven to eight "dry" months, in which potential evapotranspiration exceeds precipitation, and this is classified as Dry Warm Mediterranean, or alternatively under Koeppens classification it is classed as belonging to the Arid Zone.

'The Shire lies between the 350 and 300 mm isohyets with a gradual decrease from west to east, with declining coastal influences (Fig. 1). Most of the rain is received in winter from May to August, and is generally reliable. In late summer and early autumn there is occasionally rain from thunderstorms, but this is rarely substantial in amount. A mean temperature for the coldest month of 11°C is indicative of the mildness of winter, with hot summers being characterised by mean temperatures in excess of 25°C and absolute maximum above 40°C (Beard, 1980: data collected in Kelleberrin, about 60 km south-south-east of Wyalkatchem, Bureau of Meteorology, 1975).'



These suggestions have been noted and the draft plan revised accordingly.

## 2. GEOMORPHOLOGY

The Department of Conservation and Environment also suggested restructuring this section:

'This section is more wide ranging than geomorphology and should be separated into its three main portions namely geology, geomorphology and landforms. For your convenience the following restructuring is suggested.

### '2. LANDSCAPE (instead of GEOMORPHOLOGY)

#### 'i. GEOLOGY

'The following description of the geology of the area introduces the geomorphology. The Wyalkatchem area is part of the Yilgarn block, an ancient rigid "shield" area composed mainly of Archaean granite and gneiss with some altered volcanics and sediments. Thus, the whole of Wyalkatchem Shire is underlain by this granitic shield, with alluvia covering the major valleys.

#### 'ii. GEOMORPHOLOGY

'This section requires correction in terms of laterisation,

'Over the millions of years since the Yilgarn Block was first formed, it has been levelled by glaciation and traversed by slow-flowing rivers. (This levelling process attributed to glaciation should be checked because other wearing down processes may have been just as active.) Much of the country rock has been deeply weathered and subjected to laterization and thus there are extensive areas covered by massive laterite, ironstone gravel, and sand overlying a thick layer of kaolinised material (the "pallid zone"). The surface outcrops of massive granite are due to their stronger resistance to weathering and erosion processes. When the climate became drier and more seasonal major drainage tracts, such

as rivers, degenerated into chains of salt lakes. This is because there was not the volume of river flow to transport this material out of the valley bottoms, hence, they gradually filled up. These processes are still continuing.

'Furthermore, geomorphic differences, in association with changing soil types, are responsible for most of the flora habitat variation within the Shire.

#### 'iii. LANDFORM

'The landforms within the Shire are a product of the long geologic history of the area. As a result, today the landscape is gently undulating and of low relief; the only exception is occasional granite outcrops, which protrude as rock domes or tors. Granite outcrops form a large part of the area of both Elashgin and Carribin Nature Reserves. At the other end of the landform sequence, strings of salt lakes follow ancient river valleys. Derdibin and Wallambin Nature Reserves capture some of the characteristic of this part of the landscape. In the intervening areas sandplains and upper drainage lines share dominance. Nature reserves such as Wyalkatchem and Menbudding (Nembudding) contain features of both.'

As with the preceding section, these suggestions have been noted and the draft plan revised accordingly.

Although the Department of Conservation and Environment emphasised the value of block diagrams, their development is impractical given the time and available resources. If resources were available for the production of block diagrams, they would be used as they give a rapid appreciation of landform and regional setting.

## 5. FAUNA

The W.A. Museum expressed concern regarding the lack of referencing of general comments. Where pertinent, this will be rectified in the final plan.

## 6. LAND USE

The W.A. Museum and the W.A. Wildflower Society drew attention to the importance of regional planning for conservation:

'... the location of reserves within the theorised vegetation distribution before clearing (Figure 2) is of some value, but of greater use would have been a map of the reserves and current land use patterns (alienation) within the Shire as a whole. This would allow an appreciation of the extent of native vegetation still remaining in the Shire and the extent of the seven reserves "considered for or in the process of gazettal" (p. vii).'

(W.A. Museum)

'We would be interested in knowing where other reserves, proposed nature reserves and vacant Crown land exist in the Shire. The seven reserves discussed here do not include all vegetation types - in particular the relatively species-rich Kwongan communities. This information could be obtained from aerial photography and Lands and Surveys maps. Without too much extra work uncleared private land could be mapped. This would give us a good idea of the importance of the reserves in preserving representative areas of vegetation types.

'Figure 2 shows the original vegetation and the location of reserves discussed in the report. A following map with the above information would be most useful. It will be valuable for regional officers from the Conservation and Land Management Department.

'On the individual reserve maps the inclusion of contours and adjacent land blocks is good. Could the description of the physical characteristics and relationships be more specific on which blocks are cleared, semi-cleared, grazed or uncleared and fenced? This is important, especially for small reserves as it gives us an idea of how well the reserve is buffered from agricultural land and weed infestation. It also is relevant to fire management.'

(W.A. Wildflower Society)

In our experience the vegetation maps compiled by Beard are particularly useful in determining whether the theorised vegetation distribution before clearing is well represented in the current reserve system. For the Shire of Wyalkatchem, a map of current land use patterns would provide very little additional information to that given by the statistics in the LAND USE section, as most of the land in the Shire is privately owned (88.5%) with only 9.5% set aside as Crown reserves. The management plan gives a complete analysis. A map of cleared, partially cleared and cleared areas across the Shire would be of greater benefit to regional planning for conservation. Such a map would give an overview of native vegetation remaining, and the degree of isolation of the existing nature reserves from other areas of bushland. If resources allow, further documents in this series will include a regional map indicating clearing status.

## PART 2: DERDIBIN NATURE RESERVE (No. 34527)

### A. THE RESERVE

#### Fauna

The Wyalkatchem Shire Council (WSC) asked if fauna surveys were proposed for this nature reserve. None, other than those carried out as part of routine nature reserve inspections by Wildlife Officers, are proposed during the currency of this plan.

### B. PLAN FOR MANAGEMENT

Derdibin was the only nature reserve on which queries regarding fire protection were raised.

#### Protection from Fire

The WSC asked:

'Who is responsible for maintaining the track along the northern boundary of this reserve?'



The Department of Conservation and Land Management is responsible for maintenance of this track for fire protection purposes. Generally, the Department contracts a neighbouring landholder to carry out the work.

### PART 3: WALLAMBIN NATURE RESERVE (NO. 21719)

Although no information was added to the resource base, part of the 'Plan for Management' required clarification.

#### B. PLAN FOR MANAGEMENT

##### Rehabilitation and Maintenance of the Natural Environment

The WSC expressed concern regarding:

'Rubbish dumping - Who is responsible for the cost of removing the rubbish?'

In all cases, it is the responsibility of the guilty party, that is, the person(s) who dumped the rubbish. In the rare cases where it is difficult to prove ownership the responsibility falls on the vested authority.

### PART 4: KORRELOCKING NATURE RESERVE (NO. 689)

#### A. THE RESERVE

##### History

The WSC suggested approaching the Wyalkatchem Lions Club to determine whether they would be interested in restoring the old wells on Korrelocking. Any such restoration would be encouraged by this Department, provided the nature conservation issues of the area were taken into account.

##### Fauna

The W.A. Museum suggested that changes be made to the distribution of Horsfield's Bronze Cuckoo, as given in the management plan. These

complemented suggestions made in response to the DMP by Departmental staff based in the south-west.

## B. PLAN FOR MANAGEMENT

Three areas of concern were apparent: ensuring that stock were excluded from the reserve; removal of rubbish, including old fence lines; and retaining provision for public use in the final plan.

### Protection from Pests: Animal and Weed Control

The submission received from the W.A. Museum emphasised the importance of excluding exotic browsers from Korrelocking Nature Reserve.

'Korrelocking Nature Reserve is a mature Salmon Gum woodland. It would seem that the management proposal should be aimed at ensuring regeneration of this woodland. This is an unlikely event with exotic browsers in the vicinity. This fundamental point is not emphasised. Surely the management proposal should deal with protection of seedlings from browsers?'

It is unrealistic to expect that exotic browsers (i.e. rabbits) can be excluded from the reserve. However, rabbit numbers can be and are controlled, by regular monitoring, by officers of the Department of Conservation and Land Management and the Agriculture Protection Board. The necessary control work is then carried out by the Agriculture Protection Board, in close consultation with the Department of Conservation and Land Management.

### Rehabilitation and Maintenance of the Natural Environment

The WSC suggested that the rubbish dumped on the western edge of the reserve should be removed rather than buried (as advocated in the DMP), thereby minimising disturbance to the surrounding vegetation. The draft plan will be amended accordingly.

This rubbish will be removed as part of an ongoing program of rubbish removal and gravel pit rehabilitation on nature reserves within Wyalkatchem Shire. The program was jointly instigated by the WSC and

CALM, and has been made possible by a 1:1 funding scheme, with the Department of Conservation and Environment providing half the funds and the WSC providing the other.

The WSC expressed concern regarding the:

'Removal of Old Fenceline - Who is responsible ....'

The vested authorities, the Department of Conservation and Land Management and the Shire of Wyalkatchem, will be responsible.

#### Public Use

The WSC indicated an interest in:

'The provision of off-road parking and barbecue facilities ... The Works Committee of Council would like to discuss the provision of these facilities with Departmental Officers before the plan is finalised.'

Discussions between Departmental Officers and the Wyalkatchem Council Works Committee have taken place, and the DMP will be amended to include provision for the development of off-road parking and picnic facilities. However, development can only proceed following consultation with, and approval by, the Wheatbelt Regional Manager of CALM.

#### PART 5: NEMBUDDING NATURE RESERVE (NO. 34385)

##### A. THE RESERVE

#### Physical Characteristics and Relationships

The WSC and CALM have approached the Department of Lands and Surveys regarding the addition of Timber Reserve 24105 (which abuts the western boundary of Nembudding) to Nembudding Nature Reserve. Lands and Surveys are currently processing this request.

## B. PLAN FOR MANAGEMENT

The main area of concern was future use of the cleared land in the north-east corner of the reserve.

### Rehabilitation and Maintenance of the Natural Environment

The WSC drew attention to the need to clarify the final purpose of the north-east corner of Nembudding, an area which was cleared for agriculture while legally still part of the nature reserve. Following a survey by the Department of Lands and Surveys to determine the exact reserve boundary, followed by realignment of the fenceline, the cleared area will be rehabilitated. Rehabilitation will involve ripping, followed by spreading Allocasuarina acutivalvis seeds over the area.

## PART 6: WYALKATCHEM NATURE RESERVE (No. 23877)

### A. THE RESERVE

#### Physical Characteristics and Relationships

CALM and the WSC have approached the Department of Lands and Surveys regarding the addition of Water Reserve 16623 (which abuts the western boundary of Wyalkatchem Nature Reserve) to the nature reserve. Following correspondence between the parties involved, this request has been modified to suggest the retention of two discrete reserves, the only change being the addition of Conservation of Flora and Fauna to the purpose of the water reserve. In this way the two reserves can be managed as a single conservation unit, with the W.A. Water Authority (in whom the water reserve is vested) retaining control of an important catchment area for the Wyalkatchem townsite water supply.

### B. PLAN FOR MANAGEMENT

Rehabilitation of areas degraded by gravel removal was the major area of concern. Of minor concern was the hot-rod track which lies across the western boundary of the reserve.



## Rehabilitation and Maintenance of the Natural Environment

The WSC, although interested in the conservation values of their nature reserves, were equally as interested in retaining access to gravel resources.

'An area for gravel mining (in the south-west corner of the nature reserve) should form part of the area to be excised.'

Following discussions between officers of CALM and the WSC it became obvious that this area is an important gravel resource which also supports vegetation associations poorly represented on the Wyalkatchem nature reserves. The agreed solution allows continued gravel removal, accompanied by a comprehensive rehabilitation program. Given this agreement there is no need to excise this area from the nature reserve.

Concern was expressed by the WSC regarding the need to fence off the south-west gravel pits to encourage regeneration. This management strategy may not be necessary, particularly if trenches are constructed across tracks into the area, thus preventing vehicular access. If fencing proves necessary it will be the joint responsibility of CALM and the WSC.

The hot-rod track was the other area of concern. In the early stages of plan preparation, discussions were held regarding excision of the hot-rod track from the reserve. However, it was decided to retain the existing boundaries for two reasons. Firstly, retention of the track provides a buffer between the track and nature reserve. Secondly, while the track is on Departmental land, the Department can control and regulate all uses of that land.

### PART 7: CARRIBIN NATURE RESERVE (NO. 10991)

No further information was added to the resource base, however amendments to the 'Plan for Management' proved necessary.

## B. PLAN FOR MANAGEMENT

### Fencing and Access

Since publication of the DMP, in which the urgent need to protect the nature conservation values of Carribin was emphasised, this nature reserve has been fenced. The DMP will be amended accordingly.

## PART 8: ELASHGIN NATURE RESERVE (No. 10992)

## A. THE RESERVE

### Physical Characteristics and Relationships

The W.A. Museum drew attention to a numerical error in the DMP which gave Elashgin a perimeter of 12.5 km rather than 6.5 km. The DMP will be amended accordingly.

### GENERAL CONSIDERATIONS

A number of submissions dealt with general issues and management problems. These ranged from comments on the biological information given in the plan, to Aboriginal sites, to management problems such as fire protection.

### Biological Information Given in the Plan

The W.A. Museum expressed concern that:

'... biotic data presented for each reserve is only a broad vegetation association description and a list of birds. This makes management for rare, unique or special flora and sedentary fauna impossible ... Is it practical to expect any greater detail of documentation?'

Given the resources of the Department and the task at hand, it is not practical to expect any greater detail of documentation. The unfortunate outcome, as mentioned by the Museum, is an absence of information on a number of species making active management for such species impossible.

The W.A. Wildflower Society drew particular attention to the need for:

'A flora list similar to the bird lists (which) would provide a basic list and highlight the need for further study .... There are members of our Society who, with some organisation, would be willing to collect flora data.'

Such lists are important in detailing the flora present. The compilation of such lists by the W.A. Wildflower Society would add significantly to the resource information available for management.

#### Aboriginal Sites

The W.A. Museum drew attention to the possibility of Aboriginal sites being present on the Wyalkatchem nature reserves. Subsequently, the matter was discussed with the Department of Aboriginal Sites (W.A. Museum). There are no Aboriginal sites known to the Department of Aboriginal Sites (to date) on any of the Wyalkatchem nature reserves (V. Novak, Ass. Registrar, pers. comm., 1985).

#### Protection from Fire

The fire protection measures advocated in the DMP have been enthusiastically supported by the WSC.

The Council offered to assist in the implementation of fire protection measures:

'When the management plan has been approved, it will be Council's intention to .... ensure that adjoining landowners provide sufficient firebreaks within their property to protect these reserves.'

The Bush Fires Board was equally supportive of the fire protection measures advocated in the plan:

'The fire protection concepts outlined are in accord with the Board's own assessment of the situation in that area.'

This statement was accompanied by the following recommendation:

'However, since it is obvious that responsibility for the initial attack on fires on or near these reserves will be with the local Bush Fires Brigades of the Shire of Wyalkatchem it is appropriate that this be acknowledged in the plan as well as the back up forces from departmental resources based on Wanneroo.'

Recognition of the important role of local Bush Fire Brigades in the first attack and subsequent suppression will be included in the final plan.

Fire contact procedures will be distributed by the Wheatbelt Regional Office (Katanning) to all Shires within the region, by late October. These will be updated annually.

The W.A. Museum stressed the importance of active fire management to achieve temporal heterogeneity:

'Management generally appears to be a "bury the rubbish - steady as she goes" approach. It is important to preserve the spatial mosaics of a large array of vegetation associations, but to prevent fire, an integral environmental component, would be to limit the potential to preserve the important fire successional species, i.e. temporal heterogeneity. It could be argued that these reserves are too small to allow such "active management" but consideration should be given to the prospect.'

These reserves show little evidence of fire. Hence, fire may not be an integral environmental component in this situation. A combination of insufficient resources, lack of data and small reserve size make active "informed" fire management both impractical and impossible.