



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 8550/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Edna May Operations Pty Ltd

### 1.3. Property details

Property: Mining Lease 77/88  
Mining Lease 77/124

Local Government Area: Shire of Westonia

Colloquial name: Greenfinch Project

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 3 October 2019

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description** The vegetation of the application area is broadly mapped as the following Beard vegetation association: 536: Medium Woodland; morrell and rough fruited mallee (*Eucalyptus corrugata*) (GIS Database).

A reconnaissance flora and vegetation survey was conducted over the application area by Botanica Consulting (Botanica) on 11 April 2018. The following vegetation associations were recorded within the application area (Botanica, 2018; 2019):

**CLP-MWS1:** Tall mallee woodland of *Eucalyptus corrugata* over sparse shrubland of *Senna artemisioides* and low forbland of *Sclerolaena diacantha* on clay-loam plain;

**CLP-EW1:** Mid woodland of *Eucalyptus longicornis* over isolated tall *Melaleuca pauperiflora* subsp. *fastigiata* shrubs and low open chenopod shrubland of *Atriplex* spp. and open low forbland of *Sclerolaena diacantha* on clay-loam plain;

**CLP-EW2:** Mid woodland of *Eucalyptus salubris* over open mid shrubland of *Santalum acuminatum* and open low shrubland of *Acacia hemiteles* / *Grevillea acuaria* on clay-loam plain; and

**CLP-RMNV1:** Revegetated areas - Mid woodland / mallee woodland of mixed Eucalypts over open chenopod shrubland of *Atriplex* spp. / *Maireana* spp. on clay-loam plain.

**Clearing Description** Greenfinch Project.  
Edna May Operations Pty Ltd proposes to clear up to 16.6 hectares of native vegetation within a boundary of approximately 16.6 hectares, for the purpose of mineral production and associated activities. The project is located approximately one kilometre north-northwest of Westonia, at its nearest point, within the Shire of Westonia.

**Vegetation Condition** Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

To

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

**Comment** The vegetation condition was derived from a vegetation survey conducted by Botanica (2018).

The clearing permit application area is located immediately adjacent to the existing Edna May operational minesite, and the proposed clearing is for the expansion of mining operations at the site, including a new open pit, a waste rock dump and other mining related infrastructure. The proposed location of the new Greenfinch Pit

overlaps with a section of Warrachuppin Road (GIS Database). To allow the development of the Greenfinch open pit, a section of Warrachuppin Road is proposed to be relocated approximately 100 metres to the west of the current alignment.

The application area includes some areas of existing minesite disturbance, with no native vegetation.

This clearing permit application replaces previous application CPS 8069/1, which was refused by DMIRS on 1 November 2018, due to the significant environmental impacts of the proposed clearing. CPS 8069/1 applied to clear up to 62.3 hectares of native vegetation, while the current application is for 16.6 hectares, substantially reducing the environmental impacts of the Greenfinch Project.



**Figure 1:** Previous application area under CPS 8069/1. Applied to clear 62.3 hectares within the areas shown in red. Application Refused on 1 November 2018.



**Figure 2:** Current application area under CPS 8550/1. Applied to clear 16.6 hectares within the areas shown in yellow. Application Granted on 3 October 2019.

### 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 at variance to this Principle**

The clearing permit application area is located within the Merredin subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Avon Wheatbelt Bioregion (GIS Database). The Avon Wheatbelt bioregion contains proteaceous scrub-heaths with numerous endemic flora on residual lateritic uplands and derived sandplains; and mixed eucalypt, *Allocasuarina huegeliana* and Jam-York Gum woodlands (CALM, 2002). Due to the extensive clearing for agriculture, the remaining remnants of vegetation in the agricultural zone are considered important for biodiversity conservation (CALM, 2002).

The application area falls within the Westonia Town Common, which forms part of a larger remnant which is recognised as a significant remnant of native vegetation in a region that has been extensively cleared (WWF-Australia, 2007; GIS Database). The vegetation of the Westonia Town Common is characterised by gimlet, red morrel and salmon gum woodlands, and includes one of the largest 'reserved' red morrel (*Eucalyptus longicornis*) woodlands within the Intensive Land Use Zone (WWF-Australia, 2007). A survey of the Westonia Town Common conducted in 2007 recorded a total of 105 native fauna taxa, including 5 mammals, 5 reptiles and amphibians, 51 birds, and 44 invertebrates; a total of 203 native flora taxa; and 18 fungi and lichens (WWF-Australia, 2007). Four introduced mammal species and 22 weed species were also recorded during the survey. Although suffering disturbance over many years from human activities, including vehicle tracks, rubbish dumping and historical mining, the vegetation of the Westonia Town Common is generally in good condition and contains a high level of native flora and fauna diversity in comparison to the surrounding largely cleared landscape of the Wheatbelt (WWF-Australia, 2007).

A flora and vegetation survey was conducted over the original Greenfinch Project area by Botanica Consulting in April 2018. The flora survey covered an area of approximately 62.6 hectares, and recorded a total of 72 native flora taxa, from 34 genera and 21 families (Botanica, 2018). One conservation significant flora taxa (*Eremophila resinosa*) was recorded during the survey (Botanica, 2018).

The Threatened flora species *Eremophila resinosa* is known to occur within and surrounding the Edna May mine site (Botanica, 2019; DBCA, 2019b; GIS Database). The current clearing permit application area has been designed to avoid all known plants of *Eremophila resinosa*, however, some *E. resinosa* plants occur within close proximity to the application area (Botanica, 2019; DBCA, 2019b). The application area is considered to represent significant habitat for the species and is likely to contain a viable soil seedbank (DBCA, 2019b). No Priority flora species have been recorded within or in close proximity to the application area (Botanica, 2019; GIS Database).

A fauna survey conducted over areas surrounding the Edna May Minesite, including the current clearing permit application area, recorded several fauna species of conservation significance with the potential to occur within the application area (MWH, 2014).

A Federally listed Threatened Ecological Community (TEC), the 'Eucalypt woodlands of the Western Australian Wheatbelt', has been broadly mapped as occurring within the application area (GIS Database). This TEC is

listed as Critically Endangered under the (Federal) *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act listed TEC corresponds with the State-listed Priority Ecological Communities (PEC) 'Eucalypt woodlands of the Western Australia Wheatbelt' (Priority 3) and 'Red Morrel Woodland of the Wheatbelt' (Priority 1) (Botanica, 2018; DBCA, 2019a).

A flora and vegetation survey was conducted over the application area by Botanica Consulting (Botanica) in April 2018. An assessment of the vegetation types identified within the application area against the TEC diagnostic criteria determined that the following two vegetation associations recorded within the application area, represent the TEC (Botanica, 2018; 2019):

- CLP-EW1 (Eucalypt Woodland) – Mid woodland of *Eucalyptus longicornis* over isolated tall *Melaleuca pauperiflora* subsp. *fastigata* shrubs and low open chenopod shrubland of *Atriplex* spp. and open low forbland of *Sclerolaena diacantha* on clay-loam plain; and
- CLP-EW2 (Eucalypt Woodland) – Mid woodland of *Eucalyptus salubris* over open mid shrubland of *Santalum acuminatum* and open low shrubland of *Acacia hemiteles* / *Grevillea acuaria* on clay-loam plain.

Vegetation mapping conducted by Botanica (2019) determined that the proposed clearing area includes 9.3 hectares of vegetation representative of the Federally listed TEC. However, it is noted that the proposed clearing area (16.6 hectares) has substantially reduced the impacts to the TEC, and retains greater connectivity between TEC occurrences in the surrounding remnant vegetation, in comparison to the previous clearing permit application for the project (CPS 8069/1, which proposed clearing 39.1 hectares of the TEC).

Botanica (2018) recorded two weed species within the application area *Centaurea melitensis* (Maltese Cockspur), and *Carrichtera annua* (Wards Weed), neither of which are listed as a Declared Plant under the *Biosecurity and Agriculture Management Act 2007*. Several other weed species have been recorded within the Westonia Town Common (WWF-Australia, 2007). Weeds have the potential to out-compete native flora resulting in a reduction in biodiversity, and care should be taken to avoid the further introduction or spread of weeds. Potential impacts to biodiversity may be minimised by the implementation of a weed management condition.

The application area is immediately adjacent to the existing minesite, and includes some areas or existing disturbance such as mining infrastructure and roads (Botanica, 2019, GIS database), likely reducing the biodiversity of the application area in comparison to less disturbed parts of the surrounding native vegetation. However, the proposed clearing will impact the connectivity of an important area of remnant vegetation; the habitat for a Threatened flora species; potential habitat for fauna species of conservation significance, and a Federally listed TEC.

An Offset Proposal has been developed by the proponent, to offset the environmental impacts of the clearing, and the proposal must be approved by DMIRS prior to the commencement of clearing.

Based on the above, the proposed clearing is at variance to this Principle.

**Methodology** Botanica (2018)  
Botanica (2019)  
CALM (2002)  
DBCA (2019a)  
DBCA (2019b)  
MWH (2014)  
WWF-Australia (2007)

GIS Database:  
- IBRA Australia  
- Pre-European Vegetation  
- Threatened and Priority Flora  
- Threatened and Priority Ecological Communities Boundaries  
- Threatened and Priority Ecological Communities Buffers  
- Threatened Fauna

**(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**

A Level 1 fauna assessment of areas around the Edna May Minesite including the current clearing permit application area, was undertaken by MWH in October 2013 and June 2014. The fauna assessment collected information on terrestrial vertebrate fauna, short-range endemics (SRE) invertebrate fauna and fauna habitats. An on-site fauna survey was conducted, over a total area of approximately 166 hectares, including the current clearing permit application area (MWH, 2014). Four broad fauna habitats were recorded in the larger survey area and three of these were mapped within the current application area (Botanica, 2019; MWH, 2014):

- Mixed Woodland dominated by Red Morrel (*Eucalyptus longicornis*) – all vegetated application areas

- to the west of the minesite were mapped as this habitat type;
- Mixed Woodland dominated by Gimlet (*Eucalyptus salubris*) – this habitat type was mapped in the drainage bund application area, to the east of the existing minesite; and
- Disturbed – small areas of existing disturbance, within the application areas to the west of the existing minesite, and including the current alignment of Warrachuppin Road.

MWH (2014) considers the larger remnant of vegetation that the application area is located in as significant to vertebrate fauna. The application area lies within an approximately 2,000 hectare remnant of native vegetation in a region that has been extensively cleared. MWH (2014) reported that research has identified a strong correlation between the size of native vegetation remnants and vertebrate species diversity. Reducing the size of fauna habitats may reduce the quality of the habitat due to fragmentation and edge effects (MWH, 2014).

A total of 37 fauna species were recorded during the MWH (2014) on-site fauna survey, comprising of 23 native bird species, eight native mammals, three reptiles and three introduced species. The desktop analysis determined that 12 fauna species of conservation significance were considered either possible, likely or very likely to occur within the survey area, based on known distributions. Since the desktop analysis was undertaken, several species are no longer listed and this has reduced the number of potential conservation significant fauna species to seven, as follows (MWH, 2014):

- Carnaby's Cockatoo (*Calyptorhynchus latirostris*) – Endangered;
- Malleefowl (*Leipoa ocellata*) – Vulnerable;
- Chuditch (*Dasyurus geoffroi*) – Vulnerable;
- Red-tailed Phascogale (*Phascogale calura*) – Conservation Dependant;
- Western Spiny-tailed Skink (*Egernia stokesii badia*) – Vulnerable;
- Shield-backed Trapdoor Spider (*Idiosoma nigrum*) – Endangered; and
- Tree-stem Trapdoor Spider (*Aganippe castellum*) – Priority 4.

Based on fauna habitat preferences, MWH (2014) concluded that the Western Spiny-tailed Skink was very likely to occur within the survey area, and Carnaby's Cockatoo was likely to occur, while the remainder of the species (listed above) were considered to possibly occur (MWH, 2014). It should be noted that the fauna survey area (approximately 166 hectares) was significantly larger than the current clearing permit application area (16.6 hectares) and included areas further away from the existing minesite disturbance which may have higher fauna habitat values. However, no conservation significant fauna species were recorded within the survey area during the on-site survey (MWH, 2014).

Numerous records of Malleefowl have been recorded within a 15 kilometre radius of the broader survey area, however the majority of these records were over 10 years old (MWH, 2014). MWH (2014) reported that the broader survey area may be suitable for Malleefowl foraging but was unlikely to be suitable for Malleefowl mound construction as the vegetation was generally not dense enough.

The Western Spiny-tailed Skink is known to persist in woodland remnants as small as one hectare (MWH, 2014). Although suitable woodland habitat occurred throughout the fauna survey area, this species is most likely to be found in areas containing numerous fallen logs (MWH, 2014). Three sites within the survey area were identified as the most likely areas to support this species, however, all three of these sites were located outside of the current clearing permit application area, with the nearest potential site located approximately 500 metres to the north of the application area, at its nearest point (MWH, 2014; GIS Database).

A targeted Carnaby's Cockatoo (*Calyptorhynchus latirostris*) habitat assessment was conducted over the application area by zoologist Greg Harewood in April 2018. Several potential breeding habitat trees were recorded within the application area, however only three of these trees contained hollows, none of which were large enough to be suitable for Carnaby's Cockatoo nesting purposes. The potential cockatoo foraging habitat present appears to be limited in quality and extent with little variety in species composition (Harewood, 2018). No evidence of roosting activity was observed and no individual Carnaby's Cockatoos were observed. Harewood (2018) concluded that the application area is unlikely to represent an area of specific significance to Carnaby's Cockatoo.

While conservation significant fauna may occur within the application area, none are likely to be specifically dependant on the habitats within the application area, as the habitat types extend outside of the application area into the surrounding remnant vegetation.

The vegetation to be cleared provides a fauna linkage between sections of the Westonia Town Common and the proposed clearing will partially disrupt this linkage. However, it is noted that the proposed clearing area (16.6 hectares) has substantially reduced the impacts to fauna habitats, and retains greater connectivity for fauna between the adjacent areas of remnant vegetation, in comparison to the previous clearing permit application for the project (CPS 8069/1, which proposed completely removing vegetation linkages).

The application area is immediately adjacent to the existing minesite, and includes some areas of existing disturbance such as mining infrastructure and roads (GIS Database). The application areas are unlikely to represent significant habitat for fauna in comparison to less disturbed or more protected parts of the surrounding native vegetation.

Based on the above, the proposed clearing may be at variance to this Principle.

**Methodology** Botanica (2019)  
Harewood (2018)  
MWH (2014)

GIS Database:  
- Imagery  
- Pre-European Vegetation  
- Threatened Fauna

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments** **Proposal is at variance to this Principle**

The Threatened flora species *Eremophila resinosa* is known to occur within and surrounding the Edna May mine site (Botanica, 2019). *Eremophila resinosa* is listed as Endangered at both the State and the Commonwealth level. There are only 25 known populations of *Eremophila resinosa*, the largest of which occurs adjacent to the Edna May Minesite (DBCA, 2019b). *Eremophila resinosa* occurs within the highly cleared and fragmented landscape of the Wheatbelt, and the majority of the populations are small and located on narrow road reserves, where their longterm survival is at risk (DBCA, 2019b).

The remnant vegetation adjacent to the Edna May minesite (which includes the current clearing permit application area) supports three populations of *Eremophila resinosa* (DBCA, 2019b; GIS Database). The Department of Biodiversity, Conservation and Attractions (DBCA) has advised that this represents the largest area of contiguous vegetation supporting *E. resinosa*, and is considered highly significant to the conservation of the species (DBCA, 2019b). Habitat critical to the survival of *E. resinosa* includes the area of occupancy of extant populations, and areas of similar habitat surrounding important populations (DBCA, 2019b).

Monitoring (conducted by or on behalf of Edna May/Ramelius) of natural populations of *Eremophila resinosa* in the vicinity of the Edna May minesite has shown that these populations are in decline. However, DBCA notes that *E. resinosa* is a disturbance opportunist and that research by the Botanic Gardens and Parks Authority has demonstrated that older seeds of *E. resinosa* retain the ability to germinate when treated with smoke water. Therefore, even though remaining natural populations are in decline, DBCA (2019b) considers that *E. resinosa* is likely to have the capacity to regenerate across its known habitat, in the event of a natural disturbance event, such as fire.

No known plants of *Eremophila resinosa* occur within the clearing permit application area, however some plants occur within close proximity to the application area (Botanica, 2019; DBCA, 2019b). The location of plants to the north, south and in between the proposed disturbance areas, confirms the likelihood that suitable habitat exists for *E. resinosa* within the Greenfinch Project area (DBCA, 2019b). DBCA (2019b) has concluded that the known habitat remains significant as a potential soil seed bank and buffer to extant populations, and removal of part of the existing habitat will reduce the potential for the species to regenerate following a natural disturbance event and reduce the potential survival of the species in the longterm.

Approval under the *Biodiversity Conservation Act 2016* (BC Act) will be required for any direct or indirect impacts to *Eremophila resinosa* plants (live or dead) or soil seed banks (DBCA, 2019b). The proponent is advised to apply to DBCA for an Authorisation to take Threatened flora under the BC Act, to cover potential inadvertent impacts to *E. resinosa* or its known habitat.

The proposed clearing area (16.6 hectares) has substantially reduced the impacts to the known habitat of *Eremophila resinosa*, in comparison to the previous project proposal (CPS 8069/1) and retains greater connectivity between subpopulations of *E. resinosa* (DBCA, 2019b). However, the vegetation proposed to be cleared represents significant habitat for *E. resinosa*. An Offset Proposal has been developed by the proponent, to offset the environmental impacts of the clearing, and the proposal must be approved by DMIRS prior to the commencement of clearing.

Based on the above, the proposed clearing is at variance to this Principle.

**Methodology** Botanica (2019)  
DBCA (2019b)

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

**(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 state listed Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database). A flora and vegetation survey of the application area did not identify

any state listed TECs (Botanica, 2019).

However, there is a Federally listed TEC within the application area, and this is discussed in Principle (a). Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Botanica (2019)

GIS Database:

- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

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

The application area falls within the Merredin subregion of the Avon Wheatbelt Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 18.5% of the pre-European vegetation still exists in the IBRA Avon Wheatbelt Bioregion (Government of Western Australia, 2019).

The permit area is broadly mapped as Beard vegetation association 536: Medium woodland; morrell and rough fruited mallee (*Eucalyptus corrugata*) (GIS Database), which retains approximately 41 percent and 35 percent of the pre-European extent at the State and Bioregional level, respectively (Government of Western Australia, 2019). At this level, the vegetation association is considered to have a conservation status of "Depleted" (Department of Natural Resources and Environment, 2002). However, it remains above the 30 percent threshold level recommended in the National Objectives and Targets for Biodiversity Conservation, below which, species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

The proposed clearing of an additional 16.6 hectares will not reduce this level below the 30 per cent threshold and will not alter the conservation status of this Beard vegetation association.

The application area falls within the Westonia Town Common, which is recognised as one of the largest remnants of native vegetation in the Avon Wheatbelt, a region that has been extensively cleared, predominantly for agricultural purposes. The proposed clearing of up to 16.6 hectares will reduce the size and connectivity of the larger remnant, and may indirectly impact the condition of neighbouring vegetation.

The proposed clearing area is located within a significant remnant of native vegetation in a largely cleared area. However, the area to be cleared is not in itself a significant remnant. The application area occurs immediately adjacent to an existing minesite and includes some existing minesite disturbance. More protected, less disturbed portions of the Westonia Town Common are likely to be in better condition and have higher ecological values.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA Managed Lands (and post clearing %)
IBRA Bioregion - Avon Wheatbelt	9,517,109	1,761,187	18.5	Vulnerable	2.4 (9.9)
IBRA Subregion - Merredin	6,524,180	1,367,565	20.9	Vulnerable	2.5 (9.2)
Local Government - Westonia	331,938	130,983	39.4	Depleted	8.1 (18.7)
<b>Beard vegetation associations - State</b>					
536	13,177	5,432	41.2	Depleted	9.8 (23.5)
<b>Beard vegetation associations - Avon Wheatbelt Bioregion</b>					
536	11,170	3,970	35.5	Depleted	11.5 (32.1)
<b>Beard vegetation associations - Merredin subregion</b>					
536	11,170	3,970	35.5	Depleted	11.5 (32.1)

\* Government of Western Australia (2019)

\*\* Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing may be at variance to this Principle.

**Methodology** Department of Natural Resources and Environment (2002)  
EPA (2000)  
Government of Western Australia (2019)

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 not likely to be at variance to this Principle**

There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). One minor seasonal drainage line passes through the separate linear section of the application area which is located on the eastern side of the existing minesite. Clearing in this area is for the purpose of a drainage bund and is a requirement for the safe operations of the minesite. The flora and vegetation survey of the application area did not identify any vegetation growing in association with watercourses (Botanica, 2019).

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

**Methodology** Botanica (2019)

GIS Database:  
- Hydrography, 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 is not likely to be at variance to this Principle**

At a broad scale, the application area is mapped as Soil Type Oc33, which is described as: undulating plains with some low gilgais; chief soils seem to be hard alkaline red soils in intimate and complex association with calcareous earths (Northcote et al., 1960-68; GIS Database). These soil types are said to be slowly permeable and have low wind erodability (Schoknecht, 2002). Therefore, the likelihood of erosion occurring during normal rainfall events is low.

The proposed clearing of 16.6 hectares of native vegetation is not likely to result in appreciable land degradation. Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Northcote et al. (1960-68)  
Schoknecht (2002)

GIS Database:  
- Soils, Statewide

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

The nearest Department of Biodiversity Conservation and Attractions managed land is the Sandford Rocks Nature Reserve, located approximately six kilometres northeast of the application area (GIS Database).

The application area falls within the Westonia Town Common (Crown Reserve 14983) (GIS Database), which is managed by the Shire of Westonia for purposes including conservation. The Westonia Town Common consists of several Crown Reserves covering a total area of approximately 2,000 hectares, and forms part of a larger remnant which is recognised as a significant remnant of native vegetation in a region that has been extensively cleared, predominantly for agricultural purposes (Botanica, 2019; WWF, 2007; GIS Database).

The proposed clearing will further reduce ecological linkages between the sections of remnant vegetation which surround the minesite and form part of the Westonia Town Common. However, the proposed clearing area (16.6 hectares) has substantially reduced the impacts and retains greater connectivity in comparison to the previous project proposal (CPS 8069/1).

Based on the above, the proposed clearing may be at variance to this Principle.

**Methodology** Botanica (2019)  
WWF (2007)

GIS Database:  
- DPaW Tenure  
- Imagery  
- Reserves

**(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 area proposed to clear (GIS Database). The proposed clearing is unlikely to result in significant changes to surface water quality.

The proposed clearing is unlikely to cause deterioration in the quality of underground water.

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

**Methodology** GIS Database:  
- Hydrography, Lakes  
- 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 Mediterranean, with an average rainfall of approximately 332 millimetres per year (CALM, 2002). The annual pan evaporation rate is estimated at more than 2,000 millimetres and average monthly evaporation is higher than average monthly rainfall throughout the year (Botanica, 2019).

There are no permanent water courses or waterbodies within the application area (GIS Database). There is one seasonal drainage line passing through the application area, and temporary localised flooding may occur briefly following 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** Botanica (2019)  
CALM (2002)

GIS Database:  
- Hydrographic Catchments - Catchments  
- Hydrography, linear



## Planning Instrument, Native Title, previous EPA decision or other matter.

### Comments

The clearing permit application was advertised on 1 July 2019 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. One submission was received in relation to this application, raising concerns about the cumulative impacts of ongoing clearing of native vegetation from the continued expansion of the minesite. This matter has been addressed under Principle (e).

There is one native title claim (WC2017/007) over the area under application (DPLH, 2019). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. 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 within the application area (DPLH, 2019). 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.

The original Green Finch project proposal was referred to the Environmental Protection Authority under Part IV of the *Environmental Protection Act 1986* (the EP Act). On 24 April 2018 the EPA made a decision not to assess the proposal, allowing it to be dealt with under Part V (Clearing) of the EP Act.

This proposal is currently under assessment by the Federal Department of Environment and Energy (DoEE), under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), due to the potential impacts of the project on Matters of National Environmental Significance – Species and Communities.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, 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** DPLH (2019)

## 4. References

- Botanica (2018) Reconnaissance Flora and Vegetation Survey Greenfinch Project. Report prepared for Ramelius Resources Limited, by Botanica Consulting, April 2018.
- Botanica (2019) Environmental Assessment Greenfinch Project Clearing Permit Application M77/88 and M77/124. Report prepared for Ramelius Resources Limited, by Botanica Consulting, June 2019.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DBCA (2019a) Advice received in relation to Clearing Permit Application CPS 8550/1 (TEC advice). Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, August 2019.
- DBCA (2019b) Advice received in relation to Clearing Permit Application CPS 8550/1 (Flora advice). Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, August 2019.
- DPLH (2019) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage.  
<http://maps.daa.wa.gov.au/AHIS/> (Accessed 2 October 2019).
- 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.
- EPA (2000) Environmental Protection of Native Vegetation in Western Australia. Clearing of Native Vegetation, with Particular Reference to the Agricultural Area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.
- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth.  
<https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Harewood, G. (2018) Carnaby's Black Cockatoo Habitat Assessment - Greenfinch Project. Report prepared for Ramelius Resources Limited, by Greg Harewood, April 2018.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- MWH (2014) Edna May and Greenfinch Projects Level 1 Fauna Assessment. Report prepared for Evolution Mining Limited, by Outback Ecology, MWH Australia Pty Ltd, July 2014.
- Northcote, K.H., Beckmann, G.G., Bettenay, E., Churchward, H.M., van Dijk, D.C., Dimmock, G.M., Hubble, G.D., Isbell, R.F., McArthur, W.M., Murtha, G.G., Nicolls, K.D., Paton, T.R., Thompson, C.H., Webb, A.A. and Wright, M.J. (1960-68) 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Schoknecht, N. (2002) Soil Groups of Western Australia. A simple guide to the main Soils of Western Australia. Third Edition. Resource Management Technical Report 246. Department of Agriculture, South Perth, Western Australia.
- WWF-Australia (2007) Westonia BioBlitz Report 2007 - Westonia Town Common. World Wildlife Fund Australia, September 2007.

## 5. Glossary

### Acronyms:

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

### Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

#### **T**            **Threatened species:**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

**Threatened fauna** is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

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 in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

#### **EN**            **Endangered species**

Threatened species considered to be “*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

**VU****Vulnerable species**

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

**Extinct Species:****EX****Extinct species**

Species where “*there is no reasonable doubt that the last member of the species has died*”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

**EW****Extinct in the wild species**

Species that “*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

**Specially protected species:**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

**MI****Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes 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 fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**CD****Species of special conservation interest (conservation dependent fauna)**

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**OS****Other specially protected species**

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**P****Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species 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.