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BY:

**Flora and Fauna Survey
Proposed Mining Areas
Davyhurst Region**

June 2005

Prepared for:
Croesus Mining N.L.

Prepared by:
Rally Revegetation and Environmental Services



Summary

Rally Revegetation and Environmental Services were contracted by Croesus Mining N.L., to undertake a desktop flora and fauna survey for tenements in the Davyhurst region. The objective of the surveys was to provide an indication of any rare flora and threatened fauna species and communities that may be present in the Davyhurst region prior to commencement of any clearing and mining activities.

The Davyhurst region is located approximately 122 km northwest of Kalgoorlie by road. The tenements of the Davyhurst region included in the search are listed as follows (See Figure 1 for tenement locations):

E3000107	M3000107
E3000125	M3000122
E3000233	M3000123
E3000261	P3000971
E3000272	P3000988
E3000273	P3000989
M1600220 ✓	M3000072 ✓
M1600470	M3000074
M3000005	M3000100
M3000063 ✓	M3000131 ✓
M3000080	M3000137 ✓
M3000102	P3000835
M3000187	P3000849
M3000103	P3000874
M3000106	

The flora and fauna information search was conducted by the Department of Conservation and Land Management (CALM).

The search coordinates used for the flora survey were 29° 47' - 30° 16' S and 120° 23' - 120° 50' E. The Department's *Threatened (Declared Rare) Flora* database, the *Western Australian Herbarium Specimen* database for priority species opportunistically collected in the area of interest and the Department's *Declared Rare and Priority Flora List* were all searched. No flora records were found on any databases for this area (See attached flora survey by CALM).

The search coordinates used for the fauna survey were Grid: 51 255000 mE 6707000 mN / 278000 mE 6655000 mN. No fauna records were found for this area, however it is a possibility that the following fauna may occur in the area in question:

Fauna that is rare or is likely to become extinct - Chuditch and Mallee Fowl
 Other specially protected fauna - Peregrine Falcon
 Taxa in need of monitoring - Central Long-eared Bat and Shy Heath Wren.
 (See attached fauna survey by CALM).



Your reference:
Our reference: 2005F001891VO2
Enquiries: Kelly Poultney

Phone: 9334 0123
Fax: 9334 0278
Email: kellyp@calm.wa.gov.au

Rally Revegetation & Environmental Services
PO Box 1375
KALGOORLIE WA 6433

Attention: Nicole Garbin

Dear Ms Garbin

REQUEST FOR RARE FLORA INFORMATION

I refer to your request of 14 June 2005 for information on rare flora in the Davyhurst area. The search co-ordinates used were 29° 47' - 30° 16' S and 120° 23' - 120° 50' E.

A search was undertaken for this area of (1) the Department's *Threatened (Declared Rare) Flora* database, (2) the *Western Australian Herbarium Specimen* database for priority species opportunistically collected in the area of interest and (3), the Department's *Declared Rare and Priority Flora List* [this list, which may also be used a species target list, contains species that are declared rare (Conservation Code R or X for those presumed to be extinct), poorly known (Conservation Codes 1, 2 or 3), or require monitoring (Conservation Code 4). There were no records found on any of the databases for this area.

Attached are the conditions under which this information has been supplied. Your attention is specifically drawn to the seventh point, which refers to the requirement to undertake field investigations for the accurate determination of rare flora occurrence at a site. *The information supplied should be regarded as an indication only of the rare flora that may be present and may be used as a target list in any surveys undertaken.*

An invoice for \$200 (plus GST) to supply this information will be forwarded.

It would be appreciated if any populations of rare flora encountered by you in the area could be reported to this Department to ensure their ongoing management.

Please note there has been an increase in proponents requesting searches using GIS shapefiles and the provision of information in electronic format that can be used in GIS applications (table formats). These searches are more labour intensive than standard searches, while being more economical for more complex searches. Consequently, there has been a change in the fee structure for the provision of rare flora information from the CALM datasets whereby GIS-based searches will attract a standard fee of \$300 (plus GST). The fee for standard hard copy searches will remain unaltered. This fee structure commenced on 1 October 2004.

If you require any further details, or wish to discuss rare flora management, please contact my Principal Botanist, Dr Ken Atkins, on (08) 9334 0425.

Yours faithfully

KPoultney

.....
for Keiran McNamara
EXECUTIVE DIRECTOR
20 June, 2005

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

RARE FLORA INFORMATION

CONDITIONS IN RESPECT OF SUPPLY OF INFORMATION

1. All requests for data to be made in writing to the Executive Director, Department of Conservation and Land Management. Attention: Administrative Officer Flora, Wildlife Branch.
2. The data supplied may not be supplied to other organisations, nor be used for any purpose other than for the project for which they have been provided, without the prior written consent of the Executive Director, Department of Conservation and Land Management.
3. Specific locality information for Declared Rare Flora is regarded as confidential, and should be treated as such by receiving organisations. Specific locality information for DRF may not be used in public reports without the written permission of the Executive Director, Department of Conservation and Land Management. Publicly available reports may only show generalised locations or, where necessary, show specific locations without identifying species. The Department is to be contacted for guidance on the presentation of rare flora information.
4. Note that the Department of Conservation and Land Management respects the privacy of private landowners who may have rare flora on their property. Rare flora locations identified in the data as being on private property should be treated in confidence, and contact with property owners made through the Department of Conservation and Land Management.
5. Receiving organisations should note that while every effort has been made to prevent errors and omissions in the data provided, they may be present. The Department of Conservation and Land Management accepts no responsibility for this.
6. Receiving organisations must also recognise that the database is subject to continual updating and amendment, and such considerations should be taken into account by the user.
7. **It should be noted that the supplied data do not necessarily represent a comprehensive listing of the rare flora of the area in question. Its comprehensiveness is dependant on the amount of survey carried out within the specified area. The receiving organisation should employ a botanist, if required, to undertake a survey of the area under consideration.**
8. Acknowledgment of the Department of Conservation and Land Management as source of the data is to be made in any published material. Copies of all such publications are to be forwarded to the Department of Conservation and Land Management, Attention: Principal Botanist, Wildlife Branch.
9. The development of the PERTH Herbarium and its database was not originally intended for electronic mapping (eg. GIS ArcView). The latitude and longitude coordinates for each entry are not verified prior to being databased. It is only in recent times that collections have been submitted to PERTH with GPS recorded latitude and longitude coordinates. Therefore, be aware when using this data in ArcView that some records may not plot to the locality description given with each collection.

THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

DECLARED RARE AND PRIORITY FLORA LIST

for Western Australia

CONSERVATION CODES

R: Declared Rare Flora - Extant Taxa

Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such.

X: Declared Rare Flora - Presumed Extinct Taxa

Taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such.

1: Priority One - Poorly known Taxa

Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

2: Priority Two - Poorly Known Taxa

Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

3: Priority Three - Poorly Known Taxa

Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as 'rare flora' but are in need of further survey.

4: Priority Four - Rare Taxa

Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors.
These taxa require monitoring every 5-10 years.

ABBREVIATIONS USED IN THREATENED FLORA DATABASE PRINTOUTS

VESTING

AGR	Chief Exec Dept of Agriculture
ALT	Aboriginal Land Trust
BAP	Baptist Union of WA Inc
BSA	Boy Scouts Association
CC	Conservation Commission - NPNCA - LFC
CGT	Crown Grant in Trust
COM	Commonwealth of Australia
CRO	Crown Freehold-Govt Ownership
DOL	Dept of Land Administration
DPU	Ministry for Planning
EXD	Exec Direc CALM
FRE	Freehold
HOW	Homeswest
ILD	Industrial Lands Develop. Auth
JOI	Joint Vesting-NPNCA & Shire
LAC	LandCorp
LFC	Lands and Forests Commission
MAG	Minister for Agriculture
MED	Ministry of Education
MHE	Minister for Health
MIN	Minister for Mines
MPL	Ministry for Planning
MPR	Minister for Prisons
MRD	Main Roads WA
MTR	Minister for Transport
MWA	Minister for Water Resources
MWO	Minister for Works
NAT	Natural Trust of Australia WA
NON	Not Vested
NPN	NPNCA
OTH	Other
PRI	Private
RAI	Westrail
SEC	Western Power
SHI	Shire
SPC	State Planning Commission
TEL	Telstra
TGR	Timber Govt Requirement
TOW	TOWN
UNK	Unknown
WAT	Water Corporation
WEL	Minister Community Welfare
WRC	Water & Rivers Commission
XPL	Ex-Pastoral Lease

PURPOSES

ABR	Aboriginal Reserve
AER	Aerodrome
CAM	Camping
CAR	Caravan park
CEM	Cemetery
CFA	Conservation of Fauna
CFF	Conservation Of Flora & Fauna
CFL	Conservation of Flora
CHU	Church
CPK	Car Park
COM	Common
CON	Conservation Park
DEF	Defence
DRA	Drain
EDE	Educational Endowment
EDU	Educational purposes UWA
ENE	Enjoyment of Natural Environ.
EXC	Excepted from sale
EXL	Exploration Lease
EXP	Experimental Farm
FIR	Firing Range
FOR	State Forest
GHA	Grain Handling
GOL	Golf
GRA	Gravel Pit
GRE	Green Belt
GVT	Government Requirements
HAR	Harbour Purposes
HEP	Heritage Purposes
HER	Heritage trail
HOS	Hospital
KEN	Kennels
MIIN	Mining lease
MUN	Municipal Purposes
NPK	National Park
NRE	Nature Reserve
OTH	Other
PAC	Public access
PAR	Parkland (& Recreation)
PAS	Pastoral lease
PFL	Protection of Flora
PIC	Picnic ground
PLA	Plantation
POS	Public Open Space
PPA	Public parkland
PRS	Prison site
PUT	Public Utility
QUA	Quarry
RAD	Radio Station
RAC	Racecourse
REC	Recreation
REH	Rehabilitation
RNP	Re-establish Native Plants
RRE	Railway Reserve
RUB	Rubbish
SAN	Sand
SCH	School-site
SET	Settlers requirements
SHI	Shire Requirements
SHO	Showgrounds
SNN	Sanitary
STO	Stopping place
TIM	Timber
TOU	Tourism
TOW	Town-site
TRA	Training Ground
TRI	Trig station
TVT	Television transmitting
UNK	Unknown
UTI	Utilities
VCL	Vacant Crown Land
VER	Road Verge
VPF	Vermin Proof Fence
WAT	Water
WCO	Water & Conservation of F & F
WOO	Firewood

* Please note that LFC now comes under the Conservation Commission



Department of Conservation
and Land Management



Conserving the
nature of WA

Your Ref:
Our Ref: 2001F001096V07
Enquires: Peter Orell

Phone: 9334 0454
Fax: 9334 0278
Email: petero@calm.wa.gov.au

Nicole Garbin
Rally Revegetation and Environmental Services
PO Box 1375
KALGOORLIE WA 6433

Dear Ms Garbin

REQUEST FOR THREATENED FAUNA INFORMATION

I refer to your request of 14 June for information on threatened fauna occurring in mining tenements in the Dayyhurst area.

A search was undertaken for this area of the Department's Threatened Fauna database, which includes species which are declared as '*Rare or likely to become extinct* (Schedule 1)', '*Birds protected under an international agreement* (Schedule 3)', and '*Other specially protected fauna* (Schedule 4)'. Attached are print outs from these databases where records were found.

Attached also are the conditions under which this information has been supplied. Your attention is specifically drawn to the sixth point that refers to the requirement to undertake field investigations for the accurate determination of threatened fauna occurrence at a site. The information supplied should be regarded as an indication only of the threatened fauna that may be present.

An invoice for \$150.00 (plus GST), being the set charge for the supply of this information, will be forwarded.

It would be appreciated if any populations of threatened fauna encountered by you in the area could be reported to this Department to ensure their ongoing management.

If you require any further details, or wish to discuss threatened fauna management, please contact my Senior Zoologist, Dr Peter Mawson on 08 93340421.

Yours sincerely

for Keiran McNamara
EXECUTIVE DIRECTOR

21 June 2005

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

THREATENED FAUNA INFORMATION

Conditions In Respect Of Supply Of Information

- * All requests for data to be made in writing to the Executive Director, Department of Conservation and Land Management, Attention: Senior Zoologist, Wildlife Branch.
- * The data supplied may not be supplied to other organisations, nor be used for any purpose other than for the project for which they have been provided without the prior consent of the Executive Director, Department of Conservation and Land Management.
- * Specific locality information for Threatened Fauna is regarded as confidential, and should be treated as such by receiving organisations. Specific locality information for Threatened Fauna may not be used in reports without the written permission of the Executive Director, Department of Conservation and Land Management. Reports may only show generalised locations or, where necessary, show specific locations without identifying species. The Senior Zoologist is to be contacted for guidance on the presentation of Threatened Fauna information.
- * Receiving organisations should note that while every effort has been made to prevent errors and omissions in the data, they may be present. The Department of Conservation and Land Management accepts no responsibility for this.
- * Receiving organisations must also recognise that the database is subject to continual updating and amendment, and such considerations should be taken into account by the user.
- * It should be noted that the supplied data do not necessarily represent a comprehensive listing of the Threatened Fauna of the area in question. Its comprehensiveness is dependent of the amount of survey carried out within a specified area. The receiving organisation should employ a biologist/zoologist, if required, to undertake a survey of the area under consideration.
- * Acknowledgment of the Department of Conservation and Land Management as the source of data is to be made in any published material. Copies of all such publications are to be forwarded to the Department of Conservation and Land Management, Attention; Senior Zoologist, Wildlife Branch.

Threatened and Priority Fauna Database

Page 1 of 1

Grid: 51 255000 mE 6707000 mN / 278000 mE 6655000 mN

* Date Certainty Seen Location Name Method

Schedule 1 - Fauna that is rare or is likely to become extinct

Dasyurus geoffroii

Chuditch

0 records

This carnivorous marsupial occupies large home ranges, is highly mobile and appears able to utilise bush remnants and corridors. There are some records from the western Goldfields as recently as the early 1990s thus there is some possibility of the species occurring in the areas in question.

Leipoa ocellata

Malleefowl

0 records

This species was once widely distributed across southern Australia. It prefers woodland or shrubland with an abundant litter layer that provides essential material for the construction of its nest mound. It is likely to occur in the area in question.

Schedule 4 - Other specially protected fauna

Falco peregrinus

Peregrine Falcon

0 records

This species is uncommon and prefers areas with rocky ledges, cliffs, watercourses, open woodland or margins with cleared land. It may occur in the area in question.

Priority Four: Taxa in need of monitoring

Nyctophilus timoriensis (central form)

Central Long-eared Bat

0 records

This species of bat roosts in tree hollows and under loose bark but little else is known about this species. It may occur in the area in question.

Hylacola cauta whitlocki

Shy Heathwren (western ssp)

0 records

This species is an uncommon resident in mallee undergrowth. It may occur in the area in question.

* Information relating to any records provided for listed species:-

Date: date of recorded observation

Certainty (of correct species identification): 1=Very certain; 2=Moderately certain; and 3=Not sure.

Seen: Number of individuals observed.

Location Name: Name of reserve or nearest locality where observation was made

Method: Method or type of observation

