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TOOLIBIN LAKE RECOVERY TEAM

ANNUAL REPORT

1994

by

K J Wallace

for

The Toolibin Lake Recovery Team

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SUMMARY

1994 has been an important year for Toolibin Lake. The completion and launch of a revised Recovery Plan have provided a more comprehensive basis for action, and substantial advances have been made in the design and implementation of important works.

The satisfactory resolution of long standing drainage issues within the Toolibin West Sub-catchment has been a significant achievement. This has included the implementation of major works with the support of all land managers involved.

Funding for a revegetation alley trial, revegetation under the oil mallee project, and progress with salinity management, particularly at the design level, have also been major achievements. The great value of the Recovery Team and Technical Advisory Group as forums for decision-making and developing inter-disciplinary action has again been apparent.

INTRODUCTION

Toolibin Lake lies about 200 km south-west of Perth at the top of the Northern Arthur River Catchment. This Catchment drains into the Blackwood River, a major south-western river for which a State Government sponsored Catchment Coordinating Group has been established. The nature reserves including and adjoining Toolibin Lake are managed by the Department of Conservation and Land Management (CALM) on behalf of the National Parks and Nature Conservation Authority (NPNCA).

Toolibin Lake is the first in a series of nine lakes and the only major lake in the chain which has not become saline. The Lake and its environs provide important breeding habitat for a variety of waterbirds, and is one of the last inland freshwater lakes in the south-west. It is the only inland lake which has retained a sheoak/melaleuca association across significant parts of the lake floor. Toolibin Lake is classified as a "Wetland of International Importance" under the Ramsar convention.

The Lake is seriously threatened by salinisation and the condition of the Lake and its environs have deteriorated. Without significant, urgent action, the Lake will be rapidly salinised.

In November 1992 consultants prepared a Recovery Plan for Toolibin Lake and surrounding nature reserves using resources from both the Australian Nature Conservation Agency (ANCA) and CALM. At its meeting of 15 January 1993 the NPNCA endorsed this plan and its implementation by an appointed Recovery Team under the general guidance of CALM's Director of Nature Conservation and CALM's WA Threatened Species and Communities Unit.

Given the complex nature of the issues to be managed, a Technical Advisory Group (TAG) was also established to advise the Recovery Team on recovery actions.

RECOVERY TEAM

During 1994 the Recovery Team met on 16 March and 25 August. Members of the Team at the close of the year were:

- Mr John Blyth (WA Threatened Species and Communities Unit, CALM)
- Mr Grant Davenport (Farmer, member of the Lake Toolibin Catchment Committee)
- Mr Peter Helsby (Regional Water Resources Officer, Water Authority of Western Australia)
- Ms Elsa Dexter (ANCA)
- Mr Jim Lane (Principal Research Scientist, CALM)
- Mr Gordon McDougall (Farmer, member of the Lake Toolibin Catchment Committee)
- Mr Ted Rowley (Regional Manager, Department of Agriculture)
- Mr Ken Wallace (Regional Manager, CALM, Chair).

There has been only one change in membership during the year. Russell James was replaced by Elsa Dexter.

Technical Advisory Group

The Technical Advisory Group met on 24 February and 3 August 1994. Members of the Group are:

Mr David Bicknell (Revegetation Development Officer, Department of Agriculture)
Dr Ray Froend (Research Officer, Water Authority of Western Australia)
Dr Richard George (Research Officer, Department of Agriculture)
Dr Stuart Halse (Senior Research Scientist, CALM)
Mr Ken Wallace (Regional Manager, CALM, Chair).

Membership of this group has not changed.

RECOVERY PLAN STATUS AND FUNDING

Plan Status

During 1994 the Recovery Team completed revising the Recovery Plan. The revised Plan was endorsed by the Corporate Executive of CALM on 13 September 1994 and by the NPNCA on 9 September 1994. The introductory sections added to the Plan provide important new information in relation to goals, strategies, values and Plan administration.

The revised Recovery Plan was officially launched by Hon. Kevin Minson MLA, Minister for the Environment and Disability Services, on 11 October 1994. The launch was undertaken at Toolibin Lake, and received wide coverage in the Western Australian media.

The Recovery Plan is current until September 2003, a period of 10 years. This term is consistent with other management plans produced by CALM. So that this period is more accurately reflected in the Recovery Plan Implementation Schedule, the latter will be shifted forward to begin in 1994, rather than 1993 as at present. This change will be made in future copies of the Recovery Plan.

Plan Funding

Effective implementation of the Recovery Plan is dependent on works in the Toolibin Catchment as well as those more directly aimed at the Lake's immediate environment. Works implemented by the Toolibin Catchment Committee are therefore very important. While the Recovery Team and Catchment Group have overlapping memberships and communicate well, they are each responsible for their own actions. Some resources, for example those of Alcoa, have been channelled through the Catchment Group rather than the Recovery Team. Although the resulting actions are relevant to the implementation of the Recovery Plan, they should be credited to Alcoa and the Catchment Group, not the Recovery Team.

Similarly, CALM, with funding under the Commonwealth Farm Forestry Program, is using Toolibin as an oil mallee trial site. While this work contributes to the recovery of Toolibin, its goal is to develop a commercial industry that contributes to sustainable

land use through productive use of woody vegetation. Other projects aimed both at the recovery of Toolibin and the achievement of broader land use goals are also proposed. One such project, the Toolibin Alley Trial, has been funded by CALM this year with additional funding for a further four years. The Toolibin recovery process as a means for, concomitantly, achieving sustainable land use goals at a much broader level is an important aspect of recovery works.

CALM has also allocated \$60 000 to the 'Separator' proposal for the 1994/95 financial year. This is an important special allocation of funds. However, work will be implemented in the first half of 1995, and will be considered in more detail in the next annual report.

A submission to State Cabinet seeking additional funds for the Recovery of Toolibin Lake has been drafted and is being evaluated within CALM.

As with the 1993 annual report, the account here of recovery actions is aimed at describing implementation of the Toolibin Lake Recovery Plan by whatever means and is not a summary of the Recovery Team's activities alone. To avoid giving offence, care should therefore be taken with any statements or inferences based on this report that ascribe credit to individuals or groups.

Resources and assistance from the following groups have contributed to plan implementation over the 1994 calendar year:

Alcoa
ANCA
BankWest *Landscape* Conservation Visa Card
CALM
Commonwealth Farm Forestry Program
Department of Agriculture of Western Australia (DAWA)
National Landcare Program
Toolibin Catchment Committee
Toolibin catchment landholders
Water Authority of Western Australia (WAWA).
Wickepin Shire Council

RECOVERY PLAN ACTIONS

For ease of referencing, numbers used below refer to those of the Implementation Schedule in the Recovery Plan. In the previous annual report (1993), comments were linked to numbers used in the body of the text.

1. Groundwater Pumping

The original bore has been supplemented with a second experimental bore using ANCA and CALM funding. ANCA funds have also covered an airborne magnetics survey of the Lake and adjoining areas (ground work could not be undertaken as the Lake was full). This survey revealed the presence of dykes that are likely to affect the

placement of further bores. Further drilling and bore establishment is proposed for early 1995.

A submission has been sent to the Commissioner of Soil and Land Conservation seeking approval to establish a full groundwater pumping scheme. This proposal has also been sent to a range of other bodies, including catchment groups and the Department of Environmental Protection, and to landholders. While the major landholder affected is supportive, concern has been expressed by some downstream landholders. These concerns will be addressed in early 1995.

2. Surface Water Control

As discussed in the last annual report, the Toolibin Catchment Committee and Recovery Team both supported a proposal, generated by Catchment Group members, to resolve surface water control in the Toolibin West Catchment rather than attempting to address the total Catchment in one project. This has proved to be a wise approach. A series of drainage issues in this sub-catchment that had not been effectively resolved over a ten year period have now been dealt with. Resources from Alcoa, ANCA (design of surface water drainage), landholders, DAWA, and CALM have all been critical to achieving a successful outcome.

Major sections of the drainage works in this sub-catchment have been completed including some works on the nature reserve. Completion of this project has been a major achievement of 1994.

3. Lake Outlet Control and 'Separator'

A proposal to separate low volume, highly saline flows within Toolibin Lake using a bund were approved in principle by the NPNCA and Recovery Team. This proposal, titled the 'Separator', is a new project not specifically dealt with in the Recovery Plan although the need to protect the Lake from highly saline flows is recommended. Given that outlet control is an essential component of a 'Separator', these two projects are considered together.

Resources from ANCA, Water Authority of Western Australia (WAWA), DAWA and CALM have been combined to complete:

- contour surveys required for both the 'Separator' and outlet control
- design aspects of the 'Separator' and outlet control
- a submission to the Commissioner of Soil and Land Conservation seeking approval to drain.

Further work, including implementation, are proposed for 1995.

4. Lake and Reserve Revegetation

No specific work has been undertaken in this area, and none was proposed in the short term. However, the construction of a bund for the 'Separator' will provide an opportunity to test revegetation in the floor of the Lake (variation on the proposed gilgai mounds proposed in the Plan).

5. Catchment Revegetation

The Toolibin Catchment Committee was successful in winning a National Landcare Program grant to fund a Revegetation Strategy for the Toolibin Catchment. A consultant began work on the strategy in 1994 - officers from DAWA and CALM are also involved along with landholders. This is an important project and the final product will provide revegetation strategies for landholders with regard to particular land units.

Under the CALM-Commonwealth Forestry Program oil mallee project, 60 000 eucalypt seedlings were planted in the Toolibin Catchment in 1994. This project occurs on freehold land and is a cooperative project with landholders. Landholders have also undertaken other revegetation in 1994, however, no figures are available for this. There are landholder commitments, particularly in the Toolibin West Catchment (incorporated as part of agreements pertaining to the Toolibin West drainage works), to specific revegetation in 1995. Availability of resources in 1995 will affect implementation.

In 1994 CALM allocated funds to a Toolibin Alley Trial. This project will research alley layouts for sustainable agriculture involving local and regional species. A project officer has been appointed and several landholders have agreed in principle to research plantings on their properties.

6. Agronomic Manipulation

Some work on grade banks, particularly in the Toolibin West Sub-catchment, has been undertaken on freehold land. This work has involved both design and some implementation. Resources for this have been provided by both Alcoa and landholders. Establishment of further grade banks within the Toolibin West Catchment is proposed for 1995.

7. Decision Support System

While this system was proposed as an early development in the Recovery Plan, the only progress to date has been some preliminary work on a decision system for inflows from the Toolibin West catchment. It is planned to delay further work on the decision support system until available data is fully collated and organised, and monitoring systems have been better established.

8. Monitoring and Reporting

While some monitoring has proceeded, it is planned to fully develop and implement proposals if further State money becomes available. This aspect is covered within the Draft Cabinet Submission to the State Government.

9. Other

Some actions have been undertaken that do not fall within the Implementation Schedule. These include communication activities.

Of particular note has been the production of a special article on Toolibin Lake for *Landscape*. This article has been designed so that it can be reprinted as a brochure on Toolibin.¹ The BankWest *Landscape* Conservation Visa Card and CALM resourced this article, however, the need for a brochure had been recommended by the Recovery Team. The brochure will be completed during 1995.

Finally, while members of the Recovery Team and Technical Advisory Group communicated well prior to the formation of the formal groups, there is no doubt that the latter have been essential to implement the complex program relating to the recovery of Toolibin.

As Chair of the Toolibin Lake Recovery Team and Technical Advisory Group, I take this opportunity to thank members of these groups for their excellent contribution over the past 12 months.

¹ *Attached*