



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4063/1
File Number: 2010/009377-1
Duration of Permit: 17 January 2011 to 17 January 2018

PERMIT HOLDER

Mowanjum Aboriginal Corporation

LAND ON WHICH CLEARING IS TO BE DONE

Lot 12 on Plan 226563 (DERBY 6728)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 26.3 hectares of native vegetation within the area hatched yellow on attached Plan 4063/1.

CONDITIONS

1. Period in which clearing is authorised

- (a) The Permit Holder shall not clear any native vegetation after 17 January 2016.
- (b) The Permit Holder shall not clear native vegetation unless actively extracting gravel within 4 weeks of the authorised clearing being undertaken.

2. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

3. 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*:

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

4. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) within 3 months following clearing authorised under this permit, *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this Permit by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;

- (ii) ripping the ground on the contour to remove soil compaction;
 - (iii) ripping the pit floor and contour batters within the extraction site; and
 - (iv) laying the vegetative material and topsoil retained under condition 4(a) on the areas(s) no longer required for the purpose for which they were cleared.
- (c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 4(b) of this Permit:
- (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 4(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

5. Vegetation management

The Permit Holder shall not clear native vegetation within 30 metres of the *riparian vegetation* of any *watercourse* or *wetland* within and/or adjacent to the area cross-hatched yellow on Plan 4063/1.

6. Records to be kept

- (a) In relation to the clearing of native vegetation authorised under this Permit:
- (i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (ii) the date that the clearing commenced;
 - (iii) the date the extraction operations ceased; and
 - (iv) the size of the area cleared (in hectares).
- (b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 4 of this Permit:
- (i) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares); and
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*.

7. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
- (i) of records required under condition 6 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 17 October 2017, the Permit Holder must provide to the CEO a written report of records required under condition 6 of this Permit where these records have not already been provided under condition 7(a) of this Permit.

Definitions

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

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

local provenance means native vegetation seeds and propagating material from natural sources within 50 kilometres of the area cleared.

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;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

riparian vegetation has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

watercourse has the meaning given to it in section 3 of the *Rights in Water and Irrigation Act 1914*;

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*; and

wetland/s means an area of seasonally, intermittently or permanently waterlogged or inundated land, whether natural or otherwise, and includes a lake, swamp, marsh, spring, dampland, tidal flat or estuary.

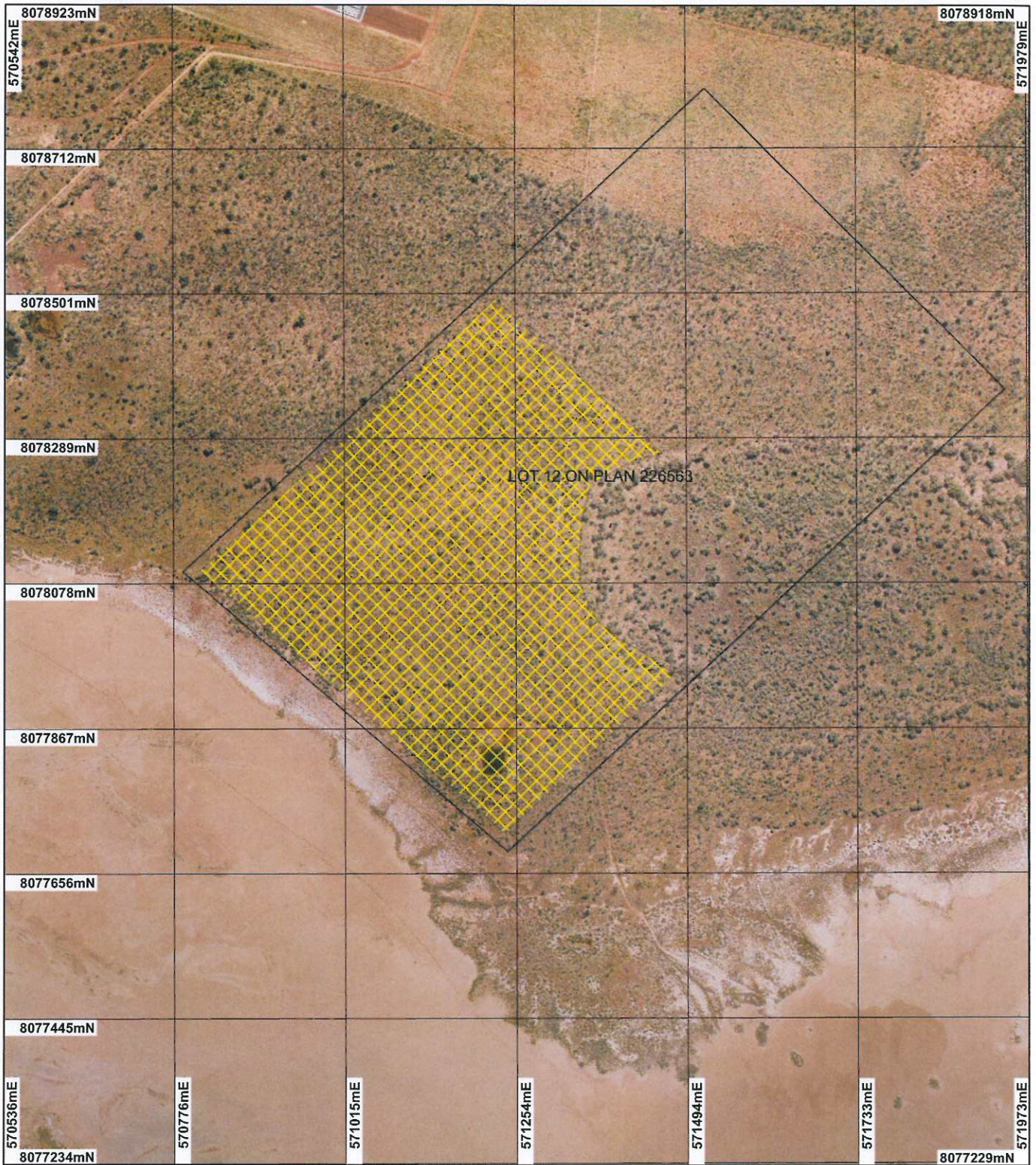


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

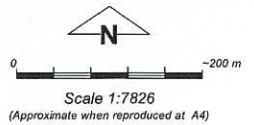
23 December 2010

Plan 4063/1



LEGEND

- Clearing Instruments
-  Areas Approved to Clear
 -  Cadastre
- Derby Townsite 20cm
Orthomosaic - Landgate
2007



Geocentric Datum Australia 1994
Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

 Date 23/11/10
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.



1. Application details

1.1. Permit application details

Permit application No.: 4063/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Mowanjum Aboriginal Corporation

1.3. Property details

Property: LOT 12 ON PLAN 226563 (Lot No. 12 DERBY 6728)
Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
32.2		Mechanical Removal	Extractive Industry

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 23 December 2010

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
<p>The vegetation under application is mapped as being composed of the following Beard vegetation associations:</p> <p>- Beard 764 (75% of the area is mapped as this vegetation type): Shrublands, pindan; <i>Acacia eriopoda</i> & <i>A. tumida</i> shrubland with scattered low bloodwood & <i>Eucalyptus setosa</i> over ribbon & curly spinifex</p> <p>- Beard 127 (25% of area is mapped as this vegetation type): Bare areas; mud flats</p> <p>(Shepherd, 2009).</p> <p>Aerial imagery shows that the bare areas and mud flats are further to the south of the application area</p>	<p>The majority of the vegetation under application appears to range in condition from very good to excellent (Keighery, 1994). However, there do appear to be signs of disturbances such as tracks through parts of the applied area and the application area is within close proximity to an existing airfield.</p>	<p>Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)</p> <p>To</p> <p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)</p>	<p>The condition and description of the vegetation under application was determined via the use of aerial imagery.</p>

3. Assessment of application against clearing principles

Comments **Proposal is not likely to be at variance to this Principle**
The area under application is 32.2 hectares. The applicant has advised that clearing for gravel extraction will consist of clearing 1 to 2 hectares of native vegetation at any one time and be determined by the level of demand. The applicant has also advised that the area of wetland vegetation will be avoided. This will reduce

the area of clearing to 26.3 hectares.

The majority of the vegetation under application appears to range in condition from very good to excellent (Keighery, 1994). However, there do appear to be signs of disturbances such as tracks through parts of the applied area and the application area is within close proximity to an existing airfield. Weed conditions will reduce the risk of weed invasion and spread.

The area under application is mapped as being composed of Beard vegetation types 764 and 127, both of which retain close to 100% of their pre-European levels (Shepherd, 2009).

There are no known records of rare flora or threatened ecological communities within the local area. One priority flora species is mapped as occurring within both the same soil and vegetation types to that of the applied area, namely *Nymphoides beaglensis* (P2), which was recorded 7.8km north east and therefore, may be found within the proposed clearing area. This being considered, principle (a) may be at variance.

There is a non-perennial swamp situated adjacent the south east corner of the applied area and within the eastern corner of the application area, a wetland is present. The applicant has advised that, in consultation with the Department of Environment and Conservation's (DEC) West Kimberley office, the wetland within the applied area will be marked and avoided. No clearing will be permitted within wetland areas. In addition to this, there is anecdotal evidence that *N. beaglensis* occurs within the adjacent wetland; a 30 metre exclusion zone around the wetland will reduce the potential impacts to priority flora.

The proposed clearing of 32.2 hectares of native vegetation (reduced to 26.3 hectares by excluding the wetland area), within an area where approximately 95% of vegetation remains in a 50km radius, is not likely to result in any adverse impacts to fauna, rare flora, impacts to surface or groundwater quality, flooding or land degradation concerns.

Given the above, the proposed clearing may be at variance to principles (a) and (f) and is not likely to be at variance to the remaining principles.

Methodology

Keighery (1994)

Shepherd (2009)

GIS DataBases:

- Derby Townsite 20cm Orthomosaic - Landgate 2007
- DEC Tenure (2010)
- SAC Biodatasets (accessed Nov 2010)
- Pre European Vegetation (DA 2001)
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06
- Clearing Regulations, Environmentally Sensitive Areas (2009)
- Soils, Statewide DA 11/99

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

Comments

The application area falls within the Canning-Kimberley Groundwater Area.

There is one Aboriginal site of significance within the application area, known as 'Mowanjum Mission.'

An extractive industry licence is required from the Shire of Derby-West Kimberley.

Methodology

GIS databases:

- Aboriginal Sites of Significance 26 April 2007
- RIWI Act, Groundwater Areas - DoW 13/07/06

4. References

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

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)