

DISSENTING REPORT

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CHAPTER ONE

INTRODUCTION

PARAGRAPH 7 - ADDITION

The deleterious effects of (white) contact with the Aboriginal population referred to were the contractions of diseases from them to which Aborigines were susceptible and to which they had no natural immunity.

PARAGRAPH 6 - ADDITION

Refer to our dissenting paragraph 42 in Chapter Six.

PARAGRAPH 8 - ADDITION

The decline in numbers of Aborigines living and working on the Gimbat Pastoral Lease during the 1960s and 1970s was symptomatic of the dramatic Australia-wide decline of Aborigines working in the pastoral industry, induced by changed wages and conditions within the industry.

It would be deficient not to recognize also the on-going attraction which white communities held for Aborigines and the movement towards them which continued to take place.

It is in our view, misleading, to imply that the fact that there were no Aborigines at Gimbat Pastoral Lease in 1979 had anything to do with mining in the 1950s.

PARAGRAPH 13 - ADDITION

As outlined in paragraphs 58 and 59, Chapter Three, four States and the Northern Territory provide for mining or petroleum extraction within national parks under certain legislative procedures.

Both Western Australia and the Northern Territory, in their submissions to the Committee, advocated a policy of multiple land use for the Kakadu Region.

CHAPTER 2

TOURISM

PARAGRAPH 1 - ADDITION

As the majority report reveals in paragraph 40, according to the Northern Territory Tourist Commission, 33 per cent of tourists express regret and disappointment that they did not have contact with Aborigines in the Territory. The 1984 Tourist Development Priorities Plan found that most segments of the tourist market were expecting more contact with Aboriginal lifestyle and culture. On the other hand, a travel survey conducted in 1982 found that only one per cent of those interviewed, which included overseas, interstate and local visitors, were specially attracted to the Northern Territory to see Aborigines or Aboriginal paintings. This group expressed virtually no interest in Aboriginal culture.

PARAGRAPH 2 - DISSENT

One of the most notable features of the Kakadu National Park is the great variety, in a relatively small area, of land forms, vegetation and animal life. Each of the main subregions, the plateau, lowlands, flood plains and tidal flats, ... is quite unlike the others, and there is considerable variation within them. The climate increases the diversity - large areas, most notably the flood plains and lowlands, take on a quite different appearance when the wet season follows the months without rain.¹

This variety is further contrasted by areas of great natural beauty and thousands of hectares of monotonous scenery of a type common to vast areas of Northern Australia.

THE PLATEAU

This is a massive sandstone formation, nearly 2,000 years old. It once covered a much larger area but erosion over the millennia has caused its escarpment to retreat gradually in a south-easterly direction to its present position, leaving some outliers.

Much of the plateau is made up of bare rock or thin soils with a scanty cover of spinifex and shrubs. There are also areas of deep sandy soil supporting tall forests of eucalypts, and rugged areas in which grows an interesting type of rain forest, thought to be a relic of a past climatic era.²

The plateau contains some spectacularly scenic areas, with rock pools, deep gorges and waterfalls. Many of its sandstone cliffs and caves have been used by Aborigines as galleries for their paintings.

THE LOWLANDS

The retreat of the plateau with erosion uncovered some ancient rock formations which now outcrop or underlie the soils of much of the lowlands. The major uranium deposits so far discovered in the Region are associated with two of these, known as the Koolpin and Cahill (or Koolpin Equivalent) Formations The present land surface has been formed by erosion, deposition of eroded materials and other processes including widespread leaching to form laterite.

The lowlands are somewhat monotonous scenically. Most parts are undulating and there are low hills and ridges. Most of the soils are sandy or loamy, and are highly susceptible to erosion if disturbed. A few have a cover of gravel or rocks which protects them from erosion. The lowland vegetation is mostly open eucalypt forest or woodland, or scrub. Tall grasses, reaching heights of two metres or more in the wet season, are the main ground cover over large areas. Fire passes through much of the lowlands each dry season and most of the vegetation is adapted to regular burning.

THE FLOOD PLAINS

These were probably formed by material deposited in river estuaries which then emerged from the water as a result of a rise in the land surface or a drop in sea level. Heavy clay covers most of these plains and deep cracks form when it dries out after the floods retreat.

Small variations in surface height result in considerable variety in the flood plain vegetation. The highest parts, flooded for shorter periods each year than lower areas, are covered with sedges and grasses. The lowest parts, most of which are at the edges of the plains, are permanently inundated. Many support paperbark forest. Between these two are swampy areas where a variety of aquatic plants, including sedges, reeds, waterlilies, large and small algae, wild rice and other grasses, grow profusely in the wet season.

The flood plains have much more scenic value in both the wet and dry seasons. In the wet season the vast expanses of water and the lush growth and variety of the vegetation are notable features. In the dry season vast numbers of birds congregate around the remaining wet areas. More than 120 species, mostly water, sea and wading birds, have been recorded.

THE TIDAL FLATS

These consist of marine clays and muds and some low beach ridges with coarse sandy soils. Most parts are regularly inundated by sea water. Their vegetation is mostly sedge and salt-tolerant, fleshy samphire, but there are also areas of mangroves and a rare and interesting type of semi-deciduous forest grows in some parts which are not inundated.³

PARAGRAPH 4 - ADDITION

Some species are very rare. Many are found only in Northern Australia and some only in Arnhem Land. Few species, if any, are restricted to the Region but some subspecies or forms may be.

PARAGRAPH 8 - DISSENT

We do not share the view of the majority report that the plant life throughout the region has considerable scenic value. While indeed the water-lilies on the flood plains, referred to in the majority report, are beautiful, many thousands of hectares of the lowlands, for instance, are, as described in our dissenting paragraph 2, 'monotonous scenically'.

The main vegetation communities in the region were set out in the Ranger Uranium Environmental Inquiry Second Report, 1977 AGPS, Table 5, page 52 as follows:

The Main Vegetation Communities in the Region

- Plateau Sandstone scrub - mixed, with many legumes and myrtaceous species.
Sandstone woodland - eucalypt woodland with sandstone scrub understorey.
Sandstone rain forest - dominated by a newly recorded myrtaceous tree species, but often mixed with other non-eucalypts. Occupies a total of about 500 square kilometres in patches. Thought to be a relic community.
- Lowlands Woodlands - variable, mostly but not always eucalypt dominant, mixed, open or dwarf; tall grasses and scattered shrubs.
Tall open forests - mostly eucalypt dominant, but with small areas of mixed open forest dominated by non-eucalypts; tall grasses, scattered shrubs and low trees.
Savannah and grasslands - eucalypts, with irregular patches of non-eucalypt trees and areas of annual or perennial grasses.
Mixed scrub - mostly non-eucalypt, pandanus scrub and leguminous-myrtaceous scrub.
- Flood Plain Sedgeland - dominated by a number of sedge species with varying proportions of grass.
Herbaceous swamp vegetation - numerous aquatic herbaceous and grass species, unstable and in patchy mixtures according to flood depth etc, susceptible to buffalo damage.
Paperbark forest - occurs in depressions and along lowland freshwater river channels. Patchy and fragmented.

Tidal Flats Mangrove scrub - extends as scattered occurrences along the coast and for short distances up East Alligator River, Cooper Creek and South Alligator River, West Alligator River and Wildman River. Samphire (fleshy, salt-tolerant plants) - with sedges and grasses, occupying flats along the coast and parts of the estuaries.

Streams and water bodies Mixed communities along stream channels - various assemblages of species, particularly luxuriant and important ecologically near springs and streams emerging from the escarpment, notably along Baroalba Creek.

PARAGRAPH 41 - DISSENT

While, of course, it is recognised that Aborigines are not scattered evenly throughout the Park and that, by and large, they live in a number of communities, it ought to be remembered that there are only 277 Aborigines living in a vast region of 19 804 square kilometres (1 980 400 hectares), being 71.49 square kilometers (7149 hectares) for each adult Aborigine living in the Park.

Notwithstanding an increase in annual tourism of 147 500 people between 1981/82 and 1987, representatives of the Department of Aboriginal Affairs indicated that they were satisfied with the current arrangements which, in their view, assisted Aboriginal people in establishing the sort of lifestyle they want in particular locations within the region.⁴

Provision is made for the ANPWS to restrict entry to certain land to protect the privacy of Aboriginal communities and to prevent public access to other designated areas. Road access to Aboriginal living areas is limited to persons having business there and to those invited by residents.⁵ Several locations of particular importance to Aboriginal residents, such as burial grounds and ceremonial areas, have also been the subject of formal closures.⁶

Evidence by the Australian Conservation Foundation (ACF)⁷ spoke of the Aborigines' very real fears of widespread tourism and argued that Aboriginal traditional owners fear a rapidly expanding tourist industry more than mining because of tourism's 'permanent' and growing scale.

We are unable to find evidence of that fear and it is contrary to information gathered by us from the Gagudju Association which makes up the majority of the Aboriginal population within the Park.

The ACF's evidence also stands in contrast to the Gagudju Association's purchase of the Coinda Motel and its recent construction of a large motel in Jabiru, both built to accommodate growing tourist numbers.

PARAGRAPH 47 - DISSENT

Refer to our dissenting paragraph 18 in Chapter Seven.

PARAGRAPH 51 - ADDITION

Add to recommendation

- (ia) That the ANPWS, as an on-going program, demonstrate due diligence and commitment to the opening up of further archaeological and art sites.

PARAGRAPH 53 - ADDITION

The growing traffic of various Commonwealth and Territory Departmental 4-wheel drive vehicles travelling both on and off made - roads provides an increasing risk of weed dispersal.

PARAGRAPH 67 - DISSENT

To express a sympathy with the views expressed by the ACF and Dr J. Baker of the World Wildlife Fund of Australia is to embrace a philosophy of Park use to which we do not subscribe.

It is not our view that recreational fishing ought to be banned from the Kakadu National Park for reasons other than the risk to fish stocks within the Park and the depletion of fish schools available for passive viewing by Park visitors.

Clearly, the present ANPWS decision to close certain areas has been made without adequate research and information.

Recommendation

That ANPWS should, as a matter of urgency, carry out a study of the fish populations of the Park with a view to determining the impact on them of various levels of recreational fishing. If, in order to complete the study, it is absolutely necessary to close areas of the Park to fishing, this should be done.

PARAGRAPH 68 - ADDITION

The ANPWS can mitigate against the risk of fires by ensuring that adequate and suitable fireplaces are provided.

PARAGRAPH 69 - ADDITION

As has been observed with rock art, increasing numbers of visitors to the Park are, in part, a safeguard against unobserved vandalism and the presence of other tourists tends to discourage such acts.

PARAGRAPH 71 - ADDITION

We do not support the ACF's approach of indiscriminately seeking to declare large sections as wilderness areas. We are not able, at this time, to judge whether the current boundaries and zones are appropriate, however, we are of the view that, wherever possible, Australia's environment ought to be available for all Australians, not just healthy hikers.

PARAGRAPH 74 - ADDITION

We assume the mining industry is not arguing for mining within the Park if the negative impacts of tourism are to be accepted, but rather, that the mining industry's comments were intended to encourage the injection of some intellectual rigour into the debate in light of strong opposition in some quarters to mining but no corresponding comment on tourism.

PARAGRAPH 85 - DISSENT

We oppose, in isolation, the introduction of fees at Kakadu National Park. We support, as a general rule, the user pays principle, however, we understand the Committee's recommendation for user fees to be a mechanism of controlling Park visitor numbers.

We are not of the view that there is an over-crowding of the Park, but we judge there to be a significant lack of adequate and appropriate facilities and infrastructure to accommodate the needs and comfort of Park visitors which ought to, as a matter of urgency, be rectified. For instance, there is no sensible explanation for there being no second caravan park in the Coinda/Yellow Waters area.

Clearly, the majority report is of the view that present visitor numbers must be controlled so as to 'help ensure as many people as possible are able to see the Park without overloading the facilities that are available'. That is, presumably, an acceptance that present facilities are adequate. We do not support that view.

Recommendation

That ANPWS, as a matter of urgency, upgrades the infrastructure presently available within the Park to provide at least for current Park visitor numbers, and promptly acts to put into place the Committee's recommendation of paragraph 91.

1. Ranger Uranium Environmental Enquiry, second report AGPS, p. 49.
2. Ranger Uranium Environmental Enquiry, Second Report AGPS, p. 49.
3. Ranger Uranium Environmental Enquiry, Second REport, 1977, AGPS, pp. 49-50.
4. Majority report, Chapter 2, paragraph 36.
5. Majority report, Chapter 2, paragraph 36.
6. Majority report, Chapter 2, paragraph 36.
7. Majority report, Chapter 2, paragraph 38.

CHAPTER THREE

MINERAL RESOURCES

PARAGRAPH 14 - ADDITION

During 1974 Geopeko pegged approximately 400 mineral leases in an area now contained within the boundaries of Kakadu National Park, Stage 2. Fourteen of these leases which did not designate uranium as a mineral being sought were approved in October/November, 1974.

In February, 1978 the Administrator of the Northern Territory was requested by the then Prime Minister, Malcolm Fraser, not to approve further leases pending the resolution of Aboriginal interests and the future Park's status.

On 24th April, 1978 Mr Fraser said:

[t]he Government introduced amending legislation into the Parliament on 10th April, 1978 which will provide a legislative basis for exploration, development and mining activities in the Stage II Area.

No part of the Stage II area will be incorporated into the Kakadu National Park until the mineral potential of that area has been assessed.

The question of excision of any potential mining areas from that area to be later declared as part of the Kakadu National Park is not so urgent as to require an early decision, but will be considered at such time as the mineral resources of the area have been assessed and declaration as part of the Kakadu National Park is imminent ...

On 5 April, 1979, Stage 1 of Kakadu National Park was proclaimed as a Park pursuant to the National Parks and Wildlife Conservation Act 1975. On 2 April 1980 a plan of management came into operation for the period until 31 December 1985. Under Clause 56 it set out a comprehensive description of mining operations for the recovery of

minerals as was required of plans of management under the Act.¹

Senator John Carrick, then Minister for National Development and Energy, stated on 4 June 1981, inter alia:

[w]ith respect to the Stage II area, the Government announced that the area would be proclaimed at a later time, but beforehand exploration would be permitted under strictly controlled conditions. Prior to incorporating the area in the Kakadu National Park, the Government will declare the area as a conservation zone, and a tightly controlled exploration programme under the Commonwealth's supervision will be allowed to proceed to identify the resources of the area, and to enable appropriate action to be taken.

Between 1974 and 1983 successive Federal Governments requested Geopeko to refrain from active exploration upon its leases until the same issues about which Mr Fraser wrote to the Northern Territory Administrator were resolved.

Stage 2 of Kakadu National Park was proclaimed on 28 February 1984 by which time ten years had passed since the granting of Geopeko's leases and, to this time, they had been prevented from either properly exploring or mining upon them. Geopeko had effectively been subject to a ten year moratorium.

On 20 February 1985, the declaration of Stage 2 was revoked and the area was proclaimed an extension of Stage 1.

In March of 1986 Mr Cohen, the then Minister for Arts, Heritage and Environment, proposed to the Prime Minister that Kakadu Stage 2 be submitted for World Heritage listing. This prompted the Department of Resources and Energy to write to the Minister, Senator Evans, on 13 June 1986:

BMR view the Kakadu region as probably the least explored of the world's great mineral provinces and ranking as one of the regions of highest potential for further significant discoveries with only moderate exploration effort.

On 15 May, Geopeko, amongst other mining companies, wrote to Senator Evans expressing a view that the plan of management should include provisions for mining similar to those contained in the first plan of management. The Company's concern was raised by a discussion paper for the plan dated 21 February 1986, which made no provision for mining operations.

On 11 June 1986, the draft plan of management to replace the first plan of management and which covered Stages 1 and 2, was referred for public comment.

On 18 July, the Department of Resources and Energy had written to the Director of ANPWS expressing concern that there had not been suitable or appropriate consultation with either the Northern Territory Government or the Department of Resources and Energy. The Department expressed the view that the Commonwealth should demonstrate the merits of a balanced multiple land use policy in meeting what are often viewed as competing interests in areas of conservation significance.

The Department went on to say it believed the plan, as proposed, failed to take advantage of this opportunity and stated that the BMR had identified the Kakadu Region as one of the most promising areas of mineralisation in the world. There was no recognition of this in the plan, nor any discussion or attempt to resolve the land management questions involved:

[w]e believe the approach adopted at pages 112 and 113 of the plan dealing with operations for the recovery of minerals is superficial in its discussion of this issue and that, by adopting a combatant position, it is unlikely to lead to any successful long term resolution of these undoubtedly difficult issues.

In this context we have difficulty rationalising the key management objective spelt out at page 26 to develop an inventory of all renewable and non-renewable resources in the Park (an objective with which we are in strong agreement) with an

approach intended to prevent prospecting and exploration. We believe development of a resource inventory is an important objective in helping to resolve the land use conflicts ...

The Department concluded by saying:

the plan should at least keep open the options for mineral exploration and development in the park. In our view, provisions similar to those in the first Plan would be adequate for this purpose and we would wish to see these reinstated.

On 8 September 1986, Senator Evans wrote to Geopeko:

[m]y Department has provided comments on the proposed Plan to the Director, National Parks and Wildlife which seek inclusion in the Plan of provisions for operations for the recovery of minerals similar to those in the first plan. Such an approach is necessary to give effect to the Plan's key management objective of developing an inventory of all renewable and non-renewable resources in the Park.

You can be assured that I am following this issue carefully with the long term objective of establishing a multiple land use policy for the region which balances the interests of the mining industry with those of other land users.

On 16 September 1986, Mr Barry Cohen, when writing to Mr Coulter, the then Northern Territory Minister for Mines and Energy, in referring to the incorporation of Stage 2 into Kakadu National Park, said, inter alia:

[a]malgamation of the two areas simply provided administrative advantages, allowing the whole park to be operated under the name 'Kakadu National Park' and under one plan of management.... Conditions applying to any operations for the recovery of minerals were unchanged by the amalgamation of the two areas.

This statement was made recognising the first plan of management provided under Clause 56, as described earlier, a comprehensive description of mining operations for the recovery of minerals.

However, on the very same day Mr Cohen and Senator Evans issued a joint statement announcing that:

[t]he revised terms of the Plan of Management for Stages 1 and 11 to be submitted to Parliament will be along the lines of the draft Plan publicly circulated by the Director of Australian National Parks and Wildlife Service. The provisions in question differ from the previous Plan, now expired, which enabled exploration and mining to take place outside the pre-existing leases with the approval of the Governor General.

The statement confirmed that immediate steps would be taken to nominate Stage 2 of the Park for inclusion in the World Heritage List. The Gimbat and Goodparla pastoral leases were to be included in the Park and the further extension of the Park would be subject to arrangements which would ensure that a full assessment of the resource potential of the area would take place.

The logic given for excluding Stage 2 from mining and including Stage 3 was that Stage 2 was highly prospective for uranium mining, which the Government intended not to allow but Stage 3 was highly prospective for other minerals for which the Government would allow mining.

This claim was made notwithstanding Geopeko's letter to Senator Evans of 5 May which said, inter alia:

[t]here have been ore-grade intersections at Ranger 4, Ranger 68 and Ranger 34; the last is a copper-silver prospect deserving of substantial exploration.

These are located in Stage 2.

In the same correspondence to Mr Barry Coulter, Mr Cohen stated, in relation to the possible inclusion of Kakadu Stage 2 on the World heritage List, that:

procedures for nominating possible future Australian sites for World Heritage Listing were agreed at the July, 1984 meeting of the Council of Nature Conservation Ministers (CONCOM) and included, inter alia, a commitment by the Commonwealth to full consultation with State and Territory governments. Should the Commonwealth decide to pursue World Heritage Listing of the former Stage II area, your

Government will be consulted in accordance with the CONCOM Agreement prior to any approach being made to the World Heritage Secretariat in Paris.

As noted in this Chapter, on the same day (16 September) Mr Cohen, in conjunction with Senator Evans, announced that the Government also agreed that immediate steps should be taken to nominate Stage 2 of the Park for inclusion on the World Heritage List. Mr Coulter received his correspondence from Mr Cohen assuring him of consultation on 19 September.

The new plan, which was proclaimed on 14 November 1986, varied significantly from the first in as much as it did not set out a prescription for mining but simply referred to part of section 8B and section 10(2) of The National Parks and Wildlife Conservation Act 1975. No provision was made for mineral exploration outside pre-existing claims and mining upon them was subject to approval by the Governor-General in accordance with the plan of management relating to that Park or reserve - an approval which would not, of course, be forthcoming given Mr Hawke's letter of 12 November.

The plan was clearly designed to not only prohibit future new exploration but to minimize the impact of current exploration upon the Park.

Inasmuch as companies such as Geopeko had made application for mining leases some years earlier under the 1939 Commonwealth ordinances and, then, subsequent to Northern Territory self-government in 1978, applied for these claims as areas under the 1980 Northern Territory Mining Act, they assumed these were allowable mining in the new plan of management.

The first indication that both these lease applications, and the leases already granted some 12 years earlier, were to be, for all intentions and purposes, expropriated, was on 12 November 1986 when the Prime Minister wrote to Gerpeko stating:

I should make it clear that the Government will not

allow mining of any sort in the areas comprising Stages 1 and 2 of Kakadu National park. Nor will the Government permit any new mineral exploration in those areas. You will be aware that the Government has decided to proceed with the listing of Stage 2 under the World Heritage Convention.

While I recognise that Geopeko has a number of pre-existing mineral leases within Stage 2 that are protected under the National Parks and Wildlife Conservation Act, I reaffirm that no mineral exploration will be permitted outside these areas and that the Government will not countenance any mining in Stages 1 and 2 ...

The nonsense of this letter is that Mr Hawke was saying exploration could take place only on the pre-existing mineral leases but, even then, mining would not be allowed to proceed. What point is exploration if it is not to be followed by mining?

On 20 November, Geopeko sought an injunction in the Federal Court against the World Heritage Listing.

The Government appealed to the High Court which upheld the Federal Court injunction.

In response, next day the Federal Government introduced the National Parks and Wildlife Amendment Bill which prohibited exploration and mining within Stages 1 and 2 including that upon pre-existing mineral leases. In the case of Geopeko it affected leases that had been granted twelve years earlier and about which successive ministers had given continuing assurances. The latest being from Mr Cohen less than two months before the Prime Minister's statement of 14 November.

The legislation expressly provided that compensation would not be paid to the owners of the affected mining leases and applications.

The legislation was passed in March 1987.

Running parallel to this situation, Geopeko applied in 1971

for mining tenements which straddled the contiguous boundaries of Stages 1 and 2. The Government asked that these applications be withdrawn and that they be re-applied for under the new proposed Northern Territory Parks Act.

Dr Rex Patterson, then Minister for the Northern Territory, wrote in the following terms on 21 December 1975:

I refer to your applications for renewal of Exploration Licences Nos 219 and 220. These applications relate to areas that extend into the area proposed as a national park in the Alligator Rivers region.

It is the intention of the Government, at the February 1974 sittings of the Northern Territory Legislative Council, to introduce new legislation providing for the creation of national parks in the Northern Territory, and for the issue of rights under that legislation to allow prospecting to be carried out within those national parks under suitable conditions.

I am authorised by the Government to assure you that, if your applications for renewal of licences are approved only in respect of areas outside the boundary of the proposed park, you will, upon commencement of the new legislation, be issued with fresh licences under that legislation in respect of the areas within the park boundary to which your current renewal applications relate.

Please be assured that my officers will be available to discuss any matter of concern to you.

The legislation referred to was never introduced and the tenements withdrawn in good faith at the request of the Government, were lost.

We have set out the history and sequence of events and their nuances in some considerable detail, first so that they may be properly understood and second in the hope that something may be learnt from them.

It is stark evidence of twelve years of Government mismanagement, broken commitments and ultimately arrogant disregard not only for the rights of property ownership but for the recognition of and respect for its own legislation.

Ultimately a World Heritage Listing for an Australian Park was paramount to Australian property ownership within the Park.

If Australia is to attract high levels of either domestic or foreign capital in a high risk industry such as natural resource development, it has to demonstrate that its laws and regulatory processes are based upon the fundamental principles of certainty and consistency; that laws will be enacted prospectively not retrospectively.

The essential criteria necessary, without which foreign investment will not be attracted, are a stable political system a predictable legal system and a reliable economy.

Conduct of the type demonstrated in Kakadu is not reassuring to investors looking for certainty and reliability.

The natural resources abundant in Australia are not unique and if we are to maintain our attraction to investors it will be with the stability and certainty that we have offered in the past.

The effect of twelve years of policy failure in the Kakadu region has meant the loss to Australia of many billions of dollars which has variously been estimated at between \$35 billion and \$70 billion. The Northern Territory Government in their submission stated:

[t]he submission by the mining companies on how much national wealth has already been lost should be sobering. We believe that the figure is over \$700 million at Koongarra alone.²

MIM in its submission, when referring to the Kakadu region stated:

[m]oreover if the development of the mines discovered as a result of this exploration was approved, export earnings around \$1,000 million annually would not be an unrealistic expectation. These figures are based on uranium developments only and take no account of

possible gold, base metal or other developments which would improve the position even further.³

In relation to the estimated value of minerals within the Park, the submission by the Department of Resources and Energy stated:

[t]he success rate in the very short period during which Kakadu was open to explorers was staggering and probably represents the lowest cost per tonne of ore found in the history of exploration in Australia, at least in modern decades.⁴

Referring to Pancontinental Mining's estimate of the gross value of the minerals at Jabiluka, including gold, to be in excess of \$20,000 million, the Department stated:

[a]dditionally, knowledge of the gold resource in the Jabiluka orebody is incomplete. Some 11 tonnes of contained gold are indicated, but the total amount could be significantly higher. A preliminary resource estimate for gold at Coronation Hill is of the same order of magnitude to that at Jabiluka. Again the ultimate resource could be several times greater.⁵

Other mineral commodities which are known to occur in Kakadu and of which knowledge is poor include copper, lead, zinc, silver, nickel, cobalt, tin, tungsten, iron.

The discovery of the gold-platinoid-uranium association at Coronation Hill in the South Alligator Valley provides an entirely new exploration perspective.

On present knowledge, the inground uranium value of Ranger, Jabiluka and Koongarra is in the order of \$34 billion (1 billion = 10^9). It is entirely feasible to predict that twice this amount of economically extractable uranium is undiscovered in Kakadu.

Additionally, the ore reserve at the known deposits are not completely blocked out and potential for considerable additions exists. A total estimate of million tonnes of contained U_3O_8 in ore is not unrealistic. At current exchange rates this represents \$100 billion of in-ground value.

A reasonable estimate of the loss of export earnings through delays to development of the known uranium resources within Kakadu is \$5 billion.⁶

However, as the preceding paragraphs demonstrate, successive commitments to a proper inventory of resources in the region

have not been fulfilled.

Present Government policy of no exploration within Stages 1 and 2 together with two thirds of Stage 3 excludes an inventory and future Government decisions will dictate to what extent a full inventory is undertaken within the Conservation Zone of Stage 3.

It is simply not possible for informed and objective debate to be conducted when the extent of competing considerations is not available.

If it were possible to demonstrate that the rewards for resource development within the Kakadu region were by any measure very poor and the effect of their exploitation would lead to large scale irreparable damage to the Park, then a proper case could be made out to exclude such activities. However, if it could be shown that, with proper management, resource development would produce wealth for Australia with little or no damage to the environment, then a compelling argument is to be had for such exploitation. The current Government policy excludes such determinations in all but the Conservation Zone.

Judgments upon the type and size of development of Australia's resources must of necessity be skewed with so many factors unknown.

It is quite irresponsible and improper for any Government to attempt to develop policy on mining, tourism or any other land use without having assembled the relevant and imperative information. However, what can be asked is whether Australia can afford to forgo many billions of dollars of natural wealth because that wealth is located in an area around which a national park has been declared.

PARAGRAPH 49 - DISSENT

We recommend that permission be given for the Jabiluka and Koongarra mines to go into production. To put aside a recommendation would be to fail in many respects to address the central questions which the Senate directed the Standing Committee on National Resources and, subsequently, the Environment, Recreation and The Arts Committee to consider and report upon:

- (a) the nature of the resources available for exploitation; and
- (b) the impact of utilisation of these resources, particularly mining and tourism.

Many of the submissions and much of the evidence has been directed towards such a determination.

In discussing the issue the majority report states:

the Committee believes that any decision made by the Government to allow mining should, as a necessary but not sufficient condition, require the companies involved to meet stringent guidelines.⁷

To the extent that the Committee lists criteria for approval, they have, without exception, been met or are capable of quickly being met by both projects.

At an earlier point in its deliberations, when contemplating the same issue, the majority report states, [a] wide range of matters would need to be considered in making such recommendations.'⁸ However, it then fails to specify a conclusive list of matters.

To fail to make a definitive decision on such a critical issue on the basis that it ought to be left for the Government to decide upon, is in our view for the Committee

to fulfil less than its charge.

Presumably the Senate, in charging the Committee with its relevant terms of reference, intended that such deliberations and determinations be addressed in an environment stripped of Government considerations.

It is not without significance to note that both projects were deliberately excluded from Kakadu National Park and, as the majority report confirms in respect to Koongarra:

[a]n environmental impact statement for the project was prepared in 1979 and in February 1981 the Minister advised that there were no environmental objections to approval being given for the project.⁹

The Company was able, in the words of the majority report, to confirm that:

[f]ollowing the preparation of the environment impact statement for the project, it had been informed in September 1981 that the then Minister for Environment, Housing and Community Development had advised that there was no environmental objections to approval being given to the project. Environmental requirements for the project have been endorsed by the Commonwealth, the Northern Territory, the Northern Land Council and the Company. Draft applications filed in 1982 and 1983 under the Uranium Mining (Environment Control) Act 1978 to mine and construct a uranium mill facility were approved, among others, by the Commonwealth Departments of Environment, ANWPS, the Australian Radiation Laboratory, the Office of the Supervising Scientist, the Northern Land Council and the Northern Territory Conservation Commission.¹⁰

Total government revenue from sources directly connected to the project is estimated at \$175 million. Payment to Aboriginal interests will amount to \$256 million.¹¹

The status of the Jabiluka project is as follows:

All conditions and requirements of the Federal and Northern Territory Governments have been met. An agreement has been entered into with the Northern Land Council and approved by

the Minister for Aboriginal Affairs. A mineral lease was issued by the Northern Territory Government on 12 August 1982 on the advice of the then Minister for Resources and Energy administering section 41 of the Atomic Energy Act (Cth).

The following payments have, or will be, paid to the Aboriginal community:

FINANCIAL IMPLICATIONS (ESTIMATES) FOR A PROJECT TO PRODUCE 1500 TONNES U3O8 PLUS 25000 - 30000 OZ'S OF GOLD PER ANNUM

PAYMENTS TO ABORIGINES

\$A millions

Initial Investment

Cash payments to Northern Lands Council during construction (in addition to \$1.8 million already paid)	8.2
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Recurrent Payments to Aboriginal Organisations and Groups

Aboriginal Benefit Trust Account	2.8 p.a.
Northern Land Council Royalty type payment	2.0 p.a.
Total Recurrent to Aboriginal Community	4.8 p.a.

From the early 1970s until Prime Minister Hawke's statement of 14 November 1986 that mining would not be allowed in either Stages 1 or 2, the public policy of successive Governments had been to obtain a full resource inventory and to allow mining in all stages of the Park. From 1980 mining was to be subject to appropriate conditions as set down in the first plan of management and reconfirmed by the Minister for Arts, Heritage and Environment as late as 16 September 1986.

On the basis of the wide range of submissions presented to the Committee and the many witnesses who appeared before it, there was no evidence submitted which offered intellectually or technically compelling reasons for further delays in the granting of approval for the Koongarra or Jabiluka projects.

Recommendation

We recommend that mining at Koongarra and Jabiluka be approved immediately.

PARAGRAPHS 59 & 60 - DISSENT

New South Wales, Queensland, Western Australia, Tasmania and the Northern Territory all allow mining or petroleum extraction within national parks under certain legislative procedures.

It is not our view that exploration and mining are activities which are intrinsically or necessarily difficult to reconcile with the concept of a national park.

With respect to the Kakadu National Park, the Commonwealth Government overcame the problem by simply deleting Ranger and Koongarra from Stage 1 of the Park, deleting Jabiluka from Stage 2 of the Park and deleting a 2252 square kilometre Conservation Zone which contains BHP's Coronation Hill project, from Stage 3.

The Conservation Zone represents one-third of proposed Stage 3 (33.48 per cent).

Ranger, Koongarra, Jabiluka and Coronation Hill all contain proven ore bodies and the Conservation Zone is identified as offering excellent prospects for further major ore bodies.

The decision to exclude these areas from the Park was based not on their aesthetic, environmental or ecological merit but purely on the known real or potential mineral and metal value contained within them. These areas have no less outstanding cultural and ecological value than the areas immediately adjacent to them which have been included in the Park.

This point is highlighted by the fact that the Commonwealth Government proposes following the five year exploration period for the Conservation Zone, in which areas may be set aside for mining projects, wherever they may be, to incorporate the balance of the Zone into the Park.

Inasmuch as the areas proposed to be set aside for mining cannot yet be known, no merit test can be applied.

The dilemma of mining within National Parks, that is, multiple land use, has thus far been overcome in Kakadu by the method of continuing to draw the Park boundaries around known or potential mines.

That does not overcome the problem of future mining activity in the Park in areas in which there may well be less 'national park merit'.

We see no difference between excluding areas from a park because of a decision to exploit their resources or exploiting them as part of the Park. If integrity is to be maintained in determining what areas are worthy of inclusion within the Park boundaries, it is intellectually dishonest to exclude certain areas which would otherwise be included because of the resource potential and then to claim the integrity of the Park has not been compromised.

We judge that the integrity of competing national interests can only be maintained by a policy of balanced and sensitive multiple land use within national parks.

To that extent we are in accord with the views expressed to the Committee by the Western Australian and Northern Territory Governments.

The Western Australian Government stated in Submission No 43 that:

[t]he community makes a wide range of demands for both resource development and utilisation as well as natural resource preservation and the maintenance of environmental quality. These demands can frequently be inconsistent with one another and lead to conflict. The resolution of competing demands for resources can be achieved through intelligent and integrated management of the land, so that the benefits to the community as a whole are maximised.

Land-use planning and natural-resource management are dynamic ongoing activities, and therefore land-use policy must be sufficiently flexible to accommodate changing circumstances, whilst remaining sufficiently positive to provide effective control over contemporary land uses.

Land use decisions can only be made effectively when a full inventory of the land and its resources is available. In most cases in Australia, the knowledge of mineral and petroleum resources in areas which have been declared as National Parks is minimal. While it is accepted that there will be specific areas and locations within National Parks that will need to be preserved and protected, this should not prevent the adequate assessment of the mineral or petroleum resources of National Parks. Access to land in National Parks for the purpose of resource exploration should be available where it is demonstrated that such access will not endanger the biological integrity or scenic values of the area.

Whether or not a mineral or petroleum resource located within a National Park should be developed needs to be decided on the basis of the impact such development would have on the park's other resources and the benefits development would provide to the community in general.

Mining, unlike other industries, must be located at the site of the mineralization, however, there is usually some flexibility in the manner in which a mineral deposit is developed both in the way it is mined and in the choice of treatment and processing facilities. With carefully planned mining and modern rehabilitation procedures it is possible to greatly reduce adverse impacts and to limit them both in space and time so that there is no threat to the integrity of the surrounding area.

It can therefore be argued that mineral and petroleum resource exploration, and carefully planned, managed, and controlled resource developments are not incompatible with [the] concept of National Parks as areas of natural environment for public enjoyment and conservation.

The Northern Territory submission stated in part:

For an area of land as vast as the Kakadu National Park region there is no sensible alternative to the concept of multiple land use. There must be an element of accommodation and compromise on both sides. Mining and tourism interest (sic) can prosper without in any way detracting from the natural values of the region or causing detrimental impact on the environment.¹²

In conclusion we quote Senator Gareth Evans who lent support to our view when, as Minister for Resources and Energy, he said of Stage 3:

... subject to appropriate protection there ought to be no intrinsic rational reason why a multiple land use regime should not be established for national parks, which already accommodate a variety of different land uses anyway, such as tourism and so on, and in some cases agriculture. Therefore, there ought to be in principle no objection to a wider ranging multiple land use regime.¹³

Indeed, the Minister then described much of the area as 'clapped out buffalo country'.¹⁴

Recommendation

We recommend the adoption of a policy of balanced and sensitive multiple land use within Kakadu National Park.

PARAGRAPH 61 - DISSENT

The problem which confronts Australia is that an enormous area of some 13,073 km² has indiscriminately been set aside for inclusion on the World Heritage List without, in our view, proper discernment or regard to the varying values of the area. The very boundaries of Stages 1 and 2 themselves give a sense of blanket application. We do not share the view that Australia's international reputation would suffer through multiple land use in Kakadu National Park any more than it has through its exclusion of certain areas. It would, of course, have been better had such an enormous area not been offered for inclusion on the World Heritage List.

Australia's reputation did not suffer when the Federal Government deleted discreet parts of the region from the Park to allow present or future uranium mining to take place. Had the areas contained within the mineral leases of Ranger, Koongarra or Jabiluka been of no commercial mining value, they would now be part of Kakadu National Park and judged by the Government worthy of inclusion on the World Heritage List.

PARAGRAPH 62 - DISSENT

The fact that tributories of the East Alligator River, including Magela Creek, flow through the Ranger project area and parts of Stage 2, before joining the East Alligator River in the northern section of Stage 1, does not constitute a further reason why mineral activities should be discouraged within the Park Region as stated in the majority report.

The Ranger Mine has been subject to nearly 1000 inquiries and reports including 150 into the tailings dam.

Geopeko has asserted that:

[w]e know of no publication in which the impact of Ranger One on Park values has been shown to be more than that produced by the presence of a town and its associated population.¹⁵

The Office of the Supervising Scientist which is responsible for environmental standards at Ranger has a staff in excess of 80, of whom 53 are based in the region, and has so far spent around \$42.5 million fulfilling its responsibilities.

As the majority report states, Ranger Uranium Mines Pty Ltd also claims that "the mine has not had any adverse impact on the surrounding Park", pointing out that the successive annual reports of the Supervising Scientist for the Alligator Rivers Region "contain no reference to any

untoward effects on the environment" from the minor infringements of the mine's authority to operate which have been reported since commencement.' 16

These factors give technical and environmental support for mining within the Park region as defined in this report, to the extent that mining has been perceived by some as a threat to the ecology through the interconnecting rivers system.

PARAGRAPH 68 - DISSENT

We are of the view that the environmental consequences of mineral exploration in the Park can be predicted with some accuracy. The Northern Territory Department of Mines & Energy has, in their submission, set out clearly the various on-ground steps involved in exploration.

We do not believe there is evidence to suggest that there exists the potential for significant damage.

Mining companies, particularly in more recent times, have shown themselves to be highly responsible. When one talks of inevitable damage it is important to maintain relevant perspectives.

PARAGRAPH 70 - DISSENT

Senator Crichton-Browne did not have the opportunity to visit sites other than the Myall Lakes district of New South Wales, however his observations stand in stark contrast to those of the only other member of the Committee who visited the region. Senator Crichton-Browne found the rehabilitation and re-forestation so effective as to have considerable difficulty initially in identifying where it commenced and where it finished.

Aesthetic judgments are, by necessity, subjective, however,

to the extent it was possible to discern a difference, Senator Crichton-Browne considers much of the rehabilitation and re-forestation area that he examined in keeping with such work elsewhere - more attractive and more substantial than the original vegetation.

PARAGRAPH 71 - ADDITION

In response to Dr R. J. Wasson who claims that even the "best engineered impoundment structure will fail under extreme weather conditions" with devastating consequences for the environment',¹⁷ Mr Anson from the Department of Resources and Energy said in evidence:

Senator Crichton-Browne:

Yesterday we heard evidence that suggested the tailings dam at Ranger was fraught with all the inevitable risks of man's ingenuity, that the walls had the potential to finally succumb, and that that would cause flooding in Magela Creek and on to the flood plains. Is that inevitable?

Mr Anson:

I do not think that is inevitable at all. Certainly none of the information that we have suggests that that sort of thing can happen. The Commonwealth has an assessor who assesses on an annual basis rehabilitation costs at Ranger, and he does a full examination of that project. What you are suggesting has not been made evident to the Department at all.¹⁸

The Supervising Scientist further commented on the 'Integrity of [the] Ranger Tailings Dam under Extreme Climatic Conditions' by stating in a minute dated 25 August 1986:

1. I understand that at the hearings of the Senate Standing Committee on National Resources enquiring into Resources of the Kakadu region, a question was asked, seeking information on the design of the Ranger tailings dam relating to its capacity to accept extreme rainfall conditions.
2. All aspects of the design and construction of the dam are to rigorous and conservative standards. Regulatory supervision criteria require periodic raises in the height of the

dam wall such that the possibility of any overtopping of the dam in either the most extreme wet season or extreme weather conditions is negligibly small.

3. The nature of the dam, a ring dyke with its crest level well above the surrounding country and no contributory catchment, ensures that the only uncontrolled input, as rainfall, is limited to the height of that rainfall, which can be accommodated within the dam under the most extreme conditions.

For further comment on dam construction and specification refer to our addition to Paragraph 91.

PARAGRAPH 74 - ADDITION

The risks referred to by Dr J. Landsberg and Professor P. Werner which include risk of erosion resulting from the construction of access roads, weed dispersal and increased fire risk, will only be eliminated by banning use of the Park to human beings, not simply by banning mining.

PARAGRAPHS 75 & 76 - DISSENT

These paragraphs overstate the issues involved. While they should not be dismissed or understated, this section is not complete without acknowledging the stringent environmental conditions upon which Ranger, Koongarra and Jabiluka have been approved.

No responsible evidence has been presented to the Committee which demonstrates damage to the environment by the Ranger Mine of the type hypothesised in paragraphs 75 and 76.

Much continues to be made of the danger, particularly to the ecosystem, through the entry of contaminants into creeks and rivers by spillage and seepage.

While recognising the imperative of vigilance and on-going

research, we refer to our dissenting paragraph 62 of this chapter.

The majority report continues to labour what is unknown of the effect on the Park of mining and that the environment at risk includes the downstream portion of the catchment which would be impossible to repair. Clearly, there is still much to be learnt but, decisions and actions taken in respect to mining operations are undertaken on the basis of what is known and, conduct is within the guidelines of what is safe for the environment.

The following is evidence given by the Supervising Scientist:

Senator Crichton- Browne:

From what I have gathered today you are saying that uranium mining managed properly with the stringent guidelines presently laid down is not incompatible with the Kakadu National Park and its environment.

Mr Fry:

Again, I suppose the short answer to that is yes if all you are concerned about is to ensure that those elements of the environment which are at most risk, particularly the aquatic biota the flora and fauna, are adequately protected. I believe we can protect them and man, of course, too.¹⁹

Mr Fry:

In my opinion, one of the most potentially serious environment impacts on the park is from the infestation by exotic weeds. They are hideous and potentially much more damaging to the park, I believe, than anything that a properly controlled mining operation could do.²⁰

Chairman:

How would you compare the relative environmental impacts of Ranger and Nabarlek?

At another point Mr Fry said:

Outside the immediately disturbed area - outside the restrictive lease zones, I suppose - the impact of both operations is virtually the same. It is zero.²¹

The Department of Resources and Energy, as it was then

known, said in their submission to the inquiry:

[t]he environmental arrangements in place at Ranger have been successful in protecting the Kakadu National Park from damage. Extensive monitoring in the areas surrounding the restricted release zone has not detected any adverse effect on the environment of the Park.²²

On the balance of the evidence before the Committee, we do not believe the view can be sustained that uranium mining in the Kakadu Region presents a real risk to the environment.

While contemplating the effect of the imposition of mining site areas upon the Park, we ought to reflect upon the relative sizes of mining sites to the Park.

In the case of Koongarra for instance, the area of disturbed ground is expected to be 4km² of sparse grassland which will provide a non discounted ten years total revenue of \$1.76 billion of export revenue from a total Park area of slightly less than 0.2% of the park.

Jabiluka, which will disturb a lesser area than 4km² will provide an estimated gross value in excess of \$20 000 million.

The area of Ranger Mine, which has a gross value in excess of \$11 billion represents only 0.02% of the proposed total area of Kakadu.

The Department of Resources and Energy states:

[i]t is quite realistic to state that less than 1% in toto would ever be affected by mining. Additionally, in circumstances of carefully controlled exploration and with market forces prevailing, all ore bodies would never be found simulatiously and hence would never be mined simultaneously. Also, rehabilitation could proceed in concert with ordinary mining. Mining would be

aggregated or concentrated in small, discrete areas within the belts of favourable rocks and very few anomalies located at the exploration stage would progress to become mines. Economic reasons would rapidly separate the wheat from the chaff in the natural progression of exploration activities.²³

PARAGRAPH 77 - ADDITION

The following are some other reports which have also resulted from studies concerning the Ranger Mine:

Bywater J, Hicks W, Lucas P, Stockwell D, Trace Metal Levels in Bush Foods Eaten by Aboriginal People in the Alligator Rivers Region in "Environmental Protection in the Alligator Rivers Region", Vol II, 1983;

McNally P, Bywater J, McKay T, Mussel Collection and Sample Preparation Procedures, a Report to working group on radium in mussels in Alligator Rivers Region, Department of Mines and Energy, Darwin, July 1983;

Bywater J, Bird Use of Artificial Water Bodies at a Uranium Mine, Australian Mining Industry Council Environmental Workshop, September 1983;

Kavasnicka J, McKay T, McNally P, Allison H, Bywater J, Pre-mining Variation of Alpha Activity Intake in Shells of Freshwater Mussels, Australian Radiation Protection Society, 9th Annual Conference, Darwin, July 1984;

Dames & Moore, Land Application of Stored Water - Ranger Project Area, Jabiru East, NT, prepared for Ranger Uranium Mines Pty Ltd, Job No 08029-003-73, June 1984;

Peter J Burgess and Associates, Magela Creek Trial Land Application Sump - Materials Investigation and Design, Prepared for Ranger Uranium Mines Pty Ltd, October 1984;

Dames & Moore, Stage Two Land Application, Magela Area, Jabiru East, NT, Environmental Impact Assessment, August 1985;

Bywater J, Biological Screening of Mine Waste Water at Ranger Uranium Mines Pty Ltd, Australian Mining Industry Council Environmental Workshop, 1988;

Milnes A, Fazey P, Bywater J, Lane A, Further Data on Elemental Compositions of Leaves of Trees in the Ranger Project Area, NT, 1988.

PARAGRAPH 80 - ADDITION

What the majority report is saying is that the Movement Against Uranium Mining (MAUM) claim is based on the wrong premise and that the water to which their submission refers comes, not from the Restricted Release Zone, but from Retention Pond No 4 which the Supervising Scientist says 'has not been the subject of any environmental concern'.

PARAGRAPH 82 - ADDITION

The observations of the Office of the Supervising Scientist (OSS) are not intended to conclude that the quality of the water was in itself responsible for the occurrences which may well have been consistent with simply adding water into a stream under pressure at a slightly different temperature. The water discharging through the plume beyond the mixing zone was high quality drinking water.

The OSS did not again do the same test during a further water release from Retention Pond No 4 in 1986/87 because

circumstances and conditions have not again prevailed which would allow for similar testing using that technique.

In as much as the quality of the water is controlled, OSS is satisfied scientifically that, beyond the mixing zone, there will be no effect upon the biota.

To put the debate on water release into some sort of perspective, it ought to be understood that the quality of water contained in RP 4 is, under normal circumstances, close to drinking water standards, but that is not to say it would always have no effect in an undiluted form upon some aquatic life. Of course, by the time it leaves the mixing pond it is greatly diluted to the levels referred to previously.

It should also be noted that, by definition, other natural waters in the region, for example, rainfall and the creeks, are toxic at times. This results from the nature of tropical vegetation.

PARAGRAPH 83 - DISSENT

The evidence to which the majority report refers is presumably that given by the MAUM which, when referring to Aborigines, claims 'one of their basic dietary resources is freshwater mussels. In May 1983, mussels at Mudginberri showed high concentration of radium 226 and Aborigines ceased to eat them'.²⁴

Mr Wratten from MAUM, when asked about the environmental effects of Ranger, went on to say:

{w}e mentioned the radioactive radium 226 in the mussels at Mudginberri. It would affect the food supply, obviously. It has been an area in which the Aborigines have hunted, in which they have had a good food supply for thousands of years ...²⁵

If freshwater mussels are one of the Aborigines' basic

dietary resources, then that ought to be a matter of some concern.

The buffalo eradication program has significantly reduced freshwater mussel occurrences.

In some cases, where buffalo have been eradicated, aquatic plants have regenerated and now cover billabongs which previously had been open bodies of water. The effect of these plants is to reduce the dissolved oxygen in the water to levels which are not conducive to mussels.

The radium levels found in the mussels at Mudginberri were no different to that which can be expected to be found in other areas of the Kakadu region. Given that the Kakadu National Park is a major uranium province, it is inevitable that mussels in the area will have high radium counts.

One could reasonably expect radium levels in mussels in the creek system above Ranger to be similar to those found in the Magela Creek below the Ranger Mine.

It is a flight of fancy to imagine that radium levels found in mussels at Mudginberri in 1983 were due to the mining operations at Ranger.

The OSS has done conclusive studies which demonstrate that the radium content in mussels found at Mudginberri in 1983 is normal for the region and totally unrelated to mining activities at Ranger. The research work and findings were made public some years ago. We question the reason for the MAUM continuing to make such claims.

It needs to be understood that the water to which this section refers is from Retention Pond 4 which contains rain water that has run off waste rock dumps.

The definition of waste, or material which is not milled such as overburden, is material which contains less than

0.23 per cent of uranium.

In relation to the purity of the water in Retention Pond 4, we refer to our comments on paragraph 82.

We believe the monitoring program which took place in the 1984/85 wet season should be repeated if the Supervising Scientist is not satisfied that the procedure has no adverse effect other than the short term effect upon which he has reported.

On-going laboratory tests using Ranger water in respect to these results are being undertaken. The OSS is developing biological monitoring procedures which include fish and invertebrates other than mussels.

Recommendation

We do not support the recommendation on the basis of the evidence given in paragraph 82 or the hearsay in paragraph 83; however, we recommend that, as a matter of course, the Office of the Supervising Scientist continue to monitor the effects of all water releases from Retention Pond 4 at the Ranger Uranium Mine.

PARAGRAPHS 84 & 85 - ADDITION

The Technical Working Group, of which Ranger is a member, recommended to the Commonwealth that Ranger increase the holding capacity of Retention Pond 2. This it has done by deepening it in one part.

The perceived difficulties which Ranger had in earlier years with excess water in the Restricted Release Zone (RRZ) has now, in large part, been overcome. As the report of the Department of Resources and Energy said in its submission:

[i]n the Department's view the arrangements established in 1978 to protect the environment from

the effects of mining have been successful. Current concern in regard to Ranger arises from perceptions that large quantities of water contaminated by mining and extraction processes are being, or may be, released in the Magela flood plain. No such water has been released and no authority to make such a release has been sought or given. In fact the present large water holdings on site arise because all water entering the restricted release zone, including rain, is being held until all parties are satisfied as to the quality and effectiveness of proposed water management measures in protecting the environment.²⁶

The problem has been overcome to the extent that:

1. Retention Pond 2 has been enlarged to accommodate an additional 350 000 cubic metres of water.
2. New procedures no longer require settled solids to be under a cover of two metres of water.
3. A sprinkler irrigation system has been operational and is subject to continued testing and monitoring.

In 1987, Ranger sought approval for the release of water from Retention Pond No 2 so as to trigger the initiation of a procedures and practices system.

Unless Ranger receives a 'one in ten' year rainfall, it will not need to consider the release of water from the RRZ.

Due to a further recent dry wet the company has established a bore field in the event that it is required to pump water into the zone to keep the plant going.

The sprinkler irrigation is planned for use in the dry season so as to ensure that the mine has the maximum carrying capacity for the wet season.

The release through the Magela Creek could take place if necessary in the wet season.

In a joint statement issued on 31 March 1987, the Minister for Resources and Energy, Senator Gareth Evans, and the Minister for the Arts, Heritage and Environment, Mr Cohen, stated:

[t]he Technical Working Group (TWG), comprising representatives from the Office of the Supervising Scientist, the Northern Territory Government and the Ranger Uranium Mine, was set up in 1985 to report upon the Best Practical Technology (BPT) for the management of the mine's accumulations of run-off water (not tailings or process water, which is separately contained).

Three options for the management of Ranger run-off water were considered in detail by the TWG. These involved, subject in each case to a full chemical and biological control regime, probabilities of release of:

'2 years in 5' (involving no additional storage);
'1 year in 10' (involving the deepening of RP2); and
'1 year in 50' (involving the construction, over the next two years of a new 30-40 ha storage pond).

Each option envisages the release of water from Retention Pond 2.

The Technical Working Group identified the '2 years in 5' option as the Best Practical Technology (subject to social considerations) and also endorsed as scientifically and technically sound, although in its view unnecessary, the '1 year in 10' option.

The Government, after considering, not only scientific and technical issues but also the social factors which are a necessary component of BPT (Best Practical Technology), approved the '1 year in 10' option, at least in the first instance.

In other words, both the Government and the TWG acknowledge as scientifically and technically sound the release of water contained in Retention Pond 2 within the RRZ.

We believe OSS and the Northern Territory Department of Minerals and Energy are capable of providing Ranger with a program which would provide for the safe release of water from Retention Pond No 2 into the Magela Creek.

We understand that Ranger, the OSS and the Department of Minerals and Energy are satisfied beyond doubt that under appropriate controls the discharge of water from Retention Pond No 2 provides no risk or hazard to the creek system or the environment of the region.

The degree of dilution will, of course, be influenced by the quality of the water at the relevant time in the retention pond; however, as the majority report states, Mr Nicholls of Ranger Uranium Mines Pty Ltd told the Committee that:

[w]e believe that the release of this water would have no adverse impact whatever on the Magela Creek system and its biota, and hence on human users of the creek's resources. The water in RP2, if diluted seven times, would meet current National Health and Medical Research Council standards for all contaminants. The minimum proposed dilution factor for release is 70:1, a factor of ten higher, and when we would actually want to release it there could be a further factor of ten higher, that is 700:1.²⁷

What Mr Nicholls is saying is that water from Retention Pond No 2, when diluted seven times, is drinking water for human beings under the current National Health and Medical Research Council standards. In fact, the typical composition of RP 2 water undiluted meets Australian drinking water standards with the exception of two or three elements.

The argument is put that Magela Creek water is more pure than drinking water and so Mr Nicholls goes on to say that the water would not be diluted seven times but the proposed minimum is to be 70 times and upward to 700 times.

As the majority report states, however, Mr Moore of MAUM argued that '... to suggest that that sort of release can take place without endangering people who drink the water downstream ... and whose food supplies are effected by the water, is just implausible.'²⁸

The evidence of Ranger Uranium Mines Pty Ltd is capable of standing alone and Mr Moore of the Movement Against Uranium Mining gave the Committee no evidence to substantiate his claim.

One draws the conclusion from the colourful and emotional way in which some propositions are put in respect to uranium mining within Kakadu National Park, that the threat to the Park is not mining per se but that uranium mining offers some more sinister and cataclysmic threat of disaster to the region. That of course is nonsense. While radium and radon gas are valid concerns which must be systematically monitored, the real issue of discussion comes from toxic elements or contaminants. The toxic by-products to be found in the waste of gold, or lead, copper and zinc mining for example may be much more lethal if not managed properly than the elements to be found in a uranium mine tailings pond.

It is worthy of note that, of the matters raised as potential concern in the majority report, none is unique to uranium mining and all are common to all mining operations.

PARAGRAPHS 86-88

The majority report leads one to conclude that the spray irrigation system is a new and untested concept.

While it is claimed by Professor Ovington of ANPWS that very little if any research had been done on the effects of putting large quantities of water day after day on an area which has an ecologically monsoonal type of climate, it ought not be forgotten that Queensland Mines Ltd (QML) have been testing and using such a system for a number of years with the approval of OSS who have been monitoring the results provided by QML as part of the General Authorisation to conduct the spray irrigation project.

The water being used for spray irrigation testing at

Queensland Mines Ltd is a mixture of treated process water and rain water.

We understand that the high level of salinity (ammonium sulphate) in the water has adversely affected vegetation in the immediate area and the irrigation process has recently been suspended. The affected growth is now beginning to regenerate.

It should also be remembered that waste water disposal by irrigation in monsoonal areas has been practised for around 20 years by tanning companies and sewage works.

The water being used for this irrigation at Ranger is from Retention Pond 2 although the testing has now ceased through lack of water.

The typical composition of Retention Pond 2 water meets Australian drinking water standards with the exception of two or three elements. That again is not to say it is always compatible with all aquatic life.

The fact that OSS did not begin its CSIRO irrigation research project for a full twelve months after the operation began reflects no doubt the level of comfort that OSS has with the program.

Our understanding is that OSS is studying the long term, rather than the short term, effects of such a system and is satisfied that the short term effects of such a disposal method at Ranger are of no danger to the environment.

The following information is provided by Ranger:

[Irrigation of excess effluent water is a well-researched method of treating effluent before release to the environment. In Australia, it is commonly used at tanneries, abattoirs, intensive animal production, and refineries such as the Yubulu copper refinery at Townsville. Generally, animals are grazed on pastures in an irrigation water treatment system.

References to its use:

- (i) A Review of the Total Containment/Process Water Irrigation Scheme at Copper Refineries Pty Ltd Townsville and its Effect on Pasture Health and Quality, by S L Waller in AMIC Environmental Workshop Proceedings, 1987;
- (ii) Handbook of Land Transport Systems for Industrial and Municipal Wastes by Reed and Crites, Noys Publications, 1984;
- (iii) Soils in Waste Treatment Utilisation. Vols I and II by Fuller and Warrick, CRC Press, 1985;
- (iv) Land Treatment of Hazardous Wastes by Parr, Marsh and Kla, Noys Data Publications, 1983;
- (v) Nabarlek irrigating tailings water diluted with runoff water since 1985.

Ranger engaged Dames and Moore, a world wide environmental consulting firm, to work with Ranger's Environmental Department in July/August, 1985. The trials began with a 1.7 hectare pilot project which in April 1986 was increased in size to 20 hectares and subsequently the project was extended to its present size of 35 hectares in June 1986.

Ranger advises that the spray irrigation research undertaken by the Company and Dames and Moore to date is:

1. Soil Survey - to identify major soil types.
2. Infiltrometer Tests - to determine rate of infiltration and corresponding application rate which guarantees there would be no run off.
3. Base Line Studies - to determine soil physical and chemical characteristics, e.g. -
 - cation exchange capacity
 - cation and anion concentrations
 - heavy metal
 - soil structure
 - soil texture
 - underlying shallow geology

bulk density
reduction/oxidation reactions
background radiometric characteristics.

The research indicates that, given the relatively low solute concentrations in the applied water, the soil assimilative capacity (or the solute attenuation rate) of the soil should remain at high levels indefinitely.

If for any reason it were necessary the soil can be transferred to the tailings dam.

PARAGRAPH 89 - ADDITION

We can find no credible evidence which supports the MAUM claim.

PARAGRAPH 90 - ADDITION

We can find no evidence to support the claim by MAUM that there had been growing seepage of contaminated water caused by rising groundwater.

Monitoring of the tailings dam is conducted on a standard and regular basis by Ranger with the Northern Territory Department of Mines and Energy undertaking check monitoring as is normal procedure.

It is not an established function of the OSS to undertake monitoring or checking. Seepage from the tailings dam is considerably less than was anticipated by the approving authorities to Ranger at the time of the granting of the approval for the design and construction of the dam.

The dam is functioning well above design parameters.

The current estimate data collected from the tailings dam

monitoring sites is that seepage is 8 cubic metres per day (although a figure of 50 cubic metres per day is generally used as the upper parameter) or 6540 cubic metres per year (18 250 cubic metres per year). The estimate, provided to, and accepted by, the Ranger Uranium Environmental Inquiry, was 300 000 cubic metres per year. These figures represent the overall total estimates of seepage from the tailings dam into the regional ground water.²⁹

PARAGRAPH 91 - ADDITION

For reasons explained at paragraphs 37 and 39 of Chapter Six, an eradication program is currently being undertaken to remove the buffaloes to which Dr Wasson refers from Kakadu National Park. When one talks about such risks it is important to understand the dimensions of the tailings dam.

The tailings dam has four metres of freeboard and walls which are twenty metres high at the highest point. The width at the top of the walls is sufficient to allow two large vehicles to pass side by side - a challenge, we would have thought, for any buffalo.

Tailings dam construction specifications

1. Contingency conditions are allowed for in freeboard design based on a 1:10,000 year event so that adequate storage volume exists and civil engineering construction of the dam could cope with a 1:10,000 climatic event.
2. Safety of the dam structure during abnormal climatic conditions and seismic occurrences, both during the life of the mine and after, for an indeterminable period which could be in excess of 10,000 years is part of the design specifications.

Recommendation

Monitoring of all facets of the tailings dam should continue.

PARAGRAPH 92 - DISSENT

Under section 41 of the Atomic Energy Act 1953, after 10 years from the date of the issue of the authority to mine (that is, January 1989), Ranger is able to make application to have the condition that all tailings be removed to the pit varied. It is reasonable to assume such an application for variation will be made.

If after this period, but before cessation of mining on the project area, 'the Supervising Scientist reports that he is satisfied that, by dealing with the tailings in the manner outlined in the report, the environment will be no less well protected than by depositing or transferring the tailings to the mine pits and, following receipt of such report, the Minister for [Arts, Sport, the Environment, Tourism and Territories], the Council and the Joint Venturers agree that the tailings should be dealt with in the manner outlined in the report, all tailings shall be dealt with in the manner outlined in the report.'³⁰

Recommendation

At the cessation of mining at Ranger, if the environment will be no less well protected by varying the original condition to deposit tailings in the mine pit, a variation should be allowed.

PARAGRAPH 95 - ADDITION

We believe to claim that the '...safe, long-term storage of tailings, the degree of seepage from the tailings dam, the consequences of spray irrigation, the effects of possible releases of excess water from within the restricted release

zone and the effects of water release from outside the restricted release zone ...' and the impact of Jabiru, are all 'potential sources of concern,' very much overstates the position and casts a misleading impression upon the safety of the Ranger Uranium Mine and the surrounding environment.

They are matters that should be, and are, subject to normal regular monitoring.

As has been stated by the Office of the Supervising Scientist (OSS) and others in evidence, the mining of uranium by Ranger, in compliance with the current stringent conditions, offers no risk or danger to the environment.

The issues raised in this paragraph have all been discussed in our minority report in detail and to describe them as potential sources of concern is for us to fly in the face of the technical and scientific evidence.

PARAGRAPH 95 - RECOMMENDATION

ADD:

Subject to the release of the information not being of a commercial detriment to Ranger Mines.

PARAGRAPH 98

Refer to paragraph 49 dissent. Dr Wasson's claims on dam construction are dealt with in paragraphs 72 and 91.

PARAGRAPH 108 - DISSENT

Payments required on an annual basis to be paid into a rehabilitation trust fund is an inefficient use of resources which should more properly be applied in a constructive and productive way.

The object of the proposal should be to ensure that resources are secure for the rehabilitation of the project area upon the cessation of mining, while maximising the use of capital.

The most efficient method of satisfying both criteria is to commit the Coronation Joint Venture Partners to providing the appropriate authorities with bank-backed guarantees, which will provide the same security without freezing investment capital badly needed in a high risk, high capital cost industry.

The effect of providing annual payments into a trust account is to place an unnecessary burden upon Australian taxpayers and company shareholders.

We support the standard procedure for such mining projects which requires a full and detailed rehabilitation plan to be submitted and approved before mining is allowed by the Coronation Hill Joint Venture Partners at Coronation Hill. ANPWS, the Office of the Supervising Scientist and the Northern Territory Department of Mines and Energy should be fully involved in the preparation and approval of the rehabilitation plan. Similar arrangements should be in place for any further mining or exploration activity in the Conservation Zone.

Recommendation

That the standard procedure for such mining projects which require a full and detailed rehabilitation plan to be submitted and approved before mining is allowed by the Coronation Hill Joint Venture Partners be supported.

That the Coronation Hill Joint Venture partners provide the appropriate authorities with bank-backed guarantees for the purpose of covering the cost of rehabilitation work.

PARAGRAPH 109 - DISSENT

To the extent we are satisfied that contaminated water can be discharged under rigorous and stringent conditions, we believe this clause and recommendation should refer to unauthorised discharge of contaminated water. Almost all water discharged into the mixing pond is to some degree slightly contaminated. The crucial point is to what degree it is so diluted as to make it compatible with the water system, the biota and the balance of the environment.

Recommendation

That in examining the Environmental Impact Assessment being prepared by the Coronation Hill Joint Venture in relation to the proposed mine at Coronation Hill, the Government should pay special attention to all factors which might cause unauthorised discharge of contaminated water from the mine site, either during or after the operational life of the mine.

PARAGRAPH 113 - DISSENT

To the extent that this clause may give the impression of support for large areas of highly prospective areas being granted for exploration on the grounds of environmental convenience, we dissent.

We have no doubt that adequate incentives and safeguards can be built into the grant of exploration leases to ensure the diligent observation by them of mining companies. The risk of losing a highly prized prospect through failure to comply will be compelling enough. We believe normal criteria for the granting of tenements ought to apply with the caveat that if there are compelling environmental considerations which common sense would dictate, vary to some degree the size of grants or boundaries, then so be it. However, environmental expediency should not be a ruling consideration.

Expressions such as, 'in order to reduce to the minimum possible the environmental impact of exploration activity', have in the past been used as a guise to discourage mining and exploration and subsequently to have it disqualified.

We refer the reader to 11.6.3 of the Kakadu National Park Plan of Management under the heading 'Operations for the Recovery of Minerals - Management Prescriptions' which read, inter alia, '...where mineral leases exist in the Park, the primary objective will be to limit the impact of mining operations on the Park.' Subsequently mining was prohibited on exploration leases which had previously been granted, presumably on the claim of limiting the impact of mining operations.

Recommendation

That in order to reduce to the 'minimum possible' the environmental impact of exploration activity in the Conservation Zone, strict environmental guidelines and safeguards, which are compatible with exploration and mining, developed in conjunction with the Northern Territory Department of Mines and Energy, ANPWS and the Office of the Supervising Scientist should be strictly enforced.

PARAGRAPH 114 - DISSENT

We believe it can be stressed sufficiently that the Conservation Zone is an integral part of one of the major river catchments. We believe to overstate the position is to give it a weight which is unrelated to the real significance. A proliferation of mining operations within the Zone need not and will not, under stringent conditions of the type in force at Ranger and relevant to Koongarra and Jabiluka, pose as the majority report suggests, a serious threat to the Park in either the short or long term.

The fact that, as stated by the majority report, 'the Zone itself, with mining areas excised, is to be incorporated into the Park after the expiry of the period set aside for exploration', is a statement in itself of its significance.³

The Committee's call that 'any infrastructure required for the exploration activity should be planned in such a way as to facilitate the use of the area as a national park' requires a subjective assessment which on earlier Committee criteria could disqualify meaningful exploration.³²

If the words of Recommendation (i) as proposed by the majority report were to be interpreted by some who have given evidence before the Committee, the recommendation would be capable of denying any exploration or mining within the Zone.

We are well satisfied that, given the expertise, knowledge, experience and ability of the approving bodies and their agencies, there is no place for phrases such as, 'potential to cause environmental damage' or 'which might result in damage to areas of the Park.'

Recommendation

That any proposal for mining activity in the Conservation Zone should be examined very carefully and that approval should not be given if the proposal will cause unacceptable damage within the catchment area of the South Alligator River and which will result in unacceptable damage to areas of the Park.

That any infrastructure permitted for exploration or mining activity should be planned in consultation with the appropriate authorities and in such a way as to facilitate, as far as practicable, the later use of the area as a National Park.

PARAGRAPHS 116 - 119

As at the time of writing, \$2,000 was paid annually to each adult member of the Gagudju Association with an identical amount being paid into a trust account for each minor. Through accumulation and interest, lump sum payments of \$12,000 are now being paid to some children upon turning 18.

As at 30 June 1987, \$65 million had been paid from Ranger to Aboriginal interests since the commencement of production in 1981.

The Department of Aboriginal Affairs stated that the Association receives approximately \$3.2 million in royalty equivalents per year, or an amount equivalent to slightly more than \$15200 per adult member of the Association per annum.

To 4 August 1988, the Gagudju Association has received royalty payments totalling \$21 284 424.

The Gagudju Association presently employs approximately 35 to 40 people of whom approximately 75 per cent are white (a number of whom occupy unskilled positions). There are approximately 100 employable Aborigines who live in the Park with approximately 40 unemployed and on Social Security benefits. All normal social welfare benefits are payable to members of the Association.

The two hotels in which the Gagudju Association hold a very significant interest (Cooinda Hotel-Motel: 100% and the Jabiru Motel: a joint venture with Industrial Equity Limited) employ approximately 100 people of whom five are of Aboriginal descent.

It is of some concern that of the many millions of dollars which have been paid to the Association in the past six years, only approximately ten jobs are being occupied by employees of Aboriginal descent.

Our understanding is that there is a continuous shortage of suitable Aboriginal labour within the Park with a number of agencies competing for those Aborigines who offer themselves for work. Within the definition of suitable Aboriginal labour, we refer to those who seek work.

This situation should be seen in the context of stringent Aboriginal employment conditions imposed upon mining companies' projects within the region and subsequent paragraphs of the majority report. We refer to our addition at paragraph 128.

PARAGRAPH 126 - ADDITION

We find the evidence of the Department of Aboriginal Affairs factually incorrect and one can only speculate as to whose views it reflects.

Mr Stan Tipiloura, a full-blooded Aborigine and the member for Arafura, which contains the Koongarra and Jabiluka uranium prospects, has said as recently as June this year (1988) that his Aboriginal constituents were totally in favour of a change to the three mine uranium policy and felt they were being discriminated against:

[p]eople there can't understand why traditional Aboriginal landholders can benefit financially from the Mines at Ranger and Nabarlek while they are being excluded.³³

The Chairman of the Northern Land Council, Mr Galarrwuy Yunupingu, stated he has not changed his view that the traditional Aboriginal owners of the land, granted under the Land Rights Act, should decide for themselves whether to accept development or reject it:

[t]he NLC campaigned for the opening of the Koongarra and Jabiluka mines on behalf of these [Aboriginal] landowners in 1984 and our position remains the same.³⁴

On 1 June a delegation of Northern Territory Aboriginal landowners went to Parliament House to persuade the ALP to allow operations to start at the Koongarra mine in which the landowners are joint venturers.

Mr George Hunt, a traditional owner and the oldest member of the delegation, urged that the mine go ahead saying he has seen many friends die waiting for a decision. Mr Hunt is regarded as the most senior traditional owner.

The Department of Aboriginal Affairs evidence is given in the face of two agreements from the traditional owners at Koongarra in 1985, from the Northern Lands Council in 1986 and from the Federal Minister for Aboriginal Affairs on 3 June 1987.

Revenue from the project payable to Aboriginal interests will amount to \$256 million.³⁵

PARAGRAPH 128 - ADDITION

We set out below the list of conditions applying to the Aboriginal community which is the subject of agreement between the Jabiluka Joint Venturers and the Northern Land Council.

In the Agreement between the Jabiluka Joint Venturers and the Northern Land Council, Pancontinental is required to provide employment, training and business opportunities to Aboriginals including the following:

- * encourage and maximise Aboriginal employment;
- * employ at least an agreed number of Aboriginals;
- * report to a monitoring committee;
- * arrange training (trade and general education and tertiary education scholarships);
- * provide work experience for young Aboriginals;
- * prepare each year for the Northern Land Council a detailed employment and contract plan;
- * adjust working hours and leave entitlements to suit the cultural requirements of Aboriginals;
- * prepare a business opportunity plan each year for the Northern Land Council;
- * give a 5% preference in purchasing goods or utilising services provided by Aboriginal

businesses to help foster business opportunities.

With reference to the lump sum payments and royalty type payments that will flow to the Aboriginal Community the agreement with the Northern Land Council calls for those moneys flowing to the Aboriginal Community to be used for:

- * Aboriginal business;
- * Aboriginal housing;
- * Protection of Aboriginal culture;
- * Educational scholarships;
- * Recreation and sporting facilities;
- * The study of the utilisation of Aboriginal land and land aspirations of Aboriginal people;
- * Community amenities, communications and outstations;
- * Basic utilities and transportation;
- * Purchase of land;
- * Aboriginal health insurance and hospital scheme;
- * Funding of an Aboriginal Parks and Wildlife Service in the Northern Territory, tourism facilities;
- * Investment fund to provide for capital and income during and upon expiration of mining."

PARAGRAPH 132 - DISSENT

We consider this section in two parts: first we address the principle of retrospective acquisition and second the practical implications of the application of the Committee's recommendations.

We are opposed to the principle of providing a retrospective benefit to Aboriginal land claimants in a land title in which they had no prior proprietary interest at the time of its granting to a third party.

Due to amendments to the Aboriginal Land Rights (NT) Act passed in 1987, the position within the Conservation Zone in respect to agreements between Aborigines and mining companies is that:

- (i) if an Aboriginal land grant is made prior to the granting of a mining lease to the Coronation Hill Joint Venture partners, a terms and conditions

agreement must be negotiated, with a mechanism for arbitration provided. There is some doubt as to that obligation if the Aboriginal land grant is made subsequent to the granting of a mining lease to the Joint Venture; however it is our view no such obligation apparently exists.

- (ii) outside the Coronation Hill Joint Venture area, but within the Conservation Zone, a teams and conditions agreement must be entered into before mining, whether or not the exploration licence is granted prior to a land grant. When mining leases are granted prior to a land grant they will be subject to the same provisions, however, the circumstance is unlikely to arise.

Recommendations by the majority report calling for royalty payments or other financial benefits to be provided by the holders of mining tenements to Aboriginal groups who have lodged land claims, to us distorts the principle of prior rights of ownership and of Crown land.

Mining tenements either in the form of exploration or mining licences within the Conservation Zone are granted within the terms of the Lands Acquisition Act/Mining Act 1939 (previously the Mining Ordinance 1939) upon Crown land. At the time of granting, there is no prior ownership or rights held by another party. To suggest that at a later date a benefit lies with an Aboriginal group is to prescribe an interest in the land which did not exist at the time of the granting of the mining tenement to the mining company.

In the case of the Coronation Hill Joint Venture, at the time of granting of the mining tenements to the consortium, the land was not for the purpose of Aboriginal land claims, unalienated Crown land within the meaning of the Aboriginal Land Rights (NT) Act 1976. However, of course, it was Crown land within the meaning of the Mining Ordinance/Act.

The practical effects of the application of the recommendation

Expressions such as 'consult' and 'consider' are by their nature subjective and in seeking the grant of applications for exploration and mining permits, it is not unreasonable that the obligations and requirements for approval be clear and unambiguous. Such a recommendation would depend upon the subjective judgement of at least three parties.

Prior to the hearing of the land claim applications by the Land Claims Commissioner there is no determination as to which group are the traditional owners.

Naturally, in some circumstances, the claimant traditional owners are more obvious than in others.

In the case of the Conservation Zone the anthropological Section of the Northern Land Council is still studying the land claim in an endeavour to establish which group should claim ownership.

Mining companies will be put in an intolerable position if they are compelled to demonstrate that consultation has taken place with all or any groups within the area who may later be found to be the traditional owners.

Ultimately, to show that a mining company has consulted and that the Aborigines' views have been taken into account will require evidence of some form of agreement.

Given the extraordinarily long and delicate process that exploration and mining agreements, in whatever tentative form, take, it could well be some years before such an arrangement is concluded. In the case of the Conservation Zone, it could have the effect of disqualifying extensive exploration.

It ought not be forgotten that with land within the

Conservation Zone but outside the Coronation Hill Joint Venture area upon which a claim has been granted, the mining company is required to negotiate with the appropriate Land Council; however, with agreements entered into prior to grant, the agreement is to be with the traditional owners and must, upon grant, be approved by the Northern Land Council and the Minister for Aboriginal Affairs. The effect is to require new agreements upon the grant of the land claim.

In the case of the Coronation Hill Joint Venture area, similar circumstances apply with the exception of Ministerial approval. The effort required in the majority Committee recommendation may well be wasted upon grant. Regardless, any negotiation without the Northern Land Council would be pointless, thus adding another party to the negotiations. If the claim fails, the agreement required of so many parties comes to nought.

Our final concern with the proposal is that mining companies may find themselves being required to provide financial benefits to an Aboriginal group, notwithstanding that their claim has failed, to ensure an agreement in the event of a grant. The prospects of financial blackmail are enormous. It is a most unsatisfactory and undesirable proposal, fraught with unsavoury connotations.

The end result would be that companies will be required to make large cash advances to Aboriginal communities irrespective of the outcome of the land claims. It is most inappropriate that the mere lodging of a land claim, irrespective of its merit, brings with it automatic financial rewards and corresponding financial commitments to mining companies whose exploration may prove barren.

Such an arrangement could quickly bring the system of Aboriginal land claims into disrepute at a time when there is mistrust and concern about the current method of registering areas of Aboriginal significance.

Financial and co-operative arrangements with potential Aboriginal land claimants are best left on an informal basis as exists for instance between the Coronation Hill Joint Venture and the Jawoyn group. It is not in the interests of mining companies to ignore the concerns or considerations of land claim applicants.

PARAGRAPH 134

Refer to our paragraph 128 addition as an indication of the type of employment agreements mining companies enter into with Aborigines.

PARAGRAPH 135 - DISSENT

We dissent to the extent that the Committee states it recognises the serious nature of the potential chemical pollutants involved in mining in the upper catchment of the South Alligator river at Gimbat. We have set our reasons for dissenting from such expressions in other dissenting paragraphs.

PARAGRAPH 138 - DISSENT

We can find no evidence to support the majority committee statement that Coronation Hill was recorded as a sacred site in a land claim lodged by the Jawoyn. Our reading of the claim is that Coronation Hill was shown as a 'named' site in the land claim book.

The main points are not in our view as the majority report claims, 'relatively straight forward.'

We are not satisfied, on the evidence received by the Committee at Barunga from the Jawoyn people on the 9 March 1987, that the Aboriginal custodians made an oral request to an Aboriginal Sacred Sites Authority field officer on the

18th September, 1985 for registration of the site.

On the evidence provided at Barunga by Nipper Brown and Sandy Barraway, we cannot conclude that the tribal custodians have knowledge of signing a request for registration of the Coronation Hill site on 27 September 1985.

PARAGRAPH 139 - ADDITION

As the majority report states, Coronation Hill Joint Venture commenced exploration work at Coronation Hill in 1984. On 17 September 1985, when presumably the activities at Coronation Hill had come to their attention, the Northern Land Council communicated with the Joint Venture inquiring as to 'what was going on' at Coronation Hill.

The Joint Venture outlined their program and on 18 September Mr David Cooper of the Aboriginal Sacred Sites Protection Authority in company with Nipper Brown, Larry Ah-Lin, and Sandy Barraway was found by an employee of the Joint Venture lost on the main Coronation Hill road.

The Aboriginal Sacred Sites Authority stated in evidence, as reported in the majority report 'on 18 September, 1985' Aboriginal custodians made an oral request to an Aboriginal Sacred Sites Authority field officer for registration of the site, and a formal, written request signed by four custodians was subsequently made on the 27 September 1985. A few days later, the Aboriginal Sacred Sites Authority determined the boundaries of the site and formally registered it.

The Aboriginal Sacred Sites Authority state that they had no communication with the Northern Land Council prior to the application for registration of Coronation Hill.

PARAGRAPH 140 - DISSENT

To claim, as the majority report does, that 'Mr Davis formed the impression in the course of this visit that the area was a genuine 'Bula' site, and that Coronation Hill had no sacred significance and was nothing more than a "named locality"' is to misplace the facts. That was the stated view of the Senior Custodians who accompanied him.

Mr Davis states he was asked by Sandy Barraway and Nipper Brown, two senior Jawoyn custodians, to take them to Sleisbeck to see a major Bula site - a Bulalak - which they had identified from photographs taken by Arndt and reproduced in a 1962 edition of Oceania and accompanied by one of his articles. According to Davis, previously Brown and Barraway had been led to believe by the others (not Aborigines) the major Bula to be located elsewhere, in fact, on Coronation Hill, a confusion caused by a period of loss in living memory, not only of the major Bula, but of other sites of significance to the Jawoyn group.

Mr Davis was also accompanied to Sleisbeck by Nipper Brown, Sandy Barraway, Roy Anderson, Queenie Brown, Willy Byer, Rebecca Byer, Rita Anderson and Phyllis Wynjorroc, most of whom are very senior members of the Jawoyn group.

The following is part of the transcript of a conversation which was recorded on video by Mr Davies at Sleisbeck and which was incorporated into Hansard during the Committee hearing at Darwin. Present were Sandy Barraway, Nipper Brown and Roy Anderson.

Stephen Davis:

That Sacred Sites Authority, you ever brought them up here... to Bulaluk (overhang with bones at Sleisbeck)?

Sandy Barraway:

No.

Stephen Davis:

All right. Maybe they don't know where it is then!

Nipper Brown:

Yeah.

Sandy Barraway:

It out of the way.

Stephen Davis:
Yeah, right. Yeah.

Sandy Barraway:
David Cooper don't know about this place.

Nipper Brown:
No.

Stephen Davis:
David Cooper doesn't know eh?

Sandy Barraway:
No.

Nipper Brown:
No.

Stephen Davis:
What about Bob Ellis (Director, Aboriginal Sacred Sites Authority)?

Sandy Barraway:
Even Bob Ellis don't know nothing.

Stephen Davis went on to ask:
Well what do you reckon now, now that you know this place and you can look after it properly? What do you reckon about that Coronation Hill. Is that really it the biggest Bula place like this?

Sandy Barraway:
No, just this one - Ilangalung. You know that little boy one? That's the only one, business, you know where they had ceremony before, sacred site. Where you look that big hill.

Stephen Davis:
Big Sunday?

Sandy Barraway:
Yeah. that's the one place, the only one. That's where he (Bula) came along from there.

Stephen Davis:
So that's not really a Bula place, Coronation Hill, he just came down past that area. Round passed that way ... down the valley.

Nipper Brown:
Yeah.

Sandy Barraway:
Yeah.

Stephen Davis:
He just came around past that way down the valley?

Nipper Brown:
Yeah.

Sandy Barraway:
Yeah.

Stephen Davis:
To Illangalung?

Stephen Davis:
You were saying the other day now its alright to mine that (Coronation Hill). People have got to understand that that's not the real Bula place, this one is.

Sandy Barraway:
This one real one and that Ilangalung.

Stephen Davis:

This one and the back of Big Sunday, Ilanjalung, they're important places but this is the main for Bula. This is where you have the ceremonies and this is where he finished up too, like Ilangalung ...

Stephen Davis went on to ask Sandy Barraway:

... What about Coronation Hill?

Sandy Barraway:

Coronation Hill nothing. He just came passed through there just come along there.

Stephen Davis:

Nothing. He just came passed there.

Nipper Brown:

Yeah, that right. Nothing there.

During this conversation they were looking at a mud map and discussing what was and was not significant.

Stephen Davis:

You were saying earlier you want this place (Ngardluk, Sleisbeck) registered, this one protected and Ilangalung is OK now?

Sandy Barraway:

OK now and this one (Sleisbeck) we want him.

Sandy Barraway:

That sign there (sacred site sign). Three place they got sign ... not this one ... another three nothing (no signs on another three sites).

Stephen Davis:

Another three nothing. But you don't want that Coronation Hill registered?

Sandy Barraway:

No, we don't want him.

Stephen Davis:

That's all right.

Sandy Barraway:

That's all right. they can work.

Stephen Davis:

That's all right, it's open for work, it's not a sacred site.

Sandy Barraway:

They can drill it.

Stephen Davis:

They can drill it. And after that, what about if they find a lot of gold there and they want to mine it. If they want to go ahead with that mining, what are you going to say when they say "We want to mine that then?"

Sandy Barraway:

We tell him "Yeah, you can go ahead. If more gold, then you can go there."

Stephen Davis:

That's OK if they find gold they can mine it and if they find more around about they can even mine that?

Sandy Barraway:
That's what we told em Stephen.
We told they can go ... can find gold they been go in there. All young fellas gonna work there.

Nipper Brown:
All them boy, young boy, been gonna work there now.

Sandy Barraway:
All the time school men you know. They read and write, ... they'll be work there. Some fella officer (office worker) some fella been ... they been come Thursday.

Stephen Davis:
You men, you're the senior men to look after this?

Sandy Barraway:
Yeah. All can come round myself sometime.

Stephen Davis:
Your father Buwudpuwudmany, he was looking after this and you got that responsibility from him?

Sandy Barraway:
Yeah.

Stephen Davis:
Nipper, you came to this place for Bulaluk ceremony when you were young man, eh, about 1940, that was the last time you were here.

Nipper Brown:
Yeah.

Stephen Davis:
Any other men still alive who came here for ceremony that you know of: Any other Jawoyn men?

Sandy Barraway:
All dead.

Stephen Davis:
All dead now.

Sandy Barraway:
That's why we want to teach him, this young fella (referring to Roy Anderson). Well now we got this young fella Roy, if I die he can look after 'im, we got to try to keep 'im, look after 'im (referring to the site).

Stephen Davis:
Roy Anderson, he's Nipper's son.

Nipper Brown:
Mmm.

Stephen Davis:
Right.

It has been necessary again to reproduce long sections of the transcript but it is important in the context of Davis' claim of the significance of Sleisbeck and in understanding the confusion into which he claims the Senior Custodians had proceeded when apparently told Coronation Hill was a

Bula, but with which they could not relate their past understanding of it.

As we were told in evidence at Barunga by the same witnesses, Coronation Hill had never in the past even been considered a sacred site.

We do not believe it was, as the majority report says, Mr Davis who 'formed the impression in the course of the visit that this area was a genuine 'Bula' site, and that Coronation Hill had no sacred significance and was nothing more than a 'named locality'.³⁶

Mr Davis had apparently become convinced some time earlier that Sleisbeck was an important Bula site because he had the custodians, who saw the photographs, confirm it before the visit.

In the evidence presented the senior Jawoyn custodians visited the site, and stated to Mr Davis that it was an important Bula site. In so doing they dismissed Coronation Hill, in their words, as 'nothing' which the mining company was free to mine and upon which their boys would work.

We agree with the majority report that 'this evidence seemed to cast some doubt on the validity of the original decision to include Coronation hill within a registered sacred site'³

PARAGRAPH 141

Senator Crichton-Browne was advised by the Aboriginal Sacred Sites Authority that the Sleisbeck sacred site was registered on the request of Dr Merlan, however, we are unable to find any evidence that Dr Merlan, the relevant custodians or staff of the Authority visited the Sleisbeck overhang prior to the registration. Obviously registration was undertaken on Dr Merlan's sayso. According to Davis' evidence the custodians had not been to the overhang prior to his visit early in July of 1986. However both Merlan and

Barraway had been to the rock art in the area and Barraway had been told of the site at the overhang.

PARAGRAPH 142 - DISSENT

As the majority Committee report states:

... evidence given to the Committee by the Sacred Sites Authority indicates that three of the Senior Custodians, Peter Jatbula, Shorty Jalong and Willy Martin, considered Coronation Hill to be a sacred site.

We would have thought, for the sake of consistency, that the Sacred Sites Authority, which alleges Nipper Brown and Sandy Barraway are signatories to the registration application, would have claimed that those two gentlemen also consider Coronation Hill a sacred site.

Evidence was given at Barunga which leads to doubt as to whether the four Jawoyn Custodians, whose names appear on the request for registration as a sacred site, actually did so request. Those whose names appear on the written form are Sandy Barraway, Peter Jatbula, Nipper Brown and Frank Dalak.

The significance of the Aboriginal Sacred Sites Authority evidence is that it is claimed that Brown and Barraway signed the registration application but, in its evidence, the Authority do not name Brown and Barraway as claiming Coronation Hill to be a sacred site.

In respect to that matter Senator Crichton-Browne asked Nipper Brown:

Nipper Brown, do you remember ever asking the Aboriginal Sacred Sites Protection Authority to register Coronation Hill as a sacred site?

Nipper Brown:

No.

Senator Crichton-Browne:

Did you ever want Coronation Hill for a sacred site?

Nipper Brown:

No, never. There is nothing there.

Senator Crichton-Browne:

There is nothing at Coronation Hill?

Nipper Brown:

Nothing. It is free.

Senator Crichton-Browne:

You never signed any piece of paper saying: "Make Coronation Hill a sacred site"?

Nipper Brown:

No.

Senator Crichton-Browne:

Mr Barraway, have you ever signed anything asking for Coronation Hill to be made a sacred site?

Mr Barraway:

No, I have never.

Senator Crichton-Browne:

Have you ever thought of Coronation Hill as a sacred site?

Mr Barraway:

No.

Subsequently the Chairperson, Senator Zakharov, asked Mr Fordimail, one of the two who believed Coronation Hill had a sacred significance:

Raymond, do you know who requested the registration of the sacred site? Who asked for the registration of the sacred site on Coronation Hill?

Mr Fordimail:

I do not know. They could have a list of names that applied for that registration of the sacred site.

Senator Devlin then pressed the matter further:

Some one must know the names.

Mr David Edward Cooper, Research Officer of the Aboriginal Sacred Sites Protection Authority, responded:

The names that are on the request are Sandy Barraway, Peter Jatbula, Nipper Brown and Frank Dalak. Frank is not here. They are the names that appear on the request.

There appears, on the face of the evidence provided to the Committee by senior custodians and members of the Jawoyn Tribe, to be very real doubt as to the spiritual significance of Coronation Hill.

At a private meeting of the Senate Committee held at Barunga on 9 March 1987 there was divided opinion amongst the witnesses. Mr Peter Jatbula and Mr Ray Fordimail were of the view that Coronation Hill was a Bula site and the seven other Senior Custodians and senior Jawoyn people were of a

contrary view.

During proceedings the following exchanges took place between Senator Crichton-Browne and Nipper Brown, recognized as the Senior Elder amongst those present.

Senator Crichton-Browne:

There is no Bula on Coronation Hill?

Nipper Brown:

Nothing.

Senator Crichton-Browne:

So the Coronation Hill area is not a sacred site area?

Nipper Brown:

Nothing. It is free.

Senator Crichton-Browne:

Did some people make a mistake and think Coronation Hill was a sacred site?

Nipper Brown:

It is free.

Senator Crichton-Browne:

Are you happy for BHP to explore on Coronation Hill?

Nipper Brown:

We are all happy if they go ahead and explore for gold or anything like that.

Senator Crichton-Browne:

Is there a senior elder amongst the men here today? Who is the senior man?

Nipper Brown:

I am.

Senator Crichton-Browne:

You are the chief?

Nipper Brown:

Yes.

Senator Crichton-Browne:

Do you agree with Ms Wynjorroc and Ms Flora that there is no Bula on Coronation Hill?

Nipper Brown:

No. No Bula.

Senator Crichton-Browne:

There is no Bula, no sacred sites, nothing at all?

Nipper Brown:

No.

Senator Crichton-Browne:

So mining on Coronation Hill would not hurt Aboriginal sites?

Nipper Brown:

It can go ahead.

Senator Crichton-Browne:

Is that one, Coronation Hill, okay?

Nipper Brown:

Yes.

A further exchange between two women witnesses:

Senator Crichton-Browne:
Would you be happy for there to be mining on
Coronation Hill?

Ms Wynjorroc:

Yes.

Ms Flora:

Yes.

Ms Wynjorroc:

It is okay on that land. We do not like it on other
sites.

Senator Crichton-Browne:

Being a Bula place you do not like it. So Coronation
Hill is okay for mining.

Ms Wynjorroc:

Yes.

Senator Crichton-Browne (referring to Coronation Hill):

There were no sacred sites, no burial sites, no areas
of significance, nothing special at all?

Ms Wynjorroc:

Nothing.

Ms Flora:

No.

Ms Wynjorroc:

There is just the one Bula place now.

Senator Crichton-Browne:

Where is that?

Ms Wynjorroc:

Up this way.

Senator Crichton-Browne:

Sleisbeck - that is the big one. It is the big one,
the important one?

Ms Wynjorroc:

Yes, very important.

Senator Crichton-Browne:

But not on Coronation Hill?

Ms Wynjorroc:

No.

Sandy Barraway in response to Senator Crichton-Browne's
question about Coronation Hill:

No. On Coronation Hill there is nothing. If they
want to mine in that place, they can go ahead.

We have no reason to doubt the evidence given by Nipper
Brown and Sandy Barraway, two senior Jawoyn custodians or
that of the senior Jawoyn women.

PARAGRAPH 143 - DISSENT

At the private meeting held in Canberra on Wednesday, 18 May
of this year (1988) and, referred to in the majority report

at Paragraph 142 of Chapter Three, it was said that the Jawoyns at Coronation Hill had agreed to give up their jobs if the senior custodians requested them to do so. This had not happened because the Jawoyn workers from Coronation Hill had not yet turned up for a meeting with the custodians.

The Jawoyn to attend the Canberra meeting were Peter Jatbula and Raymond Fordimail accompanied by Mr David Cooper of the Aboriginal Sacred Sites Authority and Mr Michael Dodson of the Northern Land Council.

At a meeting held at Barunga on 15 August this year (1988) from which all non-Aborigines were invited to withdraw, the Jawoyn people affirmed their approval for their men to continue to work on Coronation Hill. Hardly the decision of Aborigines who do not want mining because of desecration of an area of significance.

The meeting was attended by approximately 70 Jawoyn including the Senior Custodians. That decision was in contradiction to the claim of Mr Jatbula and Mr Fordimail who accompanied Mr Cooper to Canberra.

As at 13 September 1988, nine Jawoyn people work with the Coronation Hill Joint Venture Project, a further 58 have signed work applications and an additional 17 other prospective employees have visited the site since April.

We are advised there are presently 40 Jawoyn people living on site.

It is claimed by the Aboriginal Sacred Sites Authority that a report written by Mr Cooper of the Authority has been adopted by the Jawoyn custodians who, it is claimed, consider it inappropriate to conduct exploration or mining activities within that part of the Conservation Zone lying within the 'sickness country.' As is pointed out by the majority report, this covers the whole of Coronation Hill and almost the whole of the Conservation Zone.

We refer to evidence given to the Committee by the Jawoyn elders at Barunga on 9 March 1987 in prosecution of a contrary view and, in so doing, we refer in part to the Barunga meeting of 15 August at which the tribal custodians gave their approval to Jawoyns working upon the Coronation Hill Joint Venture project at Coronation Hill and El Sherana, in spite of Mr Fordimail and Mr Jatbula's assertions when attending the Canberra meeting in company with Mr David Cooper.

The following is further evidence given to the Committee at Barunga by the Jawoyn people on the 9th March, 1987.

Chairman:

Are the Jawoyn people happy with the situation at present where BHP has a permit for exploration?

Mr Fordimail:

Yes.

Senator Crichton-Browne:

Have the Jawoyn people always been happy with their negotiations with BHP?

Mr Byer:

Yes.

Senator Crichton-Browne:

They have not had any trouble with BHP?

Mr Byer:

Yes.

Senator Crichton-Browne:

They have never been pressured or rushed by BHP to sign any agreements?

Mr Byer:

Everything has been all right.

In subsequent evidence Senator Townley again raised the question of mining.

Senator Townley:

I ask the Jawoyn people whether they would like to see mining go ahead, provided they get some benefits from BHP, or whether they would rather see the whole place never touched for mining?

Mr Fordimail:

I imagine that in the first place they were talking about getting some money back from the mining companies.

Senator Townley:

So you would like to see mining if you could get some money back?

Mr Fordimail:

Yes.

Later, the Chairman asked:

Are the Jawoyn people happy with the situation at present where BHP has a permit for exploration?

Mr Fordimail:

Yes.

Senator Crichton-Browne:

Have the Jawoyn people always been happy with their negotiations with BHP?

Mr Byer:

Yes.

Senator Crichton-Browne:

They have never been pressured or rushed by BHP to sign any agreements?

Mr Byer:

Everything has been all right. (p.68).

PARAGRAPH 144 - DISSENT

We do not acknowledge that three of the senior custodians have declared that Coronation Hill is a sacred site. The only Jawoyn witnesses to give evidence to the Committee who expressed such a view were Peter Jatbula and Raymond Fordimail.

The majority report comments that it '... is also aware of the view that permission for mining exploration may have been granted on a sequential basis with the custodians not fully aware of the likely extent of interference with the sites.'³⁸

That claim is made by Mr Cooper of the Aboriginal Sacred Sites Authority. At the private meeting held in Parliament House, Canberra, on 18 May 1988, Mr Cooper stated that the granting of permission had been a sequential process involving a number of meetings, with BHP asking for permission to do a little more at each.

It was a claim Mr Cooper had previously made in his written report of August 1987 which was allegedly adopted by the Jawoyn people.

In response, on 29 October 1987 in correspondence to Senator Graham Richardson, Minister for Environment and the Arts,

BHP commented:

David Cooper, in the report, says that our incremental requests for permission to explore have caused concern and problems. However, from the time Coronation Hill was first registered as a sacred site in October, 1985 we have consulted closely with the ASSPA on the best way to request permission from the custodians for continuing work. It was on ASSPA advice that an incremental approach was adopted. They felt that this would give the custodians time to assimilate a complex project, avoid the possibility of misunderstandings and reduce possible pressures on the custodians and the Jawoyn community. The custodians have been in agreement with this approach and on several occasions have requested an adjournment to discuss more fully the matters under consideration.

Mr Cooper's assertion is very much contradicted by the evidence given to the Committee at Barunga by the Jawoyn people on the 9th March, 1987.

Senator Devlin asked:

If the Jawoyn people are prepared to let exploration go on, knowing full well that there is gold, platinum and everything else at Coronation Hill, are you saying you would not be happy for these to be mined after the completion of the exploration:

Mr Fordimail:

We are quite happy with the way BHP has been doing it because it has agreed to employ the Jawoyn people.

Senator Townley:

So you would most probably be happy if you could get a suitable agreement with the people who might do the mining?

Mr Fordimail:

Yes.

Later, the Chairperson asked:

Have the BHP people said that you would get money if mining went ahead?

Mr McDonald:

They showed us what they were doing at Groote Eylandt. We went to Groote Eylandt and had a look around at what BHP does with them there. They showed us around there and the Aboriginal people were happy with what BHP had done with them. When we came back we had a meeting about that with the Jawoyn mob and they said that if there is mining like that it is all right.

We are advised by BHP that the Jawoyn people in inspecting the Groote Eylandt mining operation saw exploration

activity, mining activity, the town layout and rehabilitation on the island. They observed blasting, quarrying and all the normal functions of a mining operation. BHP state that they also went to some trouble to explain to the Jawoyn people the difference in the size of the projects and the method of open cut mining.

It is difficult to conclude that Jawoyn custodians, having visited Groote Eylandt and observed mining operations, could have been labouring under the misapprehension that Mr Cooper ascribes to them, particularly given the quite precise and unequivocal statement of Mr McDonald.

What Mr Cooper claims Jawoyn people say is contradicted by the evidence that this Committee has received from the Jawoyn people and the outcome of 15 August 1988 Barunga meeting. Even Mr Cooper's written and verbal explanations for the Jawoyn people allowing exploration and mining is contradicted by the evidence.

If one reflects upon the evidence given to the Committee, it is difficult to conclude that the submissions made by the Aboriginal Sacred Sites Authority or the report of August last year, prepared by Mr Cooper, reflect the views of the Jawoyn community.

We find it difficult to reconcile that Mr Cooper can write a report claiming that the Jawoyn people do not want mining on Coronation Hill, attend a meeting of the Senate Committee in Canberra restating that claim and, within three months the Jawoyn Community, at a meeting at which whites are requested to withdraw, give approval for their people to work on the mining site. A considerable number of Jawoyn people, other than Jawoyn workers, are now living at the Coronation Hill Joint Venture site.

The evidence we have received does not lead us to believe that Coronation Hill is a site of major significance to Aboriginal people or that it ever has been. For us to find

otherwise would fly in the face of overwhelming and categorical evidence. The fact that the majority of the Senior Custodians who gave evidence do not believe it is important to them, the fact that they have agreed to allow mining and that, more recently, the Jawoyn people have given their blessing to their people to work on the exploration site with another seventy seeking employment, does not persuade us the Jawoyns think the site is sacred or important.

PARAGRAPH 146 - DISSENT

We find no merit in the recommendation. The practical effect will be to allow non-Aborigines to interfere and seek to overturn Aboriginal decisions.

Responsibility for agreeing or disagreeing with mining and notifying the Aboriginal Sacred Sites Authority of their decision is a function of the Aboriginal groups which they must exercise with diligence and deliberation. The rights which these groups assume in such matters attract a corresponding degree of responsibility. For the Committee to seek to provide a mechanism to accommodate less than proper and due rigour in the discipline of its determinations can only weaken the ultimate responsibility of the Aboriginal community.

PARAGRAPH 147 - DISSENT

Our understanding is that, as a result of events flowing from Coronation Hill, particularly as they relate to the Aboriginal Sacred Sites Authority, the Chief Minister of the Northern Territory Government in August 1986 established a Sacred Sites Protection Review Committee to consider the future operations of the Sacred Sites Act.

The terms of reference at that Committee, chaired by Mr Brian Martin, QC, the then Solicitor General, were:

To inquire into, report upon and make recommendations in respect of:

- (a) The philosophy and policy regarding laws designed to appropriately protect areas which are sacred or otherwise of significance to Aborigines.
- (b) The laws and effect of the laws of the Northern Territory of Australia relating to the protection of, and prevention of the desecration of, sites in the Northern Territory of Australia that are sacred to Aborigines or otherwise of significance according to Aboriginal tradition, including sites on Aboriginal land within the meaning of the Aboriginal Land Rights (Northern Territory) Act and, in particular -
 - . laws regulating or authorising the entry of persons on those sites;
 - . shall examine the procedures and practices adopted by the Aboriginal Sacred Sites Protection Authority and may inquire into the circumstances surrounding the registration of any particular site or sites as sacred sites in the register established and maintained by the Authority under the provisions of the Aboriginal Sacred Sites Act;
 - . investigate why use has not been made of the provisions of the Aboriginal Sacred Sites Act for the declaration of a place as a sacred site by the Administrator;
 - . consider whether or not the composition of the Authority is appropriate to its functions.³⁹

The Committee has now reported and we understand the Northern Territory Government is presently considering the drafting of legislation as a result of its inquiry.

We believe the inquiry has highlighted the need to amend the Northern Territory Aboriginal Sacred Sites Act and Administrative procedures.

We note the Attorney General's tabling statement of 25 August 1988 wherein he states that, 'Mr Speaker,

unfortunately the Authority continues not to comply with the Act.'It is clear all is not well. To the extent that the Northern Territory Aboriginal Sacred Sites Protection Authority impinges upon the terms of this inquiry, it is obvious that there is urgent need for amendments to the Aboriginal Sacred Sites Act.

The first matter of a legislative nature to confront the writers of the dissenting report is the definition of a sacred site and the second is the process of preserving the site.

Under section 3 of the Aboriginal Sacred Sites Act the definition of a sacred site'.. is a site that is sacred to Aborigines or is otherwise of significance according to Aboriginal tradition...'

Clearly that definition allows for ambit claims of very wide dimension. An area that is significant simply as a meeting place is capable of being set aside as a sacred site.

One would perhaps have less concern for such a wide definition if there were to be an appropriate mechanism for examining and reviewing these applications. In practice there is not.

The Aboriginal Sacred Sites Act does provide that Aboriginal custodians may request the Authority to take steps to have the sacred site declared a sacred site. The Authority may, if it thinks fit, apply to the Administrator to have a sacred site declared a sacred site for the purposes of the Act.

The Administrator shall cause an investigation to be carried out to ascertain -

- (a) the importance of the site to Aboriginal tradition;
- (b) whether the owners, if any, of the land containing the site object to the taking of steps to protect

- the site;
- (c) the story of the site according to Aboriginal tradition; and
 - (d) any other matters concerning the site as the Authority thinks relevant.⁴⁰

Those provisions provide checks and balances upon the wide scope of the sacred sites definition. However, notwithstanding approximately 4 000 sacred sites registered, there has not been a declaration, although I am advised by the Authority that one application for declaration has now been made.

The procedure applied thus far is found in sections 24 and 25, where the Authority shall examine and evaluate a site referred to it by an Aborigine as a sacred site. If the Authority is satisfied that the site is a sacred site the Authority shall record the site and all its particulars in the Register of the Aboriginal Sacred Sites.

The Act is silent on whether the applications should be in writing;

The application, accompanied by an anthropological report, is then submitted to the Board of the Aboriginal Sacred Sites Authority for registration of the site.

It is our view that for the sake of the integrity of the sites and to provide balanced considerations in making determinations, a process of declaration should be axiomatic upon registration or that a trigger mechanism be instituted. We have some sympathy with the view that such a process will, using present procedures, cause considerable and inconvenient delays, however, we doubt it is beyond the wit of man to accommodate such difficulties.

At the end of the day it is imperative that there be a mechanism in place which ensures decisions are capable of being made as to the importance of particular sites to

Aboriginal tradition and the steps, if any, that should be taken to protect the site, bearing in mind the considerations set out in section 26 of the present Act.

It is inappropriate, for instance, that such considerations should be reduced to financial bargaining between custodians and mining companies.

It appears that the Aboriginal Sacred Sites Authority accepts both oral and written applications from Aborigines and has in the past at least accepted applications from non-Aboriginals.

Applications and registrations from non-Aborigines are presumably in breach of the Act and, by any measure, applications initiated by other than Aborigines are in breach of the spirit of the Act.

It is not, in our view, appropriate that oral applications be accepted or acted upon unless the site is in apparent danger of immediate damage and in those circumstances the oral applications should be followed promptly in writing. We believe under normal circumstances applications should only be lodged in writing by the custodians seeking the declaraton or registration with their signature or mark witnessed.

The Aboriginal Sacred Sites Act appears to provide opportunities for a considerable conflict of interests by anthropologists. Theoretically, under the present practice and procedures, it is possible for an anthropologist to initiate an application for the registration of a sacred site, be engaged by the Authority to provide a submission to the Board which supports the application and subsequently to be employed by a Land Council to provide supporting evidence in respect to that site in pursuit of a land claim.

Alternatively it is possible for an anthropologist to be engaged by a Land Council to prepare a register of sites in

support of a land claim, identify sites, initiate their registration and then provide supporting evidence to the Aboriginal Sacred Sites Authority Board in support of the application.

While we do not suggest anything improper we view it as an unsatisfactory practice to allow the same anthropologist to provide corroborating evidence at each stage of a claim. We believe that if these sites are to retain their integrity there is a need for independent assessment. We also question whether it is appropriate in every circumstance for anthropologists to initiate site registrations or declarations by encouragement or on behalf of custodians.

We refer to the category of site which is protected for the purpose of preserving the intrinsic and spiritual relationship between Aborigines and land, not the setting aside of areas of historic significance to which there is no contemporary or living relationship. To that extent it is for the custodians, not the anthropologists, to demonstrate and establish their contemporary links which are part of a personal and living experience.

The setting aside of areas of historical significance is quite another matter. The considerations which must be weighed in the deliberation and determination of their preservation and of other potential competing interests are quite different.

The preservation of sacred sites and the setting aside from ordinary use by other Australians, of large tracts of land for the protection and preservation of areas of spiritual significance can only be achieved by the goodwill and understanding of the majority of Australians.

If the integrity of claims on these areas is placed in doubt, so will be their future.

Recommendation

We recommend that the Northern Territory Government move quickly to amend the Aboriginal Sacred Sites Act to:

- (i) clarify the role of the Aboriginal Sacred Sites Protection Authority;
- (ii) introduce an automatic system of site declarations;
- (iii) provide only for written, witnessed applications except where the site is in apparent danger of immediate damage;
- (iv) in the circumstances of (iii), an oral application to be accepted subject to prompt written application following.

1. Australian National Parks and Wildlife Service (ANPWS) 1980
Plan of Management p. 380
2. Evidence p. 2605
3. MIM Holdings Limited, submission No 25, p. 6
4. Evidence p. 2599
5. Evidence p. 2600
6. Evidence pp. 02601-2
7. Majority report, Chapter 3, paragraph 49.
8. [Ibid]
9. Majority report, Chapter 3, paragraph 97.
10. Majority report, Chapter 3, paragraph 97.
11. Majority report, Chapter 3, paragraph 48.
12. Evidence p. 2469.
13. Hansard, Senate Estimates Committee E, 18.9.86.
14. The Age 17.9.86.
15. Majority report, Chapter 3, paragraph 94.
16. Majority report, Chapter 3, paragraph 94.
17. Majority report, Chapter 3, paragraph 72.
18. Evidence, p. 1673.
19. Evidence p. 691
20. Evidence p. 684
21. Evidence p. 689
22. Evidence, p. 1656.
23. Evidence pp. 2602-3
24. Evidence p. 70
25. Evidence, p. 95
26. Evidence, p. 1649.
27. Majority report, Chapter 3, paragraph 85.
28. Majority report, Chapter 3, paragraph 85.
29. Ranger Uranium Mines, Septebmer 1988, Decommissioning
Collections, paragraph 4.2
30. Clause 29 (b), Ranger Uranium Project - Authority under
section 41.
31. Majority report, Chapter 3, paragraph 114.
32. Majority report, Chapter 3, paragraph 114.
33. The Australian 1.6.88.
34. The Australian 1.6.88.
35. Majority report, Chapter 3, paragraph 48.
36. Majority report, Chapter 3, paragraph 140.
37. Majority report, Chapter 3, paragraph
38. Majority report, Chapter 3, paragraph 144.
39. Serial Report of the Aboriginal Sacred Sites Review Committee,
Mr Manzie, Attorney General, Attachment A - Tabling Speech
of 25.8.88.
40. Aboriginal Sacred Sites Act (1978) s. 26(3)

CHAPTER FOUR

JABIRU

PARAGRAPH 19 - DISSENT

We do not believe development of tourism in Jabiru will create a problem for the privacy of Aborigines. This is a view which, we believe, is shared by the overwhelming majority of Aborigines who live in the Park and evidenced by their application, approval and construction of a new motel within the Jabiru township. The motel will officially be opened on 24th October 1988 and is jointly owned by the Gagudju Association (72 per cent) and Industrial Equity Ltd (28 per cent).

We are unable to reflect upon the Committee's view that appropriate licensing laws, as they affect Aborigines, and Aboriginal housing will require careful consideration, because we do not understand the meaning.

Recommendation

That, in monitoring the planning and future development of Jabiru and, in considering the effect of future development on Aborigines, the relevant Northern Territory Government authorities, in consultation with ANPWS, the Jabiru Town Council and the Gagudju Association, should seek to ensure that there are no unreasonable adverse consequences.

PARAGRAPH 22 - DISSENT

The prohibition or restrictions are to protect the Park and its wildlife. It would be outrageous to suggest that animals in the hands of one group of people are harmless but, in the hands of another, are treated as hazardous. We believe the enforcement of animal restrictions or

prohibitions should be uniform and even-handed.

Recommendation

That there be uniformity of laws and their application for all people with respect to the keeping of pets.

PARAGRAPH 24 - ADDITION

There is, as the majority report states, 'no evidence of environmental problems caused by any of the town services' and, to make references to dirt tracks causing a run-off into the river system which carries millions of tonnes of water each year, is a reflection of the absurd level of microscopic analysis which has lost all sense of proportion in pursuit of identifying pollution in 19 804 km² (1 980 400 ha) of Park.

PARAGRAPH 28 - ADDITION

The ACF went on to say that 'it was like having a shop in the middle of a golf course.'

The dearth of intellectually compelling evidence in respect to the damage which Jabiru has, or is doing, to the Park is reflected in the Committee's inclusion of evidence reported in paragraphs 27 and 28.

With notable exceptions, the golden thread which has run through the submissions and evidence of those who are opposed to mining in particular but, to human activities the Park in general which require infrastructure, has been a philosophic prejudice divorced from intellectual rigour and integrity.

PARAGRAPH 32 - DISSENT

To require all developments, particularly in Jabiru, to be subject to environmental evaluation would be a bureaucratic nightmare. It should be restricted to major developments.

Recommendation

That, in the future, major developments in Jabiru, and in other parts of Kakadu National Park, be subject to an environmental evaluation.

PARAGRAPH 35 - ADDITION

In recognizing that the Gagudju Association, who represent the majority of Aborigines in the Park, are in favour of tourism and tourist development within the Park, it is not without significance to record the evidence of the ACF, the Department of Aboriginal Affairs, the Northern Land Council, the Aboriginal Sacred Site Protection Authority (ASSPA) and others all of whom, purporting to speak on behalf of Aboriginal people, talked of the serious and detrimental effects that visitors to the Park were having upon Aboriginal communities, their sacred sites and their traditional lifestyle.

PARAGRAPH 37 - DISSENT

Kakadu National Park (Stages 1 & 2) comprises 13 073 square kilometres (1 307 300 hectares). We have absolutely no hesitation in asserting that amongst those 13 073 square kilometres can be found the few square kilometres required for a settlement to provide the limited infrastructure necessary to accommodate the needs of tourists, particularly given the thousands of hectares of monotonous sparse and low scrub country referred to in the Park description.

Paragraphs 35, 36 and 37 dwell on the implications of Jabiru now and in the future upon the Aboriginal community and seem, in some respects, to ignore the obvious views and judgment of the Aboriginal people.

Suggestions that another town in the Park would not be appropriate, in part because of the implications for Aborigines, are, in our view, not only decidedly inappropriate but also quite wrong.

We do not support separate development.

Recommendation

That, in the event it is necessary that further settlements be built for the purpose of accommodating the needs of tourists in the Kakadu region, the settlements be not excluded from the Park.

That any proposal for a tourist development should be subject to a stringent environmental impact study, taking into account all relevant considerations.

PARAGRAPH 39 - ADDITION

Given amendments to the Income Tax Assessment Act 1936 and industrial relations considerations it is unlikely that future mining projects will be accompanied by a conventional town. The trend recently has been for mining projects to operate on a 'fly in, fly out' basis.

CHAPTER FIVE

COMMERCIAL FISHING

PARAGRAPH 22 - DISSENT

The majority report decision is based on a particular view of the concept of a national park which excludes any exploitation of the natural resources.

Inasmuch as we believe that national parks are not only for the pleasure and enjoyment of mankind, but also for his benefit, we cannot support such a recommendation which denies multiple land use to which we referred in Chapter Three at paragraphs 58 and 59.

Our view is that commercial fishing ought to be allowed in the Park provided it does not endanger fish stocks. We do not presume to judge what limits ought properly to be placed on the industry, however, it should also be considered in the light of competing interests from amateur fishermen and the availability of fish schools for passive viewing by Park visitors.

We tie our recommendation to those set out at paragraphs 58 and 59 of Chapter Three.

Recommendation

That commercial fishing be allowed in Kakadu National Park subject to appropriate and proper regulation.

That in determining the allowable extent of the catch, appropriate consideration be given, not only to fish stocks, but also to amateur fishermen and the interests of tourists who may wish to observe schools of fish within the Park.

PARAGRAPH 27 - DISSENT

We dissent for reasons referred to in paragraph 22.

CHAPTER 6

OTHER ISSUES

PARAGRAPH 37 - DISSENT

It is quite inconceivable that buffalo have the potential to damage mine tailings dams by trampling up and down the sides of the impoundments.

As described in Chapter Three, tailings dams have banks as high as 20 metres and, in the case of Ranger, a width which allowed the construction of a road upon the top capable of accommodating two heavy vehicles passing side by side.

PARAGRAPHS 42-45 - DISSENT

The majority report, in claiming that 'the animals now being exterminated from Stages 1 and 2 of the Park "have a dispersed distribution" and do not "place an unacceptable impact on the Kakadu environment"', seems to have accepted, on face value, the evidence of the Gagudju Association.

The inescapable fact is that, wherever buffalo exist within Kakadu National Park, they do harm to the environment.

Introduced hard-hoofed animals are incompatible with the Australian vegetation in general and the Kakadu National Park ecosystem in particular.

To the extent that we support multiple land use, in each case weighing and measuring whether the impact on the Kakadu region is acceptable, we support the recommendations; however, it should be understood that the claim made by the Gagudju Association that total eradication would place an economic burden on the local Aboriginal population, is made against a background of royalty payments of \$21.3 million being paid to the 210 adult members and 108 children of the Gagudju Association since 1981.

The cost of maintaining a limited herd of buffalo within Kakadu National Park will not be achieved without very considerable expense. Not only will there be considerable cost in maintaining set numbers but, it will require the manipulation of their behaviour. To minimize environmental damage, particularly to the ecosystem, will also require careful farming as distinct from uncontrolled grazing.

We believe that, if the Gagudju people want a buffalo herd maintained as a food source, they should expect to bear the cost.

Recommendation

The majority report recommends:

- (i) that, as a matter of urgency, ANPWS work with the Gagudju Association to consider the feasibility of establishing a disease free herd of buffalo in a controlled area within the Park to meet Aboriginal needs for field killed meat. This recommendation should be read in conjunction with (ii). Should the proposal contained in (ii) proceed, it may be possible to put into place arrangements that will accommodate the matters referred to above; and
- (ii) that the proposal for a buffalo park adjacent to the boundaries of Stage 3 of Kakadu National Park be investigated and, subject to necessary environmental safeguards, that it be supported.

We add to this recommendation:

- (iii) that the cost of such an undertaking be borne by the Gagudju Association.

PARAGRAPH 52 - DISSENT

We find difficulty in the inconsistency of allowing feral animals to create very considerable damage to the Park and, in the case of buffalo, make special provision for their maintenance, while stating that hunting of such animals is at odds with the idea of a national park.

We support the concept of allowing shooters into the Park under licence and suitable safety and environmental conditions, both because of the recreational merit and the contribution it will make to maintaining and improving the environment in general and, ecosystem of the Park in particular.

Recommendation

That recreational hunting within the Park be allowed under licence and subject to appropriate safety and environmental provisions.

PARAGRAPH 61

One has to be concerned at the fundamental difference in approach to fire management and it is a matter which should be resolved quickly.

Recommendation

That an immediate examination be made by the Minister for the Arts, Sport, the Environment, Tourism and Territories and the Minister for Science, Customs and Small Business of the alternate approaches to fire management being pursued by ANPWS and the CSIRO with a view to early resolution of the proper approach.

CHAPTER 7

MANAGEMENT CO-ORDINATION AND CONSULTATION

PARAGRAPH 18 - DISSENT

It is quite wrong for traditional owners to lease that part of the Park which is the subject of an Aboriginal land grant to ANPWS and then demand a majority of traditional owners on the Board of Management of the Park.

Ninety-three per cent of Stage 2 of Kakadu National Park is not Aboriginal land and no claim has been granted on Stage 3. The Aboriginal community has no greater claim to Board management responsibilities over those areas than have other interest groups. It can properly be argued that they have no claim, but that interest groups, such as the mining and tourist industries, do. Kakadu National Park should be managed for all Australians.

Recommendation

That a Board be created to manage Kakadu National Park with representation from a broad range of interest groups, including particularly the Northern Territory Government.

PARAGRAPH 33 - DISSENT

We do not believe it is either appropriate or necessary to strengthen the Office of the Supervising Scientist (OSS). No evidence was received by the Committee which suggested or implied that action was necessary to ensure that the National Environment Safeguards for uranium mining in the Park region are being met. We support a review of the administrative agreements between the Northern Territory and Commonwealth Governments with a view to ensuring that the functions of the OSS are limited to developing research program and standards, practices and procedures relating to the effect of mining operations in the region.

Any proposals to extend the powers and responsibilities of the OSS as recommended by the majority report must be contrary to the principles of devolution of responsibility and cannot logically be sustained in the Northern Territory so long as the OSS plays no part in the Olympic Dam operations of South Australia. To extend the powers of the OSS within the Northern Territory, particularly to supervisory and administrative matters, is to reflect adversely upon the competence and integrity of the Northern Territory Government.

Our understanding is that the Northern Territory Department of Mines and Energy has conducted its responsibilities with efficiency and competence. The Committee has received no criticism of the Department in evidence. In our view, the area of responsibility of the OSS of the greatest consequence, for both the environment and uranium mining, is that of research and it is the thread of activity which runs through, in the greater part, the functions of the Supervising Scientist who, in his submission to the Committee, set out his functions as:

- * to collect and assess information relating to the effects on the environment of uranium mining operations in the Region;
- * to arrange and undertake research through the Alligator Rivers Region Research Institute which he manages, and promote and co-ordinate research generally within the Region;
- * to develop and promote standards, practices and procedures of environmental importance from the effects of uranium mining operations in the Region;
- * to develop and promote measures for the protection and restoration of the environment from the effects of uranium mining operations in the region;
- * to co-ordinate and supervise the implementation of relevant laws including Environmental Requirements and other 'prescribed instruments' issued under those laws; and
- * to advise the Minister on the above matters and to report to the Minister and through him to the Parliament on the above matters annually, and additionally as the Minister or the Supervising Scientist thinks fit.¹

This submission of the Supervising Scientist in addressing his research program stated:

the research program has been designed to address the potential hazards presented by a uranium mining operation, taking into account the sensitivity of the various components of the environment that are likely to be subject to impact. The main aims of the program are to:

- * establish a baseline environmental data against which to measure the impact of uranium mining activities;
- * develop techniques to monitor the effects of uranium mining operations;
- * develop an understanding of the processes by which dispersion and transport of contaminants may take place from the mine sites to the surrounding environment;
- * develop models to predict the likely impact of the introduction of contaminants on the ecosystem;
- * assist in the development and determination of operational standards and measures for the protection and restoration of the environment; and
- * provide scientific advice on whether uranium mining operations are being carried out in a way that minimises environmental damage.

The research programme is currently divided into 6 major areas - Aquatic Biology, Terrestrial Ecology, Chemistry, Environmental Radioactivity, Geomorphology and Environmental Modelling. Some research on occupational health and safety is also undertaken within the Office of the Supervising Scientist.²

It is in the realm of research that Energy Resources of Australia Ltd has been most critical of the Office of Supervising Scientist:

Ranger's chief objection to the OSS research performance is the apparent lack of any priority given to collecting information that might be useful to the mining companies.

Ranger is of the view that more emphasis should have been given to applied research - scientific activity which will have relevance to environmental protection of the ongoing operation.

Two examples of important management practices which were not researched by the OSS are detailed below:

Spray irrigation

Concern about spray irrigation has been twofold.

1. Spray irrigation was recognised by the Fox Inquiry as potentially a useful water management practice. Yet when excess water was causing problems the authorisation of spray irrigation trials was delayed for a year.
2. While many aspects of irrigation could have been researched early on in the site adaptation of this practice, the OSS only became involved in research toward the end of the development program, despite considerable efforts by Ranger, its consultants, Queensland Mines Pty Ltd, and the NT Department of Mines and Energy. The OSS recently embarked on a \$400 000 irrigation research program well after the adoption of the practice on an operational scale, and has been criticised for the direction of that research.

Sub-aerial tailings

Another example of OSS lack of input concerns the tailings management. Efficient tailings management was an area of major concern in the early stages of the operation. Ranger was pressing to convert to a more efficient sub-aerial (semi-dry) system.

Ranger's view was that a sub-aerial tailings trial was unnecessary because Queensland Mines used the technique and it was a widely established practice around the world. Nevertheless Ranger was forced to conduct a trial and has never been given an adequate answer as to why the OSS Research Institute did not conduct this expensive (\$150,000) trial given the concern it expressed at conversion of the system without a trial. The trial proved of no value in the subsequent conversion to sub-aerial tailings management.³

Ranger went on to state:

Another observation that Ranger would like to make with reference to OSS research, is that by far the most work has been on fish and mussels. However, when Ranger wants to do something with the information, the response from the OSS has not been encouraging. We agree that often it is tempting to take the academically safe course of collecting information ad infinitum, but Ranger, trying to run a mine in a competitive world industry, needs relevant information on which to make timely decisions.

An example of OSS disregard for this principle is demonstrated by the response to a letter sent by Ranger to the Office of the Supervising Scientist on September 22, 1986. It reads:

'To facilitate the planning of a release of RP2 water we seek a response from your scientists on the likely impact on fish and mussel population, of following scenarios:

RP2 water is released during the late wet season for a 14 day period. Dilution has been derived from pre-screening tests with Cladoceran and fish larvae.

1. Fish avoidance occurs during this release, one or a number of species move to the opposite side of the mixing zone, however, there is no net difference in upstream/downstream movement away from the mixing zone.
2. Fish movement stops during the release season.
3. Mussel reproductive suppression occurs in the mixing zone during the release.
4. Mussel recruitment to the mixing zone does not occur for the remaining part of the wet season.
5. Mussel reproductive suppression from the release point to Mudginberri Billabong during the release and subsequent to the release larvae production remains out of phase to mussels upstream of the release point for the rest of the wet season.
6. Mussel recruitment from the release point to Mudginberri Billabong does not occur for the remaining part of the wet season.
7. All larval recruitment that has occurred prior to the release is subsequently destroyed by the release.

In your reponse could you please include an explanation of your methodology for partitioning the effects of the release from natural variations, the effect of the absence of a size class of mussels in the mixing zone on the Magela ecosystem, and some assessment of the above scenarios as an acceptable environmental impact?'

Ranger has never received a reply to this letter - let alone any useful information, discussion, collaboration, co-operation or offer to supervise or oversee the work. Considering the huge resources that have been allocated by OSS to the study of the aquatic ecosystem this situation is very disappointing.

Ranger questions whether the OSS data is collected in a form that can be used to assess impact.

In a paper to an Environmental Workshop an OSS scientist said:

'Mining company personnel concerned with the planning

of water budgets within their respective project areas are keen to obtain details of safe levels of contaminants for release waters. This places considerable pressure on biological research groups to produce numerical limits for water budget planners to work on. Even though this pressure produces a valid research motivation, it should be kept in perspective and not be allowed to cause hasty recommendations based on few hard data. It is not unreasonable considering the time taken to complete such studies to ask mining companies to wait for a period of possibly years for recommendations'.⁴

Ranger makes the following comments in relation to an outline of the work of the OSS given in its Annual Report for 1986-87:

Biological monitoring

Ranger agrees with the direction of some of this work but is critical of the progress. No techniques or procedures for assessing or detecting impact of the mining or processing operations have been developed by OSS and adopted by Ranger.

This division still has not published anything on the monitoring of Ranger's release of Retention Pond 4 water in 1984-85. The scientists concerned are becoming involved in Coronation Hill but as yet, have not developed a useful method of monitoring a water release from Ranger.

Radiation

This group, which includes an involvement by the CSIRO, is looking at the radiological implications of irrigation. Ranger believes the standards for rehabilitation should have been established by now.

Environmental Modelling

The annual report lists a large array of models. Ranger's advice on two of the models given in the 1986/87 Annual Research Report is that they are too basic to be of value and that the data required for them to be of relevance either does not exist or is virtually impossible to collect.

A 1987 request for data in order to construct models is an example of the inefficiency of the Sydney office of the OSS. Ranger was asked to provide information/data on a weekly basis in order to construct a model. Ranger, at a cost in time of several hours a week, collected, collated, checked and sent the information to Sydney on a regular basis. Two Sydney officers have now informed Ranger that there is no model. Some of the information the OSS is researching for the model is widely available in commercial packages.

Environmental Chemistry

The chemistry program appears to concentrate on the potential effects of a catastrophe. Ranger is of the opinion that OSS environmental chemistry research could be of more use if it concentrated on sources of potential pollution. There is no emphasis on groundwater chemistry, such as the migration of solutes (apart from land application consultancy). There is no emphasis on long term process eg solid state speciation of radionuclides and heavy metals in the tailings after rehabilitation either above ground or in the mine pit.

Plant Ecology

Apart from the general ecological aspects of the vegetation studies, this group lists part of its program as the rehabilitation and revegetation of disturbed mine site areas. The plant ecology section has been going for at least four years. The OSS officers in this section have always been going to get involved in research into rehabilitation and revegetation of the disturbed mine sites, but they have not yet commenced programs.

Geomorphology

This is probably the most relevant section of OSS in terms of site rehabilitation. Ranger believes that far more emphasis should have been given to this work.

Hydrogeochemistry Research

Ranger considers that in the light of current legal requirements to return the tailings to the pit, some emphasis should be placed on the geochemical aspects of this mode of tailings disposal. The OSS annual report for 1986/87 proposes some hydrogeological work to be done and refers to the Annual Research Summary. This lists a series of projects which indicates that the OSS recognises the lack of information in this critical area.

The OSS appears to have no research relating to the in-situ rehabilitation of the tailings dam, to weathering products of waste or potential capping material. A decision is expected to be made on the fate of the tailings dam in December 1989 and is essential from an economic point of view.

Although the geomorphic aspects of above ground tailings deposits (in situ rehabilitation) are being investigated - little or nothing is being undertaken on the chemistry of the potential impact on groundwater quality.

Hydrogeology

Ranger is not aware of any useful information which has been generated by the OSS in this area.

The understanding of the hydrogeology and of solute transport away from Ranger is very important to be able to ascertain the potential long term impact on the environment.

Work that Ranger considers the OSS should be involved in includes:

1. Study of water management practices and the development of techniques to decrease the potential impact.
2. Techniques of water release to reduce potential impact.
3. Rates and mechanism of movement of solutes from the water holding bodies and their potential for environmental impact.
4. Techniques to reduce the rate of solute movement from the water holding bodies.
5. Requirements for in-situ rehabilitation of tailings dam:
 - * Mechanisms of solute transport from the tailings dam.
 - * Methods of moisture reduction in tailings to allow capping with rock.
6. Water movement through rock dumps and solute leaching.
7. Surface runoff from rock dumps and tailings dam's final surface and its impact on rates of erosion.
8. Final rehabilitation configuration - especially hydrology. An input to the shape, height and erosion control structure.

Consultants

It is clear that much of the output of the OSS is generated by consultants. Ranger questions the efficiency of a research organisation of some 72 people, with two operating mines to look after, that makes so much use of consultants. The effective use and proper direction of consultants should allow the engagement of expert groups to expeditiously achieve specific research goals and permit significant reductions in OSS personnel. This would be in keeping with the original concept envisaged by Fox (RUEI) and facilitate restructuring of the existing organisation.⁵

At this time of the Committee's inquiry, it is not possible to

make a judgment on the merits of Ranger's claim, however, the matters Ranger raises are of sufficient width and seriousness as to justify a full and thorough investigation.

Clearly, duplication does take place between the OSS and the Northern Territory Department of Mines and Energy.

We understand that the OSS on occasions flies people from Sydney to double check the work of the Northern Territory Department of Mines and Energy in its monitoring of Ranger's radiation protection program.

We recommend that the Northern Territory Department of Mines and Energy have regulatory, surveillance and monitoring responsibilities.

Recommendation

That:

- (i) the Northern Territory Department of Mines and Energy have regulatory, surveillance and monitoring responsibilities for uranium mining in the Northern Territory;
- (ii) the functions and staff of the Office of the Supervising Scientist be abolished and its functions given to the Australian Nuclear Science and Technology Organisation (ANSTO) and the University College of the Northern Territory;
- (iii) the Australian Science and Technology Council (ASTEC) examine the claims made by Energy Resources of Australia Ltd of the failures and inadequacies of research conducted by OSS; and
- (iv) in the event the Commonwealth Government does not accept Recommendation (ii), it urgently locate all operations of the OSS in the Northern Territory.

NOTE:

We record that, in our personal communications with the OSS in both Sydney and Darwin, we have found the officers with whom we have dealt to be efficient, helpful and competent.

PARAGRAPHS 34 & 35 - DISSENT

Clearly, the majority report views the Co-ordinating Committee for the Alligator Rivers Region as a general clearing house for the discussion of ideas and the exchange of views. Its charter, in our view, envisages and provides for a technical working group and, we support the proposition that the membership of the Committee is inappropriate. We recommend that the Committee be restructured to include only those persons who have a technical competence and statutory responsibility within the Kakadu Region relevant to the functions of the Co-ordinating Committee as defined in the Environmental Protection (Alligator Rivers Region) Act 1978.

The Act defines the functions of the Co-ordinating Committee as:

- a) to consider programs for research into, and programs for the collection and assessment of information relating to, the effects on the environment in the Alligator Rivers Region of uranium mining operations in the Region;
- b) to keep under review programs and the carrying out of programs referred to in paragraph (a);
- c) to make recommendations to the Supervising Scientist with respect to programs referred to in paragraph (a);
- d) to consider and keep under review:
 - (i) standards, practices and procedures in relation to mining operations in the Region for the protection of, or in so far as those standards, practices and procedures affect, the environment in the Region; and
 - (ii) measures for the protection and restoration of the environment of the Region from the effects of uranium mining operations in the Region;

e) to keep under review:

- (i) requirements of or having effect under prescribed instruments in relation to uranium mining operation in the Region in so far as these requirements relate to any matter affecting the environment in the Region; and
 - (ii) the implementation of these requirements;
- f) to make recommendations to the Supervising Scientist with respect to matters referred to in paragraphs (d) and (e);
- g) to perform such other functions, in relation to uranium mining operations in the Region, as are conferred on it by or under a prescribed instrument; and
- h) to do anything incidental or conclusive to the performance of any of the foregoing functions.

We can think of no justification for having Ms L. Allen as a member other than for blatant Party politicking.

We have to assume her appointment was made on the basis of her membership of the Northern Territory Environment Centre which, as Ranger points out, is opposed to:

- . the mining and milling, transportation and export of Australian uranium, and demands
- . the closure and rehabilitation of all existing uranium mines.⁶

Ranger claims that:

[i]f the Co-ordinating Committee is a public forum for general discussion of wider issues, there are many other parties with interests in the subject who could be represented. Organisations such as the Australian Mining Industry Council and the Chamber of Mines are two, for example, with greater scope for more useful contributions than some of the current membership.⁷

Ranger's criticisms of the functioning and achievements of the Committee ought to be the subject of a thorough examination.

Recommendation

That the Co-ordinating Committee for the Alligator Rivers Region be restructured to include only those who have a technical competence and relevant statutory responsibility in the Kakadu Region and that the Committee fulfill, as a technical working group, the functions under its charter for which it was created.

PARAGRAPH 38 - DISSENT

There ought to be a proper forum for an employee representative to contribute to discussions on worker health and safety with mining companies and appropriate government authorities; however, we do not view the Co-ordinating Committee as the appropriate body.

Senator N. A. Crichton-Brown

Senator J. J. McGauran

Senator J. H. Panizza

1. Evidence p. 644.
2. Evidence pp. 650-651.
3. Submission by Energy Resources of Australia Ltd on the operation of the Office of the Supervising Scientist, July 1988, pp. 29-30.
4. Submission by Energy Resources of Australia Ltd, on the operation of the Office of the Supervising Scientist, July 1988, pp. 32-33.
5. Submission, Energy Resources of Australia Ltd on the Operation of the Office of the Supervising Scientist, July 1988, pp. 34-36.
6. Submission, Energy Resources of Australia Ltd on the operation of the Office of the Supervising Scientist, July 1988, p. 40.
7. Submission, Energy Resources of Australia Ltd, July 1988, p. 40.