



NATIONAL PARKS AND WILDLIFE SERVICE

A/0256
JH/SP

RARE PLANT ARBORETUM MT. WARNING NATIONAL PARK

An arboretum housing specimens of rare or threatened rainforest plants of the Mt. Warning Shield was established as part of the National Rainforest Conservation program. This project involved the collection and propagation of plant material, clearing of the arboretum site, and planting of the rare or threatened species along with a protective cover crop. Details of works to-date are included in a separate report.

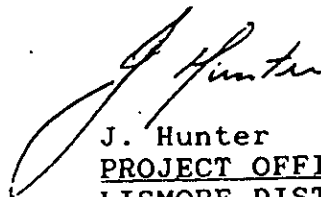
Future on-site needs for the arboretum include maintenance of juvenile plants, control of weeds and establishment of a walking track with interpretation. Further plantings of rare or threatened species propagated from material collected during the program are also planned.

To-date the project has permitted the collection of a wide range of the genetic diversity of a number of rare or threatened species in one locality, with the emphasis being placed on specimens of species most at risk from current land-use practices. Significant as these achievements have been, there are still many species and specimens at risk and it is desirable that the genetic variety of these also be sampled. Species and populations most in need of further work are outlined in the attached report.

The Mt. Warning arboretum has the potential to be expanded to more than twice its present size, allowing for a more complete conservation of rare or threatened species.

In summary, this project is in two parts:-

- a) maintenance of established areas and provision of educational facilities, and
- b) expansion of arboretum and establishment of plantings of more species.



J. Hunter
PROJECT OFFICER-
LISMORE DISTRICT

NATIONAL RAINFOREST CONSERVATION PROGRAM

PROJECT CATEGORY: Public Information and Interpretation

PROJECT TITLE: New project. Educational Kit on NSW
rainforests

LOCATION: Schools and rainforest centre

PROJECT OBJECTIVES: To provide comprehensive information
on rainforests and rainforest
conservation in NSW for teachers and
students.

COMMUNITY BENEFIT: Up to date information on rainforests.

PROJECT DESCRIPTION: Compile and publish an educational kit
rainforest in NSW covering the following
major topics.
1. Gondwanaland derivations
2. Decline of rainforests in Australia
3. Current distribution of rainforest
4. N.S.W. rainforests and their world
heritage values
5. rainforest rehabilitation
6. supplement for each rainforest
centre

GROSS COST
ESTIMATES: 1990/91 - \$20,000

STATE CONTRIBUTION: \$10,000 which may reduce if permanent
staff compile the kit.

COMMONWEALTH
CONTRIBUTION: \$10,000

N R C P

ADDITIONAL ACQUISITION FUND REQUESTS

1. SNOWS GULLY (MILLEDGE)
- PART LOTION 91 WHIAN WHIAN APT 18 Ha.
2. SNOWS GULLY (RUCKER)
- PART LOT 12 DP 622586 WHIAN WHIAN APT 12 Ha.
3. GOLDER RANGES (MC QUEEN)
- POL. 79 TYALGUM APT 76 Ha.
4. BRUNSWICK HEAD S. (GALLAGHER)
- PART LOT 1043 DP 245503 OCEAN SHORES
APT 5.5 Ha.
5. LENNOX HEAD (JOHNSON)
6. NEW ENGLAND (MILLISTON)

NATIONAL RAINFOREST CONSERVATION PROGRAM

PROJECT CATEGORY: Publication/Education

PROJECT TITLE: N42 Information Panels - Major rainforest type

LOCATION: Mount Warning (subtropical rainforest)
Border Ranges (subtropical rainforest)
Nightcap (subtropical rainforest)

Washpool (warm temperate rainforest)

Susan Island (lowland subtropical rainforest)

New England (cool temperate rainforest)
Dorrigo (subtropical rainforest)

LAND TENURE: National Parks - Nature Reserves and World Heritage Areas

PROJECT OBJECTIVES: Provide environmental education facilities

COMMUNITY BENEFIT FROM PROJECT: Increased community understanding and awareness of rainforests types, their flora and fauna, and the recreational opportunities available, lookouts, walking tracks, picnic and camping areas.

PROJECT DESCRIPTION: Outdoor interpretive displays at:

1. Mount Warning Picnic Area
2. Border Ranges entrances
3. Coombadjha Creek, Washpool
4. Susan Island
5. Terania Creek
6. Point Lookout, New England

Mobile display on Dorrigo and New England World Heritage areas.

Self-guided walking track signs at:

1. Mount Warning summit track (10 signs)
2. New England lookouts and walking tracks (25 signs)
3. Dorrigo walking tracks (10 signs)
4. Terania Creek (8 signs)
5. Susan Island (3 signs)

GROSS COST ESTIMATES:

7 displays @ \$9,000	\$63,000
56 signs @ 300	<u>17,000</u>
	<u>\$80,000</u>

MATCHING CONTRIBUTION FROM STATE: \$40,000

COMMONWEALTH CONTRIBUTION: \$40,000



MEMO FROM REGIONAL MANAGER

TO ANDREW STEED.....

Date 25/7/90..

SUBJECT N.R.C.P......

ADDITIONAL FUNDING REQUESTS - 1990/91.....

PROJECT SUMMARIES & INFORMATION REPORTS
ON DORRIGO R/F CENTRE & COOCUMBAR ISLAND
REHABILITATION ATTACHED FOR INFORMATION &
REVIEW. PLEASE CIRCULATE TO OTHER COMMITTEE MEMBERS

I WOULD APPRECIATE IF THE REPORTS
COULD BE RETURNED AT NEXT
MEETING.

THANKS

Jeff

NATIONAL RAINFOREST CONSERVATION PROGRAM

PROJECT CATEGORY: Interpretive and visitor facilities

PROJECT TITLE: N.41 Completion of Dorriggo Rainforest Centre.

LAND TENURE: Dorriggo National Park

PROJECT OBJECTIVES: To increase public appreciation of rainforest conservation by capitalising on the high level of visitation to Dorriggo National Park.

COMMUNITY BENEFIT: New educational and tourist facilities.

PROJECT DESCRIPTION: The rainforest centre building is nearing completion, as is the rainforest canopy viewing platform skywalk.

Additional funding is required to complete the following:
- fitout and fixtures
- access roads, parking and landscaping
- interpretive display
- fitout lecture room/theatre
- link track to Glade.

GROSS COST ESTIMATES: Previous allocation \$450,000 1990/91
- \$160,000.

STATE CONTRIBUTION: \$80,000 plus supervision, permanent staff on construction and display production.

COMMONWEALTH CONTRIBUTION: \$80,000

NATIONAL RAINFOREST CONSERVATION PROGRAM

PROJECT CATEGORY:	Research
PROJECT TITLE:	N76 Use of Remnant Rainforest Patches by Flying Foxes.
LOCATION:	Coastal N.S.W and S.E. Queensland.
LAND TENURE:	All titles but particularly N.P.W.S. area and State Forests.
PROJECT OBJECTIVES:	Continue highly productive research into flying fox migration, feeding cycles and role in seed dispersal.
COMMUNITY BENEFIT:	Understanding of important role of flying foxes as pollinations and seed dispersers in rainforest and sclerophyll forests and their requirements for day and maternity roosting sites in rainforest remnants.
PROJECT DESCRIPTION:	Continue radio telemetry with solar powered radio transmitters monitor fruiting patterns of rainforest species. Examine variation in annual diet. Study role of flying foxes as pollinations. Pteropus poliocephalus will be the main species studied.
GROSS COST ESTIMATES:	Previous funding \$140,000 1990/91 \$40,000
COMMONWEALTH CONTRIBUTION:	1990/91 - \$40,000
STATE CONTRIBUTION:	\$60,050 in kind wages - \$12,500 aircraft/vehicle \$48,000

Total cost of project has been reviewed due to costs associated with the project being undertaken on an island and the provision of basic facilities for works staff.

1990/91 Supplementation	\$20,000
State	10,000
Commonwealth	10,000

This is a most advanced rehabilitation program that needs continued effort for several more years. A flood in February 1990 has made additional funding in 1990/91 more imperative. An updated report 29/6/90 is available.

PROPOSAL FOR FURTHER FUNDING

Application for further funding concentrates on establishing long-term research and monitoring systems of both flying-fox movements and the rainforest fruit resource, and on initiating a study of the role of flying-foxes as pollinators. The proposed program consists of four sections:

1) Radio-telemetry -

In order to address in more detail the role of *Pteropus* in rainforest ecology, on-going information on both nightly foraging patterns and dispersal patterns of individual animals is required. The forest day-roosting habit of these animals make them ideally suited for solar powered radio-transmitter packages. As flying-foxes are long-lived animals, the use of devices which are consistently recharged through solar panels would potentially allow an individual to be monitored over many years. Long-term movement data for individuals would allow more detailed analyses of responses to changing patterns of food availability. These data have implications both for rainforest ecology and for management responses to commercial crop damage.

2) Rainforest phenology -

Monitoring of fruiting patterns of rainforest species in Northern N.S.W. through time is an essential part of ecological work in this complex system. Permanently marked individual trees of species important to flying-foxes would be monitored monthly, anticipated deviations in fruiting patterns due to topography and soil structure being incorporated into the design. This information would assist in interpretation of movement results and in evaluating the efficiency of *P. poliocephalus* as seed vectors.

3) Dietary analysis -

Examination of variation in annual diets of *P. poliocephalus* through analysis of faecal material from roost sites would assist in defining the relative importance of individual rainforest species as well as commercial fruit crops. The relationship among these data, that collected in 2. and information on available commercial fruit crops will aid in defining food preferences.

4) Flying-foxes as pollinators

Pteropus species are nectarivores as well as frugivores, feeding on blossoms of both rainforest and sclerophyll forest species. Their potential as pollinators of native species must be examined to further understand their ecological role in forest systems. Proposed work includes 1) detailed movement patterns of *P. poliocephalus* feeding on blossom, 2) lists of blossom species consumed 3) examination of the mechanics of pollination i.e. are *P. poliocephalus* successful in transporting viable pollen to mature stigma? (Initial data on 1 and 2 have been collected

5
during previous years.) As with seed dispersers, *Pteropus* are potentially exceptional amongst native pollinators in the distances they move viable pollen, therefore enhancing gene flow in rainforests and sclerophyl forests.

BUDGET - 1990-91

I. FUNDS FROM NRCP

Wages	
Research Officer - 7 months	\$18,000
Technical Officer - 4 months	9,000
Stores	
including radio-collars x 20	10,000
Travel	8,000
TOTAL	\$45,000

II. IN KIND CONTRIBUTION FROM N.S.W. NPWS

Wages	
Research Officer - 5 months	\$12,500
Aircraft (N.S.W. NPWS Cessna)	
300 hrs @ \$140/hr	42,000
Vehicle (4-wheel drive)	
20,000 km @ \$0.30/km	6,000
TOTAL	\$60,500

A/0256

NATIONAL RAINFOREST CONSERVATION PROGRAM

PROJECT CATEGORY: RESEARCH

PROJECT TITLE: RARE PLANT ARBORETUM

LOCATION: MT. WARNING NATIONAL PARK

LAND TENURE: NATIONAL PARK

PROJECT OBJECTIVES: CONSERVATION OF THE GENETIC DIVERSITY
OF RARE OR THREATENED RAINFOREST SPECIES OF THE MT. WARNING
SHIELD.

COMMUNITY BENEFIT FROM PROJECT: CONSERVATION OF GENETIC RESOURCES WITH
SCIENTIFIC AND POSSIBLE UTILITARIAN VALUE:
EDUCATION

PROJECT DESCRIPTION:

1. TO MAINTAIN ESTABLISHED AREA AND PLANTING
2. PROVISION OF EDUCATIONAL FACILITIES
3. EXPANSION OF ARBORETUM AREA
4. PLANTING OF FURTHER SPECIES AND PROVENCES

GROSS COST ESTIMATES:

MATCHING CONTRIBUTION FROM STATE: \$20,000

COMMONWEALTH CONTRIBUTION: \$20,000



NATIONAL PARKS AND WILDLIFE SERVICE

F048

COOCUMBAC ISLAND NATURE RESERVE NATIONAL RAINFOREST CONSERVATION PROGRAMME

I have had primarily an administrative involvement on Coocumbac Island for two and a half years. The temporary park workers have extensive experience in rainforest regeneration and are able to work with minimal supervision.

Mike Dodkin has been instrumental in the scientific approach to the regeneration work. The past three years have seen a major advancement in returning the island to floodplain rainforest, to the stage where the area which is under the canopy needs only periodic maintenance. However, outside the canopy (about one third of the island), consistent work is needed to reduce weed invasion and maintain cover crops. This is particularly true after the flood, which occurred in February, 1990.

Funding is required to maintain the consistent and dogged approach to regeneration works and to ensure the survival of the Coocumbac Island rainforest. A break in work at this stage of the project would be undesirable, particularly considering the impact of the recent flood (for details see M. Dodkin's report attached).

The three temporary park workers have been with the project since inception and are keen to continue. Two have manipulated other employment to continue the one-day-a-week schedule. This situation may be threatened if there was to be a lay-off until NRCP funding was assured. A suggested solution is to use funds from another area until NRCP funds became available, and to then reimburse this account.

A Regional inspection may be appropriate at this stage. A visit by conservation groups may also provide the project and the Service with much needed support and approval.

Susan Luscombe
Susan Luscombe
Ranger
Port Macquarie District

29th June, 1990

Superintendent, Port Macquarie
Regional Manager, Northern Region



NATIONAL PARKS AND WILDLIFE SERVICE

F.048

COOCUMBAC ISLAND NATURE RESERVE - RAINFOREST REGENERATION PROGRAMME

The second National Rainforest Conservation Programme (NRCP 2) is close at hand with funding conditionally approved. Whilst this report has been in the pipeline since the floods earlier this year, it is opportune to present this update report on the project at Coocumbac Island Nature Reserve.

Early February this year saw the inevitable periodic flooding of the Manning Valley, the last being in 1978. Both Coocumbac Island and the Wingham Brush have been anticipating this event in order to observe the impact on the current rainforest regeneration projects. The Wingham Brush project is into its 9th year, whilst Coocumbac Island is reaching its 3rd. Both operate on part-time employment programmes with Wingham Brush on 1/2 day/week and the Island on 1 day/week. The latter requires a full day to cater for operational needs of boating to and from the island and transporting of gear as opposed to Wingham Brush which is mainland based.

The results of the flood are interesting and suggest a directional change of strategy for floodplain rainforest regeneration projects. Two aspects have focused our attention:

- 1) flood energy impact
- 2) species flood tolerance



9.2.90 First inspection following the
flood — southern end of island.

This recent flood was of short duration, but of far greater energy than the previous 1978 flood. Peak heights existed for approximately one day as opposed to three in 1978. Floods heights covered both the Brush and the Island albeit this last being 1 metre below the 1978 level. Damage occurred in both areas and several observations are relevant.



(2)

9.2.90 Tobacco Bushes in low, exposed areas of the island. subject to waterlogged conditions for several days.

The Brush was well advanced in its regeneration programme and 'shade' cover crop plants (Tobacco Bush), to assist early establishment of rainforest seedlings, are currently being phased out. On Coocumbac Island this main traditional shade species is still currently under establishment in new sites. However, Tobacco Bush cannot tolerate prolonged waterlogged conditions.

At Wingham Brush damage occurred to fencing and regeneration sites, and while some Tobacco Bush has been killed most native regeneration survived and has now been pruned and will recover well. In contrast sites of Tobacco Bush establishment on Coocumbac Island subject to the full force of the flood and affected by inundation for its duration have been damaged where inundation and waterlogged conditions extended for several days.

However, while Tobacco Bush has been affected in low areas, others in less prone sites have managed to survive. I suggest simply because the flood was of short duration and hence slightly higher areas were only inundated for the one day. Many other aspects of the programme survived the flood, including 'wildlings' that have been germinating over recent months, particularly Native Hackberry and Rosewood. These have been relocated and staked with "grow-tubes" and are progressing extremely well under the pursuing hot and wet conditions in sites where Tobacco Bush has survived. Others exposed in damaged areas are fast disappearing under rampant regrowth of Madiera Vine (*Anredera cordifolia*) and Balloon Vine (*Cardiospermum grandiflora*). The control of these weeds is a major thrust of the project for the next 6 months (funding forthcoming).



9.2.90 Tobacco Bushes which survived the flood along the eastern side of the island. The main rainforest area in background.



(4)

2.2.90 'Wildlings' - young seedlings of rainforest plants now establishing under the canopy of Tobacco Bush. This was just prior to the flood. Dispersal is by birds.



(5)

9.2.90 After the flood. The above 'wildlings' and other nursery-planted stock survived the flood with no major damage.

(6)



9.2.90

virtually all of the
rain forest plantings
survived the
flood. Native Olive
- *Olea paniculata*

Immediately after
the flood and then
2 months later. Rain
combined with
warm weather has
encouraged rampant
weed growth - nursery
stock and seedlings
have disappeared.
The loss of the shade
canopy of Tobacco
Bush has also
assisted this growth
phase.

(7)



20.4.90

Relocation of plants,
weed control and
restaking seedlings
has been a major
thrust of the regeneration
programme since
the flood.



20.4.90 Two (2) months
after the flood - compare
with photo (1)

(8)

Our shed, nursery area and sites within the rainforest appeared to have experienced very mild conditions albeit the flood level was clearly marked as halfway up the shed wall. The wharf was moved (but not lost). It has now been re-established and secured in a safer location and will undoubtedly stay secure following the efforts of Senior Ranger, John Winter and Park Worker, Bill Boyd.



20.4.90 Our shed survived the flood with no apparent damage.

Whilst contrasting results have now occurred on Coocumbac Island, it is clear that a prolonged flood condition similar to the 1978 situation would have had setbacks on the project. Hence it is now proposed to adopt an alternative strategy for primary cover establishment, this being specifically relevant to floodplain sites.

Several factors are obvious from this recent flood to assist the direction and ensure success of rainforest regeneration projects in floodplain sites:

- 1) flood energy needs to be dissipated and species capable of tolerance of this energy and inundation need to be planted in 'open' regeneration sites
- 2) species planted need to be ecologically and genetically suitable
- 3) primary cover needs to be established to provide the important shade conditions for secondary and tertiary rainforest species establishment over time. This primary cover needs also to satisfy points 1) and 2).



(10)

9.2.90 'Gap' regeneration sites within the rainforest proper handled the flood well with only minor impacts.

Our redirection is thus:

It is proposed that Flooded Gum (Eucalyptus grandis) be planted as a primary cover on the major disturbed areas of the island as a species:

- a) ecologically and genetically suitable to the site. Flooded gum is recorded on the island, on the adjacent mainland, at Wingham Brush (predating European occupation) and historical records confirm it as an emergent, scattered species on the Manning River floodplain within the rainforest community that existed at the time of European settlement.
- b) tolerant of both the energy and inundation of flood conditions.
- c) suitable for the development of rainforest in the understorey and therefore, an ideal primary species to establish the shaded conditions required for successful rainforest establishment.

To endorse this concept, Dr John Stockard, Project Manager of the Wingham Brush Regeneration Programme, has successfully undertaken a similar project on his own property at Wingham, within 1/2 km of the Wingham Brush. Initial planting of Flooded Gum followed by the introduction of rainforest species is well underway to the full establishment of a rainforest community. A 50% culling by ringbarking and poisoning (Roundup) has seen little damage by fallen limbs, rapid decomposition of culled trees and good recovery of any rainforest species affected by such culling. A similar regenerative capacity has been experienced following damage by Flying Foxes.

Experimentation therefore, at this level will hopefully set the pace for floodplain rainforest regeneration programmes, including that for Susan Island on the Clarence River at Grafton. The Wingham Brush Group have already indicated their interest in a supply of Flooded Gum for specific areas fringing the 'Brush' to dissipate flood energy impact. The Coocumbac team are currently researching access to local Flooded Gum genetic material via the Taree Forestry Office to propagate young trees for this programme. I strongly suggest this approach for Susan Island Nature Reserve.

Adding to the Coocumbac Island programme, the Greater Taree City Council has now approved the mainland based interpretative/picnic site on the river bank. Council will instal and maintain a litterbin - see copy of correspondence attached (Appendix I). It is therefore hoped that should funding be provided from NRCP 2, this basic development can proceed in the months between now and December 1989.

I have been particularly enthused by the successful Seasonal Ranger programme conducted at Susan Island over the January, 1990 period (Appendix II). Following discussion with the Superintendent, a similar programme utilising the Manning River Cruises, will be put to our District Staff Meeting to gauge support for such an activity with the following objectives in mind:

- 1) promotion of the Service's natural resource management capabilities
- 2) promotion to the local community the importance of rainforest conservation
- 3) potential access to volunteers to assist with the regeneration programme, as gained from the Susan Island experience

The Susan Island experience has to be one of the most successful Seasonal Ranger programmes undertaken for the Northern Region. This 2-day exposure will have inspired the local community and enthused the District to maintain the regeneration concept. I believe a similar response will potentially occur for Coocumbac island, which is critical to the ongoing commitment required to regeneration programmes. Wingham Brush has pushed a similar programme which has 'locked' their programme solidly to ensure their ongoing success to achieve the conservation and educational goals set by the National Trust in the conceptual days of their programme. This activity on Coocumbac island would best be undertaken by the work crew.

Hence, I am hoping for the necessary funding (\$20,000) to continue the programme over the next financial year to allow this work to go a further step in achieving the successful regeneration of the island.

Endorsement of the Seasonal Ranger programme and ongoing funding will assist the necessary management criteria and guidelines essential to other rainforest regeneration programmes yet to be undertaken by the Service.

The proposed programme for the next 6-12 months include the following:

- 1) relocate the jetty and sign (both done) to less prone flood sites
- 2) concentrate on flood affected areas for weed maintenance (see copy of work sheets attached)
- 3) re-establish marking stakes and walking-track system where affected by the flood (this is underway)
- 4) re-establish interpretative sign on island, including advertising NRCP funding. I favour a smaller photo-metal plate this time which is easily replaceable.
- 5) establish mainland based interpretative sign as agreed with the Greater Taree City Council (projected since 1978).

The above objectives should require minimal input at the District level as long as NRCP funding is forthcoming. Ranger Susan Luscombe has taken over the main administrative activities for the project, but given the Luscombe's District departure in the near future, I am confident that continuity of the programme, with the existing crew, will ensure its ongoing success.

However, I must be emphatic that the recent flood has necessitated a strong commitment from the crew to keep 'on top of things' and that continuity of the programme is critical.

Whilst morale is still high, doubt as to ongoing funding has curbed some vitality. Any lapse at this critical stage will potentially 'set back' the programme. The Service has only to equal the local Council's effort at Wingham Brush to retain its image in an area where rainforest regeneration has made its mark. I am confident that both the exposure and commitment to this programme, that has been supplemented by good documentation to date to the various levels of the Service, will ensure the Service's commitment and professionalism to continue to undertake such projects. Any deviation from this commitment will 'sow the seeds of doubt' as to our ability in this area of field management.

Hence, I strongly urge/recommend interim funding via District and/or Region Maintenance Funds to allow the continuity of the programme.

Reimbursement of maintenance funds can be undertaken with finalisation of NRCP. Achievement of the objectives outlined will improve the Service's image, staff morale and management expertise of natural resources.

Submitted for your urgent attention/endorsement.



Michael J Dodkin
Naturalist (Project Officer)
PORT MACQUARIE

29 June 1990

ATTENTION

1 Superintendent, PORT MACQUARIE

The regeneration proposals recommended are endorsed. The promotion of public visitation to Coocumbac Island for the foreseeable future is not endorsed. The extra workload that would be generated in maintenance, supervision and interpretation responsibilities is not seen as achievable or a morale builder, while the Works staff and Ranger staff are so over-committed now, and for some time into the future. When resources improve and work loads ease, this option can be further considered.

Newfent 3/7/90.

2 Regional Manager, NORTHERN REGION

.....
Quote: National Parks & Wildlife Service
Field Officer's Branch
NEWSLETTER - JUNE 1990

(Page 2)

Staff Morale

Apart from reiterating his comments about improving our pay, the Director explained at some length his belief that the Service needs to raise its public profile and tell the world about all the good things we do ...

.....

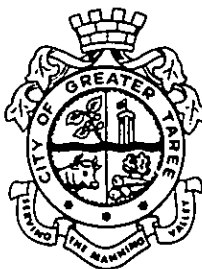
Greater Taree City Council

ALL COMMUNICATIONS
TO BE ADDRESSED TO:

THE TOWN CLERK,
P.O. BOX 482, TAREE
N.S.W., 2430
DX7020 Taree

PHONE: (065) 52 2744

FAX: (065) 51 0389



ADMINISTRATION: 2 PULTENEY STREET.
ENGINEERING, HEALTH AND BUILDING,
TOWN PLANNING: 146 VICTORIA STREET

IN REPLY,
PLEASE QUOTE: GPN:MH.P3-94-1

ENQUIRIES: Mr G Nix

16 August 1989

The Director
National Parks & Wildlife Service
P O Box 61
PORT MACQUARIE NSW 2444

Dear Sir

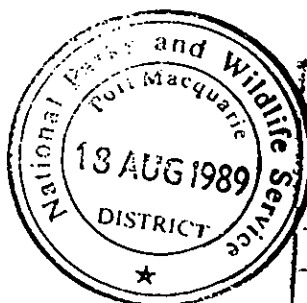
Coocumbac Island Nature Reserve

With reference to your letter dated 1 August, it is advised that Council approves of the table design submitted with your letter and it is suggested that you contact Council's Engineering Department to determine final location for the table and sign.

Council will make arrangements for the installation of a litter bin in proximity to the sign.

Yours faithfully

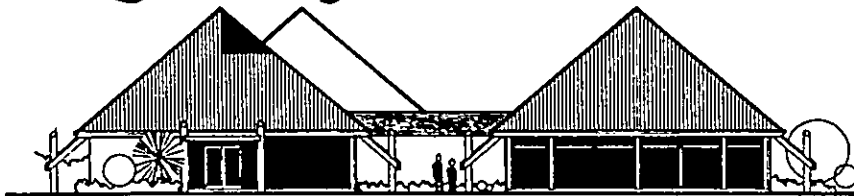
C E CHATWOOD
TOWN CLERK



NF	GC
JW	TW
LD	LEI
SG	SD
GL	NL
SL	

Appendix I

Manning Valley Tourist Association



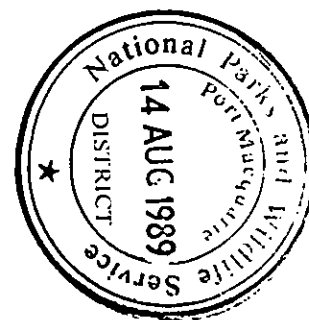
MANNING VALLEY TOURIST ASSOCIATION, INFORMATION CENTRE
PACIFIC HIGHWAY, TAREE NORTH. PHONE: (065) 52 1900

POSTAL ADDRESS

P.O. BOX 482
TAREE 2430

9th August 1989.

Mr M Dodkin,
National Parks and Wildlife,
PO Box 61,
PORT MACQUARIE. NSW. 2444.



Dear Michael,

Further to your letter of 7th August 1989, unfortunately I will be unavailable on the 25th August, as I will be in Sydney. I have visited Coocumbac Island previously and was very impressed with the regeneration work.

With reference to the brochure, the Tourist Association were concerned at the \$700.00 cost for printing, having recently produced a similar (2) colour brochure for less than this amount. Therefore additional quotes may need to be sought. The Tourist Association will support this initial print run of 5,000 joint brochures. We would appreciate some recognition on the brochure advising of our financial support.

It would be appreciated if you could advise us of estimated production time. Obviously we would like to have them on display prior to the December School holidays. Also some indication as to the number of brochures we would have for distribution would be helpful.

Yours faithfully,

Lyn Hardes

Miss Lyn Hardes,
Tourism Promotions Officer.

LH.1p.

*Verbally cancelled
for the time being*

M.D.

Oct. 1989

SUSAN ISLAND GUIDED WALKAttendance

10am-4pm

11.1.90	230 persons
18.1.90	350 persons

The adventure began with a thrilling boat trip across the almighty Clarence River. Upon landing on the river bank the passengers took shelter under a huge red bean tree. Here the visitors were informed of the present and past history of Susan Island and informed of what was to come in the walk ahead.

Aims

- *To introduce people to the Susan Island Nature Reserve.
- *To show people the flying fox colony and explain the ecology of the bats in the rain forest.
- *To introduce people to the problems facing remnant and bush regeneration techniques being used to combat some of these problems.

Evaluation

The aims were fulfilled in the guided walks throughout the reserve and more so people were leaving the Island with a deeper understanding and appreciation for the nature reserve and its inhabitants. We were pleased to find out the majority of visitors were Grafton residents and most of them had never visited the island before.

Recommendations

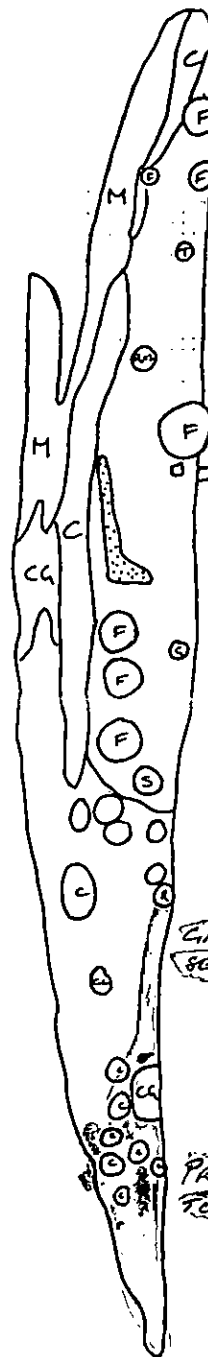
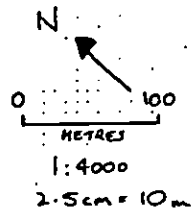
The keen response to this activity shows there should be a regular guided visit to the Island carried out incorporating the user-pays scheme.

Another alternative would be to tender for a tourist operator who could operate a steamer to the island and re-live history.

Appendix II

16.2.90

COOCUMBAC ISLAND



KEY

- M MANGROVES
- C CASUARINAS
- RF RAINFOREST
- CG CANE GRASS
- F FIG
- T TUCKEROO
- R ROSEWOOD
- C FLOODED CUM
- CL CAMPHOR LAUREL
- S STINGING TREE (CUT DOWN)
- ☐ CLEARING

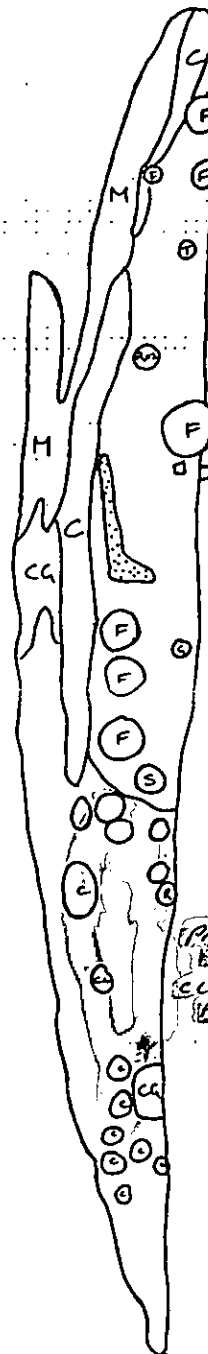
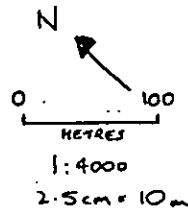


GRO-TUBES AROUND
SEEDLINGS

PRUNE FLOOD-DAMAGED
TOBACCOS

23.2.90

COOCUMBAC ISLAND

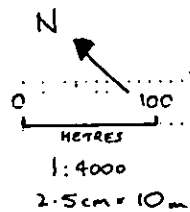


KEY

- M MANGROVES
- C CASUARINAS
- RF RAINFOREST
- CG CANE GRASS
- F FIG
- T TUCKEROO
- R ROSEWOOD
- C FLOODED CUM
- CL CAMPHOR LAUREL
- S STINGING TREE (CUT DOWN)
- ☐ CLEARING

PRUNE
TOBACCOS
CLEAN UP
FLOOD-DAMAGE

1.6.90 COOCUMBAC ISLAND



KEY

- M MANGROVES
- C CASUARINAS
- RF RAINFOREST
- CG CANE GRASS
- F FIG
- T TUCKEROO
- R ROSEWOOD
- C FLOODED CUM
- CL CAMPHOR LAUREL
- S STINGING TREE (CUT DOWN)
- ☐ CLEARING

HANDS
NEED
ALONG
EDGE

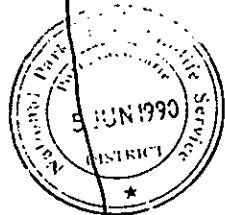
HANDS
NEED

(SPRAY)

LANDING

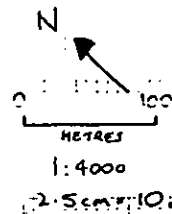
PLANT TOLACOS

PAINT
MAINTENANCE.



22.6.90

COOCUMBAC ISLAND



KEY

- M MANGROVES
- C CASUARINAS
- RF RAINFOREST
- CG CANE GRASS
- F FIG
- T TUCKEROO
- R ROSEWOOD
- C FLOODED CUM
- CL CAMPHOR LAUREL
- S STINGING TREE (CUT DOWN)
- ☐ CLEARING

LANDING

PULL STRAPS BACK FROM
NATIVES - PREPARE
FOR SPRAY

CUT VINES FROM TREES
CUT/PAINT SPRAY
(ROUNDUP 100%)

PAINTING
STAKES

TRACK
MAINTENANCE