CONSERVATION RESERVES FOR WESTERN AUSTRALIA

AS RECOMMENDED BY THE

ENVIRONMENTAL PROTECTION AUTHORITY 1976 Bulletin No. 19

SYSTEMS 1, 2, 3 & 5

A REVIEW BY THE PUBLIC WORKS DEPT.

CONSERVATION RESERVES FOR WESTERN AUSTRALIA

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1. INTRODUCTION

The recommendations of the EPA in this second "red book" are important and far reaching. The following is an extract from the EPA's preamble :-

"... the areas which are the subject of the recommendations.. pose problems of a different degree and scale to those on which recommendations have already been made and accepted by Cabinet on February 9, 1976"

The increased complexity of these Systems over the decided ones, and the even greater complexity of problems in System 6 which is now under study, may require the review and decision processes to adapt accordingly. Such an eventuality is foreshadowed in the final statement of the EPA preamble :-

"In short, the EPA is fully aware of just how difficult it was to conclude its recommendations on systems 4, 8, 9, 10 11 and 12, and still more difficult the recommendations of this red book on systems 1, 2, 3 and 5. The EPA is under no illusions that it will be any easier to derive recommendations for system 6. It will be assisted, however, in this task by noting the response of Cabinet and the public to the recommendations which follow".

This second red book therefore, is important not only for the recommendations on the systems it reviews, but also as an indicator for processes appropriate to system 6.

From the stand point of Public Works Department responsibilities there are certain important matters related to the recommendations of the second red book which require consideration and amendment. Although important, these proposed amendments do not appear to represent any basic conflict with the EPA objectives, and hopefully will be seen as constructive and readily acceptable. An issue of paramount importance in this respect is the relationship of southern water resources with the proposed Forest Parks and the South Coast National Park. The water resources of the region covered by system 1, 2, 3 and 5 are of great significance to the State. It is therefore essential that these resources be conserved in a manner which benefits the community as a whole. Existing National Parks and proposed National Parks will overlap with water conservation needs in respect to surface and underground water.

The Public Works Department believes that the utilization of water and the creation of reserves for National Parks are of major importance and that they can be developed in a manner which is compatible to both.

Because of the close association of water with reserves for National Parks and Forest Parks, it is essential that equal recognition is given to the importance of water. It is therefore recommended that where there is such an overlap that the purpose of the reserve be proclaimed on the dual basis of WATER AND NATIONAL PARK.

Where water reserves and catchments lie within or are affected by National Parks or the proposed Forest Parks, it will be necessary for the Authority responsible for the management of these parks to do so in a manner which enables the Public Works Department to discharge its responsibility as a water supply authority.

RECOMMENDATION 1

That in Systems 1, 2, 3 and 5 where it is proposed to create reserves for National Parks and Forest Parks, these reserves be given a dual purpose to include water, and the management of these parks be carried out in such a manner to enable the Public Works Department to discharge its responsibilities for water supply.

In addition to matters arising from specific recommendations, these notes offer comment on some aspects of review and decision procedures with reference to difficulties presented by the present processes. It is hoped that these comments will influence guidelines adopted for future submissions on conservation reserves such as system 6 and the wetlands.

- 2. RELATION OF SOUTH COAST NATIONAL PARK & FOREST PARKS TO THE MAJOR WATER RESOURCES OF THE REGION
- 2.1 PROPOSED SOUTH COAST NATIONAL PARK & FUTURE USE OF WATER RESOURCES (RED BOOK 2.3)

2.1.1 General

The original Public Works Department submission on the C.T.R.C. report laid considerable stress on the relationship of the South Coast National Park and future options for use of water resources. Six major South West rivers which flow through the proposed park possibly represent the regions major resource. The following extract from the first PWD submission is worthy of note.

"The water resources of these rivers are of major importance in the future of the South West Region. The Donnelly, Warren, Gardner, Shannon and Deep between them are estimated to represent 40% of the usable potable surface water resources between Geraldton and Albany. The Frankland represents about 15% of the usable brackish surface water of the same region.

If the proposed National Park was not compatible with reasonable utilisation of these water resources, its selection would need to be questioned. However, most of the known potential dam sites on the rivers are upstream of the proposed park, and those that are within its recommended boundaries could be excluded by insignificant modifications of its boundaries.

Development of the water resources will inevitably have some effects on downstream ecology, because surface reservoirs would normally achieve between 60% and 75% regulation of average annual river flows at the dam sites. This is a fact which will need to be recognised in creation of such a park. However, from a rather superficial consideration of the matter, it would appear likely that, providing some trade offs are accepted from both the straight conservation and the straight water resources viewpoint, a suitable balance should be achievable with sensible planning.

The underground water resources of the proposed park are unknown. Some potential undoubtedly exists but at this stage, it is difficult to see them as being of major regional significance. Consequently, although underground resources would need to be investigated in planning the management of the proposed park, it is not considered that underground resources would present valid reasons for questioning the proposals. In summary, the following conclusions and recommendations are made :

- (i) The water resources of the rivers flowing through the proposed park are a major component of the total usable water resources between Geraldton and Albany.
- (ii) Some compromises will be necessary between management of the water resources and the park. However, so long as the constraints on water development are confined mainly to the Shannon River, where their effect would be the most valuable from the view point of park management, the sacrifices in terms of water development potential should be acceptable.
- (iii) Certain very small modifications to the boundary of the proposed reserve, near the Carey Brook, Fly Brook, Gardner River and Frankland River may need to be made to ensure that potential dam sites on the fringe of the proposed park are excluded. Details of these modifications would need to be discussed, but could be resolved without difficulty.
- (iv) The formal action to create the proposed Class A Reserve should acknowledge the prime importance of the water resources flowing through the reserve and the ultimate need for their development subject to realistic but not severely limiting constraints related to park management."

The above quoted submission was recognised by the EPA's Special Committee appointed in September 1975 to review Systems 1 and 2. The Special Committee acknowledged the importance of regional water resources and indicated that it believed their development would not conflict with park objectives. However neither the Special Committee report or the present red book have discussed or responded to the specific Public Works recommendations which seek to ensure that future water resource options are not unduly prejudiced by the park.

2.1.2 Purpose and Vesting of South Coast National Park

It is vitally important that the National Park declaration does not excessively constrain or foreclose major options for future water resource development in the South West. There is reason to fear that this could be an unintended result. At this stage the prevailing public attitude would seem to regard a National Park as politically if not statutorily excluding water development. Environmental groups are currently pressing for National Parks on both Collie and Fortescue Rivers with the expectation that these would effectively prohibit the building of dams.

Consideration must be given to the following facts relating to the park and the large water resources of this region :-

- Potential dam sites have been identified within or just bounding the park and future investigation might identify others.
- (ii) Storage reservoirs developed upstream of the park may also influence its environment.
- (iii) Underground water resource potential within the park is virtually unassessed.

The original submission by the Public Works Department specifically sought that formal creation of the Park should acknowledge that Systems 1 and 2 contain a major water resource, the development of which may be important to the region's future. This view point is strongly held by the Department, and until such acknowledgement is clear in the declared purpose of the park, the Department would be obliged to seek postponement of its creation.

RECOMMENDATION 2.1.2

It is recommended that the South Coast Park should be a Class A Reserve for the formally stated purpose of "National Parks and Water" and that it be vested in the National Parks Authority. Such action by Government in creating the park, would leave land management initiative with the National Parks Authority, subject to the conditions of Recommendation 1., and would not relieve water authorities of the responsibility for environmental impact studies to determine whether any specific proposal was justifiable. The action however, would avoid future public argument that the Park was a prima-facie reason for refusing water development.

2.1.3 Boundary of South Coast Park

The original P.W.D. submission pointed out that, within available mapping accuracy, potential dam sites on Carey Brook,

Fly Brook, Cardner River and Frankland River may fall within the proposed boundary. The submission proposed minor modifications to exclude these potential sites. The red-book does not appear to include any such modifications.

The need for such action would depend on Cabinet attitude to the recommendation of 2.1.2. Boundary modifications cannot allow for presently undiscovered sites with potential for water resource development.

RECOMMENDATION 2.1.3

It is recommended that, if park declaration includes water development as a valid purpose, no boundaries need be modified for water resource development sites. Without such a declaration the park boundaries would need to be reconsidered.

2.2 FOREST PARKS GENERAL - SYSTEMS 1 & 2 IN RELATION TO WATER RESOURCES (RED BOOK PREAMBLE (ix), & 2.4)

2.2.1 General Comments on Forest Parks

By the distributed nature of the proposed Forest Parks through this major water resource region it is inevitable that there is overlap with potential storage reservoirs and other potential water resource utilization. This overlap is accentuated by the extensive network of proposed river reserves in the Forest Parks and which correlate closely with water resources.

The E.P.A. has proposed that the security of a Forest Park will be provided by working plans formulated by the Conservator of Forests and deemed to have the effect of a regulation under an Act of Parliament. Changes to such working plans could only be made after tabling in each House of Parliament, but either House may disallow the changes. The working plans would be binding on the Conservator of Forests. It is not clear whether they are intended to be binding on the Minister for Works and Water Supplies or to have precedence over the Country Areas Water Supply Act, the Rights in Water and Irrigation Act and the Public Works Act. If working plans are exclusively defined and over-riding the Forest Park proposals could impose much more severe constraints on water resource utilization than the South Coast National Park.

Conversely a typical storage reservoir could be expected to have a surface area between 200 and 2 000 hectares and future storage reservoirs are therefore potentially significant in relation to their possible effect on Forest Parks. Water resources information will be an essential input in formulation of working plans.

2.2.2 Specific Overlaps of Forest Parks & Reservoir Sites in Systems 1 & 2

A number of potential storage reservoirs associated with dam sites already identified in preliminary reconnaissance, overlap partly with proposed Forest Parks. Several of these sites relate to the extensive network of river reserves and others relate to specific forest blocks proposed for possible reservation

Potential reservoir sites on the Wilgarup, Deep, Gardner and Warren rivers and also on Barlee Brook and Dombakup Brook appear to have overlap with proposed river reserves. A possible reservoir on Fly Brook appears also to overlap either the river reserves or South Coast National Park. Although these reserves are a potentially severe constraint on water resource utilization, the development of any or all reservoirs would seem unlikely to severely reduce river reserves.

Potential overlap of future storage reservoirs and specific forest blocks proposed as park reserves include the following :

 $\sum_{i=1}^{j} \sum_{j=1}^{j} \sum_{k=1}^{j} \sum_{i=1}^{j} \sum_{j \in \mathcal{I}_{i} \in \mathcal{I}_{i}} \sum_{j \in \mathcal{I}_{i} \in \mathcal{I}_{i}} \sum_{j \in \mathcal{I}_{i} \in \mathcal{I}_{i}} \sum_{j \in \mathcal{I}_{i}} \sum_{j \in \mathcal{I}_{i}} \sum_{j \in \mathcal{I}_{i} \in \mathcal{I}_{i}} \sum_{j \in \mathcal{I}_{i$

(i)	Blackwood River and Milyeannup Block
(ii)	Donnelly River and One Tree Bridge Block
(iii)	Donnelly River and Strickland Block

(iv) Rosa Brook and Layman Block

(v) St. John Brook and Cambray Block

2.2.3 Action to Avoid Prejudicing Future Water Resources Options

With such a distributed network of proposed Forest Parks it would be unacceptable for the Conservator's Working Plans to be binding on Public Works actions under the Country Water Supply Act the Rights in Water and Irrigation Act or the Public Works Act. It is essential that the declared purpose of Forest Parks permit activities which may include works for water resource investigation and be seen to include and not conflict with water resource utilization subject to appropriate environmental impact studies.

In addition it is important that procedures are established whereby working plans are developed with proper consideration of the implications of the plan in relation to water resource utilization and vice versa.

RECOMMENDATION 2.2.3

It is recommended that although binding on the Conservator, Working Plans for Forest Parks should not have precedence over water resource investigation or utilization and that endorsement of a Forest Park concept recognises water resource utilization as an objective, as well as forest conservation and recreation.

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It is recommended that every working plan for a forest park will be developed by the Conservator of Forests in / full consultation with the Director of Engineering

It is recommended that before endorsement every working plan for a forest park will include a consideration of the implications for future water resource utilization and will be referred to the Director of Engineering for evaluation in this respect.

It is recommended that any reservoir in a forest park shall be a water body managed by the Minister for Water Supplies and that the Forest Park shall be managed by the Conservator of Forests in such a way that it will enable the Public Works Department to discharge its responsibilities for water supply. 2.3 WETLANDS (RED BOOK PREAMBLE (x), AND 2.12)

2.3.1 General Comments on Wetlands Reservation

The definition of wetlands currently adopted by the EPA's Wetlands Advisory Committee can effectively be summarised as:

"any surface expression of terrestrial water including all rivers, lakes, swamps and estuaries".

Because swamps and lakes are often surface manifestations of underground water resources and because the definition encompasses all surface water, the definition effectively relates to the greater part of the State's water resources.

Preservation of wetlands could be viewed as only one aspect of the broader problem of water resource planning. Consequently the Public Works has stressed in several previous submissions to the Department of Conservation and Environment, that wetlands conservation cannot be considered in isolation from water resource and land drainage planning and management.

2.3.2 Referral of Wetlands Development Proposals (Red Book 2.12)

Recommendation of 2.12 paragraph (3) of the second red book reads :

"the Public Works Department refer all proposals for drainage schemes to the Department of Conservation and Environment for evaluation for possible implications for wetlands areas".

RECOMMENDATION 2.3.2

The recommendation of the EPA is clearly proper. However it is further proposed that the following should be added to 2.12 para 3 of the red book and should also be adopted in principle for all other wetlands areas outside System 2 : "and the Department of Conservation and Environment refer all proposals for wetlands reserves and policies to the Public Works Department for evaluation of the broad implications related to water resources and drainage. 3. RELATION OF OTHER SPECIFIC PROPOSALS FOR SYSTEM 1 TO PUBLIC WORKS DEPARTMENT RESPONSIBILITIES

3.1 LUDLOW WONNERUP AREA (RED BOOK 1.1)

3.1.1 Vasse and Wonnerup Estuaries (Red Book 1.1.3)

The red book recommends :

"The Director of Fisheries and Wildlife approaches the landholders in this area to gain their voluntary agreement to manage the appropriate areas for the protection and improvement of wetland habitats".

Both these estuaries are the outlets for major drainage systems operated and maintained by the Public Works Department. The water levels in the estuaries are controlled by structures operated by the P.W.D.

RECOMMENDATION 3.1.1

The EPA recommends the formation of local advisory committees. The P.W.D. should be represented on any such committee and the proposed actions of the Director of Fisheries and Wildlife will need to proceed in close liaison with the Public Works Department.

3.2 THE BROADWATER (RED BOOK 1.2)

The red book recommends :

"The Director of Fisheries and Wildlife approaches the landholders in this area to gain their voluntary agreement to manage the appropriate areas for the protection and improvement of wetland habitats".

This area is subject to drainage by the PWD who act on behalf of the landowners in regulating the water levels in the area.

RECOMMENDATION 3.2

The EPA recommends the formation of local advisory committees. The P.W.D. should be represented on any such committee and the proposed actions of the Director of Fisheries and Wildlife will need to proceed in close liaison with the P.W.D.

3.3 LEEUIN-NATURALISTE RIDGE (RED BOOK 1.4)

The E.P.A. recommends that reserves listed in table 1.4 be declared Class A and vested in the National Parks Authority. There is no objection to the inclusion of the majority of the 33 reserves listed. However, it is noted that Gracetown, currently being investigated for reticulation, is completely surrounded by existing A Class reserves 7406 and 22673. It may be necessary to establish headworks in these reserves.

Also the Augusta T.W.S. headworks lies within reserve A 32376. A small water reserve was surveyed out of the area prior to the creation of this reserve, and our main and summit tanks are on reserve A 32376. A request to protect the headworks has been forwarded to P. & V.O.

RECOMMENDATION 3.3

It is recommended that before A Class reserves 7406, 22673 and 32376 are vested as proposed by E.P.A., that the Department of Conservation and Environment and the Public Works Department investigate the need for excisions for water supply, or the possible declaration of a joint purpose of National Parks and Water Supply.

4. RELATION OF OTHER SPECIFIC PROPOSALS FOR SYSTEM 2 TO PUBLIC WORKS DEPARTMENT RESPONSIBILITIES

4.1 SCOTT NATIONAL PARK (RED BOOK 2.1)

The recommendation and plans 2.0 and 2.1 seem to be at variance. It is not clear as to the present and proposed status of Gingilup Swamp. It is assumed that Gingilup Swamp Reserve is • proposed for incorporation in the Scott River National Park as proposed by C.T.R.C.

This reserve includes a swamp series which, in this region, represents the Scott River. Development of the land in this area already alienated will lead to increased drainage problems, and the productivity will remain well below its potential until such time as a comprehensive drainage system is developed and the river opened up. As development proceeds, it will be necessary, ultimately, to divert the upper catchment of the Scott River direct to the ocean in the vicinity of Road 1542.

The area contains Water Reserve 12457, not developed. Further investigation of the purpose of this reserve is necessary before inclusion in the park.

RECOMMENDATION 4.1

That discussion be held between the Department of Conservation and Environment and the Public Works Department to clarify status and recommend further purpose of reserves in the Gingilup Swamp area, including Water Reserve 12457.

4.2 WATER RESERVES & WATER SUPPLIES IN PROPOSED SOUTH COAST PARK (RED BOOK 2.3)

4.2.1 Water Reserves

The proposed South Coast National Park would include the following water reserves :

Reserve 26243 - Water, conservation of flora and fauna and propogating of marron. Not vested.

Reserve	26628		Water ar	nd re	ecreation	n. 1	lot vest	ed.
(Lake Jasper)								
Reserve	24080	440 ⁷ 84	Water.	Not	vested.			
Reserve	14325		Water.	Not	vested.			
Reserve	25784		Water.	Not	vested.			
Reserve	24158		Camping	and	Water.	Not	vested.	•

These reserves are mostly undeveloped and have not been specifically studied in relation to the park proposal. The recommendation of 2.1.2 of this review makes adequate provision for water resource purposes to allow these reserves to be included in the park without specific investigation.

RECOMMENDATION 4.2.1

Providing that recommendation 2.1.2 of this review "that the park be for the formally stated purpose of "National Parks and Water" is accepted, there may be no reason to specifically investigate the water reserves proposed for inclusion. However the reserves should be discussed by officers of the Public Works Department and Department of Conservation and Environment before a decision is finalised.

4.2.2 Water Supplies

The Walpole Town Water Supply main runs through the proposed park. Consideration needs to be given to excising the pipeline from the proposed park. However the precise action taken may be dependent on adoption of recommendation 2.1.2.

RECOMMENDATION 4.2.2

It is recommended that consideration be given to excising the Walpole Water Supply Main from the proposed park but that the need for this be further discussed in relation to recommendation 2.1.2 of this review.

4.3 TONE PERUP RIVER AREA

The Tone Perup area is important to the salinity of the Warren River. It is managed by the Forests Department and proposed as a "forest park". E.P.A. has recommended that if Forest Department relinquishes control that the area be vested in the W.A. Wildlife Authority. The area contains Reserve 11774, water, no improvements.

RECOMMENDATION 4.3

Any future move to re-vest the Tone Perup Area should take account of its importance to the salinity of the Warren River.

The preparation of a working plan by the Conservator of Forest should include referral cf the future status of water reserve 11774 to the Director of Engineering.

4.4 LAKE MUIR (RED BOOK 2.6)

The red book recommends, that :

"The minister for Agriculture delays any further drainage for agricultural purposes until the hydrology of the wetland complex is more fully understood".

The Public Works has no drainage proposals for the area. However it is understood that in exceptionally wet years Lake Muir overflows its saline water into the Deep River. Future development of the water resources of the Deep River could conceivably require works at Lake Muir to prevent saline overflow.

The Class C reserves :

Galamup Swamp Reserve 6549, Water, Not Vested, and
Bokarup Swamp Reserve 14739, Water, Not Vested
have not been investigated for their water supply implications
of their proposed inclusion in the Lake Muir Reserve.

RECOMMENDATION 4.4

That prior to declaring any of the Reserves listed in the Red Book within the Lake Muir complex, the Director of Engineering investigate and advise whether the purpose of vesting needs to include water supply.

4.5 TORNDIRRUP NATIONAL PARK (RED BOOK 2.10)

It should be noted that the Albany Regional Water Supply derives water supply from bores within this park and further borefield development is intended.

RECOMMENDATION 4.5

"In view of the existing water supply development for the Albany Region in this reserve, it is recommended that water be included as a purpose of vesting as well as "National Park and Recreation".

4.6 WETLANDS (RED BOOK 2.12)

4.6.1 Wetland Complex II

Recommendation 2.12 of the second red book reads :

"The E.P.A. notes that the C.T.R.C. did not make recommendations regarding Wetland Complex II and recommends that the Department of Fisheries and Wildlife, when resources for a survey are available, advise the E.P.A. as to its recommendations for these wetlands areas".

It is noteworthy that Wetlands Complex II, which is east of Albany, includes shallow underground water, swamps and perennial streams with some potential for water supply in an area which Government has recognised some difficulty, particularly in relation to agricultural supplies. In view of this and the general recommendation in 2.3.2 of this review, it is suggested that a Department of Fisheries and Fauna survey tabled with the EPA will not be sufficient for a fully considered decision.

RECOMMENDATION 4.6

It is recommended that in relation to Wetlands Complex II a stipulation is added to the EPA recommendation 2.12 to the effect that :

"The Department of Fisheries and Wildlife should liaise with the Public Works Department in this survey and any subsequent proposal by EPA should report the implications with respect to future water resource utilization and should be referred to the Director of Engineering for evaluation in this respect".

4.7 KENT AND DENMARK RIVER CATCHMENTS (RED BOOK 2.15)

These reserves, 29660, Kent River and 24660 are not vested. The catchments are defined on Lands and Surveys miscellaneous plans 426 and 181, comprising Locs 1840, 4227 and 4224 (reserve 29660) and Locs 6890, 2267 and 2133 (reserve 24660).

The primary purpose of these reserves is to protect the rivers from salinity rise through clearing. This purpose is compatible with conservation and management by Forest Department is appropriate.

It is noted that the red book has omitted reference to Reserve 24660.

RECOMMENDATION

That further consideration be given to the status of Kent and Denmark catchment reserves and the possible vesting all vacant Crown Land in the Minister for Works and Water Supplies.

That consideration be given to the establishment of a State Forest on the Kent and Denmark catchment reserves. That discussions be held between the Director of Engineering and the Conservator of Forests with a view to the Forests Department taking over the management of these catchments in such a manner that it will enable the Public Works Department to discharge its responsibilities as a water supply authority. 5. RELATION OF SYSTEM 3 TO PUBLIC WORKS DEPARTMENT RESPONSIBILITIES

5.1 SYSTEM 3

The proposed reserves within this System have a high degree of association with water resources. Development of some of these water resources will be essential for the region and it is therefore necessary that they be suitably protected.

RECOMMENDATION 5.1

That all water be included as a purpose of vesting in all reserves in System 3.

6. RELATION OF SYSTEM 5 TO PUBLIC WORKS DEPARTMENT RESPONSIBILITIES

6.1 SYSTEM 5

In System 5 the existing National Parks and proposed reserves are widespread over an area which has limited water resources. It is likely that future water development will be required in some of these reserves and therefore options must be kept open for future water development.

RECOMMENDATION 6.1

That water be included as a purpose of vesting in all reserves in System 5.

7. COMMENTS ON REVIEW & DECISION PROCESSES

7.1 INTRODUCTION

The CTRC report and its sequels are important and relatively unique in West Australian administrative experience related to land use. The reports cover a wide area and their implications are complex and far reaching.

The task has been a mammoth one and it would be easy in the circumstances for progress to have stalled in a sea of detail. The E.P.A. has done a good job in maintaining progress and achieving a degree of public involvement in a question of public importance. However it is inevitable that such innovative action will encounter problems and may require procedures to adapt, particularly when the more complex issues such as System 6 still lie ahead.

The difficulties encountered by the Public Works Department in responding to the CTR reports, particularly this latest red book, form the basis for the following discussion on procedural adaptations for System 6 etc.

7.2 IMPLICATIONS FOR OTHER COMMUNITY OBJECTIVES

It is important that such far reaching proposals are developed with an appreciation of the implications for other community interests.

The C.T.R. reports have followed an approach of circulating proposals, relying on other sectoral groups to recognise the implications in relation to their interests and give feed back to the EPA for its judgement. From this process the EPA has submitted to Cabinet Red Books as action documents in which Cabinet has been asked to approve EPA recommendations with the issues of the implications to other sectors being covered by the E.P.A. endorsement :- "We consider they are responsible recommendations and their prompt acceptance by the government is hereby recommended".

This procedure was effective in achieving quick adoption of the first red book and in minimising the resources committed to what was clearly an awesome undertaking. However hindsight reveals some difficulties as indicated in earlier sections of this review and which may be expected to be greater in System 6.

The type of procedure adopted for the CTR exercise has been challenged by the environmental ethic over the past decade where applied to planning of development projects and is becoming replaced by the environmental review (impact) principle of planning. This principle lays the responsibility with the proponent to INVESTIGATE and DECLARE these implications in order to ensure that government can appreciate the full significance of decisions.

RECOMMENDATION

It is suggested that the principle of INVESTIGATING and DECLARING the implications for other community interests is increasingly relevant to Conservation Through Reserves procedures as they move to more complex issues such as System 6.

7.3 DRAFT DOCUMENTS TO PRECE DE ACTION DOCUMENTS

In view of the increasing complexity of issues in the current red book and System 6 it is to be anticipated that Ministers and their Departments may wish to propose important alterations to the EPA recommendations. The current red book which seeks "prompt acceptance by the government" places intense pressure on review processes and tends to encourage decision stopping reaction for fear of unrecognised problems.

It is realistic to suggest that a deliberate "draft red book" should be produced by EPA, pointing out recognised implications for other sectors and allowing time for thorough review before an action document is put forward.

RECOMMENDATION

That a draft "red book" discussing wider implications is produced by EPA for thorough review by various Ministers and their Departments before an action document is submitted to Cabinet.

7.4 LIAISON DURING INVESTIGATION

With hindsight there has been insufficient liaison during the evolution of the C.T.R. programme leading to the second red book. System 6 is a region with major water resource problems and the Public Works would be very concerned by proposals which severely foreclose on future water management options in that region.

There is a need for greater liaison between the Director of Conservation and Environment and the Director of Engineering during study of System 6. Alternative conservation proposals need to be considered in relation to framework planning of water resources.

RECOMMENDATION

That steps be taken to ensure that Conservation Through Reserve proposals develop as a study of alternatives in collaboration with framework planning of water resources being undertaken under the responsibilities of the Minister for Works.