



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7052/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Genesis Minerals Limited

1.3. Property details

Property: Mining Lease 40/166
Local Government Area: Shire of Menzies
Colloquial name: Ulysses Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
15		Mechanical Removal	Mineral Production and associated activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 July 2016

2. Background

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	<p>The clearing permit application area has been broadly mapped as the following Beard vegetation association (GIS Database): 18: Low woodland; mulga (<i>Acacia aneura</i>).</p> <p>A flora and vegetation survey was conducted by Botanica Consulting (Botanica) in January 2016 over the area covered by Mining Lease 40/166 (approximately 996 hectares), which included the current clearing permit application area (Botanica, 2016).</p> <p>The following four vegetation communities were recorded within the survey area, grouped according to landform types (Botanica, 2016). All four vegetation communities occurred within the clearing permit application area, with community type CLP-AFW1 representing the majority of the application area (Botanica, 2016):</p> <p>Clay-Loam Plain CLP-AFW1: Forest of <i>Acacia caesaneura</i>/ <i>A. incurvaneura</i> over low scrub of <i>Eremophila forrestii</i> subsp. <i>forrestii</i>/ <i>Eremophila margarethae</i> and open low grass of <i>Eragrostis eriopoda</i> on clay-loam plain; CLP-AFW2: Low woodland of <i>Acacia incurvaneura</i> over open low scrub of <i>A. ramulosa</i> and dense low heath of <i>Maireana pyramidata</i> on clay loam plain;</p> <p>Drainage Depression DD-AFW1: Forest of <i>Acacia caesaneura</i> over low scrub of <i>A. ramulosa</i>/ <i>Eremophila georgei</i> and open low grass of <i>Eragrostis eriopoda</i>/ <i>Monachather paradoxus</i> in drainage depression;</p> <p>Rocky Hillslope RHS-AFW1: Low woodland of <i>Acacia incurvaneura</i> over low scrub of <i>A. ramulosa</i> and open dwarf scrub of <i>Ptilotus obovatus</i> on rocky hillslope.</p>
Clearing Description	<p>Ulysses Project.</p> <p>Genesis Minerals Limited proposes to clear up to 15 hectares of native vegetation within a boundary of approximately 21.7 hectares, for the purposes of mineral production and mining-related infrastructure. The project is located approximately 30 kilometres south of Leonora, within the Shire of Menzies.</p>
Vegetation Condition	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).</p>
Comment	<p>The vegetation condition was derived from a vegetation survey conducted by Botanica Consulting (Botanica) in January 2016 (Botanica, 2016).</p>

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 application area is located within the Eastern Murchison subregion of the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). The Eastern Murchison subregion is characterised by broad plains of red-brown soils and breakaway complexes as well as red sandplains. The vegetation of this subregion is dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and Halosarcia shrublands (CALM, 2002). The Eastern Murchison subregion supports a rich and diverse flora and fauna, however most species are wide ranging and not restricted to the subregion (CALM, 2002).

Flora and vegetation surveys were conducted by Botanica Consulting (Botanica) over the application area and surrounding areas (Botanica, 2016). A total of 62 flora taxa were recorded during the survey, representing 19 Families and 33 Genera (Botanica, 2016).

A desktop survey identified twenty eight Priority flora species with the potential to occur within the survey area, based on known distributions (Botanica, 2016). Of these, Botanica (2016) reported that the following five species could possibly occur within the application area, based on habitat preferences:

- *Calotis* sp. Perrinvale Station (R.J. Cranfield 7096) - Priority 3
- *Cratystylis centralis* - Priority 3
- *Eremophila mirabilis* - Priority 2
- *Gunniopsis propinqua* - Priority 3
- *Triglochin protuberans* - Priority 3

Based on Florabase records, *Cratystylis centralis* is only known from the Murchison Bioregion, however the recorded locations occur a long way apart (Western Australian Herbarium, 2016). The other three species mentioned above are all known from more than one Bioregion (Western Australian Herbarium, 2016). Considering the wide geographical separation between known records, it is likely that all of these species are more widely distributed than currently recorded. No Priority flora species were recorded during the flora survey (Botanica, 2016). However, the small area of the proposed clearing (15 hectares) would be unlikely to affect the conservation status of any Priority flora species.

No Threatened flora, Threatened Ecological Communities or Priority Ecological Communities have been recorded within or in close proximity to the application area, and none were found during the survey (GIS Database; Botanica, 2016).

The vegetation condition within the application area was rated as Good on the Keighery scale (Keighery, 1994), with multiple areas of previous disturbance observed from grazing, mineral exploration activities and vehicle tracks (Botanica, 2016).

The application area falls within the Melita pastoral lease (GIS Database), and previous vegetation disturbance has occurred from pastoral activities, including weed invasion in some areas (Botanica, 2016). Two weed species were recorded during the flora surveys: *Acetosa vesicaria* (Ruby Dock) and *Cenchrus ciliaris* (Buffel Grass), neither of which is listed as a declared plant under the *Biosecurity and Agriculture Management Act 2007* (Botanica, 2016). Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A Level 1 fauna survey was conducted over the application area and adjacent areas by consulting zoologist Greg Harewood in January 2016, comprising of a desktop review and a reconnaissance field survey (Harewood, 2016). The desktop survey identified 241 native fauna species with the potential to occur within the survey area, including nine amphibians, 78 reptiles, 121 birds and 33 mammal species. The field survey recorded a total of 32 native fauna species and one introduced fauna species (Harewood, 2016). Harewood (2016) reported that the fauna assemblage within the survey area was typical of the region.

The desktop survey identified nine fauna species (mostly birds) of conservation significance, with the potential to occur within the survey area, based on known distributions (Harewood, 2016). Of these, Harewood (2016) considered that the following two species could possibly occur within the survey area, based on habitat preferences: *Falco peregrinus*, Peregrine Falcon; and *Merops ornatus*, Rainbow Bee-eater. However, no fauna species of conservation significance were recorded during the survey (Harewood, 2016).

The Murchison Bioregion remains largely uncleared (Government of Western Australia, 2014), and the landforms, vegetation associations and fauna habitat types found within the application area are well represented within the region (Botanica, 2016; Harewood, 2016; GIS Database). The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

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

Methodology

CALM (2002)
Botanica (2016)

Government of Western Australia (2014)
Harewood (2016)
Western Australian Herbarium (2016)

GIS Database:
- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities (TECPEC)

(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

A Level 1 fauna and habitat survey was conducted over the application area and surrounding areas in January 2016 (Harewood, 2016). The survey comprised a desktop search of relevant fauna databases and a field reconnaissance survey.

Harewood (2016) identified the following three main fauna habitat types within the survey area, (listed in order from most commonly occurring to least common):

1. Clay-Loam Plains: Forest and low woodlands of *Acacia* over low scrub and heath or grasses;
2. Drainage Depressions: Forest of *Acacia* over low scrub and open low grass; and
3. Rocky Hillslopes: Low woodlands of *Acacia* over low scrub and open dwarf scrub.

None of these habitat types are restricted to either the clearing permit application area or the broader survey area (Harewood, 2016).

Opportunistic fauna observations, and a series of transects were conducted throughout the survey area, representing the main habitat types (Harewood, 2016). Targeted searches for conservation significant fauna were also conducted, by traversing areas of suitable habitat (Harewood, 2016).

Although no fauna species listed as either threatened species under the federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) or protected under the *Western Australian Wildlife Conservation Act 1950* (WC Act) were recorded during the survey, it was considered that some may occur within the survey area (Harewood, 2016). However, the majority of these species are highly mobile and all have wide distributions, and they are unlikely to be specifically dependant on the habitats within the application area (Harewood, 2016).

The fauna habitats found within the application area are relatively common and widespread in the region (Harewood, 2016; GIS Database). Harewood (2016) concluded that potential impacts to fauna are generally likely to be minor and localised, and the vegetation proposed to be cleared is unlikely to represent significant habitat for fauna in either a local or regional context.

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

Methodology Harewood (2016)

GIS Database:
- Melita Orthomosaic - Landgate 2010
- Pre-European Vegetation

(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

A flora survey of the application area did not record any species of Threatened flora (Botanica, 2016). The vegetation associations recorded within the application area are well represented in surrounding areas (GIS Database; Botanica, 2016), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

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

Methodology Botanica (2016)

GIS Database:
- Threatened and Priority Flora
- Pre-European Vegetation

(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 (TECs) located within or in close proximity to the application area (GIS Database).

Surveys of the application area did not identify any TECs (Botanica, 2016).

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

Methodology Botanica (2016)

GIS Database:

- Threatened and Priority Ecological Communities (TECPEC)

(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 area applied to be cleared is located within the Murchison IBRA bioregion (GIS Database). There is approximately 99% of pre-European vegetation remaining within the bioregion (Government of Western Australia, 2014).

The application area is broadly mapped as Beard vegetation association 18: Low woodland; mulga (*Acacia aneura*) (GIS Database). Approximately 99% of the pre-European extent of this vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2014). Hence, the vegetation proposed to be cleared does not represent a significant remnant of vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW managed lands
IBRA Bioregion - Murchison	28,120,586	28,044,823	~ 99	Least Concern	7.7
Beard vegetation association - State					
18	19,892,304	19,843,727	~ 99	Least Concern	6.29
Beard vegetation association - Bioregion					
18	12,403,172	12,363,252	~ 99	Least Concern	4.96

* Government of Western Australia (2014)

** Department of Natural Resources and Environment (2002)

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

Methodology Department of Natural Resources and Environment (2002)

Government of Western Australia (2014)

GIS Database:

- IBRA Australia

- Pre-European Vegetation

(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 at variance to this Principle

There are no permanent watercourses or wetlands within or in close proximity to the application area (GIS Database).

One minor seasonal watercourse passes through the application area (GIS Database). Seasonal watercourses in the region are dry for most of the year, only flowing briefly following significant rainfall events (CALM, 2002).

Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation associated with these watercourses, and vegetation downstream from the application area, may be minimised by the implementation of a watercourse management condition.

Methodology CALM (2002)

GIS Database:
- Geodata, Lakes
- Hydrography, linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

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

The application area falls within the Bevon and Rainbow land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Agriculture and Food).

The Bevon land system is described as irregular low ironstone hills with stony lower slopes supporting mulga shrublands (Pringle et. al., 1994). This land system may be susceptible to soil erosion if the vegetation cover is removed or the soil surface is disturbed (Pringle et. al., 1994).

The Rainbow land system is described as hardpan plains supporting mulga shrublands (Pringle et. al., 1994). This land system is generally not susceptible to soil erosion (Pringle et. al., 1994).

Based on the above, the proposed clearing may be at variance to this Principle. Potential land degradation as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

Methodology Pringle et. al. (1994)

GIS Database:
- Rangeland Land System Mapping

(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**

The nearest conservation area is an unnamed DPaW managed Nature Reserve (Class C), which is located approximately 25 kilometres southeast of the application area at its nearest point (GIS Database). The proposed clearing is unlikely to have any impacts on the environmental values of this or any other conservation area.

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

Methodology GIS Database:
- DPaW Tenure

(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**

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the application area (GIS Database). One minor seasonal watercourse passes through the application area (GIS Database). Drainage lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

The proposed clearing is unlikely to result in increased sedimentation of any watercourse, or cause deterioration in the quality of surface or underground water.

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

Methodology CALM (2002)

GIS Database:
- Hydrography, Linear
- Public Drinking Water Source Areas

(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 climate of the region is semi-arid, with a low average rainfall of approximately 200 millimetres per year (CALM, 2002). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

There are no permanent water courses or waterbodies within the application area (GIS Database). One minor seasonal water course passes through the application area (GIS Database). Temporary localised flooding may occur during heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

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

Methodology CALM (2002)

GIS Database:
- Hydrography, linear

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

The clearing permit application was advertised on 16 May 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to this application.

There are no native title claims over the area under application (DAA, 2016). However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance located within or in close proximity to the application area (DAA, 2016). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the Department of Water, and the Department of Parks and Wildlife, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

Methodology DAA (2016)

4. References

- Botanica (2016) Level 1 Flora and Vegetation Survey. Ulysses survey area. Report prepared for Genesis Minerals Limited, by Botanica Consulting, January 2016.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DAA (2016) Aboriginal Heritage Enquiry System. Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2/> (Accessed 19 July 2016).
- 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.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Parks and Wildlife, Perth.
- Harewood, G. (2016) Fauna Assessment. Ulysses Project. Report prepared for Genesis Minerals Limited. February 2016.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Pringle, H.J.R., Van Vreeswyk, A.M.E., and Gilligan, S.A. (1994) An Inventory and Condition Survey of Rangelands in the north-eastern Goldfields, Western Australia. Technical Bulletin No. 87. Department of Agriculture, Western Australia.
- Western Australian Herbarium (2016) FloraBase - the Western Australian Flora. Department of Parks and Wildlife. <https://florabase.dpaw.wa.gov.au/>

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotE	Department of the Environment, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	Threatened species: Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora). Threatened fauna is that subset of ‘Specially Protected Fauna’ declared to be ‘likely to become extinct’ pursuant to section 14(4) of the Wildlife Conservation Act. Threatened flora is flora that has been declared to be ‘likely to become extinct or is rare, or otherwise in need of special protection’, pursuant to section 23F(2) of the Wildlife Conservation Act. The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.
CR	Critically endangered species Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EN	Endangered species Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
VU	Vulnerable species Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EX	Presumed extinct species Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

- IA Migratory birds protected under an international agreement**
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**
Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species:**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species:**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species:**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
- P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.