



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 4087/1
<b>Permit Holder:</b>	Dyno Nobel Asia Pacific Pty Limited
<b>Duration of Permit:</b>	From 20 February 2012 to 20 February 2017

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

### PART I – CLEARING AUTHORISED

**1. Purpose for which clearing may be done**

Clearing for the purpose of constructing an emulsion plant.

**2. Land on which clearing is to be done**

Great Northern Highway road reserve (PIN 11431984)  
Lot 505 on Deposited Plan 70785 (Port Hedland 6721)

**3. Area of Clearing**

The Permit Holder shall not clear more than 12.3 hectares of native vegetation within the area cross hatched yellow on attached Plan 4087/1.

**4. Application**

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

**5. Type of clearing authorised**

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Land Administration Act 1997* or any other written law.

**6. Compliance with Assessment Sequence and Management Procedures**

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

### PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

**7. Weed control**

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

**Definitions**

The following meanings are given to terms used in this Permit:

*fill* means material used to increase the ground level, or fill a hollow;

*mulch* means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

*weed/s* means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

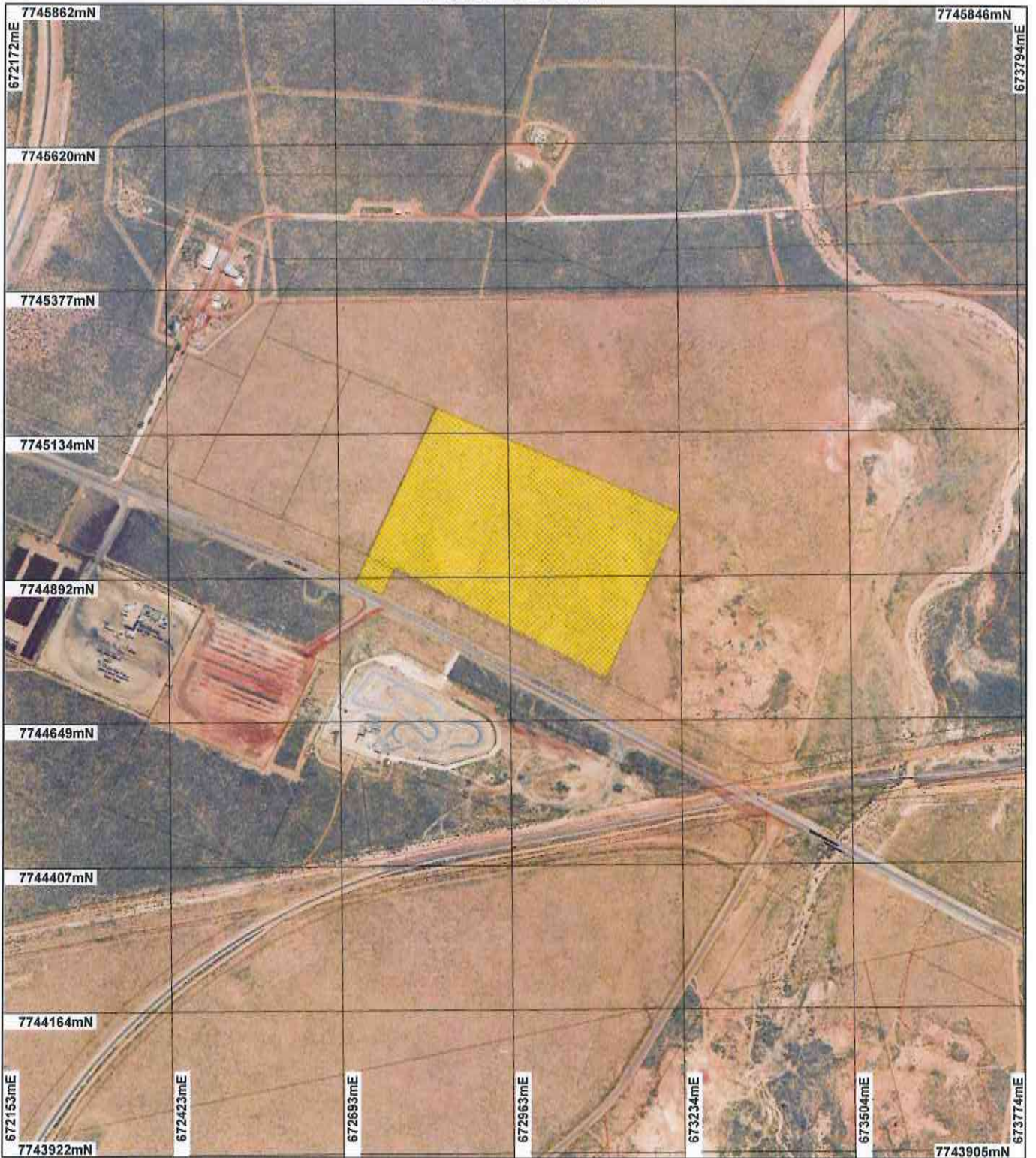


Kelly Faulkner  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

25 January 2012

# Plan 4087/1



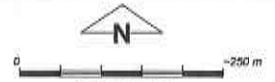
## LEGEND

### Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadastre
- Image Index (cont)

- Recently added
- Coverage

Port Hedland 50cm  
Orthomosaic - Landgate  
2004



Scale 1:8952  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

25/1/12  
Date

K. Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of  
Environment and Conservation

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## 1. Application details

### 1.1. Permit application details

Permit application No.: 4087/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Dyno Nobel Asia Pacific Pty Ltd

### 1.3. Property details

Property: LOT 505 ON PLAN 70785 (Formally LOT 501 ON PLAN 65734)  
ROAD RESERVE (PORT HEDLAND 6721)  
Local Government Area: Town of Port Hedland  
Colloquial name: Great Northern Highway road reserve

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
12.3		Mechanical Removal	Building or Structure

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 25 January 2012

## 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
Mapped Beard vegetation association 647 Hummock grasslands, dwarf-shrub steppe; Acacia translucens over soft spinifex (Shepherd, 2009)	The proposal is to clear 12.3 hectares of native vegetation for the purpose of constructing an ammonium nitrate emulsion plant.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation under application was determined via digital imagery (Port Hedland Townsite 50cm Orthomosaic - Landgate 2004) and through a flora and fauna survey report submitted by GHD (2010).
	The area under application has previously been cleared (between 2002 and 2004) but has regenerated well and is now considered to be in an excellent (Keighery, 1994) condition (GHD, 2010).		

## 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 proposal is to clear 12.3 hectares of native vegetation within Lot 501 on Plan 65734, Port Hedland, for the purpose of constructing an ammonium nitrate emulsion plant.

The area under application has previously been cleared (between 2002 - 2004) but has regenerated well and is now considered to be in an excellent (Keighery, 1994) condition (GHD, 2010).

A total of 31 taxa from 18 families were recorded within the study area (GHD, 2010).

A level 2 flora survey was conducted over the proposed clearing site and one Priority 2 species was identified; Pteracaulon sp. A Kimberley Flora. The removal of this one specimen is unlikely to adversely affect the conservation status of this species.

The local area (15km radius) retains approximately 60% vegetative cover.

The disturbance resulting from the proposed clearing will increase the risk of weeds spreading into adjacent land. Weed management practices will assist in mitigating this risk.

The application area is unlikely to represent an area of higher biodiversity value when compared to representative vegetation in a local and regional context.

Considering the above the proposed clearing is not likely to be at variance to this Principle.

**Methodology** References:  
GHD (2010)  
Keighery (1994)

GIS Databases:  
- Port Hedland 50cm Orthomosaic - Landgate 2004  
- Pre-European vegetation - DA 01/01  
- SAC Biodatasets - accessed 6/12/2010  
- Soils, Statewide - 30/11/99

**(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 fauna habitats within the area proposed to be cleared are well represented elsewhere within the local and regional area, and no significant loss of habitat for fauna indigenous to Western Australia is expected. The area to be cleared does not represent a fauna corridor and therefore the clearing will not remove an ecological linkage that is necessary for the maintenance of fauna.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Reference:  
GHD (2010)

GIS Databases:  
- Port Hedland 50cm Orthomosaic - Landgate 2004  
- Pre-European vegetation - DA 01/01  
- SAC Biodatasets - accessed 6/12/2010

**(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**

There are no known records of rare flora species within a 15 km radius of the area under application.

In addition, GHD (2010) conducted a flora and fauna survey over the application area and did not find any rare flora.

Therefore, this application is unlikely to be at variance to this clearing principle.

**Methodology** References:  
GHD (2010)

GIS Databases:  
- Pre-European vegetation - DA 01/01  
- SAC Biodatasets - accessed 6/12/2010  
- Soils, Statewide - 30/11/99

**(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**

No known threatened ecological communities (TECs) have been recorded within the local area (15km radius).

A flora survey (GHD, 2010) has been carried out over the application area and no TECs were observed.

Therefore, the clearing as proposed is not likely to be at variance to this principle.

**Methodology** References:  
GHD (2010)

GIS Databases:  
 - Pre-European vegetation - DA 01/01  
 - SAC Biodatasets - accessed 6/12/2010

**(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	<b>Proposal is not at variance to this Principle</b>		
	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregions* Pilbara	17 804 193	17 785 000.8	99.89
Shire* Town of Port Hedland	1 850 070.32	1 846 056.42	99.78
Beard Vegetation Association* 647	196 370.73	196 370.73	100
Beard Vegetation Association within Bioregion* 647	196 370.73	196 370.73	100

\*Shepherd (2009)  
 The local area retains approximately 60% vegetation cover.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The Pilbara Bioregion, Town of Port Hedland, local area and Vegetation Association 647 all retain well over the national objective of 30%.

The area under application is not considered to be a significant remnant within an area that has been extensively cleared.

Therefore, the proposed clearing is not at variance to this principle.

**Methodology** References:  
 Commonwealth of Australia (2001)  
 Shepherd (2009)

GIS Databases:  
 - Port Hedland 50cm Orthomosaic - Landgate 2004  
 - Pre-European vegetation - DA 01/01  
 - SAC Biodatasets - accessed 6/12/2010

**(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**  
 A minor, non perennial watercourse is located 400 meters east of the application area. Additionally the nearest recorded wetland is the Leslie (Port Hedland) Saltfields System (ANCA), located approximately ten kilometres north-east of the application area. The Saltfields System plays an important ecological role, as a major migration stop-over area for shorebirds in the East-Asia-Australasia Flyway (DSEWPC, 2010). However, based on the distance between the application area and the wetlands and non-perennial watercourse, it is unlikely that the environmental values of the wetland will be adversely affected.

Based on the above information this application is not likely to be at variance to this clearing principle.

**Methodology** References:  
 DSEWPC (2010)  
 GIS Databases:  
 - ANCA, Wetlands - 26/03/99  
 - Hydrography, linear - DoW 13/7/06

**(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 soil type under application is AB19, which is described as extensive sandy plains: chief soils are red earthy sands (Uc5.21) with extensive areas of red earths (Gn2.12) and with some hard red soils (Dr) along creek lines (Northcote, 1960-1968).

The proposal to clear 12.3 hectares of native vegetation may result in soil erosion however it is not expected to cause appreciable land degradation.

Therefore, this application is not likely to be at variance to this principle.

**Methodology**

References:

Northcote et al. (1968)

GIS Database:

- Acid Sulphate Soil Risk Map, Swan Coastal Plain - DEC 07/08/06

- Hydrogeology, Linear - DOC13/07/06

- SAC Biodatasets - accessed 6/12/ 2010

**(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**

No conservation reserves are located within a 15km radius of the area under application.

Therefore, this application is not at variance to this principle.

**Methodology**

GIS Databases:

- DEC Managed Lands & Waters - DEC 28/10/09

- Pre-European vegetation - DA 01/01

**(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 topography of the site is flat thus little water is likely to leave the site as runoff and is unlikely to have a significant impact on the quality or quantity of surface water.

The existing vegetation consists of shallow rooted grasses and shrubs with minimal tree root systems, thus the proposed clearing of vegetation is unlikely to significantly affect the level of the ground water table.

Given the above the proposed clearing is not likely to cause deterioration in the quality of surface or underground water. Therefore, this proposal is not likely to be at variance to this principle.

**Methodology**

GIS Database:

- Hydrogeology, Linear - DOC13/07/06

- Hydrogeology, Statewide - DOC13/07/06

- SAC Biodatasets - accessed 2/12/2010

**(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**

The average annual rainfall of the region is relatively low (500mm) however, high intensity rainfall in the wet season may cause waterlogging within the cleared area.

Although the proposed clearing may cause localised waterlogging it is not likely that it will increase the incidence or intensity of flooding, therefore this proposal is not likely to be at variance to this clearing principle.

**Methodology**

GIS Databases:

- Hydrogeology, Linear - DOC13/07/06

- Hydrogeology, Statewide - DOC13/07/06

- Pre European Vegetation - DA 01/01

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

### Comments

The clearing under application falls within the Pilbara Groundwater Area, which is an area proclaimed under the Rights in Water and Irrigation Act 1914. The Department of Water is satisfied that the proposed clearing of 12.3 hectares for the purpose of constructing an emulsion plant is unlikely to have a significant impact on the quality or quantity of groundwater (DoW, 2010). Any taking of ground or surface water will be subject to licensing by the Department of Water.

Dyno Nobel Pty Ltd has provided a letter from Regional Development and Lands (Lands Division) stating that documentation to finalise the lease over Lot 505 on Deposited Plan 70785 (Formally Lot 501 on Deposited Plan 65734) was lodged with Landgate on 18 January 2012.

Main Roads Western Australia has no objection to the construction of the proposed access road subject to conditions (Main Roads Western Australia, 2011)

The Town of Port Hedland has issued Planning Approval (Town of Port Hedland, 2011)

Conditional Works Approval has been granted (DEC, 2011)

The property under application is zoned as Industry.

### Methodology

#### References:

DEC (2011)

DoW (2010)

Main Roads Western Australia (2011)

Town of Port Hedland (2011)

#### GIS Databases:

- RIWI Act, Areas - DoW 05/04/02

- RIWI Act, Groundwater Areas - DoW 13/07/06

- RIWI Act, Irrigation Districts - DoW 13/07/06

- Town Planning Scheme Zones - MFP 31/08/98

## 4. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

DEC (2011) Conditional Works Approval, Works Approval Number: W4821/2010/1. Department of Environment and Conservation (DEC Ref: A467708)

DoW (2010) Advice provided for clearing permit application CPS 4087/1, Lot 501 on Deposited Plan 65734, Port Hedland. Department of Water, Western Australia (DEC Ref: A357643).

DSEWPC (2010) A Directory of Important Wetlands in Australia. Department of Sustainability, Environment, Water, Population and Communities.

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

Main Roads Western Australia (2011) Application for Access Point - Great Northern Hwy - SLK 1614.68 (101M east of go kart access), Side 1 (Northern Side), Dyno Nobel: Ammonium Nitrate Facility (DEC Ref: A397356).

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

Town of Port Hedland (2011) Decision on Planning Application, 22 September 2011 (DEC Ref: A439342)

## 5. 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)