



## 1. Application details

### 1.1. Permit application details

Permit application No.: 220/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Tanami Exploration NL

### 1.3. Property details

Property: M80/559  
M80/562  
M80/563  
M80/564  
L80/45  
L80/46  
Local Government Area: Shire Of Halls Creek  
Colloquial name: Coyote and Larranganni Project Areas

### 1.4. Application

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

## 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
Beard's Vegetation Association 218 - Hummock grasslands, shrub steppe; corkwood (Hakea suberea) and acacia species over soft spinifex.	Most vegetation sites within the project area show evidence of disturbance from previous exploration gridlines or recent fires.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Although there is evidence of disturbance within the project area, regeneration is continuing. During the flora assessment, MBS Environmental (2004) noted that a large percentage of the flora species were in flower or retained fruits or nuts.
Beard's Vegetation Association 117 - Hummock grasslands, grass steppe; soft spinifex.	Only a very small proportion of this vegetation type falls within the project area.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	As with the dominant vegetation community, flora regeneration following fires is an active process within the project site (Site photographs and MBS Environmental, 2004).

## 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 may be at variance to this Principle

The Vegetation and Fauna Assessment concludes that the notified area is within a biologically rich and greatly under-surveyed region that potentially acts as a refuge to a number of threatened species (MBS Environmental 2004). However because the area has not been widely surveyed, it is difficult to quantify the biodiversity values within the notified area, in relation to those represented in the surrounding areas. The vegetation units were found to be common and widespread throughout the Tanami Desert, but the MBS Environmental site inspection revealed a diversity of habitats and landforms. The Fauna Habitat and Fauna Assemblage survey of the Coyote and Larranganni deposits (Biota 2005a) recorded 102 vertebrate species and 44 bird species, including five species of conservation significance.

Conditions have been imposed on the permit to restrict disturbance to key fauna habitats and to mitigate significant impact on key fauna species. There is to be targeted fauna searches prior to clearing to determine and monitor population activity and site specific fauna management plans will be developed in consultation with CALM to manage these species if found in the areas of impact.

Methodology MBS Environmental (2004)  
Biota (2005a)

**(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 may be at variance to this Principle**

Five species of conservation significance were identified during the project surveys: *Macrotis lagotis* (Bilby), *Dasyurus cristicauda* (Mulgara), *Notoryctes typhlops* and *N. caurinus* (Southern and Northern Marsupial Mole), and *Egernia kintorei* (Great Desert Skink). These species are all Schedule 1 Conservation significance for CALM, and Vulnerable or Endangered under the IUCN conservation ranking (Tanami Gold, 2005).

Another seven species of conservation significance are considered to be inhabitants of the general area, although were not surveyed in the project area: *Falco peregrinus* (Peregrine Falcon), *Cacatua leadbeateri* (Major Mitchell's Cockatoo), *Cryptagama aurita* (Gravel Dragon), *Ctenopus uber johnstonei*, *Lagorchestes conspicillatus leichardti*, *Burhinus grallarius* (Bush Stonecurlew) and *Ardeotis australis* (Australian Bustard) (Tanami Gold, 2005).

The principal impact on significant habitat for fauna indigenous to Western Australia will arise from the construction of the airstrip. In the Tanami, it appears that the Bilby is most commonly associated with low lateritic rise habitats adjacent to drainage or wetter areas (Biota 2005a). Tanami Exploration NL intends to construct the Coyote Project airstrip on an elevated laterite unit to allow all-weather access to site. The Draft EMP (2005) also states that the Gravel Dragon *Cryptagama aurita* (P1) may be affected by clearing of lateritic soils associated with the construction of the airstrip (Tanami Gold, 2005).

It is understood from the EPA Appeal Decision Summary that the construction of the airstrip requires the clearing of 18.6 ha of laterite, which is 2.1% of the laterite habitat from within the mining lease and a considerably smaller proportion of the habitat available outside of the proponent's mining leases. However without detailed quantifiable data on local and regional Bilby populations it is difficult to assess the significance of the potential impacts. Tanami Gold has already commissioned a systematic fauna survey of their site (Biota, 2005a) and they will undertake targeted pre-clearance fauna surveys focusing on the key fauna of significance.

In relation to the Mulgara, vegetation clearing associated with the Coyote Project will impact on the available foraging habitat. The species is apparently more widespread and common in both the Northern Territory and Western Australia than previously thought (Biota, 2005a). In addition to this, the proposed clearing is not likely to alter the conservation status of the Mulgara in WA. Tanami Gold will be required to conduct targeted fauna searches prior to clearing for the Mulgara and if any are found will have to develop and implement a site-specific management plan.

In relation to avian fauna, the Australian Bustard and Major Mitchell's Cockatoo may be impacted by small scale habitat loss associated with the construction of the mines and additional infrastructure, potentially altered fire regimes and increased mortality associated with increased road traffic (Biota, 2005a). The proponent submitted to the EPA that these threatening processes were of less concern in the Tanami Region with significant areas of habitat remaining.

The EPA Appeal Decision Summary (Appeal Convenor, Oct 2005) refers to the proponent's commitment to prevent any potential impacts to significant fauna. They have consulted with specialists to define the habitats of the species and develop appropriate management plans. CALM will need to be consulted for the Fauna Management Plans.

A Stygofauna assessment was carried out due to the possible risk of impact to an undescribed genus of *Aptobathynella* (Biota, 2005b). However the risk of this species being restricted only to the Coyote Project area was determined to be minimal and thus the risk to its conservation status also minimal (Biota, 2005b).

In order to avoid, minimise and mitigate the impacts of clearing the proponents should adopt all four recommendations detailed on page 33 of the MBS Environmental (2004) report and seven recommendations on page 6 of the Biota (2005a) report. In relation to Stygofauna, the EPA Service Unit (and CALM) recommends that an Environmental Management Plan (EMP) should include a map showing the Stygofauna locations.

Notwithstanding the above, Bilby habitat has been identified on the site of the proposed airstrip. Conditions to in relation to fauna management, monitoring and reporting have been imposed to address the potential impacts the clearing may have on threatened fauna habitat

**Methodology** MBS Environmental, 2004  
Biota, 2005a  
CALM Advice, 2005  
Appeals Convenor, 2005  
Tanami Gold, 2005

**(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**

No Declared Rare or Priority Flora species were surveyed within the project area (MBS Environmental, 2004). There are no known Declared Rare or Priority Flora in the area proposed for clearing as identified by CALM's databases (CALM, 2005). This proposal is therefore unlikely to be at variance to this principle.

**Methodology** MBS Environmental (2004); GIS Database: Declared Rare and Priority Flora Lists - CALM 13/08/03  
CALM Advice, 2005

**(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 known Threatened Ecological Communities within the area proposed for clearing (CALM, 2005). This proposal is therefore not likely to be at variance to this principle.

**Methodology** GIS Database: Threatened Ecological Communities - CALM 15/7/03  
CALM Advice, 2005

**(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 at variance to this Principle**

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment, 2002).

Vegetation complexes within this application are well above 30% representation. The vegetation of the site is a component of Beard Vegetation Associations 218 and 217 (Hopkins et al, 2001), for all of which there is ~100% of the pre-European extent still remaining (Shepherd et al, 2001). The vegetation type is therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment, 2002) and this proposal is not at variance to this principle.

**Methodology** GIS Database: Pre-European Extent - DA 01/01  
Shepherd et al., 2001  
Hopkins et al, 2001

**(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 at variance to this Principle**

The vegetation to be cleared is not associated with a wetland or watercourse and therefore this proposal is not at variance to this principle.

**Methodology** MBS Environmental (2004); GIS Database: Hydrology, linear - DOE 1/2/04

**(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 Commissioner for Soil and Land Conservation has assessed the proposal to clear 259ha at the Coyote deposit and concluded that it is unlikely to significantly increase the risk of land degradation, and is therefore unlikely to be at variance to this principle (DAWA Advice, 2005).

**Methodology** DAWA Advice, 2005

**(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**

There are no CALM managed areas in the local area (50km radius). The closest is Wolfe Creek Crater National Park approximately 130km north-west of the proposed area (CALM, 2005).

Less than 6km south is the extensive area of Crown Reserve 26399; Balwina Location 4. This area is also within reserve 12.19, one of the System 12 areas of the Deserts and Nullarbor Plains. Reserve 12.19 is for the use and benefit of Aborigines (EPA 1993) (CALM, 2005).

On the basis that there are no areas managed for conservation in the local area the proposal is not likely to be

at variance to this Principle.

**Methodology** GIS Database: CALM Managed Lands and Waters - 1/06/04  
CALM Advice, 2005  
EPA, 1993

**(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 may be at variance to this Principle**

The project area is within the Sturt Creek wild river catchment, and clearing within the catchment may have an impact on the catchment's values. The proponent has applied for a water licence.

**Methodology** GIS Database: Wild Rivers - DEWCP 05/12/02

**(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 project area is semi-arid (average annual rainfall for the region is ~500mm). High rainfall events occur through the monsoonal period January and February, and it is at these times that flooding is likely to occur.

It is unlikely that the clearing of a relatively small area in a substantially intact surroundings will have lead to large scale flood exacerbation.

**Methodology** GIS Database: Rainfall, Mean Annual - BOM 30/09/01

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

**Comments Proposal may be at variance to this Principle**

This proposal was initially submitted to the DoE as a clearing application for 605ha for the development of the Laranganni and Coyote deposits in a previously undeveloped site in the Tanami desert region. This proposal was referred to the EPA due to fauna species of significance being found at the site, and the scale of the project. Through negotiations with the EPA, Tanami Gold split the project and the clearing permit was then amended to encompass only the Coyote deposit, and the area for clearing reduced to 259ha. The EPA set a level of assessment for this reduced project at Not Assessed, Public Advice Given. An Appeal was made against the level of assessment which was dismissed, then the EPA issued Public Advice. The Appeal report, the EPA's Public Advice and the Minister's advice was all taken into consideration in this assessment. This suite of advice recommended the development of an Environmental Management Plan that addressed all the key environmental issues, against which commitments for management could be developed.

A water licence will be required for this activity and an application has been received by the DoE. It is currently being processed.

A Works Approval is also required for the operation and an application has been received and is currently being processed by the DoE.

A Notice of Intent has been submitted to DoIR for this mining activity and is currently being processed. DoIR are awaiting further information from Tanami Gold.

There is a native title claim over the area (Tjurabalan 2 WAG 0160-97), however the mining leases have been granted therefore the grant of a clearing permit will not constitute a future act under the Native Title Act (1993).

**Methodology**

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Production	Mechanical Removal	259	Grant	The proposal maybe at variance with principles A, B and J. Conditions in relation to fauna management and monitoring, revegetation and reporting have been imposed to reduce the potential impacts of the clearing.  The assessing officer recommends that the permit be granted.

**5. References**

Appeals Convenor (2005), Appeal Number 161 of 2005. TRIM ref: KNI1118  
Biota (2005a) Fauna Habitats and Fauna Assemblage Survey of the Western Tanami Project Area (Coyote and Larranganni Deposits). TRIM ref: KNI908

Biota (2005b) Additional Stygofauna work at Tanami Gold's Coyote Project. TRIM ref: KNI1231.

CALM (2005), Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia, DoE TRIM ref IN24979.

Commonwealth Department of Environment and Heritage (2004) EPBC Referral for Tanami Gold's Western Tanami Project TRIM ref: KNI1255.

DAWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref KNI1228.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales ; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

Environmental Protection Authority (1993) Red Book Status Report: Conservation Reserves for Western Australia

EPA Advice (2005) Tanami Gold - Coyote and Larranganni Gold Project - Stage 1. TRIM ref: KNI1154.

Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.

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

MBS Environmental (2004), Coyote and Larranganni Project Areas Vegetation and Fauna Assessment, Prepared for Tanami Gold. TRIM ref: KNI1199

Minister for the Environment (2005), Appeal Decision Summary Appeal Number 161 of 2005. TRIM ref: KNI1118

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Tanami Gold NL (2005) Draft Environmental Management Plan, Coyote Project. TRIM ref: KNI1227.

## 6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)