Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2301/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Phosphate Resources Ltd (Christmas Island Phosphates)**

1.3. Property details

Property: CHRISTMAS LOCATION 280 (CHRISTMAS ISLAND 6798)

Local Government Area: Shire Of Christmas Island

Colloquial name: ML106, ML115-23AB, 23AC/ML126-9F/MI127-9E

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.817		Mechanical Removal	Mineral Exploration

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
The vegetation consists of closed forest, open forest, heath, shrubland and low closed woodland endemic to Christmas Island.	The areas under application have had past disturbance through mining and range in regrowth age from 4 to 30 years. With condition ranging from completely degraded to excellent.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994) Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994) Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Condition determined using Christmas Island Phosphate site photos and history reports.

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The areas under application are for the purpose of exploration. Total area of 1.817 Ha, clearing of no more than 10m wide.

Much of the proposed clearing will be undertaken on previously cleared areas with regrowth some areas are

also primarily dominated by weed species. Photographs and aerial photography indicate that the vegetation condition is degraded to very good and ranges from 4 to 20 years in age.

Clearing is likely to exacerbate the presence of weeds in and around the areas cleared.

Given the disturbance to the areas under application it is unlikely they contain a high level of biological diversity.

To mitigate the potential impact for weed invasion weed control and revegetation conditions will be imposed if clearing is approved.

Methodology GIS Dataset: - Christmas Island 60cm Orthomosaic - Landgate 06

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments **Proposal is not likely to be at variance to this Principle**
The areas under application are for the purpose of exploration. Total area of 1.817 Ha, clearing of no more than 10m wide.

Much of the proposed clearing will be undertaken on previously cleared areas with regrowth some areas are also primarily dominated by weed species. Photographs and aerial photography indicate that the vegetation condition is degraded to very good and ranges from 4 to 20 years in age.

Given the remaining vegetation within the island and areas not being associated with known habitat for local endangered species the area under application are not likely to be significant habitat for indigenous fauna.

Methodology GIS Dataset: - Christmas Island 60cm Orthomosaic - Landgate 06

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments **Proposal is not likely to be at variance to this Principle**
The areas under application are for the purpose of exploration. Total area of x1.817 Ha, clearing of no more than 10m wide.

Much of the proposed clearing will be undertaken on previously cleared areas with regrowth some areas are also primarily dominated by weed species. Photographs and aerial photography indicate that the vegetation condition is degraded to very good and ranges from 4 to 20 years in age.

There is rare flora listed in the Christmas Island National Park Management Plan and additional species that have been recommended for listing. Advice from Parks Australia North indicates that many of the rare species would be unlikely to exist on severely disturbed areas. However, some may be found in undisturbed forest near the margins with disturbed areas.

Given the remaining vegetation within the island and the small area under application it is unlikely the proposed clearing will impact on the maintenance of know populations of rare flora.

Methodology Advice from PAN (2008)
Environment Australia. (2002)
GIS Dataset: - Christmas Island 60cm Orthomosaic - Landgate 06

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments **Proposal is not likely to be at variance to this Principle**
There are no listed Threatened Ecological Communities on Christmas Island.

Methodology EPBC Act TEC list

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments **Proposal is not likely to be at variance to this Principle**
The proposed clearing occurs on Christmas Island where approximately 25% of the island's original forests have been cleared and replaces by shrublands of ferns on minefields, regrowth vegetation on stockpiles and roads and housing (Environment Australia, 1994).

Much of the proposed clearing will be undertaken on previously cleared areas with regrowth some areas are also primarily dominated by weed species. Photographs and aerial photography indicate that the vegetation condition is

degraded to very good and ranges from 4 to 20 years in age.

The regrowth consists of vegetation with some native species, primarily Macaranga tanarius, Pipturus argenteus (var. lanosus) and Dysoxylum gaudichaudianum which are common on the island. Weed species such as Leucaena leucosephala, Mutingia calabura (Japanese Cherry), and other non indigenous species, also dominate some areas.

Approximately 75% of Christmas Island is still covered wit natural vegetation and 84% of this (63% of total island area) is protected within National Park.

Given the size of the area under application and the remaining vegetation on Christmas Island the proposed clearing is not likely to be at variance to this clearing principle.

Methodology Claussen (2005)
Environment Australia (2002)
Hill (2004)

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments **Proposal is not likely to be at variance to this Principle**
The proposed clearing is not adjacent to watercourses or wetlands. All of the area under application is situated on the plateau and not near the Dales on the western side of the island or Ross Hill Gardens. This proposal is not likely to be at variance to this principle.

Methodology GIS Dataset: - Christmas Island 60cm Orthomosaic - Landgate 06

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments **Proposal is not likely to be at variance to this Principle**
The interior is slightly undulating plateau, from about 160-360m above sea level. The area under application is situated on the plateau with relatively little relief, and above the terraces.

Given the small amount of clearing in vegetated areas this proposal is not likely to be at variance to this principle.

Methodology Environment Australia. (2002)

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments **Proposal is not likely to be at variance to this Principle**
The proposed clearing sites do lie adjacent to National Park, Primary Rainforest and the majority are in an Ecologically Sensitive Area (Register of National Estate - natural). An impact on the environmental values of the nearby conservation areas is unlikely to occur as a result of the proposed clearing as the area under application is small and of a linear nature.

Methodology PAN proposed rehabilitation areas
GIS Dataset:
- Christmas Island 60cm Orthomosaic - Landgate 06
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments **Proposal is not likely to be at variance to this Principle**
The proposed clearing is not adjacent to watercourses and such is unlikely to impact the quality of surface water. There are very few surface water features on Christmas Island. All of the area under application is situated on the plateau and not near the Dales on the western side of the island or Ross Hill Gardens.
Groundwater flows along the limestone interface with basalt layer. Soils are transmissive and the depth to water and water quality in the proposed clearing are is unknown.
Due to the location of the areas proposed to be cleared, it is unlikely that the clearing of native vegetation for exploration will cause deterioration in the quality of surface water or groundwater within the local area. This proposal is not likely to be at variance to this principle.

Methodology Environment Australia (2002)

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments **Proposal is not likely to be at variance to this Principle**
Due to the location of the areas proposed to be cleared, it is unlikely that the clearing of native vegetation for exploration will cause or exacerbate the incidence or intensity of flooding.

Methodology GIS Dataset: - Christmas Island 60cm Orthomosaic - Landgate 06

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments
There are no Aboriginal Sites of significance or Native Title Claim over the area.

EPA does not make decisions on Christmas Island (no SDA with DOTARS).
EPBC Act applies. The proposal has not been referred to DEW under the EPBC Act.

Methodology

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Mineral Exploration	Mechanical Removal	1.817	The assessable criteria have been addressed and the clearing as proposed is not likely to be at variance to Principle (a), (b), (c) (d), (e), (f), (g), (h), (i) and (j).

5. References

Claussen, J. (2005). Native Plants of Christmas Island. Flora of Australia Supplementary Series Number 22, Department of Environment and Heritage.

Environment Australia. (2002). Christmas Island National Park Management Plan. Commonwealth of Australia.

EPBC Act TEC listhttp://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl

Hill, R. (2004). National Recovery Plan for the Christmas Island Goshawk Accipiter fasciatus natalis. Commonwealth of Australia, Canberra.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)