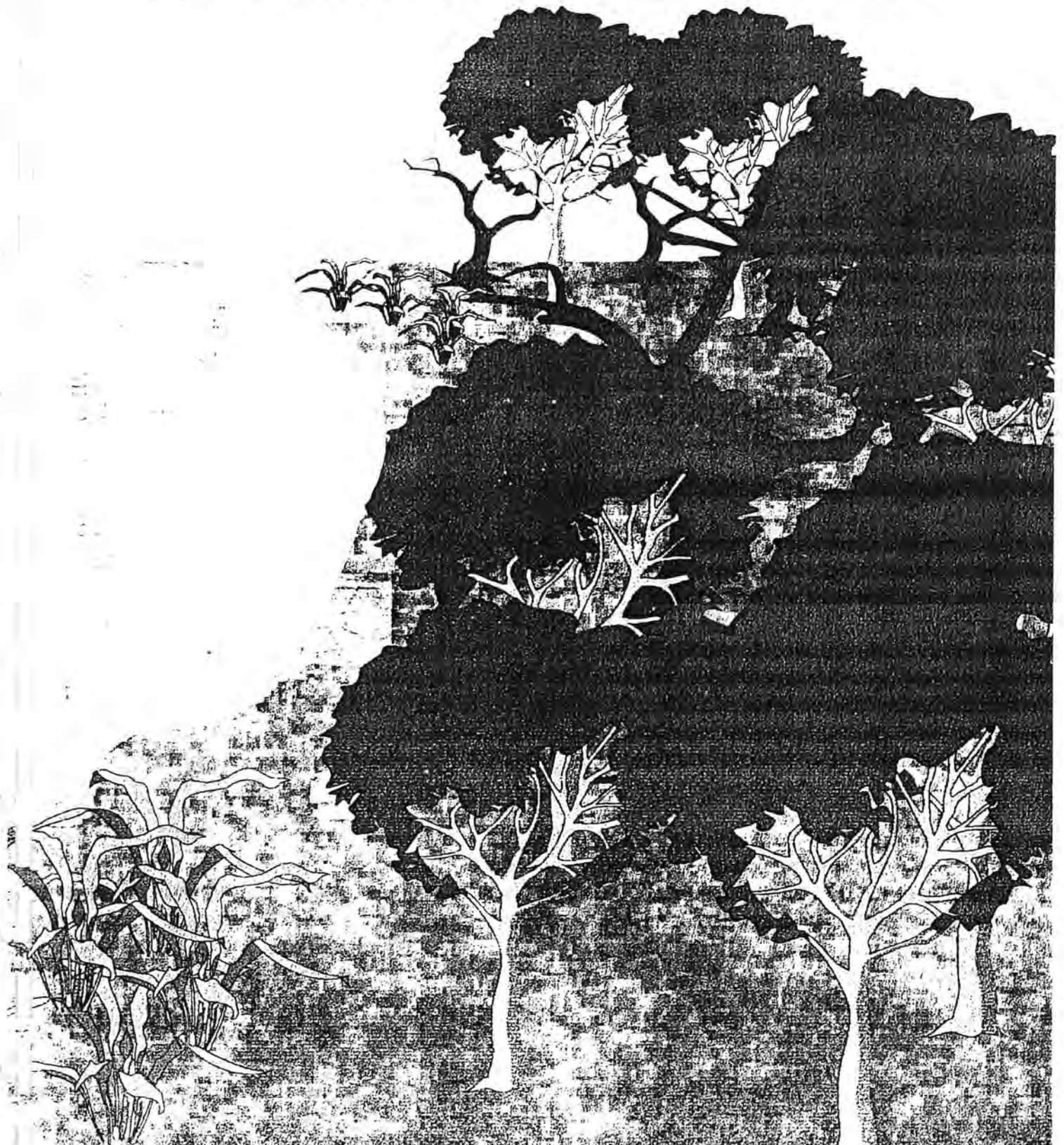


Alan Smith

NATIONAL ECOTOURISM PROGRAMME

APPLICATION FOR FUNDING

PEEL STROMATOLITE INTERPERATION SITE





CITY OF MANDURAH

WESTERN AUSTRALIA

All communications to be addressed to:

070040

Chief Executive Officer
PO Box 210
Mandurah WA 6210

Telephone: (STD 09) 535 1966

Facsimile: (STD 09) 581 3438

Enquiries: Colin Somerville
Your Ref:
Our Ref: XEC/31

16 December 1994

The Programme Co-ordinator
Nation Ecotourism Programme
Department of Tourism
GPO Box 1545
CANBERRA ACT 2601

Dear Sir

APPLICATION FOR FUNDING - PEEL STROMATOLITE INTERPRETATION SITE

I have read with interest the National Ecotourism Strategy and have determined that a project within the City of Mandurah would be ideally suited to an application for funding under the National Ecotourism Programme.

The selected project, a Stromatolite Interpretation Centre at Lake Clifton in the southern portion of this municipality, will achieve much from relatively little capital investment. The project has the potential to add to the diversity of tourist attractions available in the Peel Region, will specifically address the need for well planned ecotourism sites and most importantly will ensure the long term protection and appreciation of this very special ecosystem.

The City of Mandurah is committed to sustainable development and will work in the immediate future toward assisting the development of a regional ecotourism plan. The stromatolite project is a very important facet in creating a driving force to develop such a plan and will be the catalyst for bringing together the appropriate agencies and individuals to do so.

..12

I commend the enclosed application to your programme and request, should you have any queries regarding the application, that you have no hesitation in contacting Colin Somerville, Senior Planning Officer (Strategic) in the City's Division of Planning and Development Services on (09) 535 7293.

Yours faithfully

Stephen Goode
CHIEF EXECUTIVE OFFICER



enc

CE-12072

PART A. THE APPLICANT

1. Name of applicant organisation.

This is the name that would appear on any official correspondence/documents.

City of Mandurah / Department of Conservation & Land Management.

2. Project Contact.

This person must be employed within the above organisation and will be the contact for any correspondence or discussion regarding the project.

Name COLIN SOMERVILLE

Position in organisation SENIOR PLANNING OFFICER

Phone (09) 535 7293 Fax (09) 581 3438

3. Street Address.

MANDURAH TERRACE
MANDURAH WA

Postal Address.

P.O. Box 210
MANDURAH
WA 6210

4. Type of organisation.

- Commonwealth Government, State/Territory Government, Local Government, Natural Area Management Agency, Education/Training Body, Research Institution, Cultural Body, Conservation Body, Community Organisation, Professional Association, Regional Development Organisation, Indigenous Body (please specify)

If your organisation is not one of the above, it is ineligible for funding under this program. You should contact an eligible organisation in your region to discuss options for submitting an application through one of these organisations.

5. Is the organisation an incorporated body? If yes, its ACN or ARBN No is GOVERNMENT BODY.

PART B. THE PROJECT

6. Type of project (tick one box only).

Baseline studies and monitoring

Infrastructure

Regional ecotourism planning

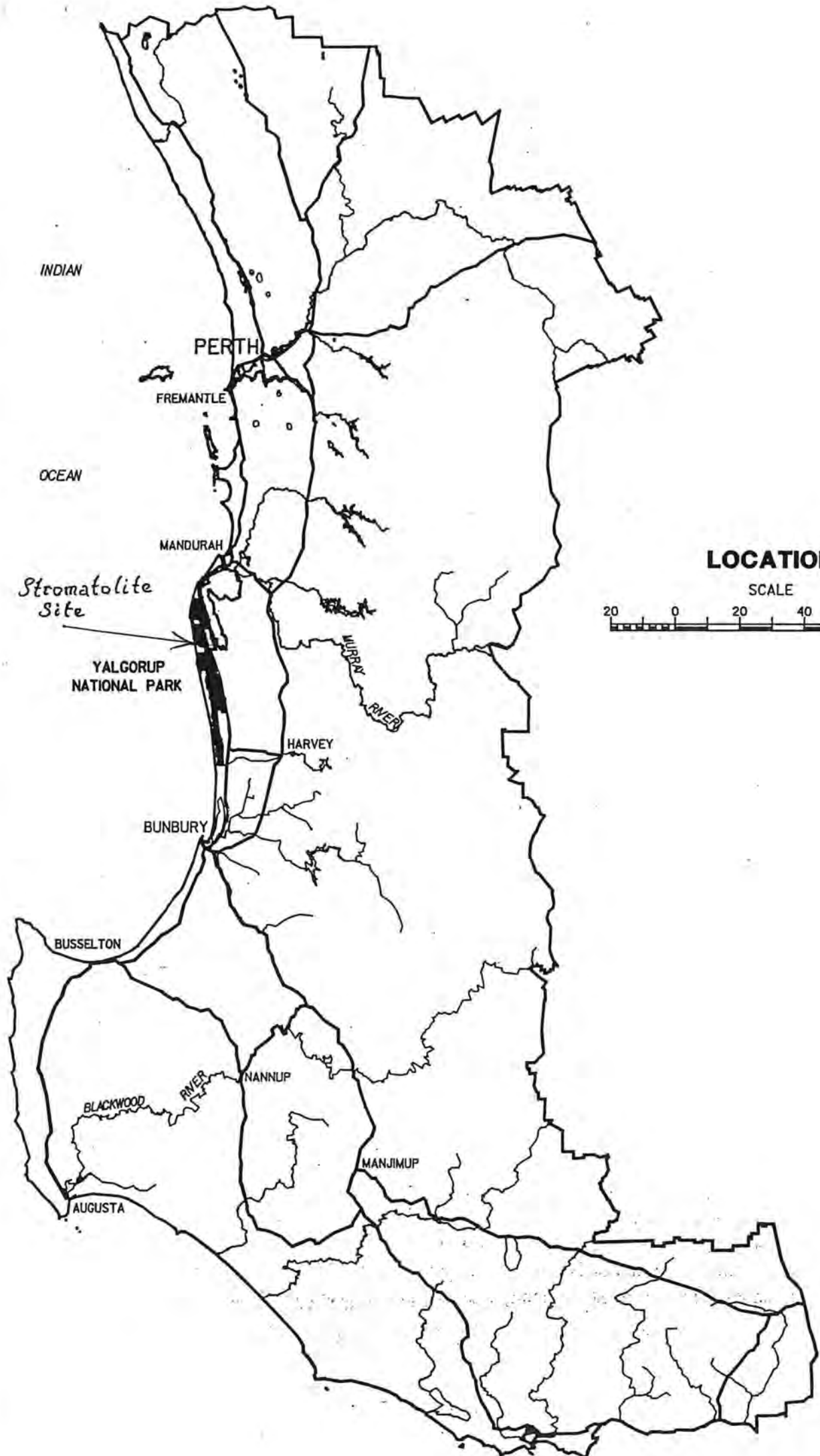
7. *Project Title*

PEEL STROMATOLITE INTERPRETATION SITE

8. *Project Location*

The site is located approximately 20 kilometres south of the Mandurah Townsite as shown on Location *Map 1*

West end of Mount John Road (Lake Clifton Eastern Foreshore) on Reserve No. 40372 (included in the Yalgorup National Park), Herron, Western Australia (Post Code 6210)



LOCATION

SCALE



9. *About the project*

a) *Describe the project in detail.*

Please refer to the attached plan prepared by the Department of Conservation and Land Management (CALM) - *Attachment 1*

9. b) *Outline any planning and/or research that has taken place to date.*

The proposed site has been the subject of intense scientific interest and study. Dr Linda Moore has studied the stromatolites of Lake Clifton perhaps more than anybody else. Her thesis (1) on the stromatolites and a study by Burne and Moore (2) have been used as the basis for preparing sections of the Yalgorup National Park Management Plan.

A section of the Yalgorup National Park Management Plan is attached (*Attachment 2*) which draws principally on the work by Burne & Moore, 1987. The area has been the subject of study also in the preparation of various local and regional plans referred to in Question 9. e).

1. Modern Microbialites of Lake Clifton South Western Australia, Moore 1993 UWA
2. "Microbialites: Organosedimentary Deposits of Benthic Microbialite Communities" - published in PALAIOS Vol 2 pp 241 to 254, 1987).

9. c) *Describe how the implementation of the project will help address specific ecotourism needs of the area.*

The coastal area of the Peel region is recognised internationally as a delicate environment and yet the area relies heavily on tourism as an industry to support the region's economic base. In conjunction with the region's rapid growth, this reliance on tourism increases the demand for natural resources primarily for the purposes of sustaining employment and to develop places for recreation. If access to places of interest, such as lake Clifton and Yalgorup National Park, is not managed carefully these resources will be lost through degradation.

The Stromatolite Interpretation Site is intended to complement other destinations in the Region. Some of these have been long standing popular sites with tourists, such as those described below, while others are in the developmental stages, such as the Erskine Conservation Trail directly south of the Mandurah City Centre.

Lane-Pool Reserve near Dwellingup attracted 185,000 visitors last year and is one of the few areas near Perth that permits camping in a relatively natural bush setting. The Murray River runs through the Reserve and this is a popular canoeing, marroning and fishing area. The Bibbulmun Walk Trail is also found near Dwellingup and is well patronised by bush walkers and hikers.

In Waroona Shire the location and accessibility of Lake Navarino and Drakesbrook Dam have seen this area become popular with water-skiers and fishermen. Lake Navarino is one of the premier trout waters in the State and also contains an abundance of marron. The areas south of Waroona townsite contain further dams such as Logue Brook and Stirling, which form part of the magnificent landscape. Yalgorup townsite at the head of Lake Preston on the coast, west of Waroona has pristine ocean and lake-side beaches, offering scenic, recreation areas for hiking and fishing. These attractions are located directly to the south of Lake Clifton and as such will complement the Stromatolite Interpretation Site well.

It is feared that continuing high visitor numbers (referred to Question 10.a) will degrade the integrity of Lake Clifton if not properly managed. The stromatolite site is becoming well known is often referred to in publicity material for developments in the region. The photographs attached to this submission (*attachment 3*) show how fragile these living structures are and may be lost through people simply walking on them.

9. d) *What are the objectives of the project?*

The project has four main objectives. Namely to:

- Provide an interpretive centre to further the understanding of stromatolites,
- Protect the ecology of Lake Clifton in a pro-active way by ensuring that visitors can observe the environment without adverse impact,
- Further the appreciation of the Lake Clifton environment as an internationally significant wetland including its significance under the RAMSAR agreement for bird life, and
- Build upon the resources of the region to assist in the promotion of the area as a prime destination for tourists both locally and internationally

9. e) *Explain how the project complements any tourism/ecotourism strategies, regional development strategies, management plans and/or land use plans that may already exist for the area.*

The importance of the Stromatolite Reef and the delicate ecology of Lake Clifton has created both opportunities and constraints in local and regional planning for the district. These opportunities and constraints have formed part of the formulation of three local and several regional planning initiatives.

The Lake Clifton Catchment Area, which feeds freshwater and essential minerals into the Lake, has influenced the City of Mandurah's Local Rural Strategy and Town Planning Schemes No 1A and 3. These plans identify the fragility of the area and restrict development which may have an adverse impact on the Lake's environment.

The Yalgorup National Park Management Plan, prepared by the Department of Conservation and Land Management (referred to in Question 9.b) makes direct

reference to the Stromatolites in lake Clifton and makes appropriate recommendations. The Plan identifies the need for a day use interpretation site for the end of Mount John Road as a High Priority (Group 3, No 25).

Under the Regional Development Act 1993, that was proclaimed in April this year, the State Government formally recognised "Peel" as a distinct, regional entity. In recent months the region has undertaken a number of 'co-operative' projects of regional significance, such as the Peel Logo, an Economic Development Strategy, Marketing Video & Brochure and a Self-Drive Tourism Brochure (due to be released by Christmas this year).

In addition, a Peel Tourist Council has been established with broad representation from the tourism industry, tourist bureau and State & Local Government. The specific objective of the Council is to:

"Unite, co-ordinate, and expand all facets of the tourism Industry in the Peel Region, through planning, sustainable development and active marketing/promotions in order to increase the number of visitors to the region and enhance the quality of their experience."

The State Government, through the Western Australian Tourism Commission, is currently preparing a Nature Based Tourism Strategy for Western Australia. The Stromatolite site was identified as a 'Zone of Opportunity' in the September 1994 public comment period by the Peel Tourism Council.

In relation to the proposed Peel Stromatolite Interpretation Site, discussions have been held with representatives of CALM, City of Mandurah, WA Tourism Commission and Peel Development Commission, as well as a range of community groups and individuals to canvass support for the concept. It is generally accepted that the establishment of a such a facility is a major priority for the area and will significantly enhance the tourist performance/appeal of the Peel Region while at the same time serving to protect a unique ecological feature which is of considerable scientific interest.

9. f) *Explain how the project will be monitored and evaluated. What performance indicators are you using (eg. changes to visitor numbers, visitor satisfaction surveys, visitor expenditure in the region, etc.)?*

The Department of Conservation and Land Management, in consultation with the Western Australian Tourism Commission and the City of Mandurah will endeavour to:

- Maintain records of visitor numbers via road counters stations - (CALM)
- Conduct visitor satisfaction surveys - (CALM/WATC)
- Monitoring requests received by the Mandurah and Regional Tourist Bureau regarding the site - (WATC)

- Assess economic impact to surrounding businesses as necessary (ie Cape Bouvard Winery) - (Peel Development Commission (PDC))
- Monitor tourism infrastructure development in and around the Yalgorup National Park by public and private sectors as a result of increased tourism traffic - (COM)
- Management control and monitoring of the stromatolite community to ensure it is being preserved (Department of Environmental Protection/CALM)
- Monitor any increases in change to the Old Coast Road - road count station due to the opening of the facility - (Main Roads Department of WA)
- Monitor number of coach operators including the site on touring itineraries - (WATC).
- Identify the inbound tour operators incorporating the site on itineraries - (WATC).
- Now that the Peel Region has been achieved its status as a "region", expenditure figures will be able to be compared for the region on an annual basis.

10. *Visitor Numbers*

a) *Provide details of visitor numbers to the region or site for the past three years.*

Prior to the formal recognition of the Peel Region this year, State Government agencies, including the Western Australian Tourism Commission, incorporated many of the Region's municipalities in the Upper South West Region. As a result, difficulties have been encountered in gathering publicised Peel regional statistics prior to 1993.

The Peel Region, and especially the City of Mandurah, is an extremely popular tourist destination. In 1992/93 the Region's scenic waterways, bushlands and forests attracted 960,000 domestic tourists and a further 68,000 international visitors (Source WA Tourism Commission). In recent years the tourist potential of areas closer to the Darling Scarp have also begun to develop. The Shires of Murray and Serpentine-Jarrahdale share some of Western Australia's finest jarrah forests. Serpentine Falls National Park is a major tourist attraction and a popular picnic spot with day-trippers throughout the year, as is the Serpentine Dam.

In 1992/93 a total of 189,000 visitors were accommodated in private facilities or the various hotels, motels and caravan parks found throughout the Region. The average length of stay for these visitors was between 2-3 days and the total expenditure over the year amounted to \$21.1 million. At present there are 38 tourist accommodation facilities in the Peel Region, the majority of which (22) are caravan parks. These tourist operations employ a total of around 300 persons, on either a part-time or full-time basis.

In addition to tourists staying at private/commercial accommodation there is also a large number of day trippers visiting the area, particularly from the Perth Metropolitan area. 778,000 day-trippers visited the Peel Region over the last twelve months, and spent approximately \$13.0 million. This figure is expected to grow by 6-8% per annum.

The total revenue generated by visitors to the Peel Region in 1992/93, based on expenditure for accommodation, food, beverages, transport, shopping, entertainment, etc, is estimated at \$34.1 million.

Traditionally, tourism has been centred around Mandurah, and the city remains by far the most popular day tripping destination in the State outside the metropolitan area. The proximity of Mandurah to the Indian Ocean and Peel Inlet has seen the development of a significant tourism and recreation industry, based primarily on aquatic activity. Last year tourist visits totalled 465,000 and injected \$16.1 million into the Mandurah economy.

The Department of Conservation and Land Management (CALM) installed road counting stations in the Yalgorup National Park in 1993. 55,000 people visited the Park to December 1993. To November 1994, 125,000 people visited the park. Since

December is one of the most popular months for visits the annual increase is expected to be well in excess of 150 percent.

b) *What impact do you expect the project to have on the above visitor numbers.*

The Stromatolite Viewing Facility will increase visitor numbers to the Peel Region and also to the neighbouring South West Region. The facility will provide the two Regions with a site of international scientific and conservation importance that will form part of a regional network of tourist attractions.

By using the Main Roads road counter station statistics it is possible to identify the potential visitor market the Stromatolites Viewing Facility may attract. There were an estimated 689,000 tourists who travelled along the Old Coast Road within 3km of the Stromatolites site in 1993. Given the rapid increase in visitor numbers to the Yalgorup National Park, it is anticipated that many of these visitors would chose to visit the Stromatolites as well.

Because the site will be promoted as a part of the regional network of ecotourism destinations and visitors given a wide and varied choice of destinations, it is difficult to anticipate the exact numbers of visitors to the site and how much this site alone would increase visitor numbers to the region.

It is estimated, based on available data, that at least 10 percent of tourist vehicles would divert from Old Coast Road to view the Stromatolite Site. If 1993 figures are used this would result in approximately 70,000 people per year.

The City of Mandurah and the Peel Development Commission have received expressions of interest in developing a Regional Tourism Strategy which would be welcomed and assisted by both organisations. The development of destinations such as the subject site will be integral and essential in developing a regional ecotourism strategy.

In many ways, the Region is just coming to fruition as an ecotourist destination and it is important to have well designed and managed sites on which to confidently build a regional strategy.

11. *What is the nature of the land tenure?*

National Park and Local Government Reserves

12. *Provide details of any existing or expected claims on the land.*

There are no expected claims on the land. Although no ethnographic study has been carried out for this site specifically, studies of the region indicate that the proposed site would not be subject to native land title claim. Significant sites have been identified to the north of the Yalgorup National Park but none at or close to this site.

13. *How does your project contribute to the implementation of the National Ecotourism Strategy; particularly those areas identified in Chapter 5?*

The Peel Stromatolite Interpretation Site should substantially meet the objectives identified in Chapter 5 of the national Ecotourism Strategy and in particular falls primarily within the intent of Objective 5 which states:

"Where appropriate, support the design and use of carefully sited and constructed infrastructure to minimise visitor impacts on natural resources and to provide for environmental education consistent with bioregional planning objectives."

Secondly, the site will meet Objective 12 especially as the facility will benefit the host community (in this case the Peel Region) through conservation of the threatened natural resource, promoting the growth of ecotourism for the Region and ensuring that the opportunity for access to the site remains public (part of the National Park) and therefore equitable. This facility will play a substantial part in assisting this region to meet the remaining ten objectives through the other initiatives referred to in this submission.

14. *National Application of the proposed project.*

a) *How will the results of this project benefit the development of ecotourism throughout Australia? (Including its potential as a model or pilot project)*

Lake Clifton supports the largest known examples of non-marine microbialites in the Southern Hemisphere and is one of only two sites known where microbialites occur in water less salty than sea water. This special site exemplifies the uniqueness of many of Australia's ecotourism opportunities.

Since the area is already listed under the RAMSAR agreement, this project will assist in demonstrating Australia's commitment to such international treaty agreements. The project is similar to other board walk type infrastructure being developed in the region but will be distinct in its ability to bring people close to the very rare stromatolite system but at the same time protecting that system.

It is hoped that this approach can be used as a model for cooperation between all levels of government and private individuals and for sensitive infrastructure development.

b) *How will the project contribute to advancing positive practices in the tourism industry?*

This project, as it has been carefully planned from the outset, seeks to accommodate existing tourism practices such as visiting the site by bus, car and walking for example but will channel visitors safely over the environment without adverse impact.

This creates a sustainable project that not only reaps reward for the region and the local community but protects it for the future. As set out in the National Ecotourism Strategy, it is believed that this concept is the most positive practice a governing body can promote.

c) *What innovative technologies or techniques are being employed in your project?*

The final detail design of the infrastructure has not been completed, however it is expected that special design considerations will have to be given to the foundations of the board walk structure so as to minimise any affect on the stromatolite reef. Dr Linda Moore has been invited to sit on a management team for the project by Mandurah City Council and will be the chief adviser to the project.

The toilets used at the site will be of a sealed vault type as it is imperative that there be no effluent discharge to the lake from the facility. Native vegetation and substantial trees such as tuarts, will be conserved at the site through careful mapping and survey.

The interpretive site may use new technologies to demonstrate the life of the stromatolites. This has not yet been determined and will depend on the project's ability to attract funding and labour sources.

The stromatolites are submerged for a fair proportion of the year so it is likely that some form of viewing facility will be established from the board walk which allows people to look into the water and see the stromatolites below. This should be relatively simple technology but will allow a much greater appreciation of the environment.

15. *Approvals*

a) *What approvals are needed to undertake the project?*

The project will require a building licence for the proposed structures and approvals for the placement of car parking and ablution facilities. These will be obtained through Mandurah City Council.

Mandurah City Council, at its meeting in November 1994, resolved to support the project and as such statutory approvals should be forthcoming.

b) *Have all the necessary approvals been obtained?*

The necessary approvals have not yet been gained as the detailed planning and design of the project is dependent upon obtaining additional funding. Approvals would be sought upon the announcement of additional funding from the National Ecotourism Programme.

16. *Provide details of the work plan.*

Detailed timing is not yet available. It is envisaged, however that the project would work closely with the Westrek Employment Programme and would be somewhat reliant on that program's timing. Westrek have been consulted and are keen to participate in the project.

Work on this project would commence in July/August of 1995 with an expected completion date for stage 1 of November 1995. The period preceding July would be utilised for the detailed planning and applications for the necessary approvals.

The detailed planning will involve consultation with an advisory team including Dr Linda Moore, Colin Somerville (City of Mandurah), Moira Wills (Peel Development Commission), Westrek representative, Tracey Churchill (Department of CALM). This team would be established directly after an announcement by the National Ecotourism Programme that the project was successful in obtaining funding.

17. *Is there broad support for the project?*

Yes! Letters have been received from local, state and federal representatives and importantly include local resident action groups who have been very active in putting pressure on government, generally, to promote the concept of ecotourism in this region.

The local press has also reported the project positively. The following people/organisations have written to the Council providing their support for the project. Copies of their letters are attached (*attachment 4*):

1. Dr Linda Moore - Environmental Scientist
2. Shire of Waroona - Bordering municipality to the south
3. Shire of Murray - Bordering municipality to the west
4. Western Australian Tourism Commission
5. Hon Wendy Fatin MP - Federal Member for Brand
6. Southern Estuary Progress Association - Local action group
7. Peel Preservation Group - Local conservation group
8. Mandurah Camera Club
9. Mandurah Tourist Bureau
10. Hon John Cowdell MLC - Member for the South West Region
11. Hon Arthur Marshall JP MLA - Member for Murray
12. Peel Development Commission
13. Department of Conservation and Land Management

18. *Are there any objections to the project?*

No objections to the project have been received. Council has received a letter from the Peel Preservation Group which states that it "*does indeed welcome the embracing of ecotourism as a viable and intelligent use of our valuable environmental assets.*"

The letter continues, pointing out the need for a regional strategy for ecotourism prior to the establishment of the Stromatolite Interpretation Site. The letter calls for the fencing off of the National Park area so that people may not view the Stromatolites at all.

There is much opposition to the fencing off of the area and such a concept would be opposed by the City of Mandurah, Dr Linda Moore, the WA Tourism Commission, Department of Conservation and Land Management, the Peel Development Commission and other supporters of the Interpretation Site Concept.

The letter from the PPG has been discussed between Mr Len Howard of the Group and Mr Colin Somerville from the City of Mandurah. It is felt that a level of understanding has been reached would mitigate any opposition to the project proceeding.

19. *Where did you hear about the 1994-95 National Ecotourism Programme?*

The City of Mandurah and Department of Conservation and Land Management were advised directly of the Programme.

PART C. PROJECT BUDGET

We are interested in an overall indication of your project sources of funds and the types of expenditures that are likely to be required. (Where funds have been secured please attach supporting evidence and contact details of the providers of those funds.) Where you do not have exact figures, please provide reasonable estimates.

20. PROJECT DEVELOPMENT INCOME

Provide details, by source, of income for the project.

	<u>Category</u>		<u>Income</u>
a)	National Ecotourism Program		\$ 133,500
b)	other Commonwealth funding (specify)	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
c)	State Government funding (specify)	<input type="checkbox"/> Anticipated <input checked="" type="checkbox"/> Secured	\$ 10,000
	<i>CALM</i>	<input type="checkbox"/> Anticipated <input checked="" type="checkbox"/> Secured	\$ 20,000
	<i>PDC</i>	<input checked="" type="checkbox"/> Anticipated <input checked="" type="checkbox"/> Secured	\$ 5,000
	<i>WATC</i>		
d)	local government funding (specify)	<input type="checkbox"/> Anticipated <input checked="" type="checkbox"/> Secured	\$ 20,000
	<i>City of Mandurah</i>	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
e)	private sector funding (specify)	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
f)	public donations (specify)	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
g)	other sources of cash income (specify)	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
h)	other sources of assistance e.g. salaries, equipment, income in kind, etc. (specify)	<input type="checkbox"/> Anticipated <input checked="" type="checkbox"/> Secured	\$ 10,000
	<i>CALM advice assistance in kind</i>	<input type="checkbox"/> Anticipated <input type="checkbox"/> Secured	\$
		
TOTAL INCOME			\$ 198,500

(This should equal Total Expenditure below.)

PART D. DECLARATION BY AUTHORISED OFFICER

I declare that I have read and understood the guidelines pertaining to this program and that the information I have given on this form is complete and correct.

Signature.....

Name (print)..... COLIN J SOMERVILLE

Position in organisation..... SENIOR PLANNING OFFICER

Date..... 16th December 1994.



For official Departmental use only. ↓

Your application for funding under the National Ecotourism Program has been received by the Commonwealth Department of Tourism and will now be assessed. You will receive notification of the outcome in due course.

Date received..... Departmental Officer.....

Please quote application number in all discussions with the Department of Tourism.

ATTACHMENT 1

***CONCEPT PLAN
AND COSTINGS***

STROMATOLITE INTERPRETATION SITE

LAKE CLIFTON, YALGORUP NATIONAL PARK

CONCEPT DEVELOPMENT PLAN

INTRODUCTION

Stromatolites and thrombolites occur along the eastern, and one small part of the western shoreline of Lake Clifton. They are of scientific interest as part of an unusual and fascinating microorganism ecology. Recent trends in ecotourism have highlighted the stromatolites as an interesting 'natural' feature for tourism.

In the Yalgorup National Park Draft Management Plan 1993, CALM recommended:

'a nature observation facility at the end of Mt John Road for viewing the waterbirds and stromatolites and thrombolites in Lake Clifton.' (page 63)

After site assessment and investigations, CALM has prepared a Concept Plan to accommodate a day use area with the principal objective to interpret the stromatolites and thrombolites.

SITE ASSESSMENT

The project site is situated at the terminus of Mt John Road. It is bordered on the east by two rural residential subdivisions whilst Lake Clifton forms the western boundary. Suitable areas for development is situated both north and south of the road terminus.

An existing unsealed road gives immediate access to the lake edge. Although barriers restrict vehicle access onto the lake, there are two pedestrian access points to the shoreline.

An open area of grass and trees south of Mt John Road causes a visual intrusion from a neighbouring private property, affording that resident a view of the lake. The area north of Mt John Road has been grazed in the past and so little understorey remains, although a strip of shrubland, approximately 50 metres wide borders the shoreline. The northern subdivision has a 200m building exclusion zone along the National Park boundary.

A park entry sign and symbol totem sign are located at the park boundary, being the only signs at the site.

Visitor use seems to be restricted to general sightseers, those who know of the stromatolites, and those looking for picnic / resting spots off the main road.

A commercial winery, offering wine tasting, operates a short distance from the site.

Vehicle access to the site, at the intersection of Mt John Road and the Old Coast Road is very difficult. Sight lines are very restricted both ways, the grade of Mt John Road is steep and the angle of entry sharp.

Generally, the site is attractive and shady, but with minimal vehicle or pedestrian direction and offering little interpretation of the stromatolites and thrombolites.

DEVELOPMENT GUIDELINES

The guiding principles for development of the stromatolite interpretation site, as well as regular CALM policies and standards, are:

- shoreline protection and adequate buffers
- stromatolite and thrombolite protection
- utilisation where possible of disturbed areas

- innovative interpretation of stromatolites and thrombolites
- good traffic management and defined parking areas
- opportunity for commercial operation

Facilities would include:

- parking area for cars and coaches
- toilet facilities
- interpretive shelter and signs
- entry and directional signs
- defined walk tracks
- boardwalk and viewing platform sensitively designed over stromatolite reef
- rehabilitation of disturbed areas.

CONCEPT PLAN

The Stromatolite Interpretation Site Concept Plan recommends a low key recreation site with the prime objective being to provide interpretation of the stromatolites and thrombolites. Waterbirds and viewing the lake are secondary recreational pursuits available at the site. The site would also be a trail head, or resting point, for long distance walkers around Lake Clifton. The site and its facilities would be accessible by people in wheelchairs.

The concept plan has two stages of development - the first providing the core facilities, with the second stage for future expansion if the visitor numbers increase beyond the capacity of the facility.

VEHICLE ACCESS AND CIRCULATION

The site would be sign posted on the Old Coast Road at the two subdivision road intersections - Laicised Parkway and Clifton Downs Rd. Mt John Road is too dangerous in its present state to encourage coach and visitor traffic to the Stromatolite Interpretation Site.

The main access road would veer to the north into a parking area located in tuart/peppermint woodland. Features would include:

- a compacted limestone loop road allowing bus turn around
- approximately 10 car bays (stage two - further 10 bays)
- one long vehicle bay (stage two - further 1 bay)
- walking tracks to the information shelter
- retention of existing vegetation wherever possible
- vehicle barriers where needed
- directional signs

All other roads and tracks would be rehabilitated or re-used for walking tracks. Fire breaks would be constructed, or maintained, where needed.

INTERPRETATION

An Interpretation Plan would be prepared for the project by CALM which would design and direct interpretation.

VISITOR INFORMATION SHELTER

A visitor information shelter would be provided to house not only information panels, but allow groups to gather under shelter for interpretive activities.

The shelter would act as a focus for visitors being sited in the main view of the entry road. It would also be sited between the parking area and the boardwalk, encouraging visitors to gain information before arriving at the water.

Stage two would see a National Park entry fee system installed, allowing visitors to register and purchase day passes.

STROMATOLITE INTERPRETATION WALK

From the visitor information shelter, a walk track would lead to the Stromatolite Interpretation Walk, consisting of a boardwalk, approximately 150 metres long providing access to the stromatolite reef. Along the way, interpretation facilities would allow viewing of, and information about, what the visitor is experiencing. The boardwalk may feature:

- a periscope for looking under the water at stromatolite structures
- a clear bubble, in or beside the boardwalk, to remove surface refraction
- trailside panel signs
- a platform for group gatherings

Further detail on these features would be illustrated in the Interpretation Plan yet to be undertaken.

The boardwalk would leave the shore from the existing southern pedestrian access point and loop in a horse shoe shape, returning to the shore at the northern access point. The existing reed beds would be undisturbed as much as possible.

TOILETS

A CALM standard toilet would be provided close to the parking area and visitor information shelter in stage one. It would be a small timber, two pan facility with sealed vault sewage collection. If stage two enlarges the visitor capacity of the site, a second toilet would be needed. This building would be sited beside the first building.

PICNIC AREA

A small, low key picnic area would be provided south of Mt John Road in the existing grassed clearing. This area would allow two or three picnic tables under the shady trees for visitor relaxation. The existing view to the lake would be maintained, although the shoreline and surrounding areas would be revegetated with low growing indigenous plant species.

WALK TRACKS AND BIRDHIDE

Walk tracks would link the key features; the parking area, visitor information shelter, toilets and picnic area. The walk tracks would be constructed of compacted limestone and located to utilise existing tracks wherever possible.

A birdhide would be sited approximately 200 metres from the parking area, giving visitors the undisturbed opportunity to view birds on Lake Clifton. A small number of seats would be located along the walk for resting.

SIGNS

The existing National Park entry sign would be retained, although sited further east along Mt John Road to herald the arrival of visitors to the site.

A site identification sign would be located just prior to the parking area.

Other directional signs where necessary would be located to provide visitors with the required information. All signs would be to CALM standard.

Interpretation signs would be specifically designed to suit the 'stromatolite story' and boardwalk experience and dealt with in the yet to be produced Interpretation Plan.

REHABILITATION

Areas that have previously been cleared or disturbed, which are not used in this development, will be rehabilitated with indigenous plant species. Seeding and planting methods would be used where appropriate.

OPINION OF PROBABLE COSTS

To allow budget estimates and allocations, a preliminary costing has been prepared for the project. The costs are arranged into stage one and two and are very roughly calculated. These costs are for materials only and do not include labour, or allowances for design, documentation or supervision of the works.

STAGE ONE

No.	Item	Probable Cost
1.	Road works - 10 car bays and 1 long vehicle bay, limestone surface with appropriate vehicle barriers	\$40 000
2.	Visitor Information Shelter - open timber shelter with interpretation panels and bench seats	\$20 000
3.	Stromatolite Interpretation Walk - 150m timber boardwalk (@ \$200m) with viewing platform (\$2 000) and interpretation features (\$10 000)	\$42 000
4.	Toilets - timber building, two pans, sealed vault	\$8 000
5.	Picnic Area - two picnic tables and general site modification	\$2 500
6.	Walk Tracks - compacted limestone tracks, generally 1.5 metre width	\$3 000
7.	Signs - including entry and directional signs	\$5 000
8.	Rehabilitation - seeding or planting degraded and unused areas, including rabbit protection	\$5 000
9.	Bird Walk - walktrack to birdhide, seats along track (this could be moved to stage two)	\$8 000
	Total for Stage One	\$133 500

STAGE TWO

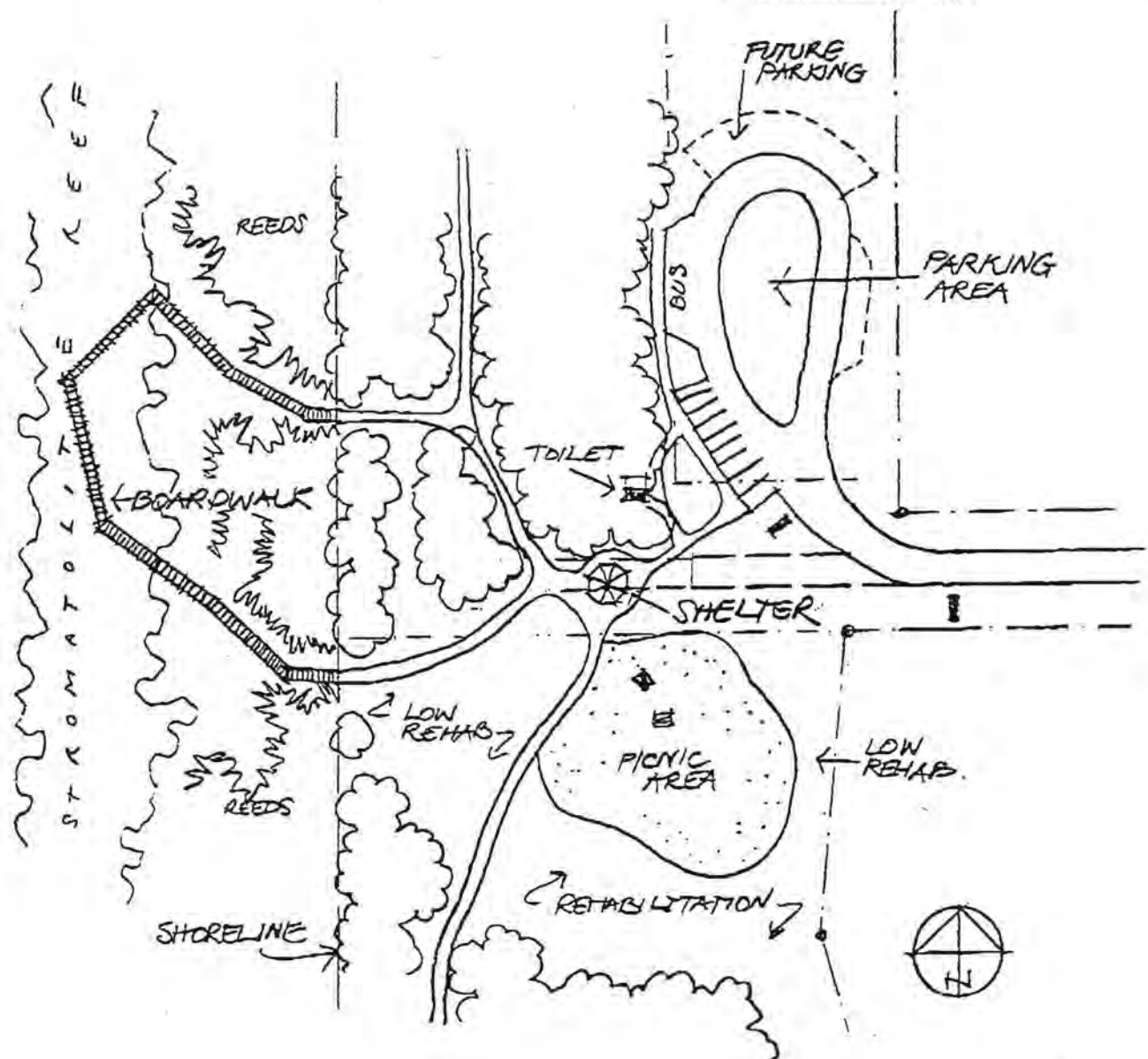
No.	Item	Probable Cost
1.	Road works - 10 car bays and 1 long vehicle bay, limestone surface with appropriate vehicle barriers	\$10 000
2.	Fee Collection System - self registration fee collection system in visitor information shelter	\$3 000
3.	Toilets - two pans, timber building, sealed vault	\$8 000
	Total for Stage Two	\$21 000

NEXT STAGE

Pending approvals for proceeding and funding allocation for the project, a Site Development Plan would be prepared. This plan would take the concept plan to greater detail, and determine its final layout on site prior to construction. An Interpretation Plan would also be prepared.

These Plans would then allow more accurate costing due to better resolved designs, locations and sizes of features.

CONCEPT PLAN OF STROMATOLITE INTERPRETATION SITE YALGORUP NATIONAL PARK



Recreation and Landscape Branch
Dwellingup District

27 October 1994

Department of Conservation and Land Management

CITY OF MANDURAH	
Street Order File	
SUBJECT FILE	YEC/531
14 DEC 1994	
C.M. No.	Act No. PDS
To allow budget estimates and allocations, a preliminary costing has been prepared for the project. The costs are arranged into stage one and two and are very roughly calculated. These costs are for materials only and do not include labour, or allowances for design, documentation or supervision of the works.	

Colin
16/12

OPINION OF PROBABLE COSTS

To allow budget estimates and allocations, a preliminary costing has been prepared for the project. The costs are arranged into stage one and two and are very roughly calculated. These costs are for materials only and do not include labour, or allowances for design, documentation or supervision of the works.

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2.	Fee Collection System - self registration fee collection system in visitor information shelter	\$3 000
3.	Toilets - two pans, timber building, sealed vault	\$8 000
	Total for Stage Two	\$21 000

ATTACHMENT 2

***SECTION OF YALGORUP NATIONAL PARK
MANAGEMENT PLAN***

reintroduction of threatened fauna will be investigated. Flora and fauna of the lake system will be covered in the next section.

Recommendations

1. Protect fauna habitats from the spread of weeds, disease, wildfires and human disturbance.
2. Increase knowledge of the Park's fauna by recording the incidences of death or injury to fauna resulting from motor vehicles and other causes.
3. Instigate more intensive fauna surveys and investigate reintroducing former known threatened fauna inhabitants in conjunction with a fox baiting program (See Section 17 Feral Animals).



10. THE LAKE SYSTEM

The objectives are to:

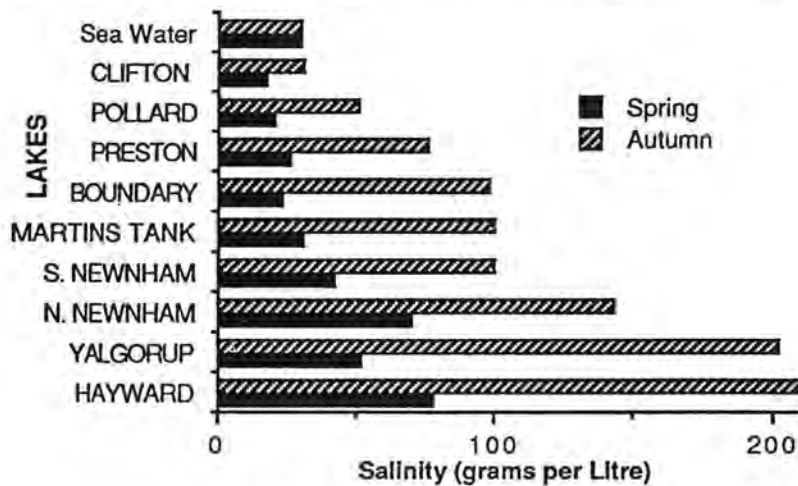
- Protect and conserve lake flora and fauna communities, structures, diversity, distribution and the natural processes that sustain them.
- Protect and conserve quality and quantity of surface water and groundwater and protect special conservation values associated with the lake system.
- Enhance knowledge of lake hydrology and its function in the lake ecosystem.

Salinity

Ten lakes are located in Yalgorup National Park. Lake Clifton, the furthest inland, stretches about 20 kilometres parallel to the coastline and is the least saline of all the lakes. Lake Preston is closest to the coast, is divided in two by a causeway, stretches about 30 kilometres and has intermediate levels of salinity. Seven smaller saline lakes lie between Lake Clifton and Lake Preston. They are (from north to south) Boundary, Pollard, Martins Tank, Yalgorup, Hayward, North Newnham and South Newnham Lake. Other minor lakes are located in the vicinity of Boundary Lake, including Swan Pond, Duck Pond and Linda's Lagoon. Figure 1 shows the average 1984 spring and autumn salinity levels of the main Yalgorup lakes (Moore *et al* 1984).

FIGURE 1

Spring and Autumn Salinities of Yalgorup Lakes

**Lake Clifton**

The salinity and alkalinity in Lake Clifton are similar from one end of the lake to the other although the levels vary with depth and distance from the eastern shoreline. Both are affected in winter by the inflow of fresh groundwater rich in bicarbonate ions. The northern half of the eastern shoreline may have the greatest inflow of fresh groundwater and this could account for the lake's abundant and diverse assemblage of flora and fauna. In summer the lake may dry out into three basins, with the southernmost basin becoming very saline.

Organosedimentary structures (composed mainly of various carbonate minerals) known as microbialites are produced by the growth and metabolic activity of benthic microbial communities (Burne and Moore, 1987). The microbial communities incorporate sediment grains at a very slow rate and build structures that on the average are about 2000 years old, when they reach a height of 1 metre. Stromatolitic microbialites are laminated structures while thrombolitic microbialites are structures with a disrupted internal framework (Burne and Moore, 1987). Both are very similar externally and can only be distinguished from one another by their internal structure. Microbialites live in Lake Clifton, but not in any other of the lakes. Relict (dead) structures, however, have been found in a number of the other lakes in the Park.

Fossilized laminated stromatolites represent the earliest record of life on Earth, dating from some 3500 million years ago. Marine subtidal microbialites are now known to exist only in Hamelin Pool at Shark Bay and at two locations in the Bahamas. Hamelin Pool microbialites are the most abundant and diverse examples of growing marine microbialites known in the world today. Non-marine microbialites are fairly rare, found in only a few lakes throughout the world. Lake Clifton supports the largest known examples of living non-marine microbialites in the Southern Hemisphere, and is one of only two sites known where microbialites occur in water less salty than sea water.

Stromatolitic microbialites declined 570 million years ago as other organisms evolved that, with their grazing and burrowing, probably disrupted the slow processes involved in forming

these laminated structures (Burke and Knott, 1986). Thrombolitic microbialites, on the other hand, increased in abundance 570 million years ago, giving evidence of the effects of grazing and bioturbation on stromatolites in those distant times.

Microbialites in Lake Clifton provide an important refuge for many small animals such as amphipods, isopods, shrimp and fish. Nematodes, polychaetes and a species of sea anenome are also present within or near the microbialites. Bryozoans colonize the microbialites and have also been found within their framework. Two species of snails are present in Lake Clifton, but their grazing is restricted to the shallows and generally they do not occur in and around the microbialites. Macrophytes, including *Lamprothamnium papulosum*, *Ruppia megacarpa* and *Cladophora vagabunda*, are also present in Lake Clifton (Moore, 1991).

Subsurface upwellings of fresh groundwater within the lake and along the eastern foreshore, are colonised by cyanobacteria that stabilise the carbonate sediment that is precipitated about the point of outflow.

The most abundant cyanobacteria within the benthic microbial communities is *Scytonema* (Moore *et al*, 1984). Other cyanobacteria that have been isolated include species of *Oscillatoria*, *Dichothrix*, *Chroococcus*, *Gloecapsa*, *Johannesbaptistia*, *Gomphosphaeria* and *Spirulina* (Neil, 1984).

The benthic (bottom dwelling) microbial communities need to grow slightly faster than the rate at which sediment is deposited onto microbialites. An apparent increase in nutrient levels in the lake may have caused an increase in the amount of the epiphyte *Cladophora* (Moore and Turner, 1988). In 1988, *Cladophora* was noted to cover microbialites in late spring and summer but the growth was sufficiently light to be removed during autumn and winter through wind-generated wave action. Further phosphate input into Lake Clifton may result in further increase of *Cladophora*, which would inevitably inhibit the formation of microbialites.



Lake Pollard

Lake Pollard has a similar range of salinity to Lake Clifton but with a higher total alkalinity (Burke & Knott, 1989). The benthos is largely dominated by *Lamprothamnium papulosum* from October to January. In December calcium carbonate is precipitated in the lake, making the water very turbid. Between 1000 and 2000 swans graze the algae in the lake between November and February.

Preston, South Newnham, Martins Tank and Boundary Lakes

All of these lakes have similar seasonal salinity variations and none form vertical stratification, except for South Newnham where temporary stratification forms in some years. The benthic communities do not generally form algal mats. Areas of Lake Preston and Martins Tank contain some cohesive microbial communities. South Newnham and Martins Tank are border line cases, sometimes having characteristics more similar to the lakes of the next group (Burke, 1990).

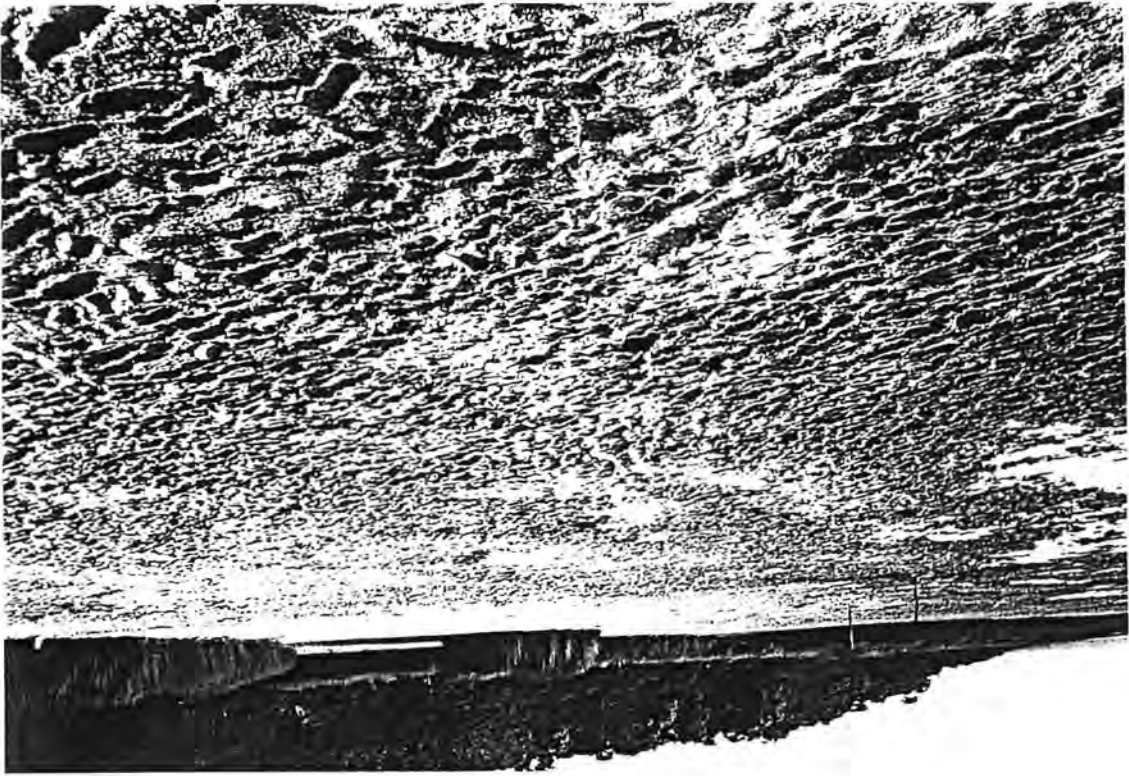
Hayward, Yalgorup and North Newnham Lakes

These three lakes show vertical stratification of the water column in winter, when fresher groundwater forms a layer across the surface of the lake. Mixing between top and bottom

ATTACHMENT 3

PHOTOGRAPHS OF SITE

2. The eastern shore of Lake Efflu
The many fragments of pebbles are very
particularly damage the Strom-talics Roof.



1. The Lake Efflu Strom-talics



ATTACHMENT 4

LETTERS OF SUPPORT

Mr Stephen Goode
Chief Executive Officer
City of Mandurah
PO Box 210
Mandurah WA 6210

Dr L S Moore
4 Burrendah Blvd
Willetton WA 6155

14 December, 1994

Attention: Colin Somerville

Proposed Lake Clifton Stromatolite Interpretation Site

Dear Colin,

I am writing to express my support for the proposal to develop a Stromatolite Interpretation Site at Lake Clifton. As you are aware, the reef is being exposed to increasing pressure and desperately needs protection.

I have seen the draft concept plan and agree that a boardwalk/viewing platform is essential as is the provision of information on the international significance of the lake and the uniqueness of the structures the lake supports.

I wish you well with your application for funds. Please keep me informed of your progress with this endeavour.

Yours sincerely,



Linda S Moore

To: The Shire Clerk,
P.O. Box 20,
Waroona, W.A. 6215



Our Ref. 19:11/02

Your Ref.

6 December 1994

Chief Executive Officer
City of Mandurah
PO Box 210
Mandurah WA 6210

Attention: Colin Somerville

Dear Sir,

**PROPOSED LAKE CLIFTON STROMATOLITE INTERPRETATION SITE
YALGORUP NATIONAL PARK**

This letter is to confirm that the Shire of Waroona supports your grant application under the Federal Ecotourism funding initiative, to provide a stromatolite interpretation and viewing facility at Lake Clifton. It is understood that the application is being co-ordinated by your City, supported by the Department of Conservation and Land Management, Western Australian Tourism Commission and the Peel Development Commission.

Council is aware that the Yalgorup National Park Draft Management Plan recommended a visitor facility at the terminus of Mt John Road, the main purpose being to provide visitor information about the stromatolites and thrombolites and viewing for waterbirds at Lake Clifton.

I am sure that this Council - together with other outlying Shires in the Peel Region - will benefit from any tourist attraction which will draw people southwards from Mandurah and entice them to travel throughout the region on a circuit tour.

In looking to the future, please note that we do have a CALM interpretive site within the Waroona Shire on the southern side of the Preston Beach Road. This area could be further improved to encourage people to leave their cars and take walks through the dunal areas. For ecotourists on more leisurely schedules marked walk trails (with times, distances, and estimates of walking difficulty) and self guiding booklets would encourage them to linger. This Yalgorup National Park site near Preston Beach provides a complementary but different view of the stromatolite ecology by showing a variety of the vegetation complexes within a fairly restricted area and including dramatic views from some of the higher ridges across the coastal lakelands and to the dunes and the ocean beyond.

Yours faithfully

ELLEN M GUDE
PRINCIPAL PLANNER

P633/94

cc: Peel Development Commission

Fax: 09 535 2119

CITY OF MANDURAH	
Street Code	
SUBJECT FILE	XES/31
XES4/1	
09 DEC 1994	
C.Mtg	Act to: <input type="checkbox"/>
Report-CBO	Copies: <input type="checkbox"/>
Ack:	File - YES <input type="checkbox"/>
Att: 1/1	Date: 9/12

MPS
CS

47025



SHIRE OF MURRAY

PINJARRA ROAD, PINJARRA, W.A., 6208. TELEPHONES: 531 1755, 531 1088
FACSIMILE: 531 1981

All Communications to the Shire Clerk. P.O. Box 21, Pinjarra, 6208.

PEEL DEVELOPMENT COMMISSION
23 NOV 1994
FILE <i>Mand 514</i>

Office Hours: Monday to Friday
8.30 a.m. to 4.30 p.m.

Your Ref:

If telephoning or calling with reference to this letter please ask for

Our Ref: 1628 DAM:FOW

Mr. McClements

21 November, 1994

Mr K Fisher
Interim Director
Peel Development Commission
P O Box 543
MANDURAH 6210

CITY OF MANDURAH	
Street Order File	
SUBJECT FILE	<i>XEC/31</i>
25 NOV 1994	
C.Mtg	Act to: <i>PDS</i>
Report-CEO <input type="checkbox"/>	Copies:
Ack:	File - YES <input type="checkbox"/>
Ans: / /	Date: <i>[Signature]</i>

Dear Sir

PROPOSED LAKE CLIFTON STROMATOLITE INTERPRETATION SITE YALGORUP NATIONAL PARK

Your letter of 1 November 1994 refers. Please accept this letter as Council's support for a grant application under the Federal Ecotourism funding initiative, to provide a stromatolite interpretation and viewing facility at Lake Clifton.

My Council is aware of the publicity given to the stromatolites at Lake Clifton and supports any move to protect the unique communities, whilst providing an opportunity for the public to view them. Their availability to the public as an ecotourism attraction adds to the many attractions within the Peel Region and is complementary to the existing attractions near Mandurah and extending into the hills at Dwellingup.

Council wishes you well with your application for funding.

Yours faithfully

D A McCLEMENTS
Chief Executive/Shire Clerk

46245



CITY OF MANDURAH	
Street Order File	
SUBJECT FILE	XEC/31
25 NOV 1994	
Act to:	PDS
Dept-CBO	Copies:
Act:	File - YES
Ans: / /	Date: / /

4

Mr Stephen Goode
 Chief Executive Officer
 City of Mandurah
 Mandurah Terrace
 MANDURAH WA 6210

colin

Dear Mr Goode

The Western Australian Tourism Commission strongly supports the initiative taken by the City of Mandurah to establish a Stromatolites Interpretative Facility in the Yalgorup National Park.

The Tourism Commission has recognised the potential of the eco-tourism market and is keen to foster its development in this State. No doubt you are aware that the Tourism Commission is currently establishing a Nature Based Tourism Strategy which will be instrumental in identifying 'Zones of Opportunity' for nature based tourism developments, such as the Yalgorup National Park Stromatolites.

The Peel Region boasts a fine collection of prime nature based tourism sites that are appealing to the rapidly growing eco-tourism market. The Stromatolites Interpretative Facility will become one of the Peel Region's most significant tourism attraction. The Facility will provide international and domestic visitors with the unique opportunity to view this sensitive micro-organism as well as gain interesting educational value.

The Tourism Commission is aware of the importance of this project in sustaining a natural resources and in advancing tourism in the Peel Region.

This worthwhile project is keenly supported and is deserving of Commonwealth funding assistance.

Yours sincerely

Renata Zmak
 A/Peel Tourism Manager

*Please
 register
 copy retained
 by law-S.
 J.C.*

24 November 1994

46246



UNIT 4
ROCKINGHAM BUSINESS CENTRE
ROBINSON ROAD
P.O. BOX 296
ROCKINGHAM W.A. 6168
TEL. (08) 527 9377
TOLL FREE 008 016 023
FAX. (08) 592 1361

CITY OF MANDURAH	
Street Order File	
SUBJECT FILE	XEC/31
11 NOV 1994	
C.Mtg	Act to: CEO
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Ans: / /	Date: / /

*Colin S.
I would like to see the details of this proposal please
14/11/94*

Mr Colin Somerville
C/- City of Mandurah
PO Box 210
MANDURAH WA 6210

Dear Mr Somerville

I have recently been contacted by Moira Wills of the Peel Development Commission concerning the plan to apply for Ecotourism funds through the Federal Government for the proposed Lake Clifton Stromatolite Interpretation Site. I understand that you are coordinating the application.

Having read the brief material supplied to me by Ms Wills, I am confident that this is the type of project that the Federal Government wishes to support through the Ecotourism program and I strongly advise you to lodge an application with them. For your information I enclose a copy of the guidelines and application form for the latest round of Ecotourism grants which was sent to me recently. You should note that applications close on 16 December 1994.

I will be very pleased to write to my colleague Hon Michael Lee MP, Minister for Tourism, in support of your application once it is complete. I ask you to send me a copy of your application as soon as it is available and I will contact the Minister personally.

I look forward to hearing from you in due course.

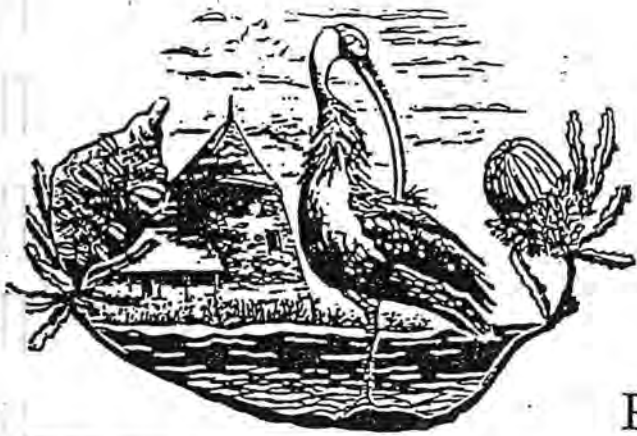
Yours sincerely

WENDY FATIN
Federal Member for Brand

8 November 1994

enc.

45403



PEEL PRESERVATION GROUP (INC.)

P.O. BOX 171 MANDURAH WA 6210

17 November 1994

Mr Stephen Goode CEO
City of Mandurah
PO Box 210
MANDURAH WA 6210

Att: Colin Somerville

CITY OF MANDURAH	
Street Order File	
SUBJECT FILE	YEC/31
17 NOV 1994	
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Report-CEO <input type="checkbox"/>	Copies:
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"Proposed Lake Clifton Stromatolite Interpretation Site"

The Peel Preservation Group does indeed welcome the embracing of ecotourism as a viable and intelligent use of our valuable environmental assets.

Whilst individual proposals for peculiar sites are required, encouraged and endorsed, it does concern the PPG that there is no regional infrastructure in place.

We feel there is an urgent need for a regional ecotourism infrastructure strategy or plan. Such a strategy is imperative so that as proposals come forward, they are coherently developed in such a way as to achieve the greatest benefit and the overall aims and objectives as determined by a comprehensive regional ecotourism strategy.

We see little advantage in developing adhoc proposals that are not a part of an intelligent plan for the region.

A prudent measure would be to develop those areas within the immediate vicinity of the City of Mandurah. Areas recognised as appropriate for ecotourism, thereby allowing an ease of access for the tourist and resident alike. This can then be followed by an ever increasing umbrella that ultimately covers the region.

In effect, we develop unique, peculiar site specific proposals that are immediately hooked up to an ever increasing network which has been predetermined and indeed created to meet the increasing management needs that such a system would incur.

May I reiterate that the philosophy and potential of eco-tourism is one that the PPG wholeheartedly endorses.

However, having said that, we must insist that in regard to the Yalgorup National Park - Lake Clifton - Stromatolites, that there is an urgent need for an EPP to be determined. This we believe would demonstrate the first step of a genuine commitment towards the security of the stromatolites. The guidelines as established by an EPP would give a more secure form of enforceable protection than is currently offered under the guise of a management plan.

The PPG is in the unenviable position of being accused of knocking all proposals for development, whilst putting forward little alternative. Regrettable as this opinion may be, we believe it is held only by those whose views oppose our own, as we advocate the putting of the horse before the cart.

Specifically in the case of peculiar proposals for ecotourism being given approval before a comprehensive strategy and development plan for ecotourism has been completed for the region.

A major obstacle in the protection of the Lake Clifton stromatolites has been the lack of restrictive access, especially given the stromatolites' increasing media exposure due to public debate and outrage over the extraction of ground water from the aquifer feeding Lake Clifton and ultimately the stromatolites.

The PPG regards and indeed advocates the use of council funds to erect a fence restricting access to the stromatolites until the site comes on line as part of a predetermined regional ecotourism strategy.

The future may involve guided tours or toll fees associated with the site.

However, the point being made here is the need to secure the safety of the stromatolites for the short term, whilst a long term vision and plan is put in place.

This, coupled with an EPP for the area, would in fact set a prudent foundation for a very successful ecotourist site.

The dilemma facing the PPG is one of determining the integrity of intent to secure the long term safety of the Lake Clifton stromatolites.

I quote - the Yalgorup National Park management plan - August 1994.

Department of Conservation and Land Management for the National Parks and Nature Conservation Authority

#Number summary and key issues.

“Nutrient levels in Lake Clifton, in particular may be increasing, putting the living stromatolites and thrombolites at risk. Protecting ground and surface water by restricting ground water and maintaining filter strips of fringing vegetation is important to preserve lake integrity.”

This has raised the definitive question, that to this day remain unanswered in terms of an unquestionable, absolute answer.

Q. What is the minimum alteration to the nutrient levels, the water recharge nutrient makeup of the aquifer and catchment that causes an irreversible decline bringing about the demise of the stromatolites.

Until this question is unequivocally answered, all development proposals that have the potential to affect the nutrient ratio/levels or water extraction by bore, should be regarded as premature.

In essence, until this becomes the intent of CALM, EPA, Council and the Minister for the Environment, the welfare of the stromatolites is at risk. A risk the PPG believes is unnecessary and avoidable.

The welfare of the stromatolites cannot be put at risk by the lack of knowledge at the time of decision. A decision that will be regarded as irresponsible ignorance in light of an adverse reaction caused to the welfare of the stromatolites.

We regard an EPP as appropriate given the significance of the Lake Clifton stromatolites. An EPP offers a higher level of enforceable protection than is presently afforded by the management plan.

The proposal for a Lake Clifton stromatolite interpretation site is one the PPG regards as well placed to be an ecotourism asset given the aforementioned criteria is met.

The PPG earnestly hopes that Council's intent to preserve the integrity of the Lake Clifton stromatolites is met by that as outlined above.

Yours sincerely



Robert L Ewing

President

PEEL PRESERVATION GROUP (INC)

cc CALM Head Office, Crawley
EPA Head Office, Perth
State Minister for the Environment
Peel Development Commission
Conservation Council of WA
Commonwealth Department of Tourism

Southern Estuary Progress Association (Inc.)

CITY OF MANDURAH	
Street Order File	
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17 NOV 1994	
C.Mtg	Act to: PDS
Report-CEO <input type="checkbox"/>	Copies:
Ack:	File - YES <input type="checkbox"/>
Ans: 1 1	Date: [Signature]

4 Hillway Street,
Dawesville, W.A. 6210.

16th November, 1994.

Mr. Stephen Goode,
Chief Executive Officer,
Mandurah City Council,
P.O. Box 210,
Mandurah, W.A. 6210.

*m/jl
MPS
CS*

Dear Sir,

Proposed Stromatolite Interpretation Site, Lake Clifton

The members of Southern Estuary Progress Association today voted to advise you that they strongly support the establishment of the above site.

We urge Mandurah City Council to take all necessary steps to safeguard and protect the Lake Clifton stromatolites and thrombolites from the depredations of well-intentioned but uninformed visitors, and from possible vandalism.

We believe this unique tourist attraction is a valuable asset that must be preserved at all costs, not only for today's community but also for generations to come.

Please convey our concern to Council.

Yours faithfully,

Joy Jeffes

Mrs. Joy Jeffes,
President,
Southern Estuary Progress Assn.

MANDURAH CAMERA CLUB INC.

Mr. Stephen Goode,
Chief Executive Officer,
City of Mandurah,
PO Box 210,
MANDURAH. 6210

Attention Mr. Colin Somerville


Dear Sir,

RE: PROPOSED STROMATOLITE INTERPRETATION SITE, LAKE CLIFTON.

I write in support of the proposed stromatolite interpretation site at Lake Clifton in Yalgorup National Park.

Many of our members are familiar with the area and enjoy photographing the superb natural features of the Park. In particular, they are anxious to see the thrombolite and stromatolite formations protected in such a way that will allow people to view and learn about this unique natural feature.

Yours sincerely,


JUDY DOUGLAS
PRESIDENT.

November 11, 1994.

CITY OF MANDURAH	
Street Order File	
SUBJECT FILE	✓
14 NOV 1994	
C.Mtg	Act to: <i>125</i>
Report-CEO <input type="checkbox"/>	Copies:
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Ans: / /	Date: <i>15/11</i>

125
15/11
125

Post Office Box 1270

Mandurah 6210.

Mandurah Tourist Bureau Inc.

LICENCE No. 9TA00386



8th November 1994

Mr Colin Somerville
Peel Development Commission
14 Tuckey Street
MANDURAH WA 6210

Dear Colin,

Over the past few years the Mandurah Tourist Bureau has received numerous inquiries regarding the Lake Clifton stromatolite reef.

All the inquiries are for the visitors to be able to walk in and around the reef. Unfortunately our advice to the visitors is, that it is only possible to view the reef from the shoreline, this being to avoid any damage that may be done to the reef.

The Mandurah Tourist Bureau gives full support to the development and construction of a viewing platform at the Lake Clifton stromatolite reef. Having such a platform in place will protect the stromatolites whilst providing a much needed facility for the many visitors.

Hoping that this facility will be in place in the near future.

Yours faithfully


JAYNE COLGAN
MANAGER



OF MAN

John Coddell

199 Mandurah Terrace
Mandurah W.A. 6210

Member for South West Region

Telephone: (09) 535 8811
Facsimile: (09) 535 8911

CITY OF MANDURAH	
Order File	
SUBJECT FILE	XEC/31
14 NOV 1994	
C.Mtg	Act to:
Report-CEO <input type="checkbox"/>	Copies:
Ack:	File - YES <input type="checkbox"/>
Ans: / /	Date: <i>[Signature]</i>

Mr Colin Somerville
City of Mandurah
PO Box 210
MANDURAH WA 6210

Dear Mr Somerville

Proposed Lake Clifton Stromatolite Interpretation Centre

I strongly support the application for an Eco-Tourism Grant of \$55,000 towards the total cost of \$178,000 for a Lake Clifton Stromatolite Interpretation Centre.

I do so for a number of reasons. It is obvious that Lake Clifton and its stromatolites and thrombolites are a key feature of the Yalgorup National Park. There is an increasing public demand to view these natural features. This demand should be catered for, while at the same time providing protection for the stromatolites.

I firmly believe that an increasing public appreciation of this feature of the National Park will lead to an enhanced conservation plan. The grant then becomes doubly important both to protect the natural resource and to provide a tourist attraction to complement other natural features in the Peel Region.

Yours sincerely

[Handwritten signature: John Coddell]

John Coddell
Member for South West Region

9 November 1994

45507



ARTHUR MARSHALL, J.P., M.L.A.
Member for Murray



1 November 1994

Attention Colin Somerville
 City of Mandurah
 P.O. Box 210
 MANDURAH WA 6210

CITY OF MANDURAH	
Street Order File	
SUBJECT FILE	XEC/31
04 NOV 1994	
C.Mtg	Act to: Colin-S
Report-CEO <input type="checkbox"/>	Copies:
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Ans: / /	Date: / /

Dear Colin

See enclosed letter of support for the City of Mandurah's funding request for the stromatolite ecotourism proposal. *CS*

Yours sincerely,

Arthur Marshall
 Arthur Marshall MLA
 MEMBER FOR MURRAY

44938



ARTHUR MARSHALL, J.P., M.L.A.

Member for Murray



TO WHOM IT MAY CONCERN

'PROPOSED LAKE CLIFTON STROMATOLITE INTERPRETATION SITE'

I strongly support the funding request to preserve the Lake Clifton stromatolites.

The rare 2000 year old reef formation at Lake Clifton represents the first forms of life on the planet.

The reef is 5km long and 120 metres wide.

It is one of the world's oldest living organisms.

This reef is in the Yalgorup National Park.

The 53 km park is ideal for an eco-tourism destination, providing bush walks, bird watching, wildlife (kangaroos, possums, emus) horse riding, picnicking, barbeques and camping.

The stromatolites are an added attraction.

Most people however are not aware of just how fragile they are.

The increased popularity of this park, officially opened in December 1993, has created grave concern for the stromatolites future.

At Lake Preston only a few kilometres away, the stromatolites are dead.

This must not happen at Lake Clifton.

CALM has prepared a draft concept plan to monitor these colonies of blue green algae.

Other government agencies such as EPA and the Water Authority are fully aware of the technical problems involved in preserving the stromatolites.

Practical assistance also is urgently needed!

Parking space, visitor information, shelter walkways, toilets, boardwalks and signage are vital.

In the last 12 months the Peel Region has exploded as a tourist destination.

The new North Dandalup Dam, Dawesville Channel, Fine Woods project at Dwellingup and now the stromatolites with other local tourist attractions make a marvellous one day package from Perth.


..../2

With this extra pressure on people, it is imperative that the stromatolites are made safe.

Funding to ensure this, is indeed, money well spent.

I support the request of the City of Mandurah.

Yours sincerely,



Arthur Marshall MLA
MEMBER FOR MURRAY

CITY OF MANDURAH	
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PEEL
DEVELOPMENT COMMISSION

P.O. BOX 543
MANDURAH 6210

TELEPHONE (09) 535 6722
FAX (09) 535 2119

Mr. Stephen Goode,
Chief Executive Officer,
City of Mandurah,
Post Office Box 210,
MANDURAH. 621-.

Acce
2/11
m/p/b
CS
A → M.

Attention Colin Somerville

Dear Sir,

PROPOSED LAKE CLIFTON STROMATOLITE INTERPRETATION SITE.

I write in support of the proposal for the development of a Stromatolite Interpretation Site at Lake Clifton.

Lake Clifton, the site of the stromatolite formation, is listed under the RAMSAR Agreement as a place of international significance and the stromatolites themselves are of world heritage significance.

As far back as 1991, the Mandurah Tourist Bureau was receiving enquiries from people wanting to visit the site of the stromatolites. Concern has been growing ever since that unless the area is protected and information is provided as to the uniqueness of the formations, this rare ecological feature will be damaged beyond recovery.

There is a great deal of community concern that the stromatolites be protected. In recognition of that concern and the opportunity the development of an interpretation site offers the Peel Region in terms of attracting local and overseas visitors to view this rare ecological feature, the Peel Development Commission has agreed to provide \$20,000 towards the initiative.

I wish you success with your grant application.

Yours faithfully,

Ken Fisher
KEN FISHER
INTERIM DIRECTOR
November 1, 1994.

MGW.MAND.S14.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

HEAD OFFICE
 HACKETT DRIVE CRAWLEY
 WESTERN AUSTRALIA
 Phone (09) 442 0300
 Telex AA94585
 Facsimile (09) 386 1578

STATE OPERATIONS HEADQUARTERS
 50 HAYMAN ROAD COMO
 WESTERN AUSTRALIA
 Phone (09) 334 0333
 Facsimile (09) 334 0466



Please address all correspondence to Executive Director, P.O. Box 104, COMO W.A. 6152

Your Ref:

Our Ref: R 6.3

Enquiries: T Churchill

Phone: (09) 364 0777

Mr S Goode
 Chief Executive Officer
 City of Mandurah
 PO Box 210
 MANDURAH WA 6210

CITY OF MANDURAH	
Street Order File	
SUBJECT FILE	XEC/1
	XEC/31 NEW
02 NOV 1994	
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 8

Dear Mr Goode

STROMATOLITE INTERPRETATION SITE - YALGORUP NATIONAL PARK

This letter is to confirm CALM's support for the City of Mandurah's grant application to provide a stromatolite interpretation and viewing facility at Lake Clifton, Yalgorup National Park.

In the Yalgorup National Park Draft Management Plan 1993, CALM has recommended a visitor facility at the terminus of Mt John Road with the main purpose being to provide visitor information about the stromatolites and thrombolites and provide viewing for waterbirds at Lake Clifton.

The Yalgorup lakes features unique and diverse benthic microbial communities, including the living stromatolites and thrombolites in Lake Clifton. These features have high conservation and scientific value and their protection is of a high priority for the management of Yalgorup National Park. The lakes in Yalgorup National Park are within the Peel Yalgorup Wetland of International Importance classified under the RAMSAR Convention and are also important for the feeding habitat and refuge they provide each summer for trans equatorial migratory wading birds.

CALM also manages the stromatolites at Hamelin Pool in Shark Bay, where they are protected from visitor pressure by a development similar to that proposed for Lake Clifton. Our experience in constructing a boardwalk through the stromatolites at Hamelin Pool will serve us well when designing the structure over the Lake Clifton stromatolites.

Thank you for supporting this project and I wish you success with the grant application.

Yours sincerely

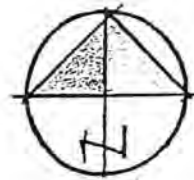
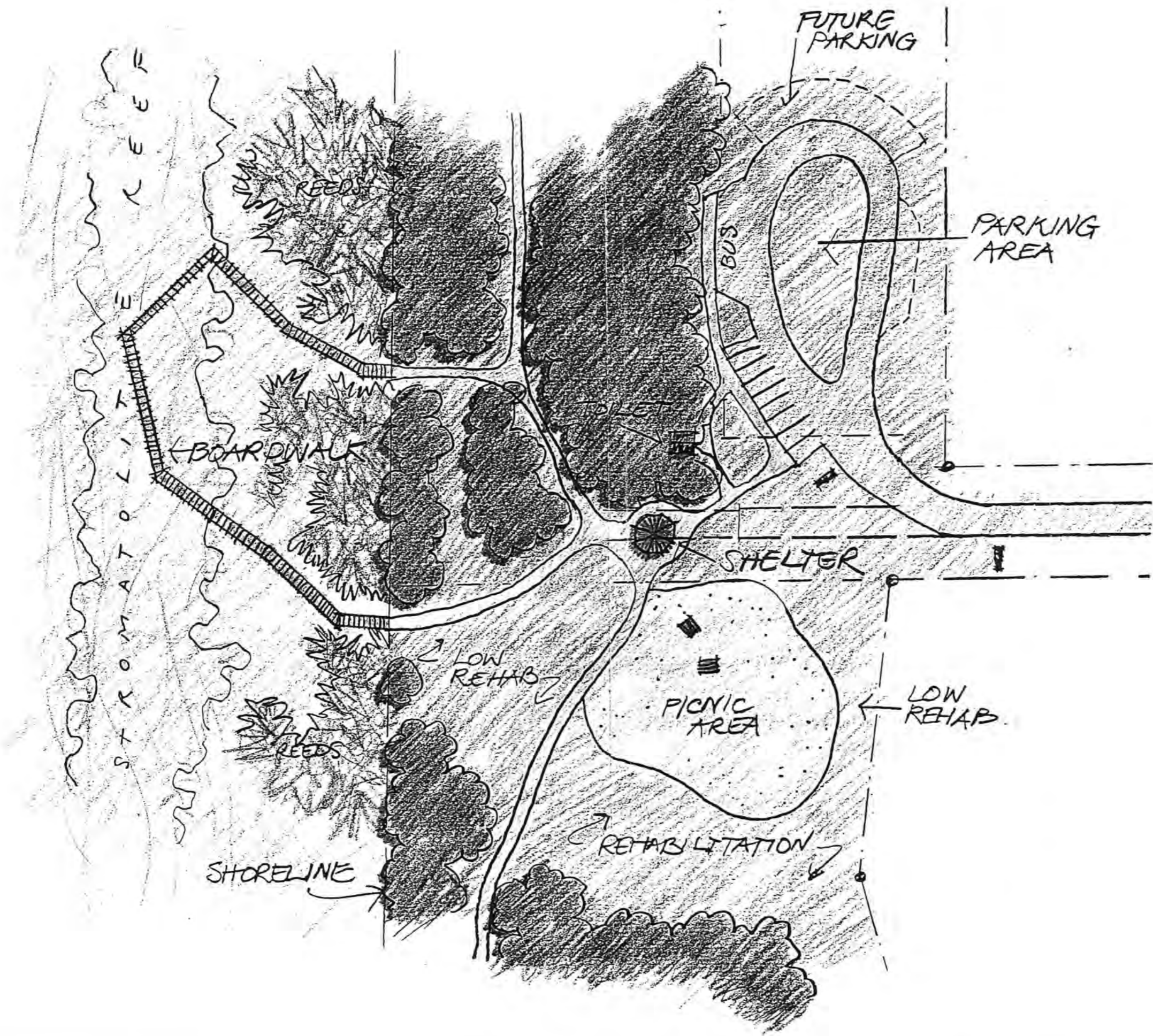
Chris Haynes
 ACTING EXECUTIVE DIRECTOR

31 October 1994

44744

STROMATOLITE INTERPRETATION SITE

• LAKE CLIFTON, YALGORUP NATIONAL PARK •



CONCEPT PLAN

• DEPT OF CALM, RECREATION DESIGN • OCT 1994 • NTS •