M08/06 SL 311/034 Proposed Clearing Area Flora and Fauna Assessment

Initial desktop and field assessment methods

J Busniak - Skill Description Level
6c relevant environmental qualification and training specific to bushland management and extensive experience in undertaking biological surveys

The data sheets compile information on ecological values, current vegetation condition, and, existing management infrastructure.

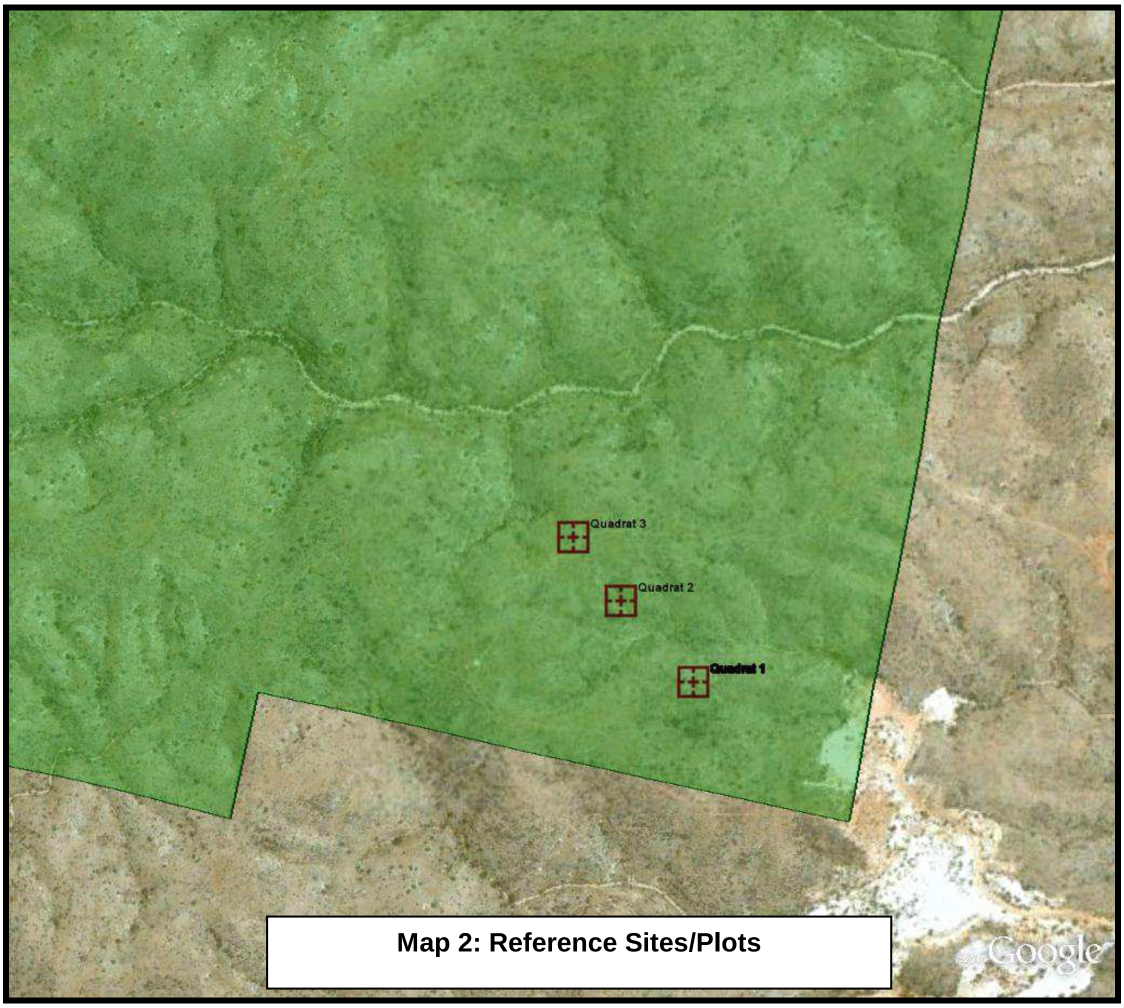
The four data sheets include:

- **Proposed Clearing** Area Initial Desktop Assessment
- **Proposed Clearing** Area Field Assessment – Significant Species and Communities
- **Bushland Plant Survey (Keighery. 1994)** –divided into three quadrats and allocated location coordinates.
- **Area Assessment Summary**

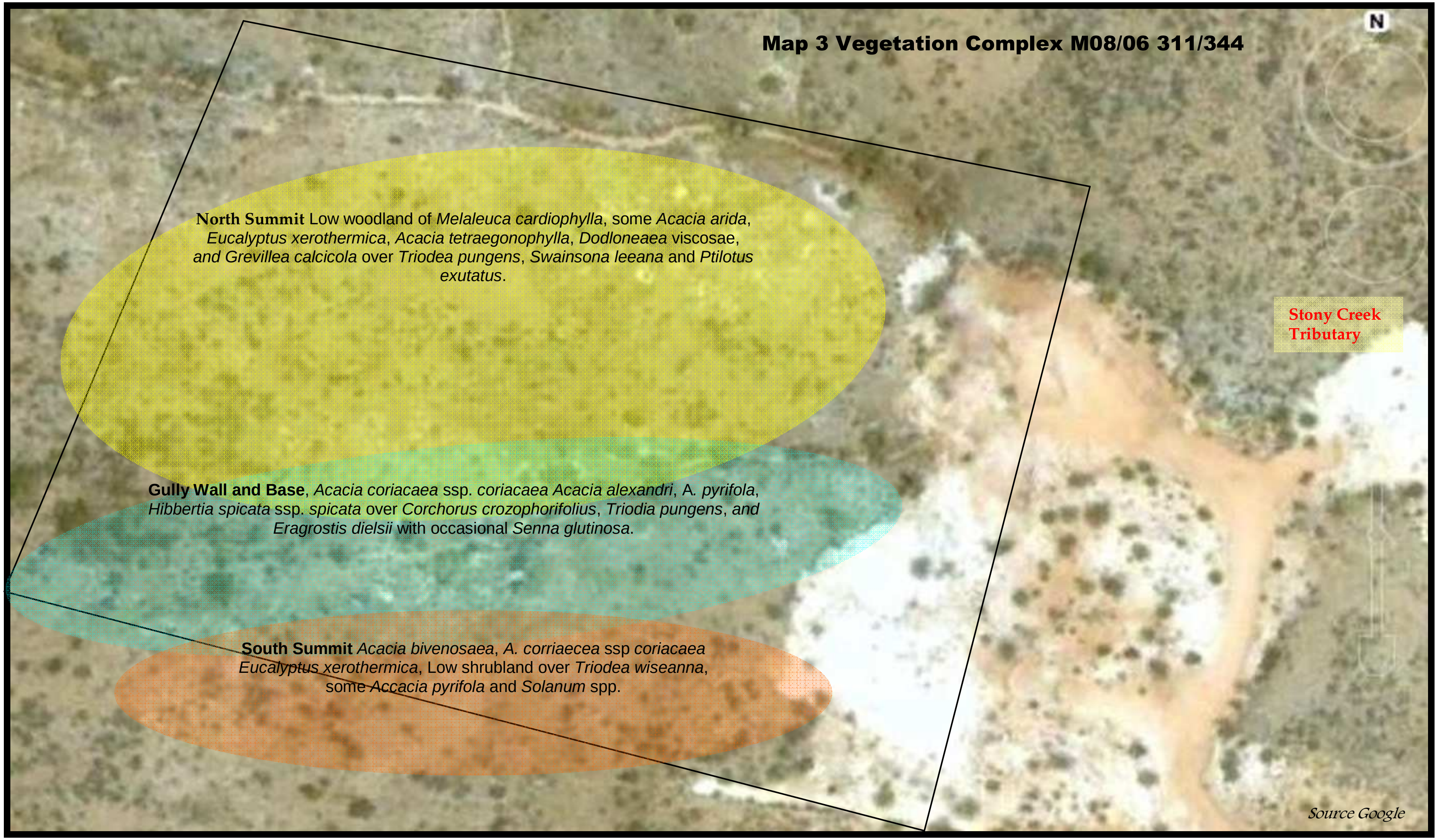
M08/62 Proposed Clearing Area Initial Desktop Assessment

Date of assessment	2 September 2011 – 4 September 2011
Name of area	M08/06 SL 311/034
Other names used	Exmouth Quarry
Location	MGA Zone – 50, Easting 199761 Northing 7565087, LGA – Shire of Exmouth, 100K Map – Exmouth 1754, 250K Map Onslow – SF50/05 Mining District Ashburton M.F. - 8 Murat Road , Exmouth
Total Mining Lease Area (ha)	96.0
Previously Disturbed (ha)	1.41
Proposed Clearing Area (ha)	2.29 (3.7)
Lot/Location/Reserve Number/s	M08/06 SL 311/034
Ownership	L G & H M McDonald/Alcoa
Land Manager-	L G & H M McDonald trading as Exmouth Quarries and Concrete/Alcoa
Recognised International/ National/ State/ Regional Conservation Value	yes
Reference Sites and Plots	**3** Flora Survey Quadrats


Map 1: Location
EXMOUTH
Pelias St
M08/46
Murat Road
M08/06
Light Industrial Area



Map 2: Reference Sites/Plots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Map 3 Vegetation Complex M08/06 311/344
North Summit Low woodland of *Melaleuca cardiophylla*, some *Acacia arida*, *Eucalyptus xerothermica*, *Acacia tetraegonophylla*, *Dodloneaea* viscosae, *and Grevillea calcicola* over *Triodea pungens*, *Swainsona leeana* and *Ptilotus exutatus*.
Stony Creek Tributary
Gully Wall and Base, *Acacia coriacaea* ssp. *coriacaea Acacia alexandri*, A. *pyrifola*, *Hibbertia spicata* ssp. *spicata* over *Corchorus crozophorifolius*, *Triodia pungens*, *and Eragrostis dielsii* with occasional *Senna glutinosa*.
South Summit *Acacia bivenosaea*, *A. corriaecea* ssp *coriacaea Eucalyptus xerothermica*, Low shrubland over *Triodea wiseanna*, some *Accacia pyrifola* and *Solanum* spp.
Source Google

Existing biological information for area

Within the Carnarvon Region IBRA and within the sub region of Cape Range (CAR1), totally an area of 2,378,491 Ha.
The bioregion is an area totaling 83,800 sq. km of land within Western Australia. It includes the Northwest islands, a chain of islands from Exmouth to Karratha, Islands of the Exmouth Gulf and islands within Shark Bay, including Dirk Hartog Island.
This transition zone between tropical and temperate biota has resulted in diverse terrestrial and marine biological assemblages.
Terrestrial habitat includes mangrove, intertidal marine, sand ridge, alluvial plain, dune field and rocky limestone range, which together support up to 300 taxa of vascular plant species, 30 mammal species, 84 reptile species, 5 amphibians and approximately 200 bird species.
The limestone Karst landscape of Cape Range has density of more than 500 caves and other Karst features. The subterranean ecosystem provides habitat for 38 species from 28 families and 30 genera (10 endemic).

Mapped Threatened Ecological Communities

Threatened Ecological Communities, Cameron's Cave is located 10km to the North of the proposed site and Bundara Sinkhole is located on the West side of Cape Range.
Closest ANCA wetland (Swamp Cape Range Subterranean Waterway) is located 8.3km to the north east.

Mapped Declared Rare Flora

Declared Endangered Flora Database identified 5 species, 2 Priority 3 – *Acacia alexandri. Corchorus congener,* and 3 Priority *2 - - Acanthocarpus rupestris, Hamierlia kempeana subsp. Rhadinophylla and Triospora esiangkara*.

Specially Protected Fauna

Wildlife Conservation (Specially Protected Fauna Notice, 2010), listing the following species;
Bamazomus subsolanus (Eastern Cape Range Bamazomus) and *Nocticola flabella* (Cape Range Blind Cockroach).
Rare and Specially Protected Species that may potentially occur in the Quarry Area

Schedule 1	Petrogale *lateralis* Black-footed Rock Wallaby
Schedule 2	Leporillus *apicalis* Lesser Stick-nest Rat Notomys *amplus* Short-tailed Hopping Mouse Notomys *longicaudatus* Long-tailed Hopping mouse
Schedule 4	Falco *peregrinus* Peregrine Falcon
Priority 4	Tyto *novaehollandiae* Masked Owl

Mapped Priority or other significant flora	Nil mapped on data bases within 10km
Known location for any Priority or other significant fauna	Flora survey and subsequent herbarium identification have eliminated Priority species within the immediate Proposal site, apart from one specimen of Brachychiton *obtusilobus*, *CALM Priority 4 species*, restricted to Cape Range; on the upper slope curve of the south summit. The proponent has resized the quarry area and direction of working face to prevent damage to this species. One Threatened species was identified within the 15 Km range – *Petrogale lateralis subsp. lateralis*.
Fire History	2001 Hot fire regime destroying many species.
Value to the local community for conservation	Non defined or listed.
Active Friends/Environmental Group	Cape Conservation Group
Surrounding land uses: Historical .	Previous use before establishment of Exmouth town site was pastoral lease
Residential development	No residential development within 10 km
Indigenous or European Cultural or Historical Heritage Value .	No archaeological or ethnographic sites known to exist within the quarry site. Formal survey occurred on 30/10/2006

Site Assessment

Hydrology	Stony Creek tributary, main feeder has bend located within Northern Boundary of lease. Previous quarry and rehabilitation have dammed feeder branch and gully in the tenement
Position in landscape	Mid-slope Valley floor
Shape of site	Rectangular, indentations or extrusions
Proximity of site to remnant of native vegetation or reserve	Nearest area of significant native vegetation is within 500 - 1000m
Corridor formation	Does not form corridor
Soils	Soil pH = no soil Soil litter depth (mm) = 0 Erosion evident Affected by past mining activity Evidence of active erosion (Gullies or rills, exposed roots) Large loose rocks
Major vegetation type	Dominant Vegetation Shrub mallee Shrubs under 1 m Grasses Herbs % Ground cover = 0 Canopy cover of dominant vegetation (per cent) 2 % Regenerating species = 25%
Presence of weeds	Weed cover = 0 Weed species = 0
Litter layer	Standing Litter layer generally absent
Salinity	No salinity in site or surrounding catchment
Hydrology	Mostly dry/Spring/seeps Stormwater drainage zones Ephemeral (intermittent)
Vegetation condition	Tree understorey present Up to 70% of vegetation is excellent Some Ground cover present Young vegetation present – Particularly good rainfall 2010-2011 summer
Habitat Opportunities	Rocks, caves, crevices Clumps of, grass or shrubs

M08/06 SL311/034 Proposed Clearing Area Initial Field Assessment

Date of assessment **03/09//2011**

Assessor – J Busniak

Recorder – J Busniak

(**GPS) used:** yes

Each structural plant community is described by noting the dominant species in each growth form layer of the community (Keighery 1994).

Structural Plant Community No. 1 Quadrat 1 199690.08 m E 7565076.36 m S

Landform and Soils

SLOPE: Lower gully **ASPECT:** SE/ S

SURFACE SOIL: Colour: red Texture: sand/gravel

EXPOSED ROCK (type and % of surface) Limestone50%

SUB-SURFACE SOIL: Colour: red/brown **Texture:** sand/ / gravel

UNDERLYING ROCK (type and depth if known) Trealla limestone

DRAINAGE: well

Topographic Position lower slope of south/eastern scree – Ephemeral feeder creekline

Growth Form Layer	**Dominant species**	**Crown Cover** (Keighery1994) 2-10% / 10-30% / 30-70% / over 70%	**Crown Cover** (VIS)
Trees over 30 m			
Trees 10–30 m			
Trees under 10 m			
Mallees over 8 m *			
Mallees under 8 m *	Eucalyptus xerothermica	2 – 10	
Shrubs over 2 m			
Shrubs 1-2 m			
Shrubs under 1 m **	*Melaleuca cardiophylla*	10 -30	
Herbs **			
Sedges/ Rushes **			
Grasses **	*Triodia wiseana* *Triodia pungens*	30 – 70	
Other (e.g. climbers)			

Common Native Species
Melaleuca cardiophylla *Triodia wiseana*
Triodia pungens

Icon Flora Species
Triodia wiseana

Vegetation Condition Good (Keighery1994)

Description Of Structural Plant Community No.663

Trees/Mallees	Herbs	Grasses
Eucalyptus xerothermica	*Marsilea drummondii*	*Triodia wiseana*
Eremophila longifolia	*Ptilotus exaltatus*	*Triodia pungens*
Acacia tetraegonophylla	*Euphorbia drummondii*	*Eriachne flaccida*
Acacia sclerosperma	*Ipomoea muelleri*	*Eriachne aristidea*
Acacia citrinoviridis	*Calandrinia polyandra*	*Enneapogon caerulescens*
	Acanthocarpus spp	*Cymbopogon ambiguus*
	Dicladanthera forrestii	*Chrysopogon fallax*
	Triumfetta clementii	*Aristida contorta*
Shrubs	*Ptilotus polakii*	
Solanum orbiculatum	*Ptilotus obovatus*	
Solanum lasiophyllum		
Sida corrugata		
Senecio magnificus		
Scaevola tomentosa		
Maireana tomentosa		
Eremophila freelingii		**Vines/Creepers**
Gossypium robinsonii		*Cucumis maderaspatamus*
Melaleuca cardiophylla		

Structural Plant Community No. 1 Quadrat 2 199596.55 m E 7565176.80 m S
Landform and Soils

SLOPE: deep end rock gully **ASPECT:** NW

SURFACE SOIL: Colour: Red/brown **Texture:** sand/ gravel

EXPOSED ROCK (type and % of surface) 60% Limestone outcrop

SUB-SURFACE SOIL: Colour: Red/brown **Texture:** sand/ gravel ,alluvial deposits

UNDERLYING ROCK (type and depth if known) Trealla limestone – 2- 3M

DRAINAGE: moderate

Topographic Position Lower slope – outwash plain

Growth Form Layer	**Dominant species**	**Crown Cover** (Keighery1994) 2-10% / 10-30% / 30-70% / over 70%	**Crown Cover** (VIS)
Trees over 30 m			
Trees 10–30 m			
Trees under 10 m			
Mallees over 8 m *			
Mallees under 8 m *	*Acacia tetraegonophylla*	2-10%	
Shrubs over 2 m			
Shrubs 1-2 m	*Eremophila latrobei*	2-10%	
Shrubs under 1 m **			
Herbs **	*Euphorbia drummondii*	2-10%	
Sedges/ Rushes **			
Grasses **	*Triodia wiseana* *Eriachne spp.* *Chrysopogon fallax*	30-70%	
Other (e.g. climbers)			

Common Native Species *Triodia wiseana* *Chrysopogon fallax*

Icon Flora Species *Eremophila latrobei*

Vegetation Condition Good (Keighery1994)

Description Of Structural Plant Community No.663

Trees/Mallees	**Herbs**	**Grasses**
Acacia tetraegonophylla	*Calandrinia polyandra*	*Triodia wiseana*
Acacia sclerosperma	*Commicarpus australis*	*Enteropogon acicularis*
	Euphorbia drummondii	*Plectrachne schinzii*
	Ipomoea muelleri	*Eriachne helmsii*
	Marsilea drummondii	*Eriachne aristidea*
	Ptilotus polystachyus	*Eragrostis xerophila*
	Ptilotus macrocephalus	*Eragrostis setifolia*
	Ptilotus exaltatus	*Eragrostis lanipes*
Shrubs	*Ptilotus aervoides*	*Eragrostis eriopoda*
Maireana planifolia	*Swainsona formosa*	*Eragrostis dielsii*
Maireana lanosa	*Scleroaena obliquicuspis*	*Chrysopogon fallax*
Eremophila latrobei	*Waitzia acuminata*	*Aristida contorta*
Eremophila cuneifolia	*Scleroaena diacantha*	
Euchylaena tomentosa	*Scleroaena cuneata*	
Dodonaea viscosa	*Scleroaena bicornis*	
	Scleroaena kali	
	Euphorbia tannensis subsp. Eremophila	

Structural Plant Community No. 1 Quadrat 3 7565254.88 m S 199535.61 m E

Landform and Soils
SLOPE: rounded plateau **ASPECT:** NW

SURFACE SOIL: Colour: Red/brown **Texture:** sand/ /gravel

EXPOSED ROCK Trealla Limestone 60 – 70% %

SUB-SURFACE SOIL: Colour: Texture: sand/ gravel

UNDERLYING ROCK (type and depth if known) Trealla Limestone

DRAINAGE: well
Topographic Position; Summit area of long curved, rounded plateau with rocky outcrops

Growth Form Layer	**Dominant species**	**Crown Cover** (Keighery1994) 2-10% / 10-30% / 30-70% / over 70%	**Crown Cover** (VIS)
Trees over 30 m			
Trees 10–30 m			
Trees under 10 m			
Mallees over 8 m *			
Mallees under 8 m *	*Eremophila longifolia*		
Shrubs over 2 m			
Shrubs 1-2 m	*Melaleuca cardiophylla*		
Shrubs under 1 m **	*Corchorus walcottii*		
Herbs **	*Dissocarpus paradoxus*		
Sedges/ Rushes **			
Grasses **	*Triodia wiseana* *Triodia pungens*		
Other (e.g. climbers)			

Common Native Species *Triodia wiseana Triodia pungens*

Icon Flora Species *Melaleuca cardiophylla*

Vegetation Condition Good (Keighery1994)

Description Of Structural Plant Community No.663

Trees/Mallees	**Herbs**	**Grasses**
Eremophila longifolia	*Dissocarpus paradoxus*	*Triodia wiseana*
Acacia tetraegonophylla	*Erodium crinitum*	*Triodia pungens*
	Dysphania kalpari	*Aristida contorta*
	Swainsona pterostylis	*Chrysopogon fallax*
	Calandrinia polyandra	*Eriachne aristidea*
	Atriplex codoncarpa	
Shrubs		
Maireana melanocoma		
Exocarpus aphyllus		
Eremophila platycalyx		
Eremophila maitlandii		
Cratystylis subspinescens		
Corchorus walcottii		
Chenopodium gaudichaudianum		
Cassia oligophylla		
Cassia helmsii		
Atriplex bunburyana		
Acacia translucens		
Gossypium robinsonii		
Melaleuca cardiophylla		

Weed Species – Entire Clearing Area	**Distribution /%**
Cenchrus ciliaris	0.5%

Feral Fauna species observed or evidence for presence of species (scats, tracks or traces)		
Evidence	**x**	**Comments**
Evidence of Foxes (burrows, wildlife kills)		
Evidence of Rabbits (burrows, dung piles, grazing)	x	Diggings, dung piles in/surrounding Quadrat 2
Evidence of Dogs (droppings, scratchings)		
Evidence of Cats (wildlife kills)		
European Honey Bees (hives in tree hollows)		
Evidence of Horses/ Cattle/ Sheep (foot prints, droppings)	x	Goats, scats and sightings
Evidence of Pigs (soil disturbance)		
Other		

Native Fauna Species	Comments: Observed directly, evidence of presence (scats, tracks and traces) or likely habitat
Birds	
Acanthagenys rofogularis	Sighting
Aquila audax	Sighting
Ardeotis australis	Sighting
Ceacticus nigrogularis	Sighting
Dromaius novaehollandiae	Sighting
Falco cenchroides	Sighting
Geopelia striata	Sighting
Grallina cyanoleuca	Sighting
Lichmera indistincta	Sighting
Ocyphaps lophotes	Sighting
Rhipidura leucphrys	Sighting
Taeniopygia guttata	Sighting
Zosterops luteus	Sighting
Reptiles	
Strophurus ciliaris	Sighting
Strophurus strophurus	Sighting
Antaresia stimsoni	Sighting
Ctenophorus nuchalis	Sighting
Moloch horridus	Sighting
Diplodactylus conspicillatus	Sighting
Oedura filicipoda	Sighting
Aprasia fusca	Sighting
Ctenotus australis	Sighting
Tiliqua rugosa	Sighting
Pseudechis australis	Sighting
Varanus tristis	Sighting
Marsupials and Monotromes	
Macropus rufus	Sighting
Macropus robustus	Sighting
Tachyglossus aculeatus acanthion	Sighting

Native Fauna Habitat	**x**	**Comments**
Areas of dense understorey vegetation	x	
Tree hollows in old mature trees		
Dead branches as perches for hunting/ look outs		
Large fallen logs on the ground		
Granite or other natural rocky outcrops	x	
Caves/fissures	x	
Wetlands or waterways		

Miscellaneous Disturbance Factors and Threatening Processes		
Factor/Process	**x**	**Comments**
Evidence of salinisation (e.g. scalding, seeps)		
Erosion (e.g. gullies, bank collapse)		
Wetland eutrophication (e.g. algal blooms)		
Stormwater drains/sumps	**x**	
Service corridors (e.g. Water Corp, Telstra, Western Power, Alinta Gas)	**x**	Water Corp Water Supply Reserve and Borefield
Mining/extraction	**x**	Previous mining area 1.41ha
Evidence of past logging (e.g. selective removal of large trees)		
Previous clearing (may be partially cleared areas or evidence of previous clearing and regrowth over much of site)	**x**	Previous mining
Overgrazing (e.g. rabbits, stock, goats; over-population by kangaroos)		
Firewood collection (e.g. recent chainsaw/axe cuts, sawdust piles)		
Dope plants/ production equipment		
Soil movement (dumping or removal)		
Factor/Process		**Comments**
Rubbish dumping		
Proliferation of tracks (fire breaks, walk trails)		
Off road vehicle use (4WD / trail bikes/ BMX/ mountain bikes)	**x**	Trail bikes
Cubby construction		
Vandalism (damage to plants)		
“Enrichment Planting”		
Impacts of High Fire Frequency and/or Intensity	**x**	Reduced range of tree ages Amount of leaf litter reduced fallen logs nearly burnt away
Time since last fire		2001 – 10 years, first good rains in summer 2010/2011

Vegetation Condition Scales Keighery (1994) / Kaesehagen (1994) scale Indicated % area each section occupies of the total site M08/62.						
Keighery (1994)	Pristine	Excellent	Very Good	Good	Degraded	Completely Degraded
% area	**15**	**20**	**50**		**10**	**5**
Kaesehagen (1994)		Very Good to Excellent	Fair to Good		Poor	Very Poor
% area		**70**			**20**	**80**
Comments						

Existing Management Infrastructure	**x**	**Comments**
Fences		
Paths/roads/hardstand;		limestone/concrete
Path condition		
Fire Access Tracks		ploughed
Previous works		

Social Significance Values	**x**	**Comments**
Evidence of Community/ Education/ Passive		
Recreation Interest		
Landscape amenity (e.g. screen/ buffer between conflicting land uses)		
Scenic Features (e.g. high point in landscape)		
Indigenous / European Heritage (Cultural or Historical)	**x**	None identified
Other		

Surrounding Land Uses	x	**Comments**
Likely impacts/benefits.	x	Potential dust and noise impacts to sensitive receptors to the north east.

M08/62 Assessment – Significant Species and Communities

Location – M08/06DL311/034 Proposed Clearing Area

NO significant species or communities recorded through Field Assessment	

Threatened Ecological Communities (TECs)	
Threatened Ecological Communities present	No identifiable TEC located.
	Due to the small size of the area impacted and the volume of Troglobitic habitat potentially affected it is not intended to commission detailed assessment of Troglobitic occurrence.

M08/62 Proposed Clearing Area Initial Assessment Summary

ECOLOGICAL CRITERIA	
1. Representation	
1a. Regional Representation	
i) The area is of recognised International, National, State or Regional value but not already protected and/or managed for conservation.	yes
ii) The area is of an ecological community with only 1500 ha or 30% or less of its pre-European extent remaining in the IBRA Bioregion	no
iii) Greater than 20 ha viable natural areas are in good or better condition of an ecological community with over 30% remaining in the IBRA Bioregion IBRA Bioregions.	yes
iv) The area is of an ecological community with 1500 ha or 10% or more protected in formal reserves IBRA Bioregions.	yes
v) The area is of an ecological community with only 1500 ha or 15% or less (whichever is greater) protected in formal plus informal reserves in the IBRA Bioregions.	yes
1b. Local Representation	
i) The area is of an ecological community with 10% or less remaining of its pre-European extent within the Local Government Area.	yes
ii) The area is of an ecological community with 30% or less remaining of its pre-European extent within the Local Government Area.	yes
iii) The area has a large (greater than 10 ha), viable natural areas in good or better condition of an ecological community with more than 30% remaining within the Local Government Area.	yes
2. Diversity	
i) The area is generally in good or better condition that contains both upland and riparian and outwash plant communities.	yes

3. Rarity	
i) The area is of an ecological community with only 1500 ha or 10% or less (whichever is greater) of its pre-European extent remaining in the Region portion of IBRA Bioregion or in the IBRA Bioregions.	/no- greater than 30% pre-European extent
iii) The area contains a Threatened Ecological Community (TEC).	No – closest system 10.2Km Camerons Cave
iv) The area contains Declared Rare Flora (DRF), Specially Protected Fauna (SPF) or significant habitat for Specially Protected Fauna.	no
v) The area contains Priority or other significant flora or fauna or significant habitat for these fauna.	None identified during survey
4. Maintaining Ecological Processes or Natural Systems - Connectivity	
i) The area acts as an ecological stepping stone within an existing “regional ecological linkage” which has been identified in a published report relevant to the study area	no
ii) The area acts as an ecological stepping stone within a “local ecological linkage” that has been identified by a Local Government. Specify:	no
5. Protection of, Streamline Fringing Vegetation	
i) The area is a Conservation or Resource Enhancement category wetland and/or its buffer zone	Yes-Quarry situated within Exmouth Water Reserve
ii) The area is an EPP Wetland and/or its buffer zone	no
iii) The area is a emepheral creek and/or its associated riparian vegetation and/or its buffer zone	yes *There is no evidence to suggest that the small amount of clearing proposed will exacerbate the incidence or intensity of natural flood events. DOW advised the proposal will not impact upon the incidence or intensity of flooding. (2006b)* “
iv) The area is within a floodplain area and/or its buffer zone	no
v) The area is part of an estuarine ecosystem and/or its fringing vegetation and/or its buffer zone	no
vi) The area contains coastal vegetation on the foredunes and/or secondary dunes	no

VIABILITY ESTIMATE		
Viability Factor	**Category**	**Score**
Size	Greater than 20 ha	5
	Greater than 10 ha less than 20 ha	4
	Greater than 4 ha less than 10 ha	3
	Greater than 1 ha less than 4 ha	2
	Less than 1 ha	1
	Size Score =	3
Shape	Circle, square or squat rectangle	3.5
	Oval, rectangle or equilateral triangle	3
	Irregular shape with few indentations	2.5
	Irregular shape with many indentations	2
	Long thin shape with large proportion of area greater than 50 m wide	1.5
	Long thin shape with large proportion of area less than 50 m wide	1
	Shape Score =	5.5
Perimeter to area ratio	Less than 0.01	4
	Greater than 0.01 less than 0.02	3
	Greater than 0.02 less than 0.04	2
	Greater than 0.04	1
	Perimeter to area ratio Score =	3
Vegetation condition NB: based on Keighery (1994) condition scale	Pristine 10 x % =	
	Excellent 8 x % =	
	Very Good 6 x % =	
	Good 4 x 20% = 3.2	
	Degraded 2 x20 % = 0.4	
	Completely Degraded 0 x 60% = 0	
	Total calculated score = 3.6	3.6

‘Connectivity	A. Forms part of a Regional Ecological Linkage and is contiguous with a 5 protected natural area of size greater than 4ha	5
	B. Not part of a Regional Ecological Linkage but contiguous with a protected 4.5 natural area of size greater than 4ha	4.5
	C. Forms part of a Regional Ecological Linkage and is within 500 m of more than 4 4 protected natural areas each having an area greater than 4 ha	4
	D. Not part of a Regional Ecological Linkage but within 500 m of more than 4 3.5 protected natural areas each having an area greater than 4 ha	3.5
	E. Forms part of a Regional Ecological Linkage and is within 500 m of 3 or 4 3 protected natural areas each having an area greater than 4 ha	3
	F. Not part of a Regional Ecological Linkage but within 500 m of 3 or 4 protected 2.5 natural areas each having an area greater than 4 ha	2.5
	G. Forms part of a Regional Ecological Linkage and is within 500 m of 2 2 protected natural areas each having an area greater than 4 ha	2
	H. Not part of a Regional Ecological Linkage but within 500 m of 2 protected 1.5 natural areas each having an area greater than 4 ha	1.5
	I. Forms part of a Regional Ecological Linkage and is within 500 m of 1 1 protected natural area each having an area greater than 4 ha	1
	J. Not part of a Regional Ecological Linkage but within 500 m of 1 protected 0.5 natural area each having an area greater than 4 ha	0.5
	K. Forms part of a Regional Ecological Linkage but is not within 500 m of any 0.25 protected natural areas each having an area greater than 4 ha	0.25
	Connectivity Score =	0.25
	TOTAL SCORE	15.35