

Barge Site, Laydown Area and Access Road, Gumboot Bay, North Kimberley

Striker Resources NL

**Report and recommendations
of the Environmental Protection Authority**

**Environmental Protection Authority
Perth, Western Australia
Bulletin 1172
May 2005**

Environmental Impact Assessment Process Timelines

Date	Progress stages	Time (weeks)
6 June 2001	Level of Assessment set (following any appeals upheld)	
13 May 2002	Proponent Document Released for Public Comment	48
10 June 2002	Public Comment Period Closed	4
22 April 2005	Final Proponent response to the issues raised	149
23 May 2005	EPA report to the Minister for the Environment	4

ISBN. 0 7307 6812 0
 ISSN. 1030 - 0120
 Assessment No. 1381

Summary and recommendations

Striker Resources NL proposes to establish a dry door barge site, laydown area, and access road in a coastal inlet 36 kilometres (km) southeast of Cape Londonderry. The site, known locally as Gumboot Bay, is on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215). The proposal also includes 3.6 km of unsealed road to be constructed through the PNP/215. This report provides the Environmental Protection Authority's (EPA's) advice and recommendations to the Minister for the Environment on the environmental factors relevant to the proposal.

Section 44 of the *Environmental Protection Act* 1986 requires the EPA to report to the Minister for the Environment on the environmental factors relevant to the proposal and on the conditions and procedures to which the proposal should be subject, if implemented. In addition, the EPA may make recommendations as it sees fit.

Relevant environmental factors

The EPA decided that the following environmental factors relevant to the proposal required detailed evaluation in the report:

- (a) Conservation and wilderness values;
- (b) Aboriginal heritage and culture;
- (c) Visual amenity and impacts on Faraway Bay Bush Camp; and
- (d) Vegetation/flora and fauna.

There were a number of other factors that were relevant to the proposal, but the EPA is of the view that the information set out in Appendix 3 provides sufficient evaluation.

Conclusion

The EPA has considered the proposal by Striker Resources NL to establish a dry door barge site, laydown area, and 3.6 km unsealed access road on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215). The proposal is intended to provide security of supply for the proponent's exploration and mining activities in the region, however the proposal does not include any mining or exploration within PNP/215.

The EPA notes the high conservation and wilderness values of both PNP/215 and the marine environment surrounding the proposal, and potential for environmental impact on these areas. Submissions from the Department of Conservation and Land Management (CALM) and members of the public have highlighted the important conservation and wilderness values of the area. However, based on the information provided in the PER, and advice from the Department of Industry and Resources (DOIR) and the Department of Planning and Infrastructure (DPI), the proposed barge site and road route would appear to be the best option out of the available alternatives.

The EPA notes that Striker Resources NL has demonstrated its cooperation with traditional owners of the land by obtaining heritage clearances, and will add to this prior to ground-disturbing activities, by undertaking archaeological and ethnographic surveys in liaison with the Department of Indigenous Affairs (DIA).

The EPA acknowledges that the proposal will entail some loss of amenity and “wilderness value” for the adjacent Faraway Bay Bush Camp ecotourism facility. However the EPA considers that these impacts can be managed to an acceptable level through the following management measures:

- a maximum of 5 barge arrivals permitted per field season (1 March to 30 November of the same calendar year);
- management measures to reduce impacts on visual amenity (eg camouflage, screens, low profile design);

In addition, the separation of the two areas by both distance and topography will lessen impacts on the Faraway Bay Bush Camp.

The EPA notes that direct impacts on vegetation/flora and fauna are likely to be low as vegetation community and fauna habitat types in the project area are widespread throughout the region. No Declared Rare Flora or Priority Flora were located during the survey within PNP/215. However, while the total land area to be cleared for the proposal is relatively small, construction of the road will result in a large “edge effect” with risk of impacts over a wider area, for example from changes to surface water flows. A great deal of care will therefore be required to ensure that the road is constructed and maintained to avoid significant impacts on the environment.

In addition, the EPA is particularly concerned about the risk of introduction of pest animals, in particular the cane toad, as well as the risk of introduction and spread of weeds such as *Passiflora foetida* (Stinking Passion Flower). Strict quarantine, monitoring and control protocols will therefore need to be in place throughout the project life.

In conclusion therefore, the EPA notes that, based on advice from the DOIR and DPI, the proposed location for the barge landing and access road would appear to be the best location among the available alternatives. The EPA considers that the proposal is capable of being managed so that the EPA’s environmental objectives would not be compromised, however this will require environmental management of a very high standard based on full implementation by the proponent of the recommended conditions set out in Appendix 4, and summarized in Section 4.

The EPA is of the view that approval should only be granted for an initial period of 5 years, with extension for one period of 5 years contingent upon satisfactory compliance with implementation conditions. The EPA is further of the view that the proponent should be required to lodge full cost-recovery performance bonds.

Other Advice

The management of Faraway Bay Bush Camp have withheld permission for the proponent to construct a road that will intersect with their airstrip to camp road. This

was possible because the Mining Warden considered the existing road to have been substantially improved and that it constituted private property under the *Mining Act* 1978. This ruling was appealed and the Minister for State Development has suspended consideration of the appeal pending the outcome of environmental impact assessment. If the Minister of State Development agrees with the Mining Warden's ruling, the proposal could not be implemented without modifying the route of the access road. This may constitute a substantial change to the proposal.

The EPA notes that the present proposal includes only a 3.6 km length of access road (i.e. only the section of road through the PNP/215). A further 36 km of access road would need to be constructed to reach the proponent's Ashmore Camp. Construction of that remaining section of road would be contingent on gaining separate environmental approvals.

The EPA also understands that a large proportion of the proponent's lease holdings are located to the east and southeast of the King George River. Any proposal to transport fuel across the river would require very careful environmental assessment because of the potential for significant environmental impacts in the event of major fuel spillage.

The EPA also recommends that the proposed national park should be gazetted so that that area can be brought under the management of the Department of Conservation and Land Management.

Recommended Conditions

Having considered the proponent's management measures and the information provided in this report, the EPA has developed a set of conditions that the EPA recommends be imposed if the proposal by Striker Resources NL to establish a dry door barge site, laydown area, and access road in the Proposed Cape Londonderry National Park (PNP/215), is approved for implementation.

These conditions are presented in Appendix 4. Matters addressed in the conditions include a comprehensive Environmental Management Plan, quarantine inspections, CALM inspections, Aboriginal heritage protection, barge movement restrictions, a full cost-recovery performance bond, and appointment of an Environmental Coordinator.

It should be noted that, if approved, the project should not be commenced until bonds have been lodged and until approvals have been issued under the *Mining Act* 1978.

Recommendations

The EPA submits the following recommendations to the Minister for the Environment:

1. That the Minister notes that the proposal being assessed is for a dry door barge site, laydown area, and 3.6 km of unsealed access road on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215).
2. That the Minister considers the report on the relevant environmental factors as set out in Section 3.

3. That the Minister notes that the EPA has concluded that the proposal is capable of being managed so that the EPA's objectives would not be compromised, provided there is environmental management of a very high standard, based on full implementation by the proponent of the recommended conditions set out in Appendix 4, and summarised in Section 4.
4. That the Minister imposes the conditions and procedures recommended in Appendix 4 of this report.

Contents

	Page
Summary and recommendations	i
1. Introduction and background	1
2. The proposal	2
3. Relevant environmental factors	5
3.1 Conservation and wilderness values	6
3.2 Aboriginal heritage and culture	9
3.3 Visual amenity and impacts on Faraway Bay Bush Camp	10
3.4 Vegetation/flora and fauna.....	12
4. Conditions	15
4.1 Recommended conditions	15
5. Other Advice	16
6. Conclusions	16
7. Recommendations	18

Tables

Table 1: Summary of key proposal characteristics	5
--	---

Figures

1. Location map of Gumboot Bay
2. Barge site schematic layout

Appendices

1. List of submitters
2. References
3. Summary of identification of relevant environmental factors
4. Recommended Environmental Conditions
5. Summary of submissions and proponent's response to submissions

1. Introduction and background

This report provides the advice and recommendations of the Environmental Protection Authority (EPA) to the Minister for the Environment on the environmental factors relevant to the proposal by Striker Resources NL, to establish a dry door barge site, laydown area, and a 3.6 km length of unsealed access road on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215).

Striker Resources NL has been actively exploring for diamondiferous kimberlite pipes on its North Kimberley leases. Ore treatment is undertaken in a Washing and Heavy Medium Separation plant at Ashmore. In past years, supply of bulk diesel fuels, consumables and equipment to Ashmore and other project areas was achieved via the Kununurra – Gibb River and Kalumburu – Carson River Station road network, a distance of up to 700 km. Extended wet seasons, impassable sections of ‘black soil’ country, delays and increased costs associated with maintaining access across the Drysdale River and its numerous tributaries, severely curtail exploration and mining field time. More recently, supplies have been barged to the area and then transported a distance of 185 km by road. This route, while shorter, experiences the same problems as outlined above.

Striker Resources NL referred the proposal to the EPA on 4 February 2001. Initially, the level of assessment was set as Informal Review with Public Advice, because, based on the information available, environmental impacts were deemed not so severe as to warrant formal assessment. Twenty four appeals were lodged against the level of assessment set and on 6 June 2001, the then Minister for Environment and Heritage upheld the appeals requiring the proposal to be assessed formally at the level of Public Environmental Review (PER). The period of public review was set at 4 weeks and the PER document (Striker 2002) was released for public comment between 13 May 2002 and 10 June 2002. A total of 35 public submissions were received. The proponent provided its response to submissions on 22 April 2005.

Adjacent to Striker Resources NL’s proposal is an airstrip and fishing base known as the Faraway Bay Bush Camp, which was also assessed at PER level (EPA 1992). Reference is made to this facility within this report.

Further details of Striker Resources NL’s proposal are presented in Section 2 of this report. Section 3 discusses the environmental factors relevant to the proposal. The Conditions to which the proposal should be subject, if the Minister determines that it may be implemented, are set out in Section 4. Section 5 provides Other Advice from the EPA, Section 6 presents the EPA’s conclusions and Section 7, the EPA’s Recommendations.

Appendix 5 contains a summary of submissions and the proponent’s response to submissions and is included as a matter of information only and does not form part of the EPA’s report and recommendations. Issues arising from this process, and which have been taken into account by the EPA, appear in the report itself.

2. The proposal

The proponent, Striker Resources NL, wishes to establish a dry door barge site, laydown area, and access road in a coastal inlet, known locally as Gumboot Bay, 36 km southeast of Cape Londonderry (Figure 1 and 2). The site is on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215), and lies within exploration tenement EL80/1840 held by the proponent since 1994. The Miscellaneous Licence (80/41) that would enable construction of proposal infrastructure had expired at the time of report publication. The proposal is also located approximately 1.5 km southeast of an ecotourism facility known as Faraway Bay Bush Camp. The proposal is intended to provide security of supply for the proponent's exploration and mining activities in the region.

Key aspects of the proposal include:

- dry door barge access during high tides to a landing site. Barge access would be used up to 5 times during the field season (1 March to 30 November of the same calendar year). Seabed dredging would not be required;
- an 8 metre wide x 50 m access road from the landing site to the laydown area located above the inferred 100 year storm surge level. Landing site access to the laydown area would be controlled by a locked gate;
- a 50 m x 50 m laydown area that would contain a unidirectional tower light, navigational aids, a graded hardstand area, and a bunded compound for two 20,000 litre camouflaged diesel fuel storage tanks that will be removed at the end of each field season;
- barge to shore fuel unloading infrastructure including fuel spillage containment infrastructure;
- a 15 m wide perimeter fire buffer zone around the laydown area and a water storage tank;
- an unsealed 8 m wide x 3.6 km segregated Restricted Access Road within PNP/215; and
- clearing of a total of approximately 4 hectares (ha) of vegetation within PNP/215.

The main characteristics of the proposal are summarised in Table 1. Detailed descriptions of the proposal are provided in Section 1 and 3 of the PER document (Striker 2002).

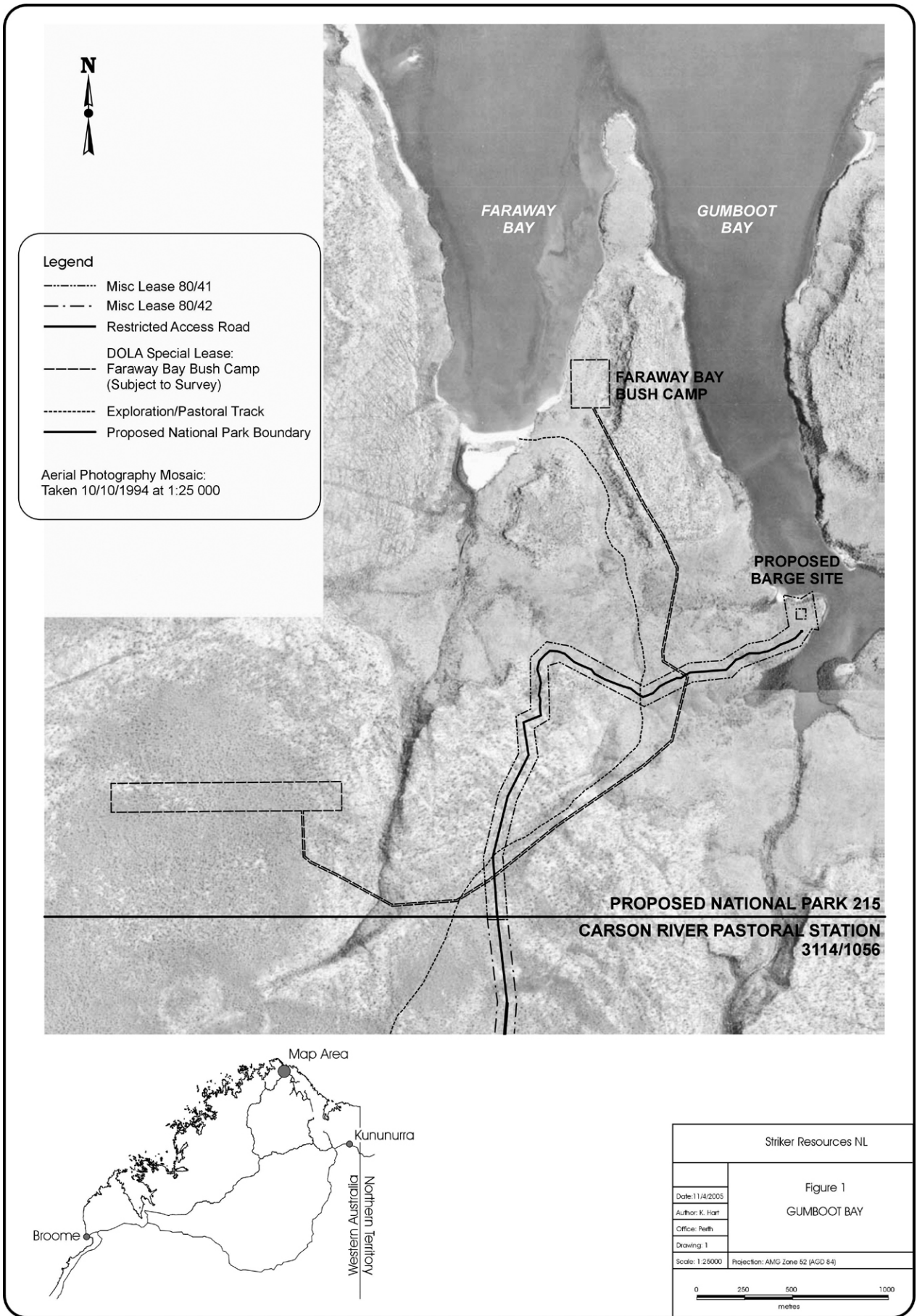
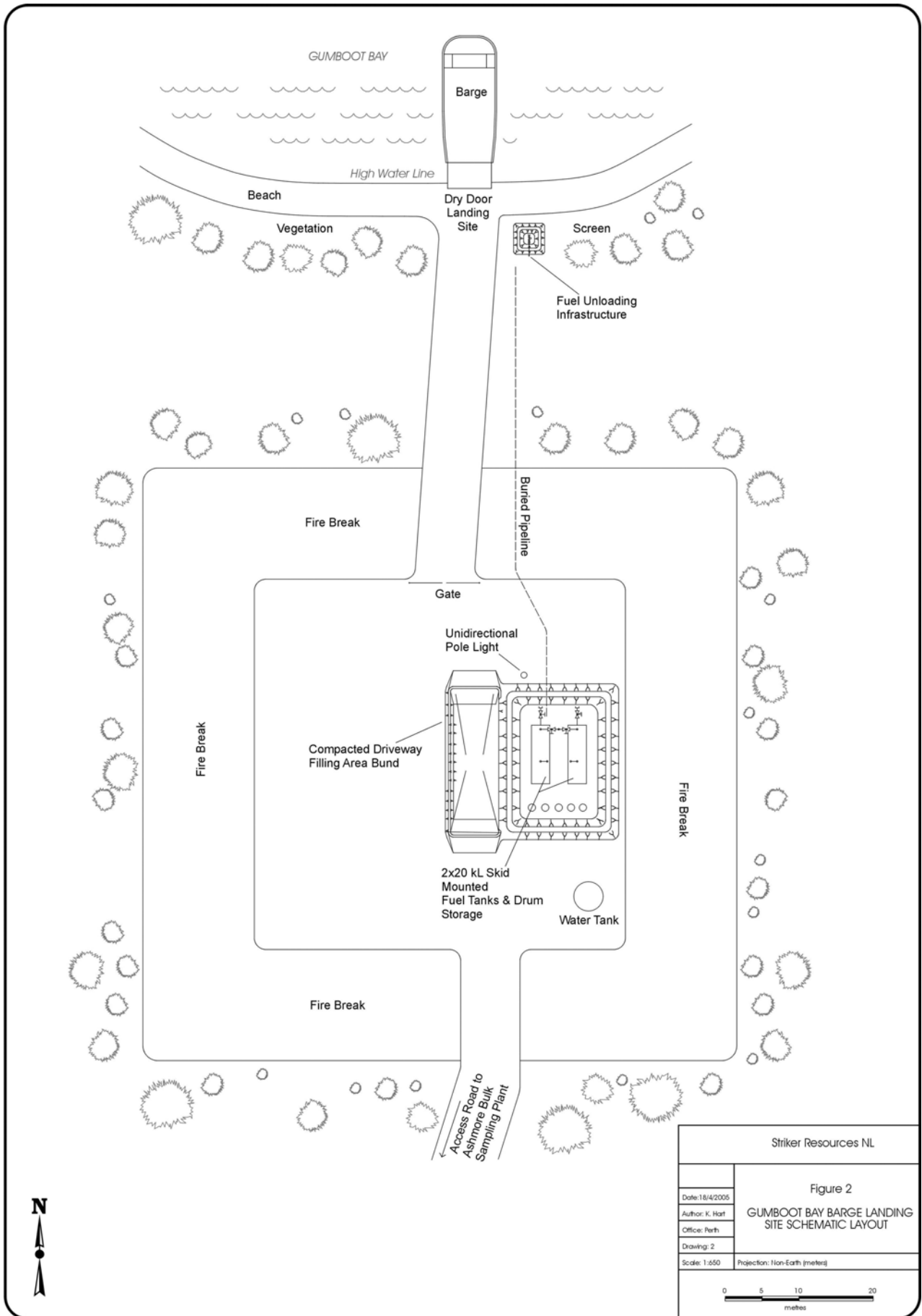


Figure 1: Location map of Gumboot Bay



Striker Resources NL	
Figure 2	
GUMBOOT BAY BARGE LANDING SITE SCHEMATIC LAYOUT	
Date: 18/4/2005	Projection: Non-Earth (metres)
Author: K. Hart	
Office: Perth	
Drawing: 2	
Scale: 1:650	

Figure 2: Barge site schematic layout

Table 1: Summary of key proposal characteristics

Element	Description
Location	– Informally named Gumboot Bay at Latitude 13° 58' South and Longitude 127° 12' East
Construction Period	– Approximately 2 weeks using conventional earth moving equipment (bull dozer, rock breaker, loader, trucks). Work undertaken during daylight hours
Duration of proposal	– 5 years with a possible extension of a further five years.
Area of Disturbance	– Approximately 4 ha
Major components	<ul style="list-style-type: none"> – Dry door beach landing site – Access to laydown area (8 m x 50 m) – Laydown area and fire buffer (65 m x 65 m) – Bunded fuel storage area – Unsealed access road (8 m x 3.6 km) – One unidirectional tower light – Navigational aids – Barge to shore fuel unloading infrastructure – Water storage tank
Facility Operation	<ul style="list-style-type: none"> – Up to 5 barge arrivals per field season (1 March to 30 November of same calendar year) – Road transportation to Ashmore undertaken during daylight hours – No permanent residential facility at the barge site – Fuel storage tanks to be removed at the end of each field season
Workforce	– Construction – up to 5 personnel
Fuel storage capacity	– 2 x 20,000 litre tanks

Since release of the PER, the proponent has reduced the expected number of barge landings required from 40 to approximately 5 landings per annum.

Predicted impacts of the proposal are contained in the proponent's PER document (Striker 2002). Management of these predicted impacts are summarised in Section 5, Appendix E to I of the PER document.

Note: the present proposal only includes a 3.6 km section of access road (through the PNP/215). To connect to the Ashmore Camp, the road would need to be extended a further 36 km inland. Any proposal to construct this additional 36 km of road would require separate environmental approvals.

3. Relevant environmental factors

Section 44 of the *Environmental Protection Act* 1986 requires the EPA to report to the Minister for the Environment on the environmental factors relevant to the proposal and the conditions and procedures, if any, to which the proposal should be subject. In addition, the EPA may make recommendations as it sees fit.

The identification process for the relevant factors selected for detailed evaluation in this report is summarised in Appendix 3. The reader is referred to Appendix 3 for the evaluation of factors not discussed below. A number of these factors, such as noise, light, soil, dust, surface water, and groundwater, are relevant to the proposal, but the EPA is of the view that the information set out in Appendix 3 provides sufficient evaluation.

It is the EPA's opinion that the following environmental factors relevant to the proposal require detailed evaluation in this report:

- (a) Conservation and wilderness values;
- (b) Aboriginal heritage and culture;
- (c) Visual amenity and impacts on Faraway Bay Bush Camp; and
- (d) Vegetation/flora and fauna.

The above relevant factors were identified from the EPA's consideration and review of all environmental factors generated from the PER document and the submissions received, in conjunction with the proposal characteristics.

Details on the relevant environmental factors and their assessment are contained in Sections 3.1 - 3.4. The description of each factor shows why it is relevant to the proposal and how it will be affected by the proposal. The assessment of each factor is where the EPA decides whether or not a proposal meets the environmental objective set for that factor.

3.1 Conservation and wilderness values

Description

The Proposed Cape Londonderry National Park (PNP/215) consists of approximately 70,862 ha of Unallocated Crown Land. The proposed national park was recommended after the EPA established the Conservation Through Reserves Committee to recommend a system of nature conservation reserves for Western Australia in 1972. The EPA, after considering public submissions on recommendations for reserves in System 7 (North Kimberley), made recommendations to State Cabinet, which were published in 1980 (Burbidge *et al.* 1991).

The Cape Londonderry coastline is extremely varied and has significant scenic values, consisting of lateritic and sandstone cliffs up to approximately 50 m high, interspersed with rocky shores, sandy tracts and alluvial tidal flats. Mangroves occur as both narrow and broad stands on tidal silt flats, and two small rivers enter the sea over 50 m cliffs in an inlet on the east coast (Burbidge *et al.* 1991).

The marine environment surrounding Cape Londonderry and the barge site proposal is also of high conservation value. In 1986, the then Minister for the Environment appointed the Marine Parks and Reserves Working Group to identify areas to be reserved as marine parks, and waters surrounding Cape Londonderry were amongst those areas identified for reservation for the purpose of public recreation, and the conservation of flora and fauna (CALM 1994).

The potential impact on PNP/215 is the loss of conservation and wilderness values in areas impacted by the proposal due to disturbances created during construction and operation.

Submissions

The main points raised through public submissions include:

- need for more extensive flora and fauna surveys to properly assess the effect on biodiversity;
- the project should not proceed as proposed, and if approval were given, a number of conditions must be applied;
- a precedent would be set that industry has priority over internationally and nationally recognised wilderness areas;
- costs of removing such facilities from future parks and reserves would be borne by government, which would influence their willingness to progress the status of proposed parks;
- such a proposal is inconsistent with the current government policy that prohibits mineral and petroleum exploration and mining in national parks and nature reserves;
- final status of PNP/215 has not been determined, and if it were declared a conservation reserve the barge facility would have a significant impact;
- that a significant failing of the PER was that it does not adequately consider the proposed national park status of the land; and
- the incompatibility of a barge landing and access road with a national park.

Assessment

The area considered for assessment of this factor is the area of Exploration Licence 80/1480 and the lapsed Miscellaneous Licence 80/41 within PNP/215.

The EPA's environmental objective for this factor is to ensure that conservation and wilderness values are not significantly compromised.

The EPA notes that CALM and members of the public have expressed opposition to the proposal, and that CALM would seek strict conditions if approval were to be given. Opposition to the proposal is based on various grounds, most notably that a laydown area and access road in an area of proposed national park demonstrates incompatible landuse, and that future management of the PNP/215 would be compromised. The EPA also notes that although mining or exploration is not part of this proposal, the proposal is a related activity.

At the request of the EPA Service Unit, the proponent carried out a systematic assessment of possible alternative landing sites on the Kimberley coastline as well as possible alternative routes for the access road. The proponent considered a total of 8 alternative options. The Department for Planning & Infrastructure's submission indicated that, based on the information in the PER, Gumboot Bay would seem to be the correct preferred project site. The Environment Branch of the then Department of Minerals & Energy, following a site visit in 2000, also advised the EPA that

alternative routes other than those to the north would result in extreme access problems during the wet season.

The proponent has routed the 8 m wide, 3.6 km length of road in order to avoid steep terrain and use natural topography to avoid crossing major sections of river during haulage to Ashmore. The EPA also notes haulage will involve crossing rivers by vehicle at existing shallow points (ie. fording).

The EPA notes that, while the total land area to be cleared for the proposal is relatively small, construction of the road will result in a large “edge effect” with risk of impacts over a wider area, for example from changes to surface water flows. A great deal of care will therefore be required to ensure that the road is constructed and maintained to avoid significant impacts on the environment.

The proponent has identified a number of management measures to reduce impacts on conservation and wilderness values. These are outlined in Section 5 and Section 7 and of the PER document (Striker 2002), and include development and implementation of an Environmental Management Plan (EMP), measures to reduce impacts on visual/landscape amenity, and wet season facility management. Draft management plans for various aspects of the proposal are contained in Appendices E to I of the PER document.

The EPA considers that the proposal is capable of being managed so that the EPA’s environmental objective would not be compromised, however this will require environmental management of a very high standard. The EPA therefore recommends that a Ministerial condition be imposed (Recommended Environmental Condition No.5) necessitating the proponent to develop and implement a comprehensive EMP prior to ground disturbance. The EMP, as detailed in Appendix 4, includes procedures and measures to manage quarantine issues, construction and maintenance of infrastructure, operation of the proposal, and rehabilitation and decommissioning/closure and associated environmental impacts.

Recommended Environmental Condition No. 6 requires that prior to departure for Gumboot Bay, a recorded inspection of the barge and its cargo is conducted to ensure that the barge is free of cane toads, noxious or environmental weed species (including seeds), and that vehicles and equipment have been washed down and are free from soil. The EPA also recommends that the proponent shall facilitate and make allowance for a pre-disturbance inspection followed by annual inspections of the proposal area by CALM (Recommended Environmental Condition No. 7). Outcomes of the annual inspection are to be reported against performance objectives contained within the EMP.

Advice was received from the Department of Fisheries (Tregonning 2005, pers. comm.) to the effect that the self-propelled barge would not constitute a greater quarantine risk than any other vessel in the area provided it was not used outside of Australian waters.

The EPA considers that subject to implementation of Recommended Environmental Conditions No.5, No.6, and No.7, the impact on conservation and wilderness values of the area is acceptable.

Summary

Having particular regard to the:

- (a) Recommended Environmental Condition No.5 that requires development and implementation of a comprehensive EMP;
- (b) Recommended Environmental Condition No.6 requiring that prior to departure for Gumboot Bay, a recorded inspection of the barge and its cargo is conducted; and
- (c) Recommended Environmental Condition No.7 requiring that the proponent shall facilitate and make allowance for a pre-disturbance inspection followed by annual inspections,

it is the EPA's opinion that the proposal is capable of being managed to meet the EPA's environmental objective for this factor.

3.2 Aboriginal heritage and culture

Description

No Heritage Agreements or Conservation Orders have been issued for the area surrounding the barge site or access road (Striker 2002). The proponent has a Mining and Exploration Agreement with the Balangarra Aboriginal Corporation, and following road alignment changes in August 2001, heritage clearances for the proposal were obtained from the traditional owners (the registered Native Title Parties).

The potential impact of the proposal on Aboriginal heritage values is site disturbance and the potential loss of artifacts and archaeological values.

Submissions

The main points raised through public submissions include:

- that Aboriginal sites not on the DIA registry have been found in close proximity to the laydown area and access road; and
- no archaeological or ethnographic surveys were conducted and no reports lodged with DIA.

Assessment

The area considered for assessment of this factor is the area of Exploration Licence 80/1480 and the lapsed Miscellaneous Licence 80/41 within the PNP/215, and surrounding areas.

The EPA's environmental objective for this factor is to ensure that changes to the biophysical environment do not adversely affect cultural associations and comply with relevant heritage legislation.

The EPA notes that although the Department of Indigenous Affairs (DIA) was not consulted, the proponent did obtain heritage clearances from traditional owners following proposed road route changes in 2001. The EPA considers that it was necessary to lodge archaeological and ethnographic survey reports with the DIA

following visits to the area by traditional owners, their heritage advisors, and Striker staff.

Accordingly, the EPA recommends that a precautionary approach be taken, and that Striker Resources NL be required to undertake archaeological and ethnographic surveys in liaison with the Department of Indigenous Affairs prior to commencement of the project (Recommended Environmental Condition No.8).

Summary

Having particular regard to the:

- (a) Recommended Environmental Conditions No.8 requiring that, prior to commencement of ground-disturbing activities, the proponent shall conduct archaeological and ethnographic surveys in liaison with the Department of Indigenous Affairs, making allowance for a pre-disturbance inspection by the Department of Indigenous Affairs, to permit avoidance of impacts on Aboriginal sites; and
- (b) the proponent's demonstrated cooperation with traditional owners of the land,

it is the EPA's opinion that the proposal is capable of being managed to meet the EPA's environmental objective for this factor.

3.3 Visual amenity and impacts on Faraway Bay Bush Camp

Description

The proposal is located in the Shire of Wyndham – East Kimberley, approximately 1.5 km southeast of an fishing and tourism facility known as Faraway Bay Bush Camp. The proposal is separated from the camp by a distance of approximately 1.5 km, and by an 80 m high vegetated ridge. Owing to the camp's secluded location, the camp offers a wilderness and ecotourism experience to guests. Camp infrastructure includes an airstrip, access road, guest cabins and supplementary buildings.

The proponent's access road has been aligned to allow fuel tankers access to a plateau, and will intersect an existing road that allows guests of Faraway Bay Bush Camp to travel from the airstrip to the camp itself. The proposal is otherwise not in direct line of sight of the Faraway Bay Bush Camp.

The potential impacts of the proposal are loss of visual amenity and disturbance to those residing at Faraway Bay Bush Camp.

Submissions

The main points raised through public submissions include:

- aesthetic, cultural, economic, and social impacts of the proposal on the activities at Faraway Bay, given the WA tourism planning initiative 'Partnership 21' and its emphasis on eco-tourism;
- the proposal should have been considered in a broader planning context, rather than as a one-off situation;

- effective consultation did not take place given the proponent refused to attend meetings when Faraway Bay Bush Camp was present;
- increased unauthorised or unwanted vehicular access to the area via the new access road; and
- the need for wider community involvement if access to the area were to increase either by land or by sea.

Assessment

The area considered for assessment of this factor is the area of Exploration Licence 80/1480 and the lapsed Miscellaneous Licence 80/41 within the PNP/215, and surrounding areas including Faraway Bay Bush Camp.

The EPA's environmental objectives for this factor are:

- to ensure that aesthetic values are considered and measures are adopted to reduce visual impacts on the landscape as low as reasonably practicable; and
- to ensure that visual and other impacts on the Faraway Bay Bush Camp are managed to an acceptable standard.

The proposal is likely to be seen from aircraft, the airstrip to camp road, and from elevated positions near the proposal. However, the EPA considers that impacts on the Faraway Bay Bush Camp can be managed to an acceptable standard. In particular, the EPA considers that barge movement restrictions of no more than 5 barge arrivals per field season (1 March to 30 November of the same calendar year - Recommended Environmental Conditions No.9), management measures to reduce impacts on visual amenity, and separation of the two areas by both distance and topography will lessen these impacts. The proposed Ministerial condition also requires the proponent to advise the management of Faraway Bay Bush Camp of planned barge site movements by facsimile at least 7 days prior to each barge arrival and departure.

The EPA's Recommended Environmental Conditions No.5 will also contain management measures that protect neighbours from undue visual, noise, and light impacts associated with the project. The EPA encourages implementation of the proponent's management measures to reduce visual impact by retaining mature vegetation, installing screens, use of camouflage paint, and using low profile design in consultation with the management of Faraway Bay Bush Camp.

The EPA considers that subject to implementation of Recommended Environmental Conditions No.5 and No.9, the potential visual impacts and impacts on Faraway Bay Bush Camp can be managed as to be acceptable.

Summary

Having particular regard to the:

- (a) Recommended Environmental Condition No.5 that requires development and implementation of a comprehensive EMP;
- (b) Recommended Environmental Conditions No.9 that restricts barge movements to up to 5 barge arrivals at Gumboot Bay between 1 March and 30 November of the same calendar year, and requires the proponent to advise the management of Faraway Bay Bush Camp of planned barge site arrivals and departures by

facsimile at least 7 days prior to each barge arrival at, or departure from Gumboot Bay;

- (c) separation distance between the proposal and Faraway Bay Bush Camp; and
- (d) the vegetated ridge which is situated between the proposal and Faraway Bay Bush Camp,

it is the EPA's opinion that the proposal is capable of being managed to meet the EPA's environmental objectives for this factor.

3.4 Vegetation/flora and fauna

Description

A baseline vegetation and flora survey of the landing site and access road within PNP/215 was conducted in June 2001. The results of the survey are reported in Section 4.5 of the PER document (Striker 2002). The 2001 survey linked up with an earlier survey of the Ashmore area carried out by Ecologia in 1999 (in Striker 2002).

A total of 13 vegetation communities containing 243 taxa (including subspecies and varieties), 156 genera, and 65 families were recorded along the entire length of the proposal from the barge site to Ashmore (~ 40 km). Within PNP/215, 6 vegetation communities were present, hosting 147 taxa, 107 genera, and 54 families with species representation greatest amongst families *Poaceae*, *Papilionaceae*, *Cyperaceae*, *Proteaceae*, *Myrtaceae* and *Mimosaceae*.

No plant taxa gazetted as Declared Rare Flora or Priority Flora were located during the survey within PNP/215. There are no threatened ecological communities present pursuant to Schedule 2 of the *Environmental Protection and Biodiversity Conservation Act* 1999. One introduced species (*Acanthospermum hispidum*) was observed within PNP/215 and another (*Passiflora foetida*) outside of PNP/215. While neither plant has been declared a noxious weed under the *Agriculture and Related Resources Protection Act* 1976, they are considered to be significant environmental weeds.

The proponent did not undertake a fauna field survey. Rather, a literature search was performed using both published and unpublished data provided by CALM, Western Australian Museum, and Kimberley Land Council. Very limited field based observations also contributed towards the fauna assessment.

The 5 fauna habitats identified within the project area are Dune Complex (contains minor narrow mangrove fringes), Riparian Closed Forest, Eucalyptus Woodland, Seasonally Damp Woodland, and Exfoliated Rock. Table 4.5 of the proponent's PER document lists significant fauna species known or likely to occur in PNP/215 that are classified under the *Wildlife Conservation (Specially Protected Fauna) Notice* 2001. The proponent has noted that in addition to only one protected bird species (Great Egret) in the project area, 5 Scheduled and 5 Priority fauna species are also potentially present. Scheduled species that may be present include the Orange Leaf-nosed Bat, Red Goshawk, Peregrine Falcon, Saltwater and Freshwater Crocodiles. The Priority

species that may be present include the Brush-tailed Phascogale, Rock Ringtail Possum, Ghost Bat, Water Rat, and Golden-backed Tree Rat.

Potential impacts on vegetation and flora include loss through clearing and the introduction or spread of weed species. Potential impacts on fauna include loss of habitat through clearing, displacement of fauna into adjacent areas, introduction of exotic weed and animal pest species, and limited deaths of fauna during haulage operations.

Submissions

The main points raised through public submission include:

- all possible alternative sites were not assessed, and that the assessment of alternative sites had been performed inconsistently;
- more extensive flora, and particularly fauna surveys are needed;
- stronger commitments are required by the proponent to eliminate the possibility of accidental introduction of exotic species;
- that the landing site is illogical given that most of Striker Resources NL's tenements are located east of the King George River, which would require transportation of fuel across it;
- why there is a necessity to open a new road when another already exists;
- what dust minimisation measures would be used for unsealed roads;
- the potential for impact on the Londonderry Creek Catchment, which has been identified as having a 'Wild River'; and
- the natural beauty and pristine nature of Gumboot Bay would be destroyed by the proposal.

Assessment

The area considered for assessment of this factor is the area of Exploration Licence 80/1480 and the lapsed Miscellaneous Licence 80/41 within the PNP/215.

The EPA's environmental objective for vegetation and flora is to maintain the abundance, species diversity, geographical distribution and productivity of vegetation communities and protect Declared Rare and Priority Flora, consistent with the provisions of the *Wildlife Conservation Act 1950*. The EPA's environmental objective for fauna is to maintain the abundance, species diversity and geographical distribution of terrestrial fauna and protect Threatened Fauna and Priority Fauna species and their habitats, consistent with the provisions of the *Wildlife Conservation Act 1950*.

Vegetation and flora surveys indicated that vegetation communities defined and mapped within PNP/215 appear to be part of larger units well represented throughout the region, and that no threatened ecological communities exist. The EPA acknowledges that despite no Declared Rare Flora or Priority Flora species being located during surveying, a rigorous investigation is likely to discover unrecorded flora and fauna species.

Translocation of environmental weeds into the area from outside PNP/215 (eg. *Passiflora foetida*) is identified as a risk. The EPA, on advice from CALM, believes

the proponent should implement much stronger measures to eliminate the possibility of accidental introductions of exotic weed and animal pest species. Of concern to CALM is the introduction of various exotic flora and fauna to the area, in particular the cane toad (*Bufo marinus*) on barges from Darwin. Proposed management measures to lessen impacts are outlined in Section 5, and Appendices E and H of the PER document (Striker 2002), and include plant and equipment inspections and washdowns, avoiding cross contamination from borrow pit areas, and staff weed awareness training. The EPA recommends that in addition to quarantine and vegetation/flora management measures contained in Recommended Environmental Conditions No.5 and No.6, sound rehabilitation of disturbed land be achieved through a Ministerial condition requiring a full cost-recovery performance bond from the proponent (Recommended Environmental Condition No.10). The EPA also recommends that an Environmental Coordinator be appointed to ensure proper environmental management of the proposal (Recommended Environmental Condition No.11).

Two fauna habitat types (Eucalyptus Woodland and Exfoliated Rock) occupy a significant area of PNP/215, and that these fauna habitats are common along the plateau and escarpments in the area. A small area of Dunal Complex fauna habitat is present at the barge site, however the proponent has indicated that no mangrove or seabed areas will be impacted on by the proposal. The EPA notes CALM's view that fauna is unlikely to be significantly affected and that a fauna survey was not essential in this instance. Proposed management measures to lessen impacts are outlined in Section 5, and Appendix E of the PER document (Striker 2002), and include controlled vegetation clearing, habitat creation/enhancement, and incorporation of fauna escape ramps into any excavations.

The EPA notes that a relatively small area is to be disturbed but that construction of a road will result in a large 'edge effect' with risk of impacts over a wider area, for example from changes to surface water flows and risk of introduction and/or spread of exotic flora and fauna species into undisturbed native vegetation. A great deal of care will therefore be required to ensure that the road is constructed and maintained to avoid significant impacts on the environment.

The EPA considers that subject to full implementation of Recommended Environmental Conditions No.5, No.6, No.10, No.11 and proponent management measures, the impacts on vegetation/flora and fauna are capable of being managed so as to be acceptable.

Summary

Having particular regard to the:

- (a) consideration of alternative sites;
- (b) vegetation associations and fauna habitats at the barge site and along the proposed route being well represented;
- (c) no Declared Rare Flora or Priority Flora species being recorded;
- (d) small corridor of disturbance within large area of undisturbed vegetation in PNP/215; and

- (e) Recommended Environmental Condition No.5 that requires development and implementation of a comprehensive EMP;
- (f) Recommended Environmental Condition No.6, which requires that prior to departure for Gumboot Bay, a recorded inspection of the barge and its cargo is conducted;
- (g) Recommended Environmental Condition No.10 that requires a full cost-recovery performance bond; and
- (h) Recommended Environmental Condition No.11 that requires appointment of an Environmental Coordinator,

it is the EPA's opinion that the proposal is capable of being managed to meet the EPA's environmental objective for this factor.

4. Conditions

Section 44 of the *Environmental Protection Act* 1986 requires the EPA to report to the Minister for the Environment on the environmental factors relevant to the proposal and on the conditions and procedures to which the proposal should be subject, if implemented. In addition, the EPA may make recommendations as it sees fit.

In developing recommended conditions for each project, the EPA's preferred course of action is to have the proponent provide an array of commitments and management measures to ameliorate the impacts of the proposal on the environment. These are considered by the EPA as part of its assessment of the proposal and, following discussion with the proponent, the EPA may seek additional measures.

The EPA recognises that not all of the commitments and management measures are written in a form which makes them readily enforceable, but they do provide a clear statement of the action to be taken as part of the proponent's responsibility for, and commitment to, continuous improvement in environmental performance. The commitments and management measures, modified if necessary to ensure enforceability, then form part of the conditions to which the proposal should be subject, if it is to be implemented.

4.1 Recommended conditions

Having considered the proponent's management measures and the information provided in this report, the EPA has developed a set of conditions that the EPA recommends be imposed if the proposal by Striker Resources NL to establish a dry door barge site, laydown area, and access road in the Proposed Cape Londonderry National Park (PNP/215), is approved for implementation.

These conditions are presented in Appendix 4. Matters addressed in the conditions include a comprehensive Environmental Management Plan, quarantine inspections, CALM inspections, Aboriginal heritage protection, barge movement restrictions, a full cost-recovery performance bond, and appointment of an Environmental Coordinator.

It should be noted that, if approved, the project should not be commenced until bonds have been lodged and until approvals have been issued under the *Mining Act 1978*.

5. Other Advice

The management of Faraway Bay Bush Camp have withheld permission for the proponent to construct a road that will intersect with their airstrip to camp road. This was possible because the Mining Warden considered the existing road to have been substantially improved and that it constituted private property under the *Mining Act 1978*. This ruling was appealed and the Minister for State Development has suspended consideration of the appeal pending the outcome of environmental impact assessment. If the Minister of State Development agrees with the Mining Warden's ruling, the proposal could not be implemented without modifying the route of the access road. This may constitute a substantial change to the proposal.

The EPA notes that the present proposal includes only a 3.6 km length of access road (i.e. only the section of road through the PNP/215). A further 36 km of access road would need to be constructed to reach the proponent's Ashmore Camp. Construction of that remaining section of road would be contingent on gaining separate environmental approvals.

The EPA also understands that a large proportion of the proponent's lease holdings are located to the east and south east of the King George River. Any proposal to transport fuel across the river would require very careful environmental assessment because of the potential for significant environmental impacts on the river in the event of fuel spillage.

The EPA also recommends that the proposed national park should be gazetted so that that area can be brought under the management of the Department of Conservation and Land Management.

6. Conclusions

The EPA has considered the proposal by Striker Resources NL to establish a dry door barge site, laydown area, and 3.6 km unsealed access road on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215). The proposal is intended to provide security of supply for the proponent's exploration and mining activities in the region, however the proposal does not include any mining or exploration within PNP/215.

The EPA notes the high conservation and wilderness values of both PNP/215 and the marine environment surrounding the proposal, and potential for environmental impact on these areas. Submissions from the Department of Conservation and Land Management (CALM) and members of the public have highlighted the important conservation and wilderness values of the area. However, based on the information provided in the PER, and advice from the Department of Industry and Resources (DOIR) and the Department of Planning and Infrastructure (DPI), the proposed barge site and road route would appear to be the best option out of the available alternatives.

The EPA notes that Striker Resources NL has demonstrated its cooperation with traditional owners of the land by obtaining heritage clearances, and will add to this prior to ground-disturbing activities, by undertaking archaeological and ethnographic surveys in liaison with the Department of Indigenous Affairs (DIA).

The EPA acknowledges that the proposal will entail some loss of amenity and “wilderness value” for the adjacent Faraway Bay Bush Camp ecotourism facility. However the EPA considers that these impacts can be managed to an acceptable level through the following management measures:

- a maximum of 5 barge arrivals permitted per field season (1 March to 30 November of the same calendar year);
- management measures to reduce impacts on visual amenity (eg camouflage, screens, low profile design);

In addition, the separation of the two areas by both distance and topography will lessen impacts on the Faraway Bay Bush Camp.

The EPA notes that direct impacts on vegetation/flora and fauna are likely to be low as vegetation community and fauna habitat types in the project area are widespread throughout the region. No Declared Rare Flora or Priority Flora were located during the survey within PNP/215. However, while the total land area to be cleared for the proposal is relatively small, construction of the road will result in a large “edge effect” with risk of impacts over a wider area, for example from changes to surface water flows. A great deal of care will therefore be required to ensure that the road is constructed and maintained to avoid significant impacts on the environment.

In addition, the EPA is particularly concerned about the risk of introduction of pest animals, in particular the cane toad, as well as the risk of introduction and spread of weeds such as *Passiflora foetida* (Stinking Passion Flower). Strict quarantine, monitoring and control protocols will therefore need to be in place throughout the project life.

In conclusion therefore, the EPA notes that, based on advice from the DOIR and DPI, the proposed location for the barge landing and access road would appear to be the best location among the available alternatives. The EPA considers that the proposal is capable of being managed so that the EPA’s environmental objectives would not be compromised, however this will require environmental management of a very high standard based on full implementation by the proponent of the recommended conditions set out in Appendix 4, and summarized in Section 4.

The EPA is of the view that approval should only be granted for an initial period of 5 years, with extension for one period of 5 years contingent upon satisfactory compliance with implementation conditions. The EPA is further of the view that the proponent should be required to lodge full cost-recovery performance bonds.

7. Recommendations

The EPA submits the following recommendations to the Minister for the Environment:

1. That the Minister notes that the proposal being assessed is for a dry door barge site, laydown area, and 3.6 km of unsealed access road on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215).
2. That the Minister considers the report on the relevant environmental factors as set out in Section 3.
3. That the Minister notes that the EPA has concluded that the proposal is capable of being managed so that the EPA's objectives would not be compromised, provided there is environmental management of a very high standard, based on full implementation by the proponent of the recommended conditions set out in Appendix 4, and summarised in Section 4.
4. That the Minister imposes the conditions and procedures recommended in Appendix 4 of this report.

Appendix 1

List of submitters

State/ Local Government

Department of Conservation and Land Management (CALM)

Department of Planning and Infrastructure (DPI)

Shire of Wyndham-East Kimberley

Water and Rivers Commission

Western Australian Tourism Commission (WRC)

Organisations

Conservation Council of Western Australia Inc

Kimberley Specialists, including reports researched by:

- S Porter;
- L Scott-Virtue, Dr J Kohen, D Harrington;
- J White; Ju Ju 'Burriwee' Wilson,
- T Partridge
- E Larsen, S McIntosh and G Lane

Benrama Pty Ltd, B and R Ellison

Rannit Pty Ltd, B and R Ellison (Part owners and Managers of Faraway Bay Bush Camp)

Tourism Council of Western Australia

Individuals

25 submissions received

Appendix 2

References

EPA (2004) *Draft Guidance Statement No.3 for the Assessment of Environmental Factors, Separation Distances between Industrial and Sensitive Land Uses*. Environmental Protection Authority, June 2004.

EPA (1992) *Airstrip and Fishing Base, Cape Londonderry (Benrama Pty Ltd)*. Environmental Protection Authority Bulletin 629, May 1992.

Striker (2002) *Barge Site, Laydown Area and Access Road, Gumboot Bay, North Kimberley, W.A.* Public Environmental Review document. Striker Resources NL, May 2002.

Burbridge, A. A., McKenzie N.L., and Kenneally, K.F. (1991) *Nature Conservation Reserves in the Kimberley*. Department of Land Conservation and Management, 1991.

CALM (1994) *A Representative Marine Reserve System for Western Australia*. Department of Land Conservation and Management, June 1994.

Appendix 3

Summary of identification of relevant environmental factors

Preliminary Environmental Factors	Proposal Characteristics	Government Agency and Public Comments	Identification of Relevant Environmental Factors
BIOPHYSICAL			
Terrestrial flora and vegetation	<p>Clearing an area of approximately 4 ha for the laydown area and road within the Proposed Cape Londonderry National Park (PNP/215). Borrow pits for road base use are to be sourced from outside PNP/215.</p> <p>No plant taxa gazetted as Declared Rare Flora or Priority Flora located during survey within PNP/215. No threatened ecological communities present pursuant to Schedule 2 of the <i>EPBC Act 1999 (Cth)</i>.</p> <p>Potential impacts on vegetation and flora include loss through clearing and introduction or spread of weed species.</p>	<p><u>CALM</u> The proponent should make a much stronger commitment to eliminate the possibility of accidental introductions of exotic species.</p> <p><u>Public</u> A baseline survey of vegetation and flora covering the barge site and access road was undertaken in June 2001 (PER:23). It is interesting to note that this section of the PER on the 'existing environment' is still predominantly based on the 1999 Ecologia report with only some notable additions.</p> <p>The most recent survey did not re-survey the area covered by Ecologia. Given that the area was designated a Class B reserve in 1974¹ and is part of the proposed Londonderry National Park (PNP/215) and the limitations of the Ecologia survey, it appears problematic that a more extensive survey was not conducted.</p>	'Terrestrial flora and vegetation' considered to be a relevant environmental factor and is considered under 'Vegetation/flora and fauna'.
Terrestrial fauna	<p>Five fauna habitats identified including Dune Complex, Riparian Closed Forest, Eucalyptus Woodland, Seasonally Damp Woodland, and Exfoliated Rock.</p> <p>In addition to only one protected</p>	<p><u>CALM</u> The proponent should make a much stronger commitment to eliminate the possibility of accidental introductions of exotic species.</p> <p><u>Public</u> If any Scheduled or Priority species exist in the area it may be that the development will not impact on these species, however, this cannot be determined without the benefits of a field study to determine the</p>	'Terrestrial fauna' considered to be a relevant environmental factor and is considered under 'Vegetation/flora and fauna'.

	<p>bird species (Gret Egret) in the project area, 5 Scheduled and 5 Priority fauna species are also potentially present. The species are mobile and unlikely to be impacted upon highly.</p> <p>Potential impacts on fauna include loss of fauna habitat through clearing, relocation of fauna into adjacent areas, introduction of exotic weed and animal pest species (eg. cane toad), and limited deaths of fauna during haulage operations.</p>	<p>existence or otherwise of any fauna in the area.</p> <p>One of the principle references Kabay and Burbidge (1977), used in the Striker PER to determine the potential mammal species inhabiting the project area, lists a number of species not listed in the Striker PER. These include the euro, <i>Macropus robustus</i>, short-eared rock wallaby, <i>Petrogale brachyotis</i>, the common rock-rat, <i>Z. argurus</i>, and the delicate mouse, <i>P. delicatus</i>. The mere possibility that these species remain in this pristine environment should require an assessment of the fauna of the proposed development site, if not preventing the development itself.</p> <p>It is considered that a wet season assessment of the birds is likely to add a considerable number of species to the total of 127 species recorded in the dry season.</p> <p>A comprehensive survey of the bird species should be undertaken in the extensive and unmodified coastal mangrove habitat, of Gumboot Bay, including an assessment of the ecological importance of the flying-foxes colony.</p> <p>A more comprehensive mammal survey of the Faraway Bay and Gumboot Bay areas should be conducted prior to any development occurring.</p>	
Marine flora	<p>No seabed dredging will be required for beach access. Some risk of hydrocarbon spillage into bay during transfer.</p> <p>Mangroves in the Cape Londonderry area are known to host the state's only examples of <i>Scyphiphora hydrophyllacea</i> (Burbidge <i>et al.</i> 1991), though this was not located during the flora survey.</p>	No submissions received	<p>Dry door barge landing with no infrastructure seabed disturbance.</p> <p>The DoE's Ecological Systems Branch advised that <i>Scyphiphora hydrophyllacea</i> presence marks the western extent of its distribution, and that it is commonly found in the Northern Territory and Northern Queensland.</p> <p>'Marine flora' not considered to</p>

			be a relevant environmental factor
Marine fauna	No seabed dredging will be required for beach access. Some risk of hydrocarbon spillage into bay during transfer. Some local disruption of fauna may occur.	No submissions received	Based on advice from CALM (Graham 2005, pers. comm.), turtles are unlikely to frequent the small rocky beach, as deeper sands are preferable for laying eggs. 'Marine fauna' not considered to be a relevant environmental factor
Surface water	Road construction impacts include alteration of local drainage, surface water accumulation, and erosion/sedimentation.	<u>WRC</u> If drainage lines are to be diverted around particularly contaminated areas, the edges of the new drainage lines should be revegetated with local native species to minimise erosion	Limited road width and surface water/erosion control measures in Environmental Management Plan would reduce these impacts. 'Surface water' not considered to be a relevant environmental factor
POLLUTION			
Noise	Noise generated from equipment and vehicles during construction (daytime only) and normal operation, particularly at night. Distance to nearest neighbour is ~1.5 km, with topography limiting sound transmission. Impacts include local disruption of fauna and amenity loss.	<u>Public</u> The barge laydown area will be used up to 5 times during the field season (1 March to 30 November of the same calendar year). Transfer of cargo will result in vehicle, machinery and employee noise. This activity will be heard at the adjoining Faraway Bay Bush camp and impact on the ambience and serenity of the area. Noise from any movement at night is totally unacceptable. It should also be noted that most high tides suitable for barge landings are at night and that additional noise will come from the generators for lighting, and the pumps for moving fuel from the barge to the holding tanks in the laydown area.	Separation distances most relevant to this assessment are 1000 m (fuel importation) and 200 m (transport vehicles depot; waste depot). EMP noise management measures to be implemented. 'Noise' not considered to be a relevant environmental factor
Light	Light overspill during normal during night operations.	<u>Public</u> The proponent has agreed to give seven days notice to Faraway Bay of barge movements (an increase from the original 24 hours). In relation to	Light overspill impacts are considered to be low because of unidirectional lighting use and

	<p>Unidirectional lighting and topographic barriers will limit impacts on neighbour. Some local disruption of fauna may occur.</p>	<p>barge movements, can the proponent please indicate will this extend night-time activities including noise and lighting?</p> <p>Unidirectional lighting will be a visual intrusion especially during night operations.</p>	<p>natural topography. EMP light management measures to be implemented.</p> <p>Based on advice from CALM (Graham 2005, pers. comm.), turtles are unlikely to frequent the small rocky beach, as deeper sands are preferable for laying eggs.</p> <p>'Light' not considered to be a relevant environmental factor</p>
Dust	<p>Dust generated during construction and usage of the access road.</p> <p>Limited impacts of dust due to distance to neighbour, topographic barriers, dust suppression measures, and slow haulage speeds.</p> <p>Dust suppression with seawater may have localised adverse effect on vegetation. Localised foliage smothering may also affect vegetation.</p>	<p><u>WA Tourism Commission</u> Although expected to be minimal, dust levels will increase due to increased vehicle movements on unsealed roads. How does the proponent intend to minimise dust?</p>	<p>Area is separated from the nearest neighbour, and EMP dust management measures to be implemented.</p> <p>'Dust' not considered to be a relevant environmental factor</p>
Soil	<p>Some risk of contamination of soil during hydrocarbon transfer or if fuel tanker accident occurs. Potential impacts greatest via leaks at storage area.</p>	<p>No submissions received</p>	<p>Soil contamination, leakages and spills can be monitored and procedures from EMP implemented.</p> <p>'Soil' not considered to be a relevant environmental factor</p>
Surface water	<p>Some risk of contamination of</p>	<p><u>WRC</u></p>	<p>External stormwater directed</p>

	<p>surface water during hydrocarbon transfer or if fuel tanker accident occurs.</p>	<p>The proposal area is not within a proclaimed surface water area under the Rights in Water and Irrigation Act 1914 (WA), and is not within a Water Source Protection Area proclaimed under the Country Areas Water Supply Act 1947 (WA).</p> <p>If drainage lines are to be diverted around particularly contaminated areas, the edges of the new drainage lines should be revegetated with local native species to minimise erosion. The design of any sediment and oil traps should be referred to WRC to ensure they are satisfactory for our requirements.</p>	<p>around laydown area. Major sections of river will not be crossed, and where possible the route was on a catchment divide. Spills can be monitored and procedures from EMP implemented. Faraway Bush Camp's water supply is located in a separate catchment to the proposal and will be unaffected.</p> <p>'Surface water' not considered to be a relevant environmental factor</p>
Groundwater	<p>Some risk of contamination of groundwater during hydrocarbon transfer or if fuel tanker accident occurs. Potential impacts greatest at fuel storage area.</p>	<p><u>WRC</u> This proposal is within the Canning-Kimberley groundwater area. If the proponent requires water at any stage of the development (dewatering, dust suppression etc.) or would like to construct a bore, a licence is required from the Water and Rivers Commission. The granting of a licence is not guaranteed but will depend on policy and the availability of water at the time of application.</p>	<p>Bulk fuel tanks placed within low permeability banded compounds. Compounds lined with a H.D.P.E liner in accordance with AS1940-93. Spills can be monitored and procedures from EMP implemented.</p> <p>'Groundwater' not considered to be a relevant environmental factor</p>
Marine water	<p>Some risk of contamination of marine water during hydrocarbon transfer from barge. Hydrocarbon contaminated groundwater could enter marine environment.</p>	<p><u>WRC</u> The Environmental Management Plan referred to in the table should include regular water quality monitoring to prevent coastal impacts.</p>	<p>Fuel dispensing facilities will not be installed at the barge site. External stormwater directed around laydown area. Spills can be monitored and procedures from EMP implemented.</p> <p>'Marine water' not considered to be a relevant environmental factor</p>

SOCIAL SURROUNDINGS			
Community consultation	Traditional owners, Balangarra Aboriginal Corporation have been consulted.	<p><u>Public</u> The proponent has made a commitment to continue consultation with all interested parties and to operate the facility site in a manner which avoids conflict with other land users. Given that Striker refuses to attend meetings when Faraway Bay is to be present, how can effective consultation be ensured?</p>	<p>While some groups may feel they had not been adequately consulted, these groups have been able to make their concerns known through the Public Review period.</p> <p>‘Community consultation’ not considered to be a relevant environmental factor</p>
Visual amenity	The proposal is likely to be seen from aircraft, the airstrip to camp road, and from elevated position near the proposal. Potential loss of amenity.	<p><u>WA Tourism Commission</u> The proposed barge laydown facility and road will be visible from air and sea as a manmade disfigurement which is not conducive to nature based tourism; It is unacceptable that an established and successful prime tourist attraction should have its future livelihood jeopardised by the development of an opposing land use.</p> <p><u>Public</u> Guests to Faraway Bay will view the site a minimum of 5 times flying in and out of the airstrip, travelling to and from the camp and when taken into Gumboot Bay. Striker Resources’ development is totally unacceptable for a wilderness experience</p> <p>Infrastructure such as fuel storage tanks, water tanks, fencing, gates, and a unidirectional tower light to be erected within a compound surrounded by a 15 metre fire buffer zone will result in visual intrusion to Faraway Bay Bush Camp guests</p>	<p>Visual amenity considered to be a relevant environmental factor and is considered under ‘Visual amenity and impacts on Faraway Bay Bush Camp’.</p>
Aboriginal culture and heritage	<p>The proposal has traditional owner clearances and is not impacting on any Aboriginal heritage sites.</p> <p>No archaeological or ethnographic surveys lodged</p>	<p><u>DIA</u> A search of our Site Register denotes that no Aboriginal sites have been registered within the area of the Faraway Bay Bush Camp, where Striker Resources proposed to establish the Barge Site etc. However, from the survey undertaken by the Kimberley Specialists, there are a number of unrecorded archeological sites in this general area; unfortunately the DIA is unable to register these sites due to lack of information,</p>	<p>Aboriginal culture and heritage considered to be a relevant environmental factor and is considered under ‘Aboriginal heritage’.</p>

	with DIA. Potential for current and future impacts on unrecorded Aboriginal sites.	<p>specifically spatial and locational detail. It appears that no archaeological site surveys were undertaken by the Company. Again, this is unknown, as the DIA has never received a report from Striker, as stated previously.</p> <p><u>Public</u> Evidence of Aboriginal art sites were found in close proximity to the laydown area and proposed access road. These findings directly impact on heritage clearance. A direct descendant from the Traditional Owners was a member of the field trip.</p> <p>This is contrary to the site survey report done for CRA by Nick Green in the early 1980's, and archaeological findings and reports of more recent times (refer to Kimberley Specialists reports).</p>	
Public health and safety	Safety concerns with respect to the laydown area and haulage road intersecting with existing road.	<p><u>CALM</u> The proposed road alignment involves two intersections with the current track that links the Faraway Bay complex with its airstrip. These intersections occur within the proposed National Park. The proponent has failed to address the safety implications that this may have.</p>	<p>Ensure that roads are maintained or improved and road traffic managed to meet an adequate standard of level of service and safety and MRWA requirements.</p> <p>'Public health and safety' not considered to be a relevant environmental factor</p>
OTHER			
National Park conservation	<p>Clearing of approximately 4 ha for the laydown area and road within the Proposed Cape Londonderry National Park (PNP/215).</p> <p>Potential for loss of conservation value to this Red Book area</p>	<p><u>CALM</u> CALM remains apprehensive about this operation and its long term management. Greater consideration needs to be given to sites that are not within the proposed National Park. If however, approval is given, environmental conditions should require a limit on use of the site, precluding expansion in future. Conditions should also require the development and signing of a formal agreement between the proponent and CALM providing for conservation management of the area as the Proposed Cape Londonderry National Park.</p>	<p>'Conservation and wilderness values' considered to be a relevant environmental factor.</p>

		<p><u>Public</u> If Striker is granted approval, the precedent that industry has a priority over the internationally and nationally recognised wilderness areas at the expense of all will again be set.</p> <p>A barge landing and access road are not appropriate developments for a proposed National Park.</p> <p>The proposal should have been considered in a broader planning context, possibly in terms of a local government planning exercise, rather than as a one-off situation.</p>	
Marine Reserve conservation	<p>Marine environment surrounding proposal has been recommended to be reserved as a marine park (CALM 1994).</p> <p>Potential for loss of conservation value to this area</p>	No submission received	'Marine Reserve conservation' considered to be a relevant environmental factor and is considered under 'Conservation and wilderness values'.

Appendix 4

Recommended Environmental Conditions

RECOMMENDED CONDITIONS AND PROCEDURES

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**BARGE SITE, LAYDOWN AREA, AND ACCESS ROAD,
GUMBOOT BAY, NORTH KIMBERLEY**

Proposal: To establish a dry door barge site, laydown area and access road on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215), as documented in schedule 1 of this statement.

Proponent: Striker Resources NL

Proponent Address: 10th Floor, 256 Adelaide Terrace, PERTH WA 6000

Assessment Number: 1381

Report of the Environmental Protection Authority: Bulletin 1172

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

1 Implementation

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.

2 Proponent Nomination and Contact Details

2-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.

2-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.

- 2-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change..

3 Commencement and Time Limit of Approval

- 3-1 The proponent shall substantially commence the proposal within five years of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 3-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 3-1.

The application shall demonstrate that:

- 1 the environmental factors of the proposal have not changed significantly;
- 2 new, significant, environmental issues have not arisen; and
- 3 all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

- 3-3 The approval is valid for five years from the date of issue of this statement.
- 3-4 The approval may be extended for one period of five years subject to satisfactory compliance with the implementation conditions.
- 3-5 Any proposal for further operation of the facility beyond that time must be referred to the Environmental Protection Authority.

4 Compliance Audit and Performance Review

- 4-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environment which address:

- 1 the status of implementation of the proposal as defined in schedule 1 of this statement;
- 2 evidence of compliance with the conditions; and
- 3 the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environment is empowered to monitor

the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions and procedures contained in this statement.

- 4-2 The proponent shall submit a performance review report every year after the start of operations, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, which addresses:
- 1 the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
 - 2 the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
 - 3 significant improvements gained in environmental management, including the use of external peer reviews;
 - 4 stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
 - 5 the proposed environmental targets over the next year, including improvements in technology and management processes.
- 4-3 The proponent may submit a report prepared by an auditor approved by the Department of Environment under the “Compliance Auditor Accreditation Scheme” to the Chief Executive Officer of the Department of Environment on each condition of this statement which requires the preparation of a management plan, programme, strategy or system, stating whether the requirements of each condition have been fulfilled within the timeframe stated within each condition.

5 Environmental Management Plan

- 5-1 The proponent shall not implement the proposal other than in accordance with an Environmental Management Plan prepared to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management.

This Plan shall set out procedures and measures to:

- 1 prevent the introduction or spread of the cane toad (*Bufo marinus*) or other pest animals, and noxious or environmental weed species, including specific quarantine, hygiene and inspection protocols for the barge, vehicles and other plant and equipment;
- 2 locate, design, construct and maintain the landing area, laydown area, road and other parts of the proposal so as to avoid accelerated erosion, to prevent disruption to surface water flows, and to protect the environment to the maximum extent practicable;
- 3 ensure operations are carried out in such a manner as to reduce impacts on the amenity of the Faraway Bay Bush Camp to the maximum practicable

extent, including impacts on visual amenity, and impacts from artificial lighting and noise from equipment such as generators and vehicles;

- 4 prevent, contain and clean up marine and terrestrial hydrocarbon spills; and
- 5 ensure that rehabilitation and decommissioning/closure are carried out in an environmentally acceptable manner.

5-2 The proponent shall implement the Environmental Management Plan required by condition 5-1.

5-3 The proponent shall make the Environmental Management Plan required by condition 5-1 publicly available.

6 Quarantine Inspection

6-1 Prior to each departure of the barge for Gumboot Bay, the proponent shall make provision for inspection by an appropriately qualified and experienced person, acceptable to the Minister for the Environment, to ensure that the barge and its cargo are free of cane toads and noxious or environmental weed species (including seeds), and that vehicles and equipment have been washed down and are free from soil. The quarantine inspection is to meet the appropriate requirements of the Departments of Agriculture and Fisheries.

6-2 The proponent shall keep a written record of barge quarantine inspections.

7 Inspections by the Department of Conservation and Land Management

7-1 The proponent shall facilitate and make allowance for a pre-disturbance inspection followed by annual inspections of the proposal area by the Department of Conservation and Land Management.

7-2 Within one month following each inspection, the proponent shall report to the Department of Environment the outcomes of each inspection against performance objectives contained within the Environmental Management Plan required by condition 5.

8 Aboriginal Heritage

8-1 Prior to commencement of ground-disturbing activities, the proponent shall conduct archaeological and ethnographic surveys in liaison with the Department of Indigenous Affairs, making allowance for a pre-disturbance inspection by the Department of Indigenous Affairs, to permit avoidance of impacts on Aboriginal sites, objects or materials to the requirements of the Minister for the Environment on advice of the Department of Indigenous Affairs.

8-2 The proponent shall modify the location and or design of the proposal, or, alternatively, shall propose appropriate management measures, to prevent disturbance to Aboriginal sites, objects or materials, to the requirements of the Minister for the Environment on advice of the Department of Indigenous Affairs.

9 Barge Movements

- 9-1 Throughout the life of the project, there shall be no more than five barge arrivals at Gumboot Bay between 1 March and 30 November of the same calendar year.
- 9-2 The proponent shall advise the management of Faraway Bay Bush Camp of planned barge arrivals and departures by facsimile at least 7 days prior to each barge arrival at, or departure from Gumboot Bay.

10 Full Cost-Recovery Performance Bond

- 10-1 As security for the due and punctual observance and performance by the proponent of the requirements of condition 5-2 to be observed, conformed and complied with, the proponent shall lodge with the Chief Executive Officer of the Department of Environment on demand prior to commencement of ground-disturbing activities, an irrevocable full cost-recovery performance bond as nominated and approved by the Chief Executive Officer in his sole unfettered discretion to a cash value and in a form acceptable to the Chief Executive Officer (“the Security”) which Security at the date hereof being \$150,000.
- 10-2 The Chief Executive Officer may review the Security required by condition 10-1 at any time or times and if, on such review, the Chief Executive Officer considers that a Security has ceased to be acceptable to the Chief Executive Officer, then the Chief Executive Officer may, with the approval of the Minister for the Environment, require the proponent to furnish replacement or additional security for performance by the proponent of its obligations under condition 5-2.
- 10-3 The proponent shall within 14 days after written request by the Chief Executive Officer furnish replacement or additional security in such sum as the Chief Executive Officer shall nominate, in a form and upon terms and conditions approved by the Chief Executive Officer, which approval shall not be unreasonably withheld. On receipt of approved replacement security the Chief Executive Officer shall release and discharge the original security.

11 Environmental Coordinator

- 11-1 At least 2 months prior to ground-disturbing activities, the proponent shall appoint and employ an Environmental Coordinator to the requirements of Minister for the Environment.

The qualifications of the Environmental Coordinator are to include:

- a tertiary degree in Environmental Science, Environmental Engineering, Land Management or other appropriate discipline; and
- a minimum of 5 years of professional experience relevant to environmental management of mining or related projects.

The duties of the Environmental Coordinator are to include the following:

- surveillance of the initiation of all ground-disturbing activities and supervision of works to ensure best practice environmental performance;
- monitoring and preparation of reports on matters of potential environmental concern;

- liaison with relevant State Government professionals of the Department of Conservation and Land Management, the Department of Industry and Resources, and the Department of Environment;
- communication of potential or perceived environmental problems to the company manager;
- notification of appropriate government agencies of any environmental problems; and
- enhancement of environmental knowledge of employees generally at the site by means of talks, discussions, seminars, brochures, operational methods and training.

Procedures

- 1 Where a condition states “to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority”, the Environmental Protection Authority will provide that advice to the Department of Environment for the preparation of written notice to the proponent.
- 2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment.
- 3 Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment.

Notes

- 1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.
- 2 The proponent is required to contact the Department of Environment regarding Works Approval and/or Licensing requirements.

The Proposal (Assessment No. 1381)

The proposal is to establish a dry door barge site, laydown area, and access road in a coastal inlet, known locally as Gumboot Bay, 36 km south-east of Cape Londonderry (Figure 1 and 2). The site is on Unallocated Crown Land that has been identified for inclusion in the Proposed Cape Londonderry National Park (PNP/215), and lies within exploration tenement EL80/1840 held by the proponent since 1994. The Miscellaneous Licence (80/41) that enabled construction of proposal infrastructure had expired at the time of report publication. The proposal is located approximately 1.5 km south-east of a fishing and recreation facility known as Faraway Bay Bush Camp, and is intended to provide security of supply for the proponent's exploration and mining activities for as long as the proponent holds leases in the region.

Key aspects of the proposal include:

- dry door barge access during high tides to a landing site. Barge access will be used up to 5 times during the field season (1 March to 30 November of the same calendar year). Seabed dredging is not required;
- an 8 metre wide x 50 metre access road from the landing site to the laydown area located above the inferred 100 year storm surge level. Landing site access to the laydown area will be controlled by a locked gate;
- a 50 metre x 50 metre laydown area that will contain a unidirectional tower light, navigational aids, a graded hardstand area, and a bunded compound for two 20,000 litre camouflaged diesel fuel storage tanks that will be removed at the end of each field season;
- barge-to-shore fuel unloading infrastructure, including fuel spillage containment infrastructure;
- a 15 metre wide perimeter fire buffer zone around the laydown area and a water storage tank;
- an unsealed 8 metre wide x 3.6 kilometre segregated Restricted Access Road within PNP/215; and
- clearing of approximately 4 hectares of vegetation within PNP/215.

Table 1: Summary of key proposal characteristics

Element	Description
Location	– Informally named Gumboot Bay at Latitude 13° 58' South and Longitude 127° 12' East
Construction Period	– Approximately 2 weeks using conventional earth moving equipment (bull dozer, rock breaker, loader, trucks). Work undertaken during daylight hours
Duration of proposal	– 5 years with a possible extension of a further five years.
Area of Disturbance	– Approximately 4 ha
Major components	– Dry door beach landing site – Access to laydown area (8 m x 50 m) – Laydown area and fire buffer (65 m x 65 m) – Bunded fuel storage area – Unsealed access road (8 m x 3.6 km) – One unidirectional tower light – Navigational aids – Barge to shore fuel unloading infrastructure – Water storage tank
Facility Operation	– Up to 5 barge arrivals per field season (1 March to 30 November of same calendar year) – Road transportation to Ashmore undertaken during daylight hours – No permanent residential facility at the barge site – Fuel storage tanks to be removed at the end of each field season
Workforce	– Construction – up to 5 personnel
Fuel storage capacity	– 2 x 20,000 litre tanks

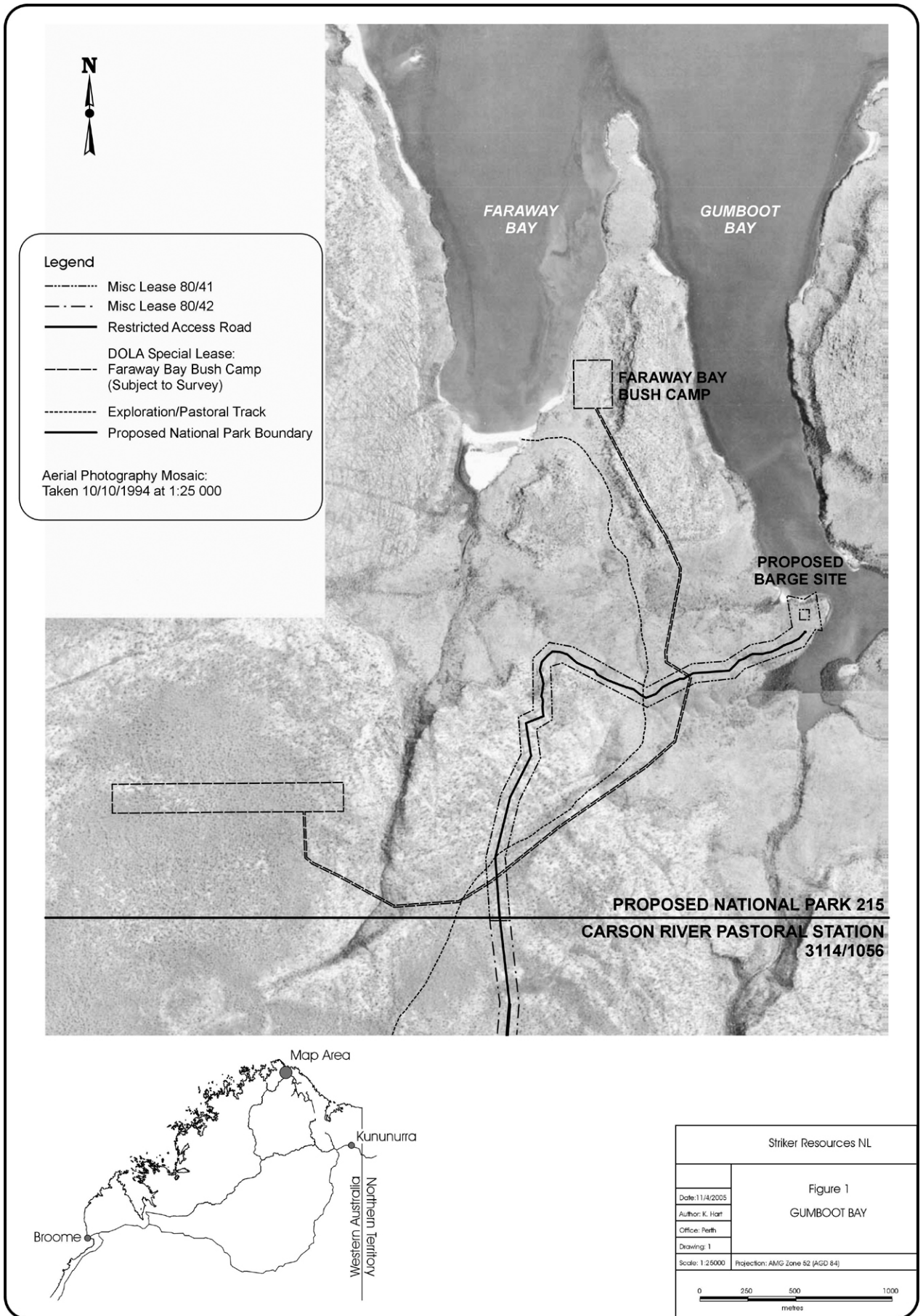
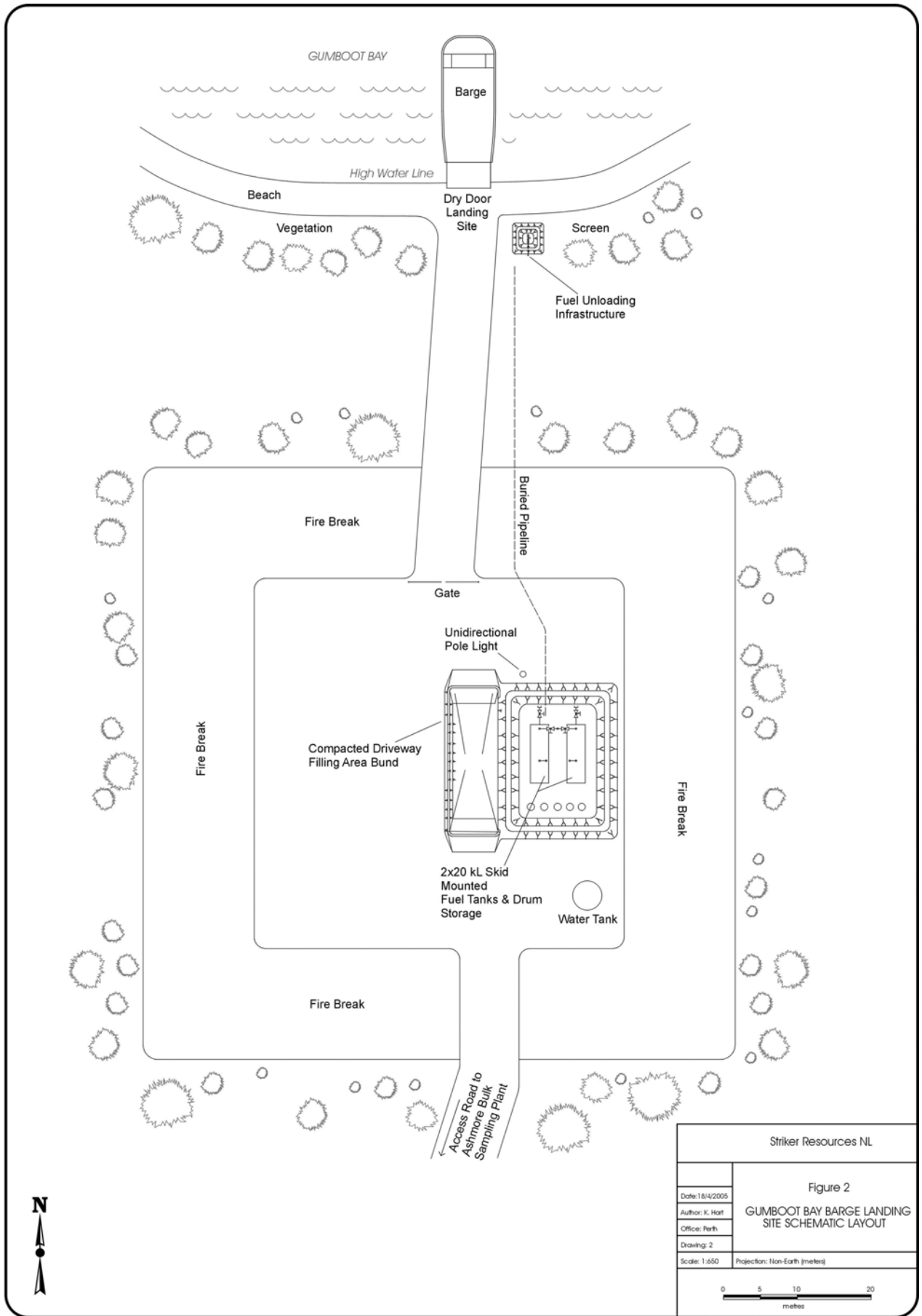


Figure 1: Location map of Gumboot Bay



Striker Resources NL	
Date: 18/4/2005	Figure 2 GUMBOOT BAY BARGE LANDING SITE SCHEMATIC LAYOUT
Author: K. Hart	
Office: Perth	
Drawing: 2	
Scale: 1:650	Projection: Non-Earth (metres)

Figure 2: Barge site schematic layout

Appendix 5

Summary of Submissions and Proponent's Response to Submissions



ACN 009 153 119

**BARGE SITE LAYDOWN AND ACCESS ROAD
CONSTRUCTION, GUMBOOT BAY, NORTH KIMBERLEY**

(ASSESSMENT NO. 1381) PER RESPONSE

DATE: 22 April 2005

**BARGE SITE, LAYDOWN AND ACCESS ROAD
CONSTRUCTION, GUMBOOT BAY, NORTH KIMBERLEY
(ASSESSMENT NO. 1381)**

The public submission period for Striker Resources' barge site, laydown and access road construction proposal, Public Environmental Review (PER) commenced on 13 May 2002 for a period of four weeks, ending on 10 June 2002.

The Environmental Protection Authority (EPA) received thirty five submissions on the project (see Attachment 1).

The principal issues raised in the submissions related to environmental, tourism and planning issues. Many submissions were framed in the form of statements and the essence of these is reproduced here. It may be helpful to the proponent to view these in the form of questions where possible and respond accordingly.

In summary the key issues were identified as:

- 1.0 General
- 2.0 The Proposal
 - 2.1 Mining Warden decision
 - 2.2 Proposal location
 - 2.3 Barge site, laydown area and access road
 - 2.4 Alternate sites
- 3.0 Biophysical
 - 3.1 Coastal landscape
 - 3.2 Flora and fauna
 - 3.3 Groundwater and surface water
- 4.0 Pollution
 - 4.1 Noise
 - 4.2 Dust
- 5.0 Social Surroundings
 - 5.1 Aboriginal culture and heritage
 - 5.2 Visual amenity
 - 5.3 Wilderness value
 - 5.4 Tourism and planning considerations
- 6.0 Public Consultation
- 7.0 Environmental Management

1.0 GENERAL

- 1.1 There is an error made in the contact number for the Department of Conservation and Land Management's (CALM's) Regional Office in Kununurra in the Emergency Response Plan (Appendix I, page 11). The correct contact number for this office is (08) 9168 4200. In the case of an emergency, the Department would appreciate early contact, particularly concerning crocodile attacks. An appropriate after-hours contact number is 0409 179 312.

The Kimberley Diamond Project Emergency Response Plan – Emergency Services, Regional Contacts sheet and Response Summary Sheets (Appendix I) has been updated to include the Kununurra contact numbers.

- 1.2 Section 4.1.2 (page 17) identifies that Drysdale River National Park is gazetted as a class B reserve. Drysdale River National Park is actually set aside as a class A reserve, vested in the Conservation Commission for the purpose of "National Park".

The Drysdale River National Park was gazetted 'by notice' published in the Government Gazette of 26 September 1974. The Reserve (No. 32853) was for the purpose of National Park and was classified Class "B". While the classification has subsequently changed, the reference in the PER relates to the recognition of its biological significance leading to its gazettal.

- 1.3 According to Tengraph (see Attachment 2) the tenement that covers the area of Gumboot Bay is an exploration lease held by Jade Creek Resources NL, C/- Emerald Tenement Services, 25 Charles Street, South Perth 6151. E80/1840 is a live tenement granted on 19/07/1994 and expires in 18/07/2002. Immediately below this is exploration tenement E80/1508 granted on 14/12/1992 and according to Tengraph records expired on 13/12/2001. This is held by held by Jade Creek Resources NL.

Striker Resources has a number of tenements on Carson River Station, Vacant Crown Land (VCL) and on Aboriginal Reserve 13873. The Carson River Station and this parcel of VCL are located above and between the Drysdale River National Park to the south and the proposed Cape Londonderry National Park 215 to the north.

There is no apparent tenure by Striker Resources over either the Barge Landing area or the road access to their Ashmore deposit. Can the proponent please explain?

These tenements are held by Jade Creek Resources NL, which was acquired by Striker Resources NL in 1997. As with all tenements including E80/1840 and E80/1508 on the granting of a new tenement a date of expiry is set. On expiry, an application to extend the expiry date can be submitted

and is extended for one or two years at the discretion of the Department of Industry and Resources.

At the date of this response, the tenements are current and their expiry is 18 July 2005 and 20 April 2005 respectively.

2.0 THE PROPOSAL

2.1 Mining Warden Decision

- 2.1.1 In September 2001, the Mining Warden found that the road that forms part of the Faraway Bay lease joining the airstrip to the camp to be a “private road” and a “substantial improvement”. This means that no-one can cross it without prior agreement, or work within 100m on either side.

In the PER document (Figure 3), it is Striker Resources’ intention to cross the single vehicle 4 km track twice by a 10 metre wide road which is to be used for hauling fuel. In relation to the Mining Wardens decision:

- (i) Why has this legal decision been ignored?
- (ii) Have alternate routes been investigated?
- (iii) Why are alternate routes not shown on Figure 3?; and
- (iv) Will Striker Resources be required to seek permission to cross the road from Faraway Bay?

The proposed positioning of the route as presented in Figure 3 of the PER has been selected during site investigations to minimize the impact on the surrounding environment. Consultation has occurred with the Faraway Bay Bush Camp exploring avenues to minimize and manage the effects associated with the crossing of the Faraway Bay Road. The Warden’s decision is subject to appeal.

Alternate routes have been considered but would result in greater disturbance. Alternate routes would be considered should the appeal be unsuccessful.

2.2 Proposal Location

- 2.2.1 Striker Resources has mounted a strong argument for the locating of a barge landing site at Gumboot Bay. This argument is on the basis that their priority development, Ashmore, is located on the western side of the King George River thereby eliminating (due to the requirement to cross the river during the wet season) potential barge landing sites on the eastern side of the King George River.

Based on Striker Resources Annual Report 2001, and statement to the stock exchange on 11th October 2001, it would appear that both reports indicate a “a disappointing grade” from sampling at Ashmore, but much more

promising samples at other sites, specifically Seppelt, Pteropus, Berkeley and Casuarina.

There seems to have been little mention of the Ashmore project since then by Striker and it could be assumed that Striker may now consider Ashmore to be unworthy of further development. A recent flight over the Ashmore deposit shows no activity with the pits and tails dams still containing wet season water. Striker go on to say in a November release to the ASX that work will now concentrate on targets at their Seppelt prospect located on the eastern side of the King George River.

As a result, unless there are other unknown proposals in the area the development of the barge landing site to the west of the King George River seems illogical when clearly the development area of Ashmore is, by Striker's own admission, not likely to be viable. Striker's priority prospects including Seppelt are now on the eastern side of the King George River thereby making it logical, based on the arguments raised by Striker in the PER, to locate any barge landing site on the eastern side of the King George River (refer to Tengraph figures in Attachment 2).

2.2.2 Given that reports show that Ashmore is not a viable area to mine and that Seppelt, Pteropus, Berkeley and Casuarina are located to the east of the King George River, can the proponent please indicate:

- (i) whether this change in circumstance has been addressed?;
- (ii) why the road and landing area is still being proposed for Gumboot Bay, given the above;
- (iii) whether is it Striker Resources' intention to develop a second Barge landing site if the Barge landing at Gumboot Bay is approved;
- (iv) whether Striker Resources will withdraw their proposal, given Gumboot Bay is no longer a logical or sensible location for a barge landing;
- (v) whether Striker Resources would still use the Gumboot Bay landing for the cartage of fuel to a new site, eg Seppelt, when this requires crossing the King George River;
- (vi) whether the proponent would build a new barge landing in the Cape Whiskey area so that major river systems do not have to be crossed?; and
- (vii) whether the Gumboot Bay site would be abandoned leaving the area and the nature-based development of Faraway Bay with the problem of a major access road?

Proponents Response 2.2.1 and 2.2.2

Exploration is a combination of vision, commitment, confidence, scientific enquiry and repeated test work spread over many years.

The Proponent and their joint venture partners are exploring several prospects located on both sides of the King George River and this activity will continue in the near future.

For the reasons outlined in the PER, Striker believes the Gumboot Bay site remains the most appropriate barge site to service their exploration programs, including the Seppelt Project.

Consideration has been given to relocating some of the current Ashmore infrastructure to another location to the east of the King George River but no decision has been made at this time.

In the event that the barge site and access road is no longer required, Striker would consult with all relevant land users and regulatory authorities regarding its closure and rehabilitation. Projects of this nature routinely require the lodgement of Rehabilitation Bonds with the Department of Industry and Resources prior to earthworks commencing.

- 2.2.3 If Seppelt, Pteropus, Berkeley and Casuarina were to become operating mines, would the bulk material be processed on site or transported across the King George River to the Ashmore plant or would the Ashmore plant be relocated to a future mine site on the eastern side of the King George River?

Should a mine be developed east of the King George River it is probable that a plant would be established at that location. Not necessarily the Ashmore Plant.

- 2.2.4 Following extensive exploration on the western side of the King George River by many companies including BHP, CRA, Stockdale, Striker Resources and numerous small companies, the probability of any mine-site being identified or developed is highly unlikely.

Is there still a requirement for large amounts of fuel or heavy machinery on the western side of the King George River?

The Proponent strongly disagrees with the sentiment expressed in this submission in respect to the prospectivity of the region. The long term presence of both large and small companies exploring for a range of mineral commodities testifies to the region being under explored and the overall mineral potential not fully evaluated. This can be highlighted by large companies in recent years returning to explore the western side of the King George River using advances in technology and geological models. The proposed barge site will be used to provide general logistics to the exploration camp at Ashmore in addition to servicing the regional

exploration programs with fuel and supplies. The main fuel storage facilities will remain at the Ashmore site.

- 2.2.5 The Proponent has recently announced the discovery of gold samples in the North Kimberley region and has extended its holdings in the region (ASX releases 31/1/02; 7/2/02; 15/2/02; 6/3/02; 26/3/02; 5/4/02; 19/4/02; 20/5/02). Given that diamond exploration has been disappointing in this area it raises the possibility that Gumboot Bay has been chosen to service gold exploration. If gold exploration is going to be undertaken in this area then the environmental consequences will be more far reaching than just the barge landing, laydown area and access roads. Is it Striker Resources' intention to undertake gold mining in the area and will Gumboot Bay be used to service gold exploration?

The Proponent's lease holdings in the region permit the search for other mineral commodities. Recently announced gold anomalies have been identified as a result of reviewing data collected several years ago for diamond exploration. The Gumboot Bay barge entry and access road would be utilized to service all the Proponent's programs in the region.

- 2.2.6 In 2001 Striker Resources and joint venture partners reopened the road between the King George River and the Berkeley River. This road is an extension of the Carson River Road and was used to transport large bulk samples back to Ashmore. In the past exploration companies have used sites on the Berkeley River for landing barges with supplies. Most of the new prospective sites are closer to the Berkeley River. These can be accessed on the road used for the transportation of bulk samples taken from various sites east of the King George. This road has been used since the early 1980's by various exploration companies in the area, is outside the Proposed National Park, and removed from other development. Given this:

- (i) why is it necessary to open a new road when this one already exists?;
and

The track between the Berkeley and King George Rivers is used, like numerous other tracks in the region, for short term exploration access. The road was evaluated as part of the PER Assessment process and was found to be unsuitable for the reason outlined in Section 2.3 of the PER.

These include:

- *distance and increased construction cost;*
- *no access to a suitable barge site that allows regular access;*
- *the crossing or clay rock terrain units that are least preferred in respect to the construction of all weather access and their cost of maintenance.*
- *Crossing of substantial drainage catchments.*

-
- (ii) why is the proposed barge landing site and proposed road not positioned between the Berkeley and King George rivers where the exploration work is being carried out and no major rivers have to be crossed?

The Proponent has a lease holding of 2,200 km² in the region and operates, with joint venture partners, a range of exploration programs across several sites. Not all sites will receive the same attention in any one exploration season and it can take several years to develop a geological model for a particular area.

- 2.2.7 Based on the information in the PER and as shown on the Plates, the Department of Planning and Infrastructure considers that the coastal engineering components of the relative site assessments indicated in Tables 2.1 to 2.5 would seem to be correct and thus correctly support the selection of Gumboot Bay as the preferred project site.

This comment requires no response.

2.3 Barge site, laydown area and access road

- 2.3.1 The proposal to construct a barge site, laydown area and access road at Gumboot Bay was originally presented to CALM in May 2000. At that stage, the proponent emphasised that the proposal was to be a very low key and temporary development that would utilise existing roads for all but a distance of one kilometre. CALM initially accepted the proposal on the basis that the project was short-term (i.e. a couple of years) and that the potential impacts would be low. At the completion of the project the infrastructure was to be removed and the area rehabilitated.

Incremental changes to the project since that time have resulted in the proposal as outlined in the present PER. The proponent now promotes the project as forming “a small but ongoing part of the development of the Kimberley Region” (section 2.3, page 6) and states that the life of the project is “for the period the Proponent holds leases in the region” (section 3.1, page 13). It appears that the previous idea of the project being short term in nature has now been superceded.

From an environmental, planning, land use and construction standpoint, the Gumboot Bay proposal is a superior option for a barge site and laydown area.

The original proposal was to establish the barge site and laydown area at Gumboot Bay as currently proposed in the PER and link in with the existing road used by the operators of the Faraway Bay Tourist Venture.

External to the proposed National Park, the road was to follow existing exploration and pastoral tracks with minor upgrading.

The barge site and laydown area dimensions have not changed from the original proposal. The road currently used by the Faraway Bay proprietors

to transport guests to the airstrip was found to be inappropriate for upgrading due to the terrain features and the substantially increased visual impacts.

In addition, the dual use of the road did not have the support of the Faraway Bay Bush Camp management.

The road location within PNP 215 and construction method was altered so that it crossed the Faraway Bay Bush Camp airport road in two locations and followed an alignment that substantially reduced visual impacts to the general landscape and to visitors to Faraway Bay. The road design remains unchanged – that of a Rural Road (Shire of Wyndham-East Kimberley Policy E5) with an unsealed trafficable width of 6 metres. The overall formation width with provision for verge drainage is 8 metres. Materials for road construction would be sourced outside of PNP215.

A close inspection of the original Notice of Intent proposal forwarded to regulatory agencies does not support the comment that the project was promoted as short term (ie. a couple of years).

The Proponent would need to continue to use the barge site to support other exploration activities in the region. Other land users in the region could also benefit from the facility.

- 2.3.2 The barge landing site at Gumboot Bay will affect the “aesthetic cultural, economic and social surroundings” in respect to Faraway Bay, The Bush Camp. The policy of Partnership 21, and its emphasis on Eco-tourism, recognises the significant economic value of the natural environment. As such the activities of others (ie Striker) needs to be assessed and their impacts assessed against the values of Far Away Bay under the determination of “environmental impact” under the *Environmental Protection Act 1986*.

Given the role of the Partnerships 21 and the Western Australian Tourism Commission in its vision and mission to create an effective partnership between the private sector and the State Government to make tourism the premier industry in Western Australia and to accelerate the sustainable growth of the tourism industry for the long-term social and economic benefit of the State; and the comments made by the Hon. Clive Brown MLA in his ministerial role on tourism issues on 21 May 2002 (see Attachment 3), these values will need to be reviewed in context within this evaluation of the impacts of the Barge Landing Ramp on the “aesthetic cultural, economic and social surroundings” in respect to Faraway Bay, The Bush Camp.

Has Striker Resources been able to identify that their proposed Barge Landing Ramp will have no impact on the “aesthetic cultural, economic and social” activities of Faraway Bay?

Pastoralism, mineral exploration, conservation and tourism are the primary land uses in the immediate region. The land for the barge site is

Vacant Crown Land. The Proponent's mineral exploration activities commenced prior to the development of the Faraway Bay Bush Camp. In fact, the Proponent's resources were made available to assist in the establishment of the facility at Faraway Bay.

When responding to submissions on the PER (EPA Bulletin 629) detailing the establishment of Faraway Bay Bush Camps stated (and licenced) activity was as a commercial fishing base and not eco-tourism and as such indicates the changing land-use within the area of Faraway Bay.

Partnerships 21 is one of the several initiatives by the West Australian Government to raise the economic profile of the Kimberley Region. In a similar manner, recent programs initiated by the Minister for State Development are designed to identify strategies to increase resource exploration in Western Australia. In a more holistic approach the Kimberley Region Economic Development Strategy 1997-2010 considers that development in the Kimberley is dependent on a number of different industries that will take advantage of the constantly changing economy. These industries should work in parallel to gain optimum benefit, which the proponent fully agrees with (p47).

Much has been made of the potential income that the region can earn through tourism and the flow on effects to the state. To encourage tourism is prudent and supported, but to base the long term income earning capacity of the north Kimberley totally on tourism when other productive land uses are available is not in the spirit of sustainable development. Recent events have also shown that non-domestic factors can impact dramatically on the tourism industry.

The Bush Camp at Faraway Bay is promoted as a small scale nature-based tourist facility. The Proponent believes that with careful consultation, management and goodwill on both sides, the respective business' can be operated successfully on what is Vacant Crown Land for the benefit and use of all Western Australians.

2.3.3 In accordance with EPA requirements, the Proponent has agreed to give seven days notice to Faraway Bay of barge movements (an increase from the original 24 hours) (PER:14). It is also noted that 'transportation of fuel, equipment and supplies to the Ashmore Plant as required [will occur] during daylight hours' (PER:12). In relation to barge movements, can the proponent please indicate:

- (i) whether 'materials designated for return to Darwin' will occur during daylight hours (PER: 12);
- (ii) whether construction activities will be confined to day time activities only (PER: 43);

-
- (iii) how the proponent intends to transport materials from Ashmore during daylight hours, given that barge landings will occur during night time hours?
 - (iv) if barge landings occur at night, will materials and staff be required to stay at the landing site with no amenities, for up to 10 hours depending on barge time arrival, until daylight so that the material can be transported? and
 - (v) will this extend night-time activities including noise and lighting?
- (i) ***Details on barge movements are outlined in Section 3.6 of the PER. Barge access to the site will only be possible for 3 – 4 hours or as tides permit. Suitable tides and barge availability will mean that some materials designated for return to Darwin will be loaded during night operations. It is not anticipated that night operations will form a significant number of the estimated 40 loadings per field season.***
 - (ii) ***Commitment to limiting all construction activities and related vehicle movements within a 5km radius of the Bush Camp to daylight hours during the construction period is stated in Table 7.1 Summary of Environmental Management Commitments of the PER.***
 - (iii) ***Materials designated for return to Darwin will be transported to the barge site laydown area during daylight hours. They will be transferred to the barge when the unloading of incoming supplies is completed.***
 - (iv) ***Site support personnel will not be required to spend extended night time hours at the barge site awaiting barge arrivals.***
 - (v) ***see response to (iv)***

2.3.4 The EMP states up to 30 barge landing sites per field season (EMP p.5). The EPA Guidelines require a limit of up to 40 per field season with Striker also stating up to 40 per field season (PER, Table A.1, p.vii). Why has there been a possible increase in the number of barge landings with no apparent discussion or justification?

The Minister for the Environment and Heritage directed the EPA to undertake a formal environmental assessment of the Per document not the EMP.

The EPA guidelines (PER – Appendix A) required the PER document to include a commitment to limit barge movements to no more than 40 per field season. This is covered by the Proponent in the PER (Table A,1).

2.3.5 The EMP determined that a 50m by 6m access road from the beach landing site to the laydown area was required with additional clearance required for road construction taking the width to 10m (EMP: Appendix A:5). The PER determines the width to be 8m wide (Table A.1:vii) with ‘clearing vegetation

4m either side of the road centre line to produce an 8m wide right of way' (PER:14). These dimensions also apply to the 3.6km and 36km roads although the length of this road has also been stated at 42km (Striker correspondence, March 14, 2001). There appears to be an inconsistency with the dimensions of the road width and the total clearance width and the length of the road. If a discrepancy does exist and the total clearance is in fact 10m, this has implications for vegetation destruction and greater visual impact. Can the proponent please clarify.

Comments recommended following the EMP review highlighted some confusion between the terms used to describe the formation and trafficable road widths in different sections of the corridor. These have been standardized in the PER and are outlined in Table A.1 covering key characteristics of the proposal. The road width is 8m wide within PNP215 as stated in the PER in Table A.1.

- 2.3.6 Striker Resources originally proposed to use existing tracks. Why is Striker now proposing to construct a new road 10m wide and 42km long from the barge site to the proposed mine?

Striker's Notice of Intent proposed to use existing exploration and pastoral roads to the Ashmore mine site (NOI Proposal – Section 1.2). The proposed activity and use is allowed under conditions attached to the granting of Exploration Licence 80/1840 which includes specific environmental requirements and requires approval for these activities from the State Mining Engineer.

Following consultation with the management of the Faraway Bay Bush Camp, who opposed the establishment of a barge site and a review of the existing road layout, it was determined that within PNP215:

- *the existing road access up the jump-up (escarpment) was unsuitable for tanker operation and a lower gradient route was selected to the west of the access road to Faraway Bay.*
- *for safety and visual amenity reasons separation of tourist and mining traffic was desirable and this would minimise contact with guests which was a stated aim of the Bush Camp management.*
- *thirty-three kilometres of the road is on the Carson River Pastoral Station and sections of the existing road crossed drainage lines and clay rock terrain unsuited for road construction.*

With approval from the Pastoralist the road corridor was shifted to a catchment divide.

- 2.3.7 Reference Section 1 – 10 3.6 of the PER indicates “Third party use of the facility will be considered on a case by case basis.” Does this road give access to the areas currently being explored by various mining companies?

The 3.6km road section within PNP215 and the barge site are on Vacant Crown Land. Access to the barge site by third parties provided it did not exceed the 40 landings per season would not be withheld.

- 2.3.8 Section 1 – 10 5.9.1 states “This site would also be visited by Striker personnel during rostered days off.”

Given the intention for the barge landing is for the movement of fuel and heavy equipment, why is it proposed as a recreational facility for Striker Resources personnel on rostered days off and will this additional use require further buildings and boats?

Barge landings are likely to occur up to 40 times for 4 – 6 hours during the field season. Site personnel on occasion travel to a range of places for recreational fishing on their rostered days off and Gumboot Bay, although not considered a private fishing spot would undoubtedly be visited.

Additional buildings will not be required for recreational use of the site.

- 2.3.9 Section 1 – 10 5.9.1 states “Ongoing discussions will be held with other land users in the region to determine sensible methods of limiting unauthorised or unwanted access.”

The Owners of Faraway Bay have not been included in any of these discussions, yet the impact to their property will be significant. Is it Striker’s intention to hold discussions with Faraway Bay owners?

The Proponent does not accept the statement that the owners of Faraway Bay have not been included in discussions on limiting unauthorised access. The matter has been discussed in several site meetings and in correspondence lodged with the Chairman of the Environmental Protection Authority.

Public access to Faraway Bay is currently available via a pastoral road from Kalumburu and an exploration track to Faraway Bay. The Proponent currently maintains the Pastoral road to a standard to allow fuel deliveries to their Ashmore camp.

The proposed road linking the barge site to Ashmore will be a restricted access road. The annual upgrading of the Kalumburu-Carson River Road will not be required and it will revert to a standard impassable to other than 4 wheel drive vehicles. This will minimize the use of the road.

The access issue is complicated by land tenure. The land surrounding Faraway Bay lease is public land and this Proponent can only accept responsibility where they have legal authority to do so.

-
- 2.3.10 A proposal for a road into the area must also be considered a move detrimental to the region. The Faraway Bay development is a commercial development but it has been constructed to be completely compatible, visually and ecologically, with the landscape / seascape. It is managed with full regard for the environment. A road to terminate in such a remote area without the infrastructure or the personnel to monitor and control the activities of visitors would ultimately cause irreparable degradation of the area and should be avoided at all costs.

The proposed road will connect the barge site in Gumboot Bay with the Proponent's infrastructure at Ashmore. While measures will be taken by the Proponent to limit access they can only accept responsibility where they have legal authority to do so.

In addition, access via existing pastoral tracks from Carson River Station to the Aboriginal reserve located to the east of the King George River is permitted (limited) by Department of Aboriginal Affairs.

- 2.3.11 The Executive Summary Page (v) of the PER indicates “although linked by an exploration track to the Carson River and Kalumburu road systems – road visitor access is actively discouraged”.

For many years this road has been used by keen bird watchers who travel to the King George River area to follow their interests. In the past Sam Lovell, an aboriginal tourist operator from Derby, has travelled on this road and taken visitors to the top of the King George falls. The road maintains a standard that allows experienced travellers to use it even without maintenance.

It is incorrect to say this road “allows uncontrolled access by tourists into the region against the wishes of and the tourism operator Faraway Bay.” Faraway Bay does not have any problems associated with the use of this road as:

- the exploration track that leads to Faraway Bay from the Carson River road does not have a well defined turn-off; and
- lease conditions prevent road access so this turn-off will not become defined.

Given Striker Resources has never discussed this issue with the owners of Faraway Bay, how can they purport to know what the owners concerns are?

The Carson River Road turnoff to Faraway Bay is reasonably well defined. The comments regarding lease conditions preventing road access to Faraway Bay do not appear to be supported by the current DOLA Lease IT 543202 which makes no mention of preventing road access to the leasee.

This road has been used by Faraway Bay employees to transport tourists approximately 10km to the south of the Faraway Bay Camp to allow for bird watching and natural related activities. The road remains in good

condition to allow for both tourist activities and for service organizations to gain access to Faraway Bay.

Undertakings have been given to the owners of Faraway Bay addressing their concerns about access by unauthorized persons from the Carson River Road.

- 2.3.12 Section 1 – 10 Page 14 3.6 , of the PER states “Third Party use of the facility will be considered by the proponent on a case by case basis”. Should this decision be made by the Shire and if there is a need for public access to this area should it be controlled by one entity?

The Proponent has agreements with Balangarra Aboriginal Corporation and with several exploration companies and in the North Kimberley. Other mining companies are actively exploring leases nearby. Logistical support is difficult and costly for all companies operating in the region, particularly in relation to maintaining fuel supplies.

Third party use of the facility would be strictly controlled in accordance with statutory requirements.

As a result of the public assessment process licensing, further lease conditions including rehabilitation bonds will be required from the Proponent prior to construction commencing. The Proponent can only be held responsible where they have legal authority to control the facility.

- 2.3.13 At present Faraway Bay is prohibited from using road access to their lease. It is astonishing that a heavy haulage road should be considered for the same area.

The Faraway Bay Bush Camp received regulatory approval in 1992 (EPA Bulletin 629) to operate as an airstrip and base for a commercial fishing boat (PER – Benrama Pty Ltd 1992).

While access to the site was originally restricted by sea, and air (DOLA Special Lease 3116), these conditions are not included in the current DOLA Special Lease (H543202) for the Faraway Bay facility. The use of the area for a barge site is permitted under the current land tenure.

- 2.3.14 Constructing the proposed road, although a private road, opens the way for third parties to access remote areas. The PER states that the Carson River road would not be maintained, however it also states that mustering activities are carried out in the area. For mustering of the Carson River property the Carson River Road is maintained at a low level as it is the only source of access to and from the station. It will always remain suitable for 4-wheel drive access in the “Dry Season”.

Wherever a new road is constructed from the coast to the exploration sites it must cross this road. In other words, the Carson River Road and the

proposed road will be accessible to third parties, eg tourists, 4x4 clubs, boating people and other exploration companies.

Duplication – see response 2.3.11, 2.3.12

- 2.3.15 Any variation of the site development which involved the construction of a ramp on the beach (as discussed for a couple of alternate options) would require a licence under the *Jetties Act* from the Department of Planning and Infrastructure.

The proposed barge landing is dry dock and this is one of the attractions of the Gumboot Bay site. No ramp or dredging is proposed for the site.

- 2.3.16 Can the proponent please provide confirmation that the proposed Gumboot Bay road alignment is suitable only for servicing the current Ashmore plant site.

The Gumboot Bay – Ashmore Road will be used to support exploration in the general area.

- 2.3.17 Can the proponent please provide information on the proposed longevity of the current Ashmore plant and any intention to use it to process ore from any potential sites to the east of King George River (CALM).

The Ashmore plant and associated infrastructure is a base for the Proponent's operations in the North Kimberley. It has been used to process ore from sites to the east of the King George River.

A decision has recently been made to relocate the Ashmore plant to the company's Northern Territory operation. The Ashmore camp and associated infrastructure will remain to service the company's exploration/evaluation programs in the region.

2.4 Alternate Sites

- 2.4.1 In the PER there was a detailed assessment of eight alternate sites. Using local knowledge three of these sites can be ruled out:

- Kalumburu – requires crossing the Drysdale River, this river has a large catchment area and stays flooded for a long period;
- Faraway Bay – lease conditions do not allow road access; and
- Whiskey Creek – supports a small rainforest.

Can the proponent please provide comment.

- 2.4.2 In addressing the EMP it was suggested that Cape Whiskey be investigated. In 1995 Striker Resources planned to re-open an access road to Cape Whiskey where a small existing track goes to within 3 km of the coast, to a location known as Vernon's fishing camp. Can the proponent indicate why

this was not assessed, even though it was part of a work management plan at the time and strongly considered by both Striker personnel and the Balanggarra people.

Response 2.4.1 and 2.4.2

Numerous barge sites between the Berkeley River and Gumboot Bay were examined as part of the alternative site assessment program. While several locations possessed suitable drydock barge sites few, including Cape Whiskey satisfied the primary barge site requirements as detailed in section 2.4.1 of the PER. Access to most sites in the North Kimberley is possible by 4 wheel drive during the dry season. However, the primary issues in respect to the current proposal were based on developing a low maintenance road access suitable for regular use by fuel tankers.

Many roads in the North Kimberley are for a number of historic reasons poorly designed in that they do not “fit the terrain” and are not environmentally or financially sustainable, due to high maintenance requirements. In developing route selection criteria, the Proponent ranked all sites on the following basis.

- ***Engineering and related terrain factors, particularly construction on black clay materials,***
- ***Economic consideration covering construction and maintenance, and***
- ***Environmental and land tenure criteria.***

Cape Whiskey was examined and the hinterland was found to be less attractive than access west of the King George River.

- 2.4.3 The PER lists seven criteria for assessing the most suitable barge landing and laydown area sites (p.7). One of those criteria was the requirement not to cross any major rivers. The Berkeley and Cape Whiskey sites would cross the King George River en route to the Ashmore plant. The road from Gumboot Bay does not, indicating that this site is more favourable based on this criteria. Approximately 70% of Strikers tenements and 71% of Kimberlite pipes are to the East and South East of the King George River (Striker Resources, 2000 Annual Report, pp.5&12). In addition, Striker Resources have acknowledged that exploration east of the King George (Seppelt) is encouraging whereas the Ashmore sites have proved disappointing (ASX Releases 2001-2002, Striker Resources Prospectus, April 2002); Striker Annual Report, 2001 and 2002). This raises several issues regarding the selection of Gumboot Bay as the proposed site.

On the basis of the above, can the proponent please respond to the following questions/ points:

-
- (i) Is it possible for Striker to access these east/south-east sites from Ashmore without crossing the King George River?
 - (ii) If this is the case then crossing the King George is not a criterion that should be considered. If these sites can only be reached by crossing the King George then why is it an issue if already occurring?
 - (iii) Given that the majority of tenements are east/south-east of the King George does the proponent access the majority of its tenements from the existing Ashmore site or does the proponent supply these sites from east/south east of Ashmore?
 - (iv) Either way it would appear that the Berkeley requires crossing and that continued maintenance and upkeep of roads to these sites is also necessary. However both these criteria factor in negating the acceptance of the eastern sites.
 - (v) Is the Berkeley less sensitive than the King George given that the Berkeley has ranked 'high' for environmental risk and assessed as having sensitive eco-systems? (PER, Table 2.1, 2.3 and 2.4).
- (i) *Exploration activity is carried out on all of Striker's tenements and this requires the crossing of the King George River. This activity may be spread over several years and generally requires access by light vehicle that require no major modifications to the Riparian environment or the stream bed. In a similar manner, access tracks are narrow, require minimal formation development and maintenance, and are suitable for 4 wheel drive use.*

The terrain considerations are the most important factors when designing a road suitable for tanker haulage.

Infrastructure has been developed at the Ashmore site over a period of time requiring money and resources. Ashmore acts as a service point for all the tenements within the project area as exploration is dynamic in nature and locations of activities vary over time.

The crossing located on the King George River to the south east of Ashmore is a hard bottom gravel crossing which has been used since the 1970s. As the PER was to address the suitability of barge landing sites to access the proponent's infrastructure and Ashmore site, the assessment of the King George crossing is considered beyond the scope of the PER. To gain access to this crossing more road construction and habitat modification would be required compared to the Gumboot Bay option.

Some of the barge landings located (i.e. Whiskey Creek) to the east of the King George River could not utilize the current King George crossing as their proposed route to Ashmore would require crossing the King George some distance downstream.

The next section from 2.4.4 to 2.4.13 raise a number of issues via the comparison of preliminary draft documents known as the "EMP" and

“PER 2001” against the PER 2002 document. These documents were presented to relevant stakeholders for comment and as such contributed to the final PER 2002. It was not intended that these documents should be used for comparison purposes. Only points that are raised through these sections that are considered relevant will receive a response.

- 2.4.4 There is no specific discussion on whether the criteria are weighted or how they might be weighted. The only indication is the statement that ‘an important consideration in the evaluation process was whether the site was suitable for routine use’ (PER:7). It would appear that if at least four of the seven criteria (for barge site) are positive, then a ‘high’ ranking will result regardless of which criteria are met (PER, 2002, Table 2.1; EMP, 2001, Table 3). The PER and EMP Tables have been reproduced in Table 1.1 (Attachment 4) and illustrate that Kalumburu (five positives), Faraway Bay (four positives) and Gumboot Bay (seven positives) all receive a high ranking in 2001. This is despite the fact that Faraway Bay has a negative result for dry door access & laydown, no heritage clearance, and no company tenure while Kalumburu also has negative responses to company tenure and proximity to Darwin. This does not then explain why Site #5 with four positives in 2002 receives a Low ranking. In addition, Faraway Bay increases to five positives in 2002 (with company tenure) and yet the ranking is reduced to ‘low’. This is particularly conflicting when in relation to a description of Gumboot Bay and Faraway Bay it is stated that ‘the issues associated with both sites are similar’ (PER:11). There are numerous possibilities including that a ranking system of the criteria has been put in place, that the process is overly subjective or that sites have been predetermined on some other basis. There is insufficient evidence in the PER to make a determination and further explanation is required.

The Proponent realizes that the use of these tables does not provide a detailed explanation and that inconsistencies are present. In reference to the PER 2002 table 2.1 (p7), the Kalumburu, Faraway Bay and Berkeley #7 all have 4 yes responses, however, Kalumburu has a high rating whereas Faraway Bay and Berkeley have a low rating. Three things must be considered when assessing this table.

- ***The YES and NO responses are ordinal numbers and can not be added.***
- ***The table should be considered in conjunction with other components of the assessment contained in section 2 of the PER.***
- ***The categories in the table are simplified and do not reflect the complexity of the assessment and both affirmative and non-affirmative states are present for the separate categories (For example a YES for “Protected Anchorage” is positive whereas a YES for “Presence of Sensitive Ecosystems” is negative.***

The overall site rating procedure should be considered as a two step process that was not detailed in the PER 2002. The initial step required the information for the seven criteria and table 2.1, 2.2 and 2.3 to be compiled

providing a broad rating. The second step required subjective judgment of the major limiting factors of each site based on the Proponents knowledge gained through exposure to the North Kimberley environment since 1992.

- 2.4.5 Figure 5 (PER, 2002) illustrates that the site purportedly assessed in the EMP as Cape Whiskey is in fact Whiskey Creek and appears to correspond with Site #4 assessed in the PER with all criteria matching for the barge sites (refer Table 1.1 – Attachment 4). This would mean that Whiskey Creek #3 and Site #5 are new assessments. Whilst Site #5 appears to be in the vicinity of Cape Whiskey (PER, Figure 5) this is not made clear in the PER and is discussed as being associated with Whiskey Creek (PER:9). Does this mean that Cape Whiskey has not been assessed?

This was a local naming mistake, which was rectified after consultation. Sites that were assessed in the PER 2002 are Site 3 (Whiskey Creek), Site 4 and Site 5.

- 2.4.6 The EMP determines that there are heritage considerations for Cape Whiskey for the access roads (Table 3) with the PER determining that there is ‘no information’ for Site #4. If these are in fact the same site (as indicated in the previous point) why is there now no information available? Even if these are different sites, the access road also includes access from the area not just particular sites. Does this mean that the original assessment was incorrect or has a full assessment not been undertaken for the PER?

Refer to response 2.4.5.

- 2.4.7 It would appear that Site #4 has been ruled out on a number of criteria (in both the PER and the EMP) and no further specific analysis of this Site is warranted. However, there remain points for discussion over Site #3 and #5 that also have relevance for the Berkeley Sites. The criteria for dry-door access is ‘no’ for Whiskey Creek #3 (PER, Table 2.1) but further analysis reveals that dry-door access does exist but that it is the lay-down area that is the problem (PER:9). The problem with Site #5 appears to be the ‘steep access up onto the escarpment’ (PER:9). Site #5 has been dismissed as low suitability (PER, Table 2.1) and yet based on individual criteria it achieves a positive rating. It would appear that Site #5 and the other eastern sites have been dismissed based not on an assessment of individual criteria but on the overriding factors of crossing the King George River (to reach Ashmore) and ‘development costs and ongoing road maintenance of a road formation’ (PER:9). Can the Proponent provide some detailed assessment on different costs for each site?

Costs are not provided for the following reasons.

- *Outside of the scope of this assessment.*
- *Any costs are provisional based on experience.*

-
- 2.4.8 The EMP states that the Berkeley River and Whiskey Creek sites are “not directly linked by existing roads to the project area” (page 17) with the PER statement implying that the Proponent still considers this to be a factor. If this is the case it is clearly incorrect as there is an existing road from the project area airstrip right through to the Berkeley and a track from the project area to Cape Whiskey. The Berkeley road is clearly visible from the air with the Cape Whiskey track obscured for the last few kilometres near the coast. Both were confirmed visually by a flight out of Faraway Bay on April 26, 2001 (personal observation).
- 2.4.9 Table 1.1 (Attachment 4) indicates that the Berkeley site assessed in the EMP is the same as Site #7 assessed in the PER. Assuming that these sites are one and the same (there is little information to confirm or dispute this), then the only change is that the EMP had no information on sensitive eco-systems whereas the PER indicates that subsequent information has found sensitive eco-systems to exist. The implications of the PER assessment raises the following issues. First is that the initial assessment (for the EMP) was not thoroughly conducted and given the continued confusion over the Whiskey Creek and Cape Whiskey assessments it raises concerns over whether the Berkeley has been thoroughly assessed for the PER. Secondly, there is no documentation to support the finding of sensitive eco-systems and given that other mineral explorers use this area (EMP:17) concerns are raised that either other mineral explorers are unconcerned with disturbing sensitive eco-systems or the Proponent has possibly recorded this incorrectly? Can the proponent respond to the above issues and provide additional information on this so that an evaluation can be made.

A track to the Berkeley River crossing exists and is used depending on exploration activities in the area. However, as detailed previously, no direct link is present from the Berkeley River crossing to the Berkeley River site. Access the landing site would require the formation of a new road.

Cape Whiskey track was used by 4WD vehicles to undertake regional exploration and as such was use sporadically. As discussed previously, to construct a suitable access to the Cape Whiskey landing would require the construction over black clay terrain units that are least preferred in respect to the construction of all weather access and their cost of maintenance.

The Proponent acknowledges that differences are present between the EMP and PER. However the initial assessment of the proposal was set as an Environmental Management Plan (EMP). This EMP would be assessed as an “Informal Review with Public Advice”. After a number of objections were upheld on the level of assessment, the level of assessment was upgraded to a Public Environmental Review (PER). As the PER supercedes the EMP and further work was undertaken, a comparison of the two documents is not warranted and as such no further comment is required.

2.4.10 It is interesting to note that Berkeley #6 is assessed as ‘no heritage clearance’ (PER, Table 2.1), ‘no information’ on heritage considerations (Table 2.2) and ‘not recorded’ for environmental risk to heritage (Table 2.3). This also applies to Berkeley #7 and the three Whiskey Creek sites. Given these statements, can the proponent please address the following questions:

- (i) On what basis has ‘heritage’ been evaluated?
- (ii) Has the Proponent attempted to negotiate clearance?
- (iii) If the answer to (ii) is no, was this because the eastern sites were dismissed prior to any need to address the issue of heritage considerations or environmental risk to heritage?
- (ii) Do other mineral explorers that use the Berkeley have clearance?

Heritage is evaluated based on likely importance and significance of the location to the local Aboriginal community.

Heritage was evaluated by a desktop study. However Sites #3, #4, #5 and #7 were rejected as they failed to meet the primary criteria as detailed in section 2.4.3 of the PER 2002.

The Proponent is not privy to information on whether other mineral explorers have clearance to use the Berkeley area.

2.4.11 The EMP states that the “Berkeley River and Whiskey Creek sites possess several suitable dry door barge sites” (EMP:17). Yet the EMP assessed only one site and the PER included one more (with the EMP site and the PER Site #7 being the same site). Given the above quote, have all the Berkeley sites been evaluated?

The PER 2002 assessed the only two suitable sites at the Berkeley, sites #6 and #7.

2.4.12 The PER (Table 2.2) and the EMP (Table 3) indicate that at least five positives of the six criteria need to be met to attain a ranking of ‘high’ for access roads (this applies to Gumboot Bay in 2001 and 2002 and Faraway Bay in 2002 – refer Table 1.2). Why is there the requirement to achieve five of six (83%) when the barge access only appears to require four of seven (57%)? Can the proponent please provide an explanation.

The PER 2002 Table 2.2 should be considered in light of all the assessment criteria contained within section 2 and not treated in isolation.

2.4.13 Faraway Bay has gone from a ‘low’ ranking in 2001 to ‘high’ in 2002. This is based on changing ‘presence of unsuitable terrain’ from ‘yes’ (negative) to ‘no’ (positive) and ‘heritage considerations’ from ‘yes’ (negative) to ‘no’ (positive). Why are there now no terrain impediments and no heritage considerations? This implies that the initial assessment may have been inadequate and leaves open for question whether the current assessments for all sites has been adequate.

As the PER 2001 is a draft document that underwent consultation to produce the PER 2002, it should not be compared to the final PER 2002 document.

- 2.4.14 Company tenure existed for the access road in 2001 and 2002 with tenure for the landing site not existing in 2001 but existing in 2002 and yet this resulted in going from a 'high' ranking to a 'low' ranking for barge access at Faraway Bay. This implies that there is some weighting given to certain criteria. Is it simply a mistake or does Striker intend to re-evaluate the possibility of using Faraway Bay?

Refer to response 2.4.13. Striker does not intend to re-evaluate the possibility of using Faraway Bay.

- 2.4.15 Figures 1 & 2 in the PER only show the site of Ashmore. This site has shown disappointing results as stated by Striker Resources NL (Reference the Annual Report 2001 Chairman's Address). Exploratory activity for the coming season is to be at Seppelt, Casuarina and the new gold find. Each site is further away from Faraway Bay and on the eastern side of the King George River. With regard to these other sites:

- (i) Why are the new sites of activity not shown?
- (ii) Why is the more promising prospect at Seppelt ignored?
- (iii) Will fuel be carted across the King George River?
- (iv) Will bulk samples from Seppelt, be carted back across the King George river to Ashmore?
- (v) If the Seppelt site proved to be viable would sites 3, 4 and 5 (as shown in the PER) become attractive?
- (vi) Given that the Seppelt find is located approximately 90km from Gumboot Bay and approximately 30km from the Berkley, will Striker Resources review the location for a barge landing facility to a more suitable site?; and
- (vii) Why was Cape Whisky not assessed?

Refer to response 2.2.1.

- 2.4.16 Figure 5 in the PER does not show the track that leads towards sites 3, 4 and 5 referred to as Vernon's fishing camp. Why?

The only camp that the Proponent is aware of that Vernon occupied is located on the King George River.

- 2.4.17 Site 7 is shown at Casuarina Creek is shown on Figure 5 yet on plate 8 it is shown 10 km upstream. Why?

The locational information for Figure 5 and plate 8 that are presented in the PER 2002 is correct.

- 2.4.18 Site 6 is shown on the eastern bank of the Berkeley River. Why?

Site 6 satisfied the provisional barge landing criteria, however follow up work rejected the site - refer to section 2.4.3 of PER 2002.

2.4.19 With regard to Table 2.15:

- (i) the road link from Whiskey Creek to Ashmore is marked at 45km. It is estimated that this in actual fact should be approximately 35km. Why is there such a discrepancy?; and

There is no direct road link shown on Figure 5 of the PER.

- (ii) the road link from Faraway Bay to Ashmore is marked at 33km. The road link from Gumboot Bay to Ashmore marked at 40km. It is understood that this is exactly the same distance. What is the correct figure?

It is acknowledged that this is a typing error.

2.4.20 A previously used barge-landing site in the Berkeley River is linked to access roads that could be used to service the exploration sites on the eastern side of the King George River. This site lies almost exactly in the middle of all of Striker's tenements.

2.4.21 The proponent has not adequately considered alternative barge landings and road alignments that might better suit broader planning objectives. Alternate sites should be independently investigated.

The Proponent has considered alternative sites to the standard required to make a decision for their operational needs at this point in time.

2.4.22 There has been some speculation that the site to be serviced by the barge site, laydown area and access road (Ashmore Diamond Project) has not proven to be a viable potential mine. ASX Signal G of 10 November 2001 states "These results reflect a disappointing grade". Any shift to the east of the plant and facilities at Ashmore (to where it would appear that more promising finds are located), but still involving the utilisation of the route favoured by the current proposal, would involve the need to cross King George River with fuel supplies. The proponent indicates that river crossings are not an acceptable option ("Any proposed access road must be sited so as to avoid major river crossings and tributaries", section 1.1, page 1). A converse situation would arise if fuel and supplies were transported through the proposed access at Gumboot Bay, and if the materials to be processed were transported from sites to the east across the King George River to the current Ashmore plant. It is noted that the proponent has failed to evaluate the possibility of moving the plant to the east where more viable ore might be located (CALM).

Refer comments at 2.2.2.

3. BIOPHYSICAL

3.1 Coastal Landscape

- 3.1.1 The proposed landing in the adjacent arm of Faraway Bay would have a range of adverse impacts on the immediate environment. The environment surrounding the proposed landing and shore base is a pristine elongate, relatively narrow bedrock arm of the larger Faraway Bay. It is locally known as Gumboot Bay. Gumboot Bay is about 500 m wide at its entrance, extending south as a linear, narrowing bay for 4 km. The shoreline consists of steep sandstone slopes rising to 60 to 80 m to the sandstone plateau on either side. The proposed landing is located halfway down the bay, at the site of two adjoining 50 m long beaches, one composed of sand the other of cobbles. The landing would cross the eastern (cobble) beach and extend up the sloping sandstone behind. Approximately 300 m east of the beach is a tidal creek mouth that drains an area of mangroves. A few hundred metres further into the southern arm of the bay are a series of waterfalls.

Gumboot Bay is relatively hidden and has a protected nature. The range of coastal and upland environments and habitats are all contained in the small bay and it provides an ideal tourist site. It is relatively narrow with steeply rising red sandstone to either side, with land access via several small sand beaches. It has a magnificent meandering creek through the mangroves and then in the southern arm of the bay the series of accessible waterfalls descending through a number of waterholes. It encapsulates much of the Kimberley character and environment in a relatively small, pristine accessible area.

The proposed landing would destroy part of the bay and severely disrupt the remainder.

As described, Gumboot Bay contains a number of ecological and geographic features that are present not just in Gumboot Bay but along this part of the Kimberley coast. As with all activities undertaken by the Proponent, the lay-down area and road positioning has been carefully selected. The positioning of the infrastructure was selected after numerous traverses on foot detailing physical and ecological characteristics. The only permanent features will be the lay-down area and the access road. As detailed in the PER, all precautions and engineering considerations will be taken to minimize environmental damage and allow the site to merge into the pre-existing environment.

3.2 Flora and Fauna

- 3.2.1 The EMP was based on a report prepared by Ecologia quoting numerous publications from various surveys. One of the major criticisms of this section of the EMP has that most of these surveys had not been conducted in the immediate (or near) surrounds of the proposed barge landing, laydown and

road construction areas, and in some instances are hundreds of kilometres away. Even though the Ecologia survey was conducted in the project area, the report acknowledges the limitations of their survey, suggesting guidelines to limit the construction and recommended that a botanical survey of the construction area and surrounds be conducted (Ecologia, 1999:vii). A baseline survey of vegetation and flora covering the barge site and access road was undertaken in June 2001 (PER:23). It is interesting to note that this section of the PER on the 'existing environment' is still predominantly based on the 1999 Ecologia report with only some notable additions. For example, in relation to the Dysdale River National Park Biological Survey the Ecologia report states it provides 'some information' with the PER stating 'substantial information'. With seemingly no information to support this, the changing of one word can substantially impact on the interpretation and understanding of the content. Another example is where the PER states that 147 taxa, 107 genera and 54 families were recorded (ix), however the Ecologia report qualifies this saying that 122 taxa were identified, four could not be identified and a further 20 identified 'with some level of uncertainty'.

These examples are particularly relevant when the proponent acknowledges that 'some aspects of the biological resources of the region require further study' (PER:16) and given that two surveys (Atkins 1999 and 2000) found rare or priority taxa (EMP:16) and Ecologia report that 27% of the taxa found 'have not previously been recorded from the Central Gardner biogeographic district. This is "undoubtedly a reflection of the sparsely distributed floristic collection for the entire Kimberley region and the lack of any previous collection in the immediate vicinity of the study area" (1999:v).

As detailed in the PER section of the Existing Environment, the Proponent has adopted an approach initially reviewing historical flora and fauna surveys. With this information baseline surveys were undertaken in 1999 (Ecologia 1999) and 2001 (Mattiske 2001). These surveys were aimed at identifying distinct plant communities. As floristic surveys are sparse in close proximity to the proposed barge landing, mapping of key plant communities allow for both the identification of fragile plant communities and associated rare and endangered species. Understanding the plant communities allows for further flora studies to be aware of the plant associations, thus allowing for quicker recognition of species that have previously not been seen in these associations. As with all flora surveys limitations are always present as indicated within the 1999 report (Ecologia 1999) and 2001 report (Mattiske 2001) and the Proponent acknowledges this

3.2.2 The most recent survey did not re-survey the area covered by Ecologia. Given that the area was designated a Class B reserve in 1974² and is part of the

² Class B reserves "are seen as warranting higher protection than usual, but not to the extent of Class "A". Class "B" reserves may be varied by Governor in Executive Council, but amendment must be notified to the Parliament". Class A reserves "forever remain dedicated to the purpose declared ...where there is a need perceived for the highest form of protection..." DOLA, www.dola.wa.gov.au, 2001:1

proposed Londonderry National Park (PNP/215) and the limitations of the Ecologia survey, it appears problematic that a more extensive survey was not conducted.

While the barge site is within PNP215 there is no evidence that the proposed site has been designated a Class B reserve.

The 1999 Ecologia survey focused on the area around the Ashmore Project and as such provides to the accumulation of flora knowledge. However the proponent considered that the areas of immediate concern were those occupied by the proposed barge landing and access road. Further flora surveys (Mattiske 2001) have concentrated in characterising the plant communities and rare/endorsed species if they exist in these areas.

3.2.3 No fauna field expedition has been conducted and yet it was recognised in the EMP that there potentially exists five Scheduled fauna and five Priority species. If any Scheduled or Priority species exist in the area it may be that the development will not impact on these species, however, this cannot be determined without the benefits of a field study to determine the existence or otherwise of any fauna in the area.

3.2.4 As part of the PER, Striker Resources NL, did not conduct a fauna survey. Instead faunal lists were based primarily on a survey conducted in the Drysdale River National Park in 1975 (Kabay and Burbidge 1977) and a literature search and unpublished information (ecologia 1999). The Drysdale River National Park is situated from 1-200 km away from the coast (or from Faraway Bay). Such a great distance causes concern about using this survey as surrogate data for the Striker PER. This survey suggests that there is potential for species not accounted for by the Striker PER to be present in the proposed development areas. Therefore, the impacts upon these animals could not be considered. For instance, the two habitats which occupy a significant area in PNP/215 are similar to those in this study where *Z. argurus* and *P. delicatus* were found.

Both *Z. argurus* and *P. delicatus* were unlisted in the PER 'expected' fauna list of the Project Area. This is despite distribution maps, such as those in Strahan (1995) (which incidentally was used in the PER for mammal taxonomy) suggesting that these species occur right across north Kimberley. This brings into question the validity of the literature search conducted. In addition to this, one of the principle references Kabay and Burbidge (1977), used in the Striker PER to determine the potential mammal species inhabiting the project area, lists a number of species not listed in the Striker PER. These include the euro, *Macropus robustus*, short-eared rock wallaby, *Petrogale brachyotis*, the common rock-rat, *Z. argurus*, and the delicate mouse, *P. delicatus*. The latter two of species were positively identified within habitats at nearby Faraway Bay in a survey carried out by Thalie Partridge from May 10-13 2002. The other two species are also likely to be present, though their identification needs to be confirmed.

The presence of significant species such as the bandicoot, *Isoodon sp.* (northern, *I. macrourus*, or even the golden bandicoot, *I. auratus*) should not be discounted despite not being found during this survey. The Striker PER also lists this species, but does not consider it in Table 4.5: Significant fauna species known or likely to occur in PNP/215. The mere possibility that these species remain in this pristine environment should require an assessment of the fauna of the proposed development site, if not preventing the development itself.

- 3.2.5 In a preliminary bird survey by Elizabeth Larsen during 10-15 May 2002, and opportunistic recordings during the 2001 and 2002 dry seasons by Steve McIntosh and Geoff Lane, on behalf of Kimberley Specialists, it was noted that 50 bird species recorded were not listed in the Striker Resources PER. Worthy of special mention among these are the Red-tailed Tropicbird *Phaeton rubricauda*, Little Bittern *Ixobrychus minutus dubius*, Grey Falcon *Falco hypoleucos*, and Red Goshawk *Erythrotriorchis radiatus*, all listed nationally as 'Near Threatened' or 'Vulnerable' (Red Goshawk). Other notable species recorded in our surveys include the Square-tailed Kite *Lophoictinia isura* (locally rare), Blue-billed duck *Oxyura australis* and Great Crested Grebe *Podiceps cristatus* (vagrants – not expected in area), Varied triller *Lalage leucomela*, Great-billed Heron *Ardea sumatrana*, and Black Bittern *Ixobrychus flavicollis* (not expected in area).

Based on the above, it is considered that a wet season assessment of the birds in the general area should be undertaken prior to any commencement of Strikers proposed development of the Barge Site, Laydown and Access Road Construction, Gumboot Bay. This data is likely to add a considerable number of species to the total of 127 species recorded in the dry season survey's and enable the area's value as stop-over point for nomadic and vagrant water birds, including migratory waders to be assessed and evaluated.

- 3.2.6 Based on the preliminary bird survey by Elizabeth Larsen and opportunistic recordings by Steve McIntosh and Geoff Lane, on behalf of Kimberley Specialists, a number of mangrove specialists were observed. These included the Chestnut rail *Eulabeornis castaneiventris*, Great-billed heron *Ardea sumatrana*, and Little Bittern *Ixobrychus minutus dubius* ('Near Threatened'), Black Bittern *Ixobrychus flavicollis*, Mangrove Honeyeater *Lichenostomus fasciogularis*, Mangrove Grey Fantail *Rhipidura phasiana*, Shining Flycatcher *Myiagra alecto*, Broad-billed Flycatcher *Myiagra ruficollis*, Leaden Flycatcher *Myiagra rubecula*, Emerald Pigeon *Chalcophaps indica*, Mangrove Gerygone *Gerygone levigaster*, Yellow White-eye *Zosterops luteus*, and Lemon-bellied Flycatcher *Microeca flavigaster*. The mangrove forest also sustains a large colony of Black Flying-foxes *Pteropus alecto* and Little Red Flying-foxes *Pteropus scapulatus*.

Based on the above, a comprehensive survey of the bird species should be undertaken in the extensive and unmodified coastal mangrove habitat, of Gumboot Bay, including an assessment of the ecological importance of the flying-foxes colony. This survey should be undertaken prior to any development of the Gumboot Bay area.

- 3.2.7 A more comprehensive mammal survey of the Faraway Bay and Gumboot Bay areas should be conducted prior to any development occurring.
- 3.2.8 Further research work should be undertaken to determine what impact the proposed development will have on both the bush foods and medicinal plants identified as important to Aboriginal people by Ju Ju 'Burriwee' Wilson. (Wilson, J; Harrington, D; Kohen, J and Scott-Virtue, L, 2002)
- 3.2.9 To complement the bush foods and medicinal plants identified by Ju Ju 'Burriwee' Wilson, David Harrington, Lee Scott-Virtue and Dr Jim Kohen in the Faraway Bay Bush Camp, Gumboot Bay and general area along Gumboot Creek, further survey work should be undertaken to determine the fruiting times for the bush plants identified.

This response covers submission 3.2.3 to 3.2.9.

It is acknowledged by the Proponent that this environment will likely support the species that have been identified by Kimberley Specialists and related individuals and have not been detailed in section 4.6 of the PER. These independent findings support the limitations of fauna assessment that have been detailed in the Proponent's PER.

The area surrounding Gumboot Bay, like many similar locations within the Northern Kimberley bioregion, have ecosystems that have the opportunity to support a range of diverse fauna. If surveys within these areas are undertaken they will undoubtedly identify species that have previously not been recorded for the area. As such, the Proponent considers that Gumboot Bay should be considered as part of the larger Cape Londonderry, which contains a range of these environments.

It is also important to take into account the scale of the proposed operation, up to 40 barge landings and associated use of the access road will occur. The Proponent's use of the Gumboot Bay facilities is not dissimilar to current usage by other land users.

However, Gumboot Bay environment requires a level of management that will allow for the maintenance of biological functioning that currently supports the present fauna in the distinctive fauna habits. The Proponent has detailed within the PER these management measurements.

During constructions all efforts will be undertaken using engineering and other means to minimize and avoid disturbance to key ecological settings.

Also the current location of the road is a reflection of careful investigation and selection to minimize disturbance to these fauna habitats.

3.3 Cape Londonderry National Park

- 3.3.1 CALM holds the view that the project as proposed should not be approved. Greater consideration needs to be given to sites that are not within the proposed National Park. If however, approval is given, environmental conditions should require a limit on use of the site, precluding expansion in future. Conditions should also require the development and signing of a formal agreement between the proponent and CALM providing for conservation management of the area as the proposed Cape Londonderry National Park.

As with the approval of all proposed projects, if the barge landing proceeds it will be subject to conditions as applied by the Minister based on consultation with the relevant departments. These conditions must be adhered to. In addition, the Proponent has presented in the PER details of its procedural arrangements to minimize the projects effect on the environment.

- 3.3.2 Striker will be establishing commercial enterprises in land and sea dedicated to the proposed Cape Londonderry National Park. The pristine wilderness of the Kimberley coast is under increasing pressure from industry who continue to request and be granted commercial leases in areas that have internationally recognised flora and fauna and areas that have been highlighted for conservation and protection for the greater good of the community and Nation.

With regard to the pearling industry that has taken over large tracts of leases in areas designated for Marine Reserves and Parks, the Pearling Producers and the WA. Fisheries Department suggest that they may proceed with granting of commercial leases in these areas but may need to be compensated if the industry has to move out or not be able to use such areas for leases in the future if parks are declared. There is now an expectation that industry can and will undertake commercial activity in future parks and reserves without the common good of all being considered.

If Striker is granted approval, the precedent that industry has a priority over the internationally and nationally recognised wilderness areas at the expense of all will again be set. The government may also be held liable for the cost of removing such commercial activities from these future parks and reserve and as a result influence their willingness to progress the status and declaration of these parks.

The Proponent considers that it is not within the current submission to comment on the issues related to the Conservation Reserve System policies as defined by CALM and other government organizations.

An Unconditional Performance Bond will be set to cover the proposed facilities in Gumboot Bay. This will be held to cover the cost of rehabilitation to the area.

- 3.3.3 The location of Gumboot Bay is still clearly in, though at the extremity of, the Red Book proposed Cape Londonderry National Park (PNP/215). This proposal must be considered in light of that and the current Governments criticisms of the former Court Government's disregard for our ecological inheritance by the policy of allowing mineral exploration and mining in National Parks and nature reserves and the current Government policy that prohibits mineral and petroleum exploration and mining in National Parks and nature reserves.

This becomes an issue when it is clear that CALM will have to complete its land tenure deliberations by the end of this year in light of their requirements to identify what is required for the conservation estate prior to the 2015 cancellation of pastoral tenements and the further deliberations of what land will be available to the pastoral sector. In this context the Government has committed to create 30 new national parks and 2 new conservation parks.

Should one of the identified or to be proclaimed parks be that of the proposed Cape Londonderry National Park or the inclusion of the VCL adjacent to the Drysdale River National Park, then any decision to allow access by Striker to this area should be checked against CALM's future plans.

The Proponent concurs note comments at 3.3.2 and 3.3.4.

- 3.3.4 The proposal directly impacts on the area of unallocated Crown land proposed to be set aside as the Cape Londonderry National Park (section 4.4, *Conservation Reserves of the Kimberley*, 1991). The land tenure of this area has not yet been determined, however if it is declared a conservation reserve the construction of the barge facility etc would have a significant impact on the conservation values of the area. The proponent has not addressed management issues that might arise once the area is reserved and managed for conservation.

Accordingly, it is a significant failing of the PER that it does not adequately consider the proposed National Park status of the lands. Table 2.4, quoted as indicating the basis for selection of preferred sites refers only to current land use. The presence of a permanent barge landing and access road in an area of proposed National Park is incompatible with that proposal. On these grounds alone CALM cannot support the barge landing and road.

The barge landing and access proposal, should it proceed, would pre-empt a management plan for the proposed National Park and could prejudice various management options.

The Proponent has detailed its specific management plan for the barge site and access road. As with all National Parks upon establishment a

management plan is drafted by CALM for the National Park. This plan undergoes public consultation thus allowing for transparency.

The barge landing and Faraway Bay Bush Camp would be within this area and as such are incorporated into the wider management plan by the process of licensing.

The Proponent would welcome the opportunity to assist CALM with the development of any management plan.

- 3.3.5 The proposed road alignment involves two intersections with the current track that links the Faraway Bay complex with its airstrip. These intersections occur within the proposed National Park. The proponent has failed to address the safety implications that this may have. This is an issue that needs to be addressed. (CALM)

Issues of broad access and intersections are addressed in the Emergency Response Plan 06 Appendix I of the PER 2002.

Further consultation has been undertaken with Faraway Bay as detailed in correspondence dated March 28, 2001, on possible mitigation measures to address relevant safety issues.

- 3.3.6 The area under discussion is in a proposed National Park. In keeping with the requirements for a National Park, certain restrictions usually apply eg lease conditions prevent Faraway Bay using existing roads to access this facility. This is expected in order to protect the environment.

It is not logical to construct a new access road into the North Kimberley in the adjacent arm of Faraway Bay, when it breaks the conditions of the Benrama Pty Ltd lease. These conditions were put in place by DOLA and CALM and ratified by the EPA following the PER required for the nature-based development.

Will the proposed road be constructed in direct conflict with these requirements?

A title search of the current DOLA agreement for the Faraway Bush Camp does not have restrictions on road access.

The construction of the access road to Ashmore and the surrounding North Kimberley area will be constructed to certain specifications as detailed in Appendix E – (Construction Management Plan) in the PER. This design is different from the existing Faraway Bay Road that was constructed for the main purpose of transporting visitors from the airstrip to the Faraway Bay Bush Camp. These two roads are for different purposes and as such are subject to different conditions that must be adhered to by the relevant companies.

-
- 3.3.6 A barge landing and access road are not appropriate developments for a proposed National Park.

It is important to take into account the scale of the proposed operation; up to 40 barge landings and associated use of the access road will occur. The Proponents use of the Gumboot Bay facilities is not dissimilar to current usage by other land users.

Further, the barge landing should also be considered in the context of its

- *Location of site at the far eastern edge of the Proposed National Park.*
- *Land use Pastoral.*

3.4 Groundwater and Surface Water

- 3.4.1 This proposal is within the Canning-Kimberley groundwater area. If the proponent requires water at any stage of the development (dewatering, dust suppression etc.) or would like to construct a bore, a licence is required from the Water and Rivers Commission. The granting of a licence is not guaranteed but will depend on policy and the availability of water at the time of application.

No comment required.

- 3.4.2 The proposal area is not within a proclaimed surface water area under the rights in Water and Irrigation (RIWI) Act, 1914 and is not within a Water Source Protection Area proclaimed under the Country Areas Water Supply (CAWS) Act.

No comment required.

4. POLLUTION

4.1 Noise

- 4.1.1 The barge laydown area will be used up to 40 times during the field season. This will not always occur during daylight hour due to tide times. Each time it is anticipated the barge will be there for between 3 to 4 hours during which time material will be loaded and unloaded. Transfer of cargo will result in vehicle, machinery and employee noise. This activity will be heard at the adjoining Faraway Bay Bush camp and impact on the ambience and serenity of the area.

- 4.1.2 The PER states that:

“While daylight barge access is preferred, supply requirements, suitable tides and barge availability may result in some night time operation.”

Noise from any movement at night is totally unacceptable. The EPA limits noise to daylight hours during construction, but this limitation does not cover

normal operation. The ongoing loading and unloading of the barge during all hours of any given night is a major concern. It should also be noted that most high tides suitable for barge landings are at night and that additional noise will come from the generators for lighting, and the pumps for moving fuel from the barge to the holding tanks in the laydown area.

- 4.1.3 Will night time barge operations impact on Faraway Bay given their generators are turned off at 9pm and sound can travel distances in excess of 5km?

Respondents Response 4.1.1 to 4.1.3

The Proponent will endeavor to access the barge in daylight hours but barge operations may involve some night time operations. The barge site is separated from the Faraway Bay facility by a distance of 1.5km and a substantial vegetated basal ridge that reaches a height of over 70m. Marine traffic in the area (ie. trawlers, charter vessels) also contributes to the areas background noise levels. Potential noise impacts from night time barge unloading operations are considered low.

Noise levels (PER Section 5.10.2) during night unloading operations will be monitored and remedial actions implemented if required. The facility will meet EPA noise requirements at the nearest residence.

4.2 Dust

- 4.2.1 Although expected to be minimal, dust levels will increase due to increased vehicle movements on unsealed roads. How does the proponent intend to minimise dust?

Dust management is described in the PER – Appendix E – (Construction Management Plan Section 3.5). The major focus of dust management will be directed through safety concerns with road travel and restrictions on vehicle speeds.

Surface disturbance will be kept to a minimum during construction and cleared areas no longer required will be progressively rehabilitated. Road watering will be undertaken as required.

5. SOCIAL SURROUNDINGS

5.1 Aboriginal heritage and culture

- 5.1.1 The PER states that ‘the barge site, laydown area and the road within PNP/215 has received heritage clearance from the Balangarra Traditional Owners. Surveys were apparently conducted by the Traditional Owners in

2000 and 2001 finding ‘no sites of significance’ (PER:39) and that no alignment changes were recorded’ (p.15).

Subsequent to the release of the EMP and prior to the preparation of the PER, a field expedition (24-26/4/2001) identified a series of Aboriginal middens, which lay directly in the path of the proposed road (as per Surveyors tags). Evidence of Aboriginal art sites were found in close proximity to the laydown area and proposed access road. These findings directly impact on heritage clearance. A direct descendant from the Traditional Owners was a member of the field trip. This person is opposed to the development based on these finds and concerned that the surveyed area directly impacts on these sites and yet this is not acknowledged in Strikers’ EMP or subsequently in the PER which states that no Aboriginal heritage ‘sites will be impacted by the proposal’. If the proponent has acknowledged these findings and acted on them, then the information needs to be made public. Alternatively, if the proponent has not acknowledged the findings, then this needs to be done.

- 5.1.2 An agreement was entered into with the Balangarra Aboriginal Corporations in 1997 (Striker Annual Report, June 2000:11). Information from the June 2000 Annual Report reveals a native title accord with the Balangarra native title claimants was signed in August 1997 (page 32, note 16). The agreement relates to native title, heritage, culture, training and employment (page 11), covering both mining and exploration activities over 27,000 square kilometres. in the north Kimberley (page 32). Whilst the proponent is to be commended for their co-operative approach with the Balangarra group, there is no doubt that this same group benefit financially from Strikers operations, regardless of whether Striker commence mining operations or not (refer details of Agreement). Depending on the response to the previous point it might be considered that the Proponent has breached the protocols established with the Balangarra Traditional Owners (EMP, Appendix A:13).
- 5.1.3 Further oral traditions research should be undertaken with Delores (Dolly) Cheinmora and older members of the Kwini Language Group in order to ascertain their concerns about the current situation of agreement between Striker, angarra and the Kimberley Land Council. This move has been endorsed by a member of the Balangarra Committee.

Proponents Response to 5.1.1 to 5.1.3 and 5.1.4

A site clearance was undertaken by a group of senior Traditional Owners for the area and a qualified Anthropologist. The Traditional Owners (native title holders) who have the authority under Aboriginal law over this particular country surveyed the construction and operational plans including the environmental plan for the barge site and road areas and consented to the works.

That consent infers that Striker's work program will not impair or affect the Traditional Owners native title interests including Aboriginal sites.

- 5.1.4 Any future development in the general area of Faraway Bay should take into consideration the irreplaceable nature and value of the rock art sites in the immediate Faraway and Gumboot Bay area's and that every precaution be taken to ensure that their continued sustainability be ensured.

The Proponet agrees.

- 5.1.5 The PER states that no aboriginal sites have been located. This is contrary to the site survey report done for CRA by Nick Green in the early 1980's, and archaeological findings and reports of more recent times (refer to Kimberley Specialists reports).

- 5.1.6 Heritage clearances were undertaken by the company, which consisted of the Traditional Owners (the registered Native Title Parties), their heritage advisors and the Striker staff. No reports were lodged with the Department of Indigenous Affairs (DIA).

- It appears that no archaeological site surveys were undertaken by the Company. Again, this is unknown, as the DIA has never received a report from Striker, as stated previously.
- A search of our Site Register denotes that no Aboriginal sites have been registered within the area of the Faraway Bay Bush Camp, where Striker Resources proposed to establish the Barge Site etc. However, from the survey undertaken by the Kimberley Specialists, there are a number of unrecorded archeological sites in this general area; unfortunately the DIA is unable to register these sites due to lack of information, specifically spatial and locational detail.
- It is recommended that Striker Resources undertake an Aboriginal heritage survey (both archaeological and ethnographic) to ensure that no Aboriginal sites are impacted by the project. Striker Resources need to be aware that all sties are protected under the Aboriginal Heritage Act 972, whether or not they are on the Site Register.

Striker Resources NL concurs with the recommendation by the Department of Indigenous Affairs and will consult with the Traditional Owners and the Kimberley Land Council about undertaking an archaeological and ethnographic survey.

5.2 Visual impact

- 5.2.1 The ambience and total experience Faraway Bay Bush Camp provides tourists will be severely impacted for the following reasons:

- the Faraway Bay Bush Camp is sold to tourists as a destination based on isolation and wilderness. Customers presently arrive by air and sea to a

pristine view. The proposed barge laydown facility and road will be visible from air and sea as a manmade disfigurement which is not conducive to nature based tourism;

- transport movements of road tankers and other company vehicles (including barge movements) contribute a visual intrusion to Faraway Bay Bush Camp;
- on the return journey to Darwin the barge is to carry a cargo of empty fuel drums, waste oils and industrial scrap resulting in a visual intrusion to Faraway Bay Bush Camp amenities and activities;
- infrastructure such as fuel storage tanks, water tanks, fencing, gates, and unidirectional tower lighting to be erected within a compound surrounded by a 15 metre fire buffer zone will result in visual intrusion to Faraway Bay Bush Camp guests;
- unidirectional lighting will be a visual intrusion especially during night operations.

Can the proponent please provide comment on the above points raised.

The barge site is located on an elevated point within Gumboot Bay which is shielded from Faraway Bay by a vegetative ridge and as detailed below measures will be taken to merge the infrastructure into the surrounding environment. These factors will limit the visual impacts for guests at Faraway Bay, which are expected to be negligible.

The barge site and access road will be used intermittently as required and the management of the facilities designed to minimise impacts to the operations at Faraway Bay are outlined in Table A.2 in the PER. These include:

- *Barge movements will be advised to Bush Camp Management 7 days prior to arrival.*
- *Minimising of vegetation clearing and retention of mature vegetation around the lay-down area.*
- *Planting of vegetation screens around storage infrastructure that is compatible with the site's Fire Management Plan.*
- *Infrastructure to be painted in natural colours that blend with the local terrain and vegetation.*
- *Progressive rehabilitation of disturbed areas no longer required for project use.*
- *Road transport to be undertaken during daylight hours, and*
- *Infrequent use of night lighting.*

-
- 5.2.2 The proponent seems to have given great consideration to reducing the ‘visual amenity impact’ and it is doubtful that any further steps can be taken to reduce the visibility. However, whilst the PER (Table 2.4) determines that the ‘visual amenity impact’ of the access roads from Faraway Bay or Gumboot Bay to Ashmore is ‘low’, the undeniable fact is that there will be a high visual impact for both sites. Of specific relevance to Faraway Bay guests is the visibility from the air, from the airstrip to the Camp and on trips around the area. Why have these two sites/areas been given a ‘low’ visibility ranking when there is little to distinguish between the overall site/area environmental impact assessment? If these two sites had been given accurate ‘high’ rankings then the distinguishment between an overall ‘high’ or ‘low’ assessment is further diminished.

The environmental risk ranking for the access roads from the Faraway Bay facility and the proposed barge site are ranked equally low in comparison to the three other sites in respect to visual amenity. Roads in the Gumboot Bay – Faraway Bay have ready access via low ridges up to the escarpment cliffs without the removal of substantial vegetation or the requirement to cross drainage lines, unsuitable (clayey) terrain or to excavate rock. Jumpup positions onto the escarpment are similarly screened from Faraway Bay facilities and passing marine traffic. Road facilities servicing Faraway Bay and the proposed barge site road will be equally visible from low level aircraft.

5.3 Wilderness Value

- 5.3.1 Guests to Faraway Bay will view the site a minimum of 5 times flying in and out of the airstrip, travelling to and from the camp and when taken into Gumboot Bay. Striker Resources’ development is totally unacceptable for a wilderness experience.

The Gumboot Bay barge site and 3.6km access road is located on an exploration licence held by the Proponent since 1994. The proposed development is a permitted activity under the grant of licence.

The facility, along with the small tourist facility at the nearby Faraway Bay, are both located on public land within proposed National Park PNP215. It should be noted that the remainder of the proposed development is on the Carson River Pastoral Lease.

The land is public land and the Proponent supports permitted multiple land uses and has, following consultation with the management of Faraway Bay, initiated changes to the proposal to minimise visual impacts. These are outlined in the PER, Table 7.1 – Summary of Environmental Management Commitments.

- 5.3.2 Part of the access from Kalumburu to the Ashmore site and Gumboot Bay goes through the Londonderry Creek Catchment, which has been identified as a Wild River. Alternative landing sites 3, 4 and 5 are also within Wild

River Catchments. A document titled *Conservation Guidelines for the Management of Wild River Values* was released by Environment Australia in 1998 and outlines the management guidelines for these river systems.

Wild Rivers are identified by Environment Australia as "a channel, channel network, or a connected network of waterbodies, of natural origin and exhibiting overland flow (which can be perennial, intermittent or episodic) in which:

- the biological, hydrological and geomorphological processes associated with river flow; and
- the biological, hydrological and geomorphological processes in those parts of the catchment with which the river is intimately linked, have not been significantly altered since European settlement (WRC).

Have the EPA's conservation guidelines in values been taken into account in the development of the proposal?

The barge site and access road has been sited on the catchment divide to minimise any potential impacts to major river systems and in particular those identified as Wild Rivers.

In 1972 the EPA established the Conservation through Reserves Committee (CTRC) to make recommendations with respect to National Parks and Nature Reserves of the State. The Kimberley Region as identified as System 7 (EPA 1991) and recommendation 7.8 proposed the establishment of a National Park in the Cape Londonderry area. The committee also stated that Cape Londonderry area has potential dependent on improved access (PER Section 4.1.2). A Management Plan is being developed for the region by CALM but it was not made available to the Proponent.

Only the proposed barge site and 3.6 km of access road are on Crown Land (within Proposed National Park 215), with the remaining 36km of road on Carson River Pastoral Station.

The 1991 development of the fishing base at Faraway Bay, which is located 1.5km west of the barge site, was assessed by the EPA in 1992 who concluded that the scale and nature of the Faraway Bay development was not in conflict with the National Park proposal. The scale and proposed management of the barge site, which will have no permanent buildings or residents and will be used intermittently, is unlikely to compromise the potential National Park conservation values of the area.

- 5.3.3 This development will have an adverse affect on this pristine wilderness area with its spectacular cliffs and King George falls. As the proposal also includes a road the impact would change for all time one of this country's few remaining wilderness areas.

The proposed barge site is 15km west of the King George Falls (See PER, Figure 2) and these will not be impacted by the proposed development. The barge site is located at the extreme eastern boundary of the proposed 70,000 ha Cape Londonderry National Park and is adjacent to the only other development (ie. Faraway Bay) in the region. The barge site and access road in PNP215 will occupy 4.0ha and the road access route has been selected to minimise visual impacts.

5.4 Tourism and Planning Considerations

- 5.4.1 The proposed access road will become a permanent entry to the North Kimberley and will open the area to other tour operators. This issue needs to be part of a comprehensive planning process. Such a project needs to involve the wider community and should be part of a development strategy involving the Shire of Wyndham and East Kimberley.

The proposed access road will connect Gumboot Bay with the Proponent's Ashmore mine site and will be operated as a Restricted Access Road. Seasonal access to the area is already available from the Gibb River – Kalumburu Road (See Figure 2 PER) and the Carson River – Ashmore road sections which are currently maintained by the Proponent to import fuel and heavy equipment. The Carson River Homestead – Ashmore road section would revert to a pastoral standard road if the Gumboot Bay barge site is approved.

- 5.4.2 Section 1 – 10 5.9.3 of the PER states “Resources to assist under-equipped and stranded travellers in the area are limited.” An access road into this area will require infrastructure to ensure safety of extra travellers and to protect the environment with the need for camping areas supplying barbecues and toilets. This is a Shire planning issue.

No new public access road into the area will be developed as part of the proposal and the existing Carson River Road will revert to a pastoral standard road. The Gumboot Bay to Ashmore Road will be signposted where it crosses the existing Carson River pastoral road, advising of its Restricted Access status. The provision of camping areas is a matter for the Shire to address and the Proponent will advise the Shire if traveller numbers to the area increase.

- 5.4.3 The United Nations has designated the year 2002 an International Year of Ecotourism in recognition of the global significance of Ecotourism projects.

The Bush Camp at Faraway Bay is recognised as a major attraction in ecotourism, being the winner of 2001 Western Australian Tourism Awards for Unique Accommodation and the 2000 Jaguar Award announced by Australian Gourmet Traveller for Innovation in Travel.

These awards are based on the operation's uniqueness in nature based tourism and its location in a pristine wilderness area. The Faraway Bay Bush Camp's sensitivity to the environment has made this the successful venture that has attracted visitors from all over the world.

Developments in the vicinity of Faraway Bay Bush Camp that are insensitive to an ecotourism environment will have a major impact on its operation and the unique experience it offers to tourists. The proprietors have worked hard to build up a reputation for service and an exceptional tourism experience found in very few locations within Western Australia.

The very basis on which this business has been established will be destroyed if the barge laydown is allowed to be constructed in such close proximity as proposed by Striker Resources (WA Tourism Commission).

- 5.4.4 Faraway Bush Camp has been established as a remote nature based wilderness experience and has been operating since 1996. The proposal will impact on Faraway Bay's continuing viability and compromise business relationships with inbound tour operators and the very purpose why visitors from all over the globe and Australia wish to visit and experience Faraway Bay Bush Camp.
- 5.4.5 The placement of this facility 800 metres from a wilderness retreat, on a coastline which offers hundreds of kilometres of alternative locations, will result in the loss of a truly unique and valuable tourism asset.
- 5.4.6 The preservation of Gumboot Bay is critical to the viability of The Bush Camp Faraway Bay. Faraway Bay is not simply a small, isolated nature-based resort but rather it is in a very real sense a catalyst for the growth and development of the Kimberley tourist industry. It must remain viable as a unique and highly valued international draw for the Kimberley.
- 5.4.7 There are no clear governmental guidelines for the planning and management of nature based tourism development or eco-tourism operations in the Kimberley Region. The environmental impacts of these projects need to be considered along with all other planned or potential land uses in a holistic manner be included in management plans for the various regions.

Given the number of resorts are increasing, there is a need to develop criteria for the ecological and economical sustainability of these operations. If tourism developments are to occur, there needs to be a planning procedure coupled with a protocol, if not a legislative structure, between the tourism industry, the mines department, indigenous owners, fisheries and the EPA to ensure that the competing values and the environment are not compromised.

- 5.4.8 An overall management plan should be prepared, before further developments from any industry can impact on the area.

If roads and barge landings are going to be placed in this rugged, remote and fragile area they should go where they will best suit both industry and environment. In such a remote and isolated area it is not viable to put two industries adjacent to each other when by their very nature cannot co-exist. A proper management plan will allow controls on environmental issues and also make sure that in such a sparsely settled area new developments do not have an impact on other established business's.

- 5.4.9 How does Striker's proposed road and landing area fit within the existing North Kimberley land usage, road planning and general consultative processes already conducted and involving a range of government agencies?

5.4.3 to 5.4.9

The above comments have been considered in the PER and this submission in several sections. (Refer 2.3.2 and 3.3).

- 5.4.10 The proposal should have been considered in a broader planning context, possibly in terms of a local government planning exercise, rather than as a one-off situation. It is possible that other potential sites exist in the area that could serve as a more general access route for the area for the long term. In particular, further expansions should be catered for.

The Proponent considers the broader planning context is beyond the scope of this document and any future expansion would require assessment and planning to be undertaken.

- 5.4.11 A barge landing facility in the north east Kimberley would be extremely beneficial in opening this large area to exploration and development, provided it fits in with long-term planning for the region.

The Proponent concurs with this.

- 5.4.12 Any modification to the notion of isolation or peace in relation the proximity of the Barge Landing facility to Faraway Bay, could have significant impact on those people willing to pay accommodation/service fees for guaranteed tranquility and in turn on the economic viability of this type of exclusive resort.

The Proponent is unable to comment on this assertion.

6 PUBLIC CONSULTATION

- 6.1 The proponent has made a commitment to continue consultation with all interested parties and to operate the facility site in a manner which avoids conflict with other land users. Given that Striker refuses to attend meetings when Faraway Bay is to be present, how can effective consultation be ensured?

On numerous occasions the Proponent has endeavoured to consult with the management of Faraway Bay, however the meetings have deteriorated and as such have resulted in very little progress. The Proponent supports constructive dialogue with all stakeholders and is prepared to discuss issues as illustrated.

7 ENVIRONMENTAL MANAGEMENT

- 7.1 The Construction Management Plan, Shipboard Oil Pollution Emergency Plan, Spill Response Plan and Equipment Hygiene Procedure Plan all appear

to be satisfactory to WRC requirements. The WRC recommend, however that a more comprehensive environmental management plan is prepared to address regular monitoring of the site such as groundwater monitoring and control of contamination. This may be included as one of the conditions on a groundwater licence, if granted.

Specific comments on the plan are provided below:

- Paragraph 2. Fuel dispensing should be carried out on an impermeable floor with bunding to prevent spills.
- As moorings and permanent beach infrastructure will not be required, every effort should be made to reduce potential impacts of erosion from the barges abutting the shore.
- 4.9.5 and 5.5.1 The proposal area is near a number of places set aside for the use and benefit of aboriginal people and the entire Cape Londonderry area is subject to a Native Title Claim. It is understood that there has been a great deal of communication between Traditional Owners and developers regarding this site. The proponent should be aware that there may be social requirements for water. This is an issue that may be raised when a groundwater licence is applied for and therefore, should be considered.
- If drainage lines are to be diverted around particularly contaminated areas, the edges of the new drainage lines should be revegetated with local native species to minimise erosion. The design of any sediment and oil traps should be referred to WRC to ensure they are satisfactory for our requirements.
- The area where diesel is to be stored must be bunded with a containment capacity of 110% of the volume of the largest container.
- The Environmental Management Plan referred to in the table should include regular water quality monitoring to prevent coastal impacts.

The Proponent accepts the recommendation of the WRC.

- 7.2 The PER states that: “The proponent is committed to achieving a high standard of environmental management during the construction and operation of its proposed facilities and infrastructure.”

On the basis of photographic evidence:

- borrow pits have not been de-commissioned as stated. A borrow pit excavated by Striker Resources approximately 4 to 5 years ago, in the area known as AN 7, 10km from Gumboot Bay, has not been rehabilitated;
- mining sample bags have been left in the same area (Striker Resources AN 7) for 5 years, and have been partly destroyed by fire;
- drill holes in the same area remain uncapped. Every hole in the grid line adjacent to the sample bags, has been left uncapped, and in one hole there was a strong stench of an animal that had been trapped; and
- no rehabilitation has been undertaken.

The above examples contradict statements made in the PER. Can the proponent please explain why best practice environmental management has not been undertaken to date and why borrow pits remain unrehabilitated and drill holes uncapped.

It is acknowledged by the Proponent that some drill holes and borrow pits have not been rehabilitated. This exploration drilling was undertaken during a period when another exploration company became the exploration operator of the tenement in this area. As a result the rehabilitation of these drill holes was overlooked. Since having been identified by Striker personal all of the drill holes have been rehabilitated and procedures have been put in place to ensure that an occurrence of this nature does not happen again.

Small borrow pits used to supply gravel for infrastructure maintenance are not rehabilitated until they are no longer required. As exploration continued in the area by the new exploration operator these borrow pits remained open. All open borrow pits are left in a condition that does not pose a hazard to local fauna.

- 7.3 The proponent indicates in sections 5.6.5 (page 40) and 3.11 (Appendix E, page 12) that it will be involved in fire management operations in the Region. As fire management is not necessarily the proponent's area of expertise, CALM questions the need for the proponent to become involved in broad-scale fire management to the extent implied. Fire management should be the responsibility of the land manager.

A Fire Management Plan should be prepared by the proponent to the requirements of the Fire and Emergency Services Authority and CALM.

The PER 2002 Section 5.6.5 did not imply that the Proponent would become involved in fire management issues. The Proponent supports the concept that the Fire and Emergency Services Authority and CALM are responsible for fire management and planning.

- 7.4 The proponent's measures to control "weed" invasion (section 5.6.5, page 40) are based on the development of an "...Equipment Hygiene Procedure (Appendix H) to restrict the introduction of exotic fauna and flora through the barge site". The proponent should make a much stronger commitment to eliminate the possibility of accidental introductions of exotic species. Of particular concern to CALM is the introduction of cane toads and various weed species to surrounding areas.

The proponent should develop quarantine procedures and monitoring protocols in the Environmental Management Plan that meet best practice standards to the satisfaction of CALM and the DEP.

The proponent strongly supports the concepts outlined and would request they be advised of any government initiatives in this important area.

- 7.5 The proponent states in section 5.9.1 (page 42) that Striker personnel would visit Gumboot Bay during rostered days off for recreational use. Although it is acknowledged that “Swimming is prohibited due to the presence of estuarine crocodiles, sharks and other stinging marine organisms”, recreational use (along with operational use) will inevitably result in project staff encountering crocodiles. This could affect the workload of Regional CALM staff, who will be required to investigate and act upon subsequent “problem crocodile” reports.

A cost recovery process should be developed by the proponent to account for the impacts of any increased workload on CALM.

The proponent is prepared to consult with CALM about this matter.

- 7.6 If approval is given, environmental conditions should require the proponent to contribute to conservation management of the site and vicinity and to fully rehabilitate the site at the end of its use (CALM).

Refer to section 3.3.2

- 7.7 The proponent should address the safety implications caused by the intersection of the proposed road alignment with the current track that links to the Faraway Bay Resort to its airstrip.

Refer to section 3.3.5

- 7.8 The proponent has addressed the concerns and consequences of a spillage at Gumboot Bay as outlined in the EMP and Emergency Plan Appendices of the EMP. Can these same emergency plans be applied equally well to the King George crossing, particularly given the above concern that the King George needs to be crossed to reach approximately 70% of the Proponents tenements.

A Spill Response Plan as detailed in the PER 2002 in Appendix G applies to all of the Proponents operational areas.

References

Striker Resources NL (May 2002) Public Environmental Review .

Striker Resources NL Environmental Management Plan (EMP), January 2001.

Western Australian Tourism Commission. (2001). *Kimberley Region Tourism Infrastructure & Product Development Plan (draft) (Working strategy for development of tourism in Western Australia)*. Perth: Western Australian Tourism Commission.

Wilson, J; Harrington, D; Kohen, J and Scott-Virtue, L (2002), *Bush Foods and Medicinal Plants for the Faraway and Gumboot Bay Area's*, Unpub. Report, prepared for Kimberley Specialists, Kununurra, Western Australia.

Partridge, T (2002) *Mammals of Faraway Bay*, Unpub. Report prepared for Kimberley Specialists, Kununurra, Western Australia.

Larsen, Environmental Protection Authority (EPA); McIntosh, S.; and Lane, G. (2002), *Bird Species Report for Faraway Bay*, Unpub. report prepared for Kimberley Specialists, Kununurra, Western Australia.

White, J (September 2001), *Transcript of Conversation with Delores (Dolly) Cheinmora, Traditional Owner for Faraway and Gumboot Bay Area*, Unpub. Report prepared for Kimberley Specialists, Kununurra, Western Australia.

Scott-Virtue, L. (2001) *An Archaeological Interpretation of the Faraway Bay Creek Rock Art*, Unpub. Report prepared for Kimberley Specialists, Kununurra, Western Australia

State/ Local Government

Department of Conservation and Land Management (CALM)
Department of Planning and Infrastructure (DPI)
Shire of Wyndham-East Kimberley
Water and Rivers Commission
Western Australian Tourism Commission (WRC)

Organisations

Conservation Council of Western Australia Inc
Kimberley Specialists – including reports researched by:

- Stacey Porter;
- Lee Scott-Virtue, Dr Jim Kohen, Dave Harrington;
- Janelle White; Ju Ju ‘Burriwee’ Wilson,
- Thalie Partridge
- Elizabeth Larsen, Steve McIntosh and Geoff Lane

Benrama Pty Ltd - Bruce and Robyn Ellison
Rannit Pty Ltd – Bruce and Robyn Ellison – (Part owners and Managers of Faraway Bay)
Tourism Council of Western Australia

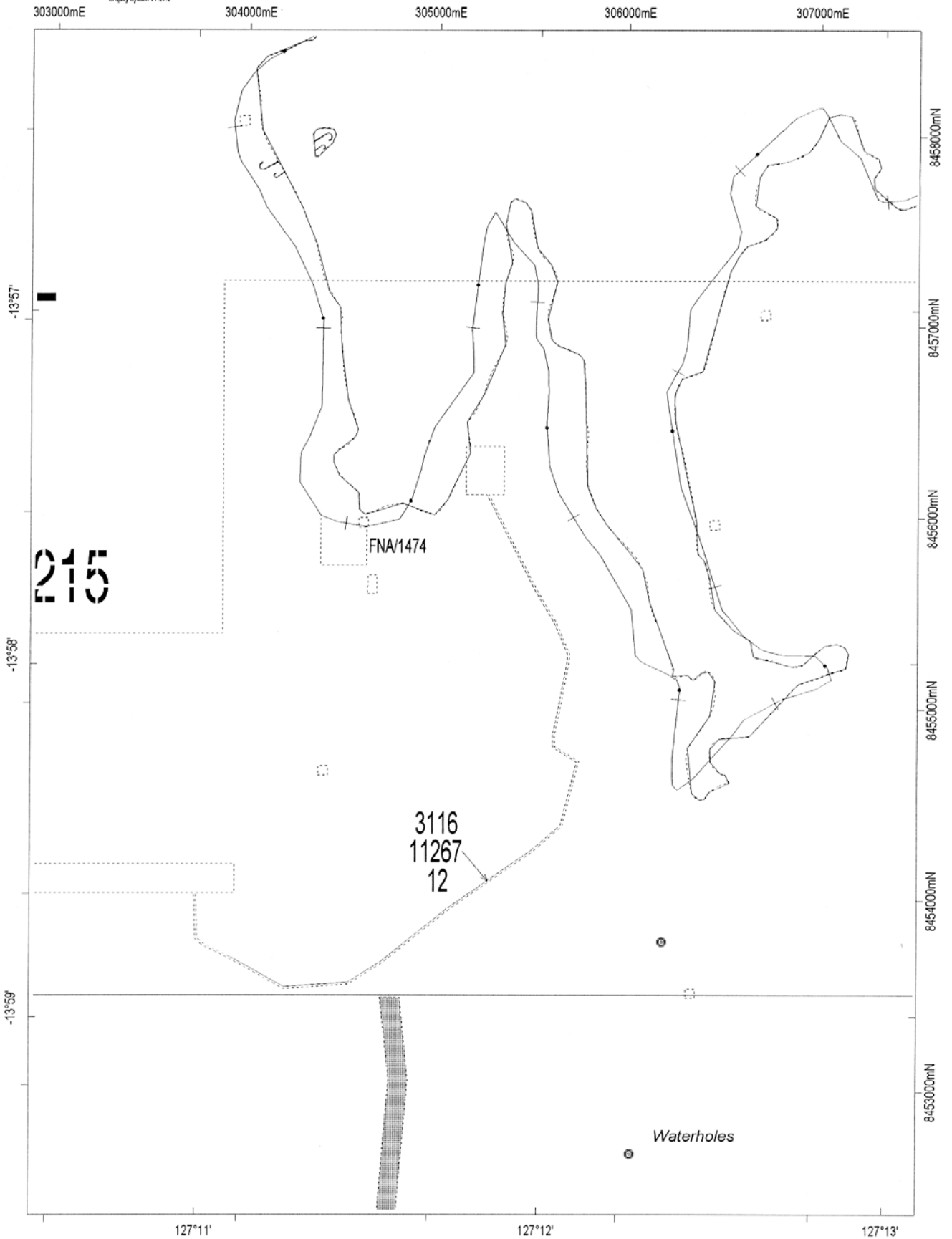
Individuals

25 submissions received

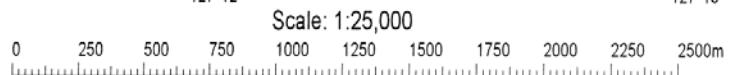
ATTACHMENT 2

The 1st Map is one of the actual Faraway Bay lease, their road and airstrip. At the bottom of the lease near 13⁰⁵⁹' is the boundary of the proposed Cape Londonderry National Park , below this in the middle of the map is the proposed road to the Ashmore site.

The 2nd Map is one of the general region showing the Faraway Bay location and the Striker Resources tenements shaded grey and all the other tenements in the region.



This plan has been compiled from various data sources received from a number of agencies and with information supplied by applicants for mining tenements. No responsibility is accepted for any error or omission. Confirmation of the extent and composition of any Native Title Claims should be sought from the Land Claims Mapping Unit, WAUS.





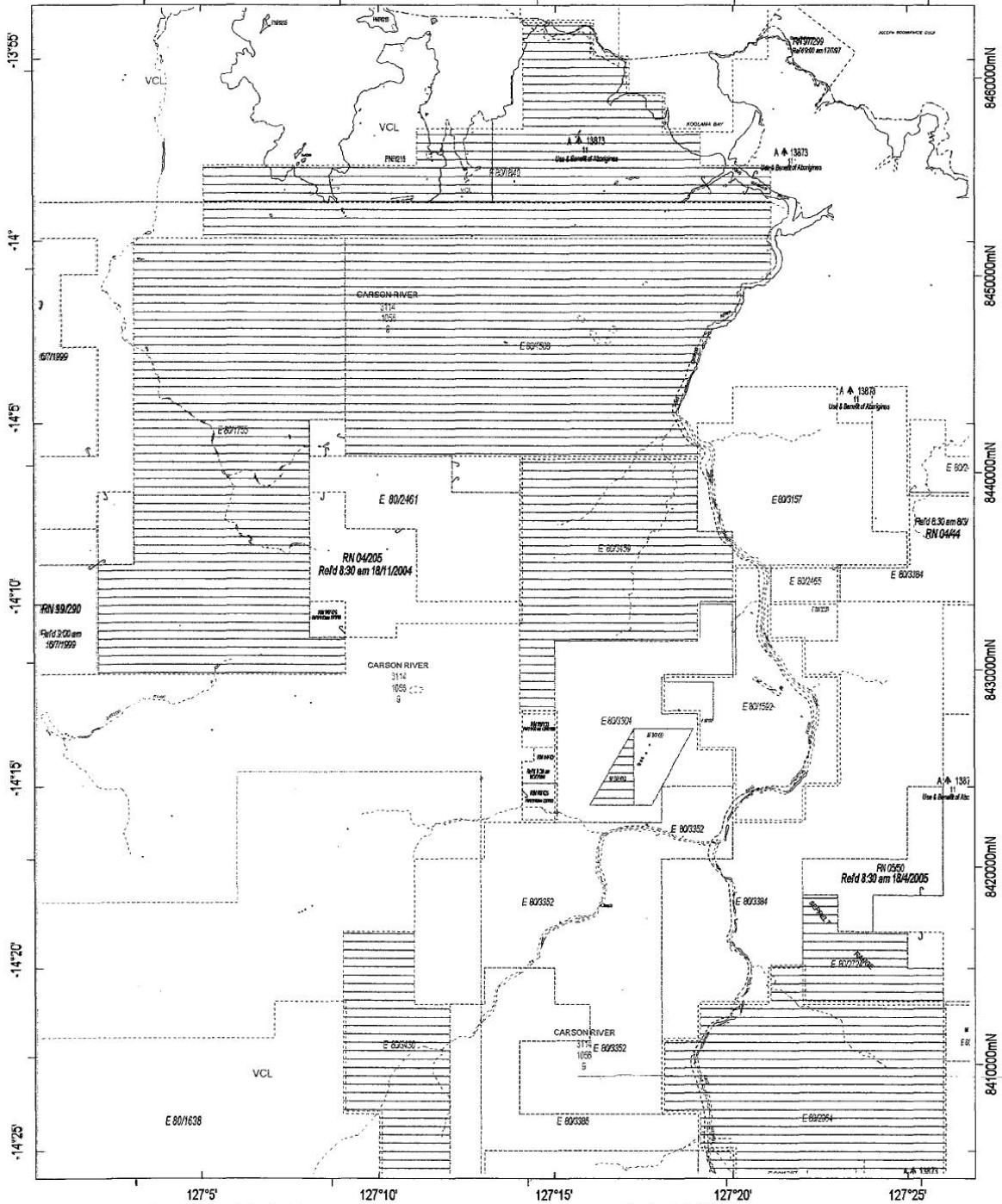
Empty System V1.01.2
290000mE

300000mE

310000mE

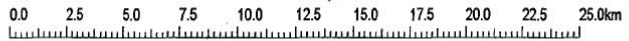
320000mE

330000mE



This plan has been compiled from various data sources received from a number of agencies and with information supplied by applicants for mining tenements. No responsibility is accepted for any error or omission. The Commonwealth of Australia (c) 2002, through Geoscience Australia and the Department of Defence, maintains copyright over these parts of the topographic data it has provided for display in this document. Users wishing to use the data in its unaltered form should contact Geoscience Australia at www.ga.gov.au. Confirmation of the extent and composition of any Native Title Claims should be sought from the Land Claims Mapping Unit, WALUS.

Scale: 1:250,000



The Hon. Clive Brown MLA
Statement Released: 21-May-2002
Portfolio: Tourism

Western Australia is ideally placed to build on a growing global demand for nature-based attractions, Tourism Minister Clive Brown said.

- "The challenge for all of us is to meet the demand for nature-based tourism in a sustainable manner;
- Nature-based tourism is estimated to account for 64 per cent of all tourism to the State. Its economic value to the State is about \$3billion a year.
- "The Government is working with industry to develop opportunities throughout the State for these niche markets.
- "Sustainability must be a key component of the future development in the nature-based and eco-tourism industry at all levels, economic, social and environmental.
- "Government and industry must ensure WA is able to provide the best opportunities without sacrificing our pristine destinations."

Statement Released: 28-May-2002
Portfolio: Tourism

The State Government has announced a joint project to promote seven of the State's tourism marketing regions to the Eastern States by allocating \$100,000 in funding.

Regions promoted in the campaign are the South-West, Great Southern, Goldfields, Esperance, Heartlands, Peel and Kimberley.

Statement Released: 9-Jun-2001
Portfolio: Tourism

2001 Western Australian tourism award winners:

- Tourism is one of the most important industries in Western Australia and the winners of these awards demonstrate that our State offers a world class experience to our visitors," Mr Brown said.
- The WA Tourism Awards helped to highlight the achievements of the tourism industry and provided a focus for growth opportunities.
- We have a rich diversity of tourist attractions that are as different as they are spectacular.
- The Government has a firm commitment to support the tourism industry and capitalise on our competitive edge, particularly in the area of eco-tourism.
- Many of the winners of these awards are smaller operators who manage to succeed in a large and varied industry.
- The winner for the Unique Accommodation Category was Faraway Bay, The Bush Camp

Table 1:1 Comparison between EMP and PER reports for Barge Site Assessment

Alternative Sites Considered	Dry Door Access & Laydown		Protected Anchorage		Heritage Clearance		Presence of Sensitive Ecosystems		Company Tenured		Proximity to Darwin		Suitable Access to Hinterland		Site Suitability Ranking	
	2001	2002	2001	2001	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
Kalumburu	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	H	H
Faraway Bay	N	N	Y	Y	N	N	N	N	N	Y	Y	Y	Y	Y	H	L
Berkeley River	N		Y		N		NI		N		Y		N		L	
Berkeley River #7		N		Y		N		Y		Y		Y		N		L
Berkeley River #6		Y		N		N		Y		N		Y		N		L
Cape Whiskey	N		N		N		Y		N		Y		N		L	
Site #4		N		N		N		Y		N		Y		N		L
Whiskey Creek		N		N		N		N		N		Y		N		L
Whiskey Creek #3		N		N		N		N		N		Y		N		L
Site #5		Y		N		N		N		Y		Y		N		L
Gumboot Bay	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	H	H

Legend:

Y = yes, N = no, NI = no information

H = High, L = Low

Table 1:2 Comparison between EMP and PER reports for Access Roads

Alternative Sites Considered	Presence of Major River Crossings		Presence of unsuitable terrain units		Company tenure		Heritage considerations		Third Party access		Road length < 60km		Site suitability ranking	
	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
Kalumburu – Carson River Road – Ashmore	Y	Y	Y	Y	N	N	N	N	Y	Y	N	N	L	L
Faraway Bay – Carson River Road – Ashmore	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	L	H
Berkeley River	Y		Y		Y		NI		N		N		L	
Berkeley #7		Y		Y		N		NI		N		Y		L
Berkeley #6		Y		Y		N		NI		N		Y		L
Cape Whiskey	Y		Y		N		Y		N		Y		L	
Site #4		Y		Y		N		NI		N		Y		L
Whiskey Creek #3		Y		Y		Y		NI		N		Y		L
Site #5		Y		Y		N		NI		N		Y		L
Gumboot Bay	N	N	N	N	Y	Y	Y	N	N	Y	Y	Y	H	H

Legend:

Y = yes, N = no, NI = no information H = High, L = Low

Table 1:3 Comparison between EMP and PER reports for Environmental Risk – Barge Sites

Sites Impacts	Kalumburu Carson		Faraway Ashmore		Gumboot Ashmore		Whiskey Ck Ashmore		Berkeley River Ashmore	
	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
Current land use	R/P	AR/P	P/E/T	E/T	P/E/T	E/T	AR	√		AR
Visual Amenity	Mod/Low	√	Low	√	Low	√	Moderate to low	√		Moderate/low
Conservation Estate	No CE affected	√	UCL (PNP/215)	√	UCL (PNP/215)	√	No CE affected	√		No CE affected
Heritage	NR	√	Yes	√	Yes	√	NR	√		NR
Impacts to Drainage	Major	√	Mod	√	Minor	√	Major	√		Major
Erodability	H	√	M	L	L	√	H	√		H
Vegetation No = no significant communities Mel. = Melaleuca	NR	√	Passes through Mel. Wetlands	No	No	√	Passes through Riparian zones and Mel. Wetlands	Passes through Riparian zones		Passes through riparian zones
Impacts to Marine Environment		NA		NA		NA		NA		
Environmental Risk		H		L		L		H		H

Legend:

Y = yes, N = no, NI = no information, NA = not applicable

√ = Same as previous year

AR = Aboriginal Reserve; F = Fishing; T = Tourism; E=Exploration; R= Reserve; P=Pastoral

Mod = Moderate

H = High; M = Medium; L= low

Table 1:4 Comparisons between EMP and PER reports for Environmental Risk – Access Roads

Sites Impacts	Kalumburu Longini		Faraway Bay		Gumboot Bay		Whiskey Creek		Berkeley River	
	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
Current land use	AR	√	F/T	√	E/T	√	AR	√		AR/T
Visual Amenity	High	√	High	√	High	√	H	√		H
Conservation Estate	No CE Effected	√	UCL (PNP/215)	√	UCL (PNP/215)	√	No CE effected	√		No CE affected
Heritage	NR	√	NR	√	Site clearance	Site clearance completed	NR	√		NR
Impacts to Drainage	Existing impacts	Minor	Minor	√	Minor	√	Major	√		Major
Impacts to Marine Environment		L		L		L		L		H
Erodability	H	L	L	√	L	√	H	√		H
Vegetation No = no significant communities Mel. = Melaleuca	No	√	No	√	No	√	Patches of rainforest	Wide vegetated dune		No
Fauna Habitat		No		No		No		No		Passes through riparian habitats
Environmental Risk		L		L		L		H		H

Legeng

√ = Same as previous year

AR = Aboriginal Reserve; F = Fishing; T = Tourism; E=Exploration; R= Reserve; P=Pastoral

H = High, L = Low

* Note: The PER does not assess Whiskey Creek #3, Site #4 and Site #5 separately.