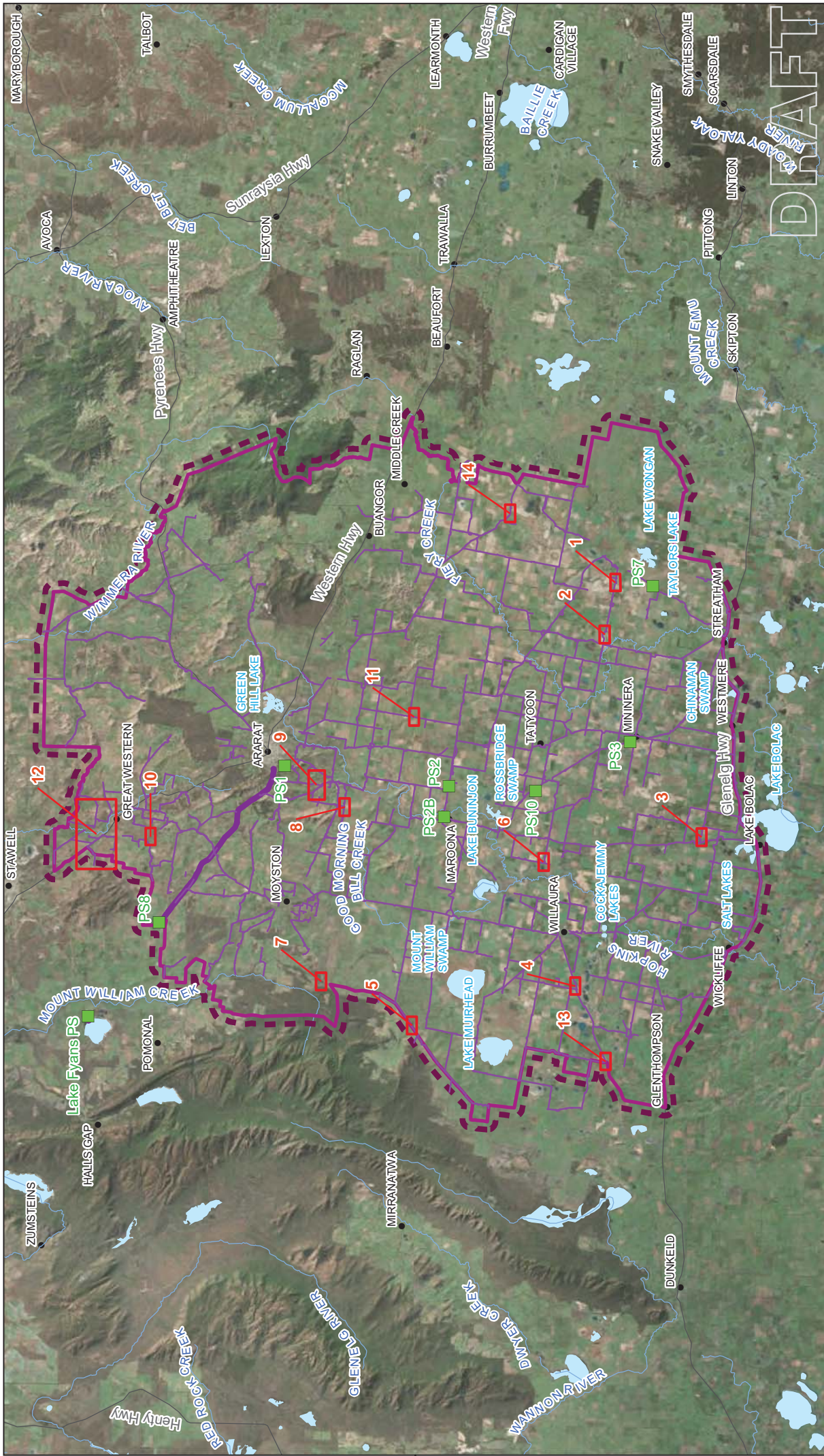


# Appendix J – Map-book of targeted flora and vegetation surveys



Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys Revision G  
 Job Number 31-36625  
 Date 13/03/2019

**GHD**  
 Location of targeted flora and vegetation community surveys Overview

Paper Size A4  
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 Metres  
 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

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**LEGEND**  
 • Township point  
 ■ Pump Stations  
 — Pipeline Alignment  
 — Great Western Off  
 — Take to Ararat  
 — Major road  
 — Major water course  
 — Rural Supply Area Boundary  
 ■ Page Number  
 ■ Major water area



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Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys  
 Job Number 31-36625  
 Revision G  
 Date 13/03/2019



Location of targeted flora  
 and vegetation community surveys

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Appendix J

G:\3136625\GIS\Maps\Deliverables\3136625\_KBM\_A4L.mxd  
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 Data source: DEWLP, VicMap, Grampians Wimmera Mallee Water, 2018-2019; Imagery source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS-USA, USGS, AeroGRID, IGN and the GIS User Community. GHD, 2019. Created by: Cjainiau



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 GWNWater East Grampians Pipeline Ecology Surveys Revision | G  
 Date | 13/03/2019



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**Appendix J**

Location of targeted flora and vegetation community surveys

**LEGEND**

Study Area	Targeted Assessment November	Assessed HDD	X Native Vegetation
Rural Supply Area Boundary	Road	Drain/Channel/O...	X Wetland
		Pipeline Corridor	X Impact
		Trench	
		Not assessed	

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 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

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 Data source: DEWLP, VicMap, Grampians Wimmera Mallee Water, 2018-2019; Imagery source: Esri, DigitalGlobe, Geoeye, Earthstar Geographics, CNES/Airbus DS-USA, USGS/Airbus DS-USA, IGN and the GIS User Community, GHD, 2019 Created by: Cjainiau



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Job Number | 31-36625  
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 GWMWater East Grampians Pipeline Ecology Surveys Revision | G  
 Date | 13/03/2019

**GHD**

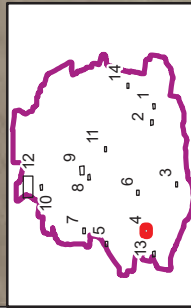
Location of targeted flora  
 and vegetation community surveys

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**LEGEND**

Study Area Rural Supply Area Boundary	<b>Targeted Assessment</b> Targeted Assessment Road	<b>Watercourse</b> Stream Drain/Channel/O... <b>Pipeline Corridor</b> Not assessed	<b>Assessed</b> HDD Trench X Impact	X Native Vegetation X Wetland
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 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984



Grampians Wimmera Mallee Water | Job Number | 31-36625  
 GWMWater East Grampians Pipeline Ecology Surveys Revision | G |  
 Date | 13/03/2019



Location of targeted flora  
 and vegetation community surveys

**LEGEND**  
 Study Area  
 Rural Supply Area  
 Boundary  
 Targeted  
 Assessment  
 November  
 Road  
 Watercourse  
 Stream  
 Pipeline Corridor  
 X Not assessed  
 X Impact  
 Assessed  
 HDD  
 Trench  
 X Native Vegetation  
 X Wetland

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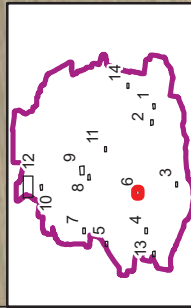
Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys Revision G  
 Job Number 31-36625  
 Date 13/03/2019



Location of targeted flora and vegetation community surveys

Study Area	Assessed	X Native Vegetation
Rural Supply Area	HDD	X Wetland
Boundary	Stream	X Impact
Targeted Assessment November	Pipeline Corridor	Trench
Road	Not assessed	

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 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984



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 Metres  
 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

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**LEGEND**  
 Potential Habitat for Lachnagrostis adamsonii Study Area Rural Supply Area Boundary  
 Targeted Assessment November Road  
 Watercourse Stream  
 Pipeline Corridor Not assessed Trench X Impact  
 Assessed HDD  
 X Native Vegetation X Wetland

GHD  
 Location of targeted flora and vegetation community surveys

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Grampians Wimmera Mallee Water | Job Number | 31-36625  
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 Date | 13/03/2019

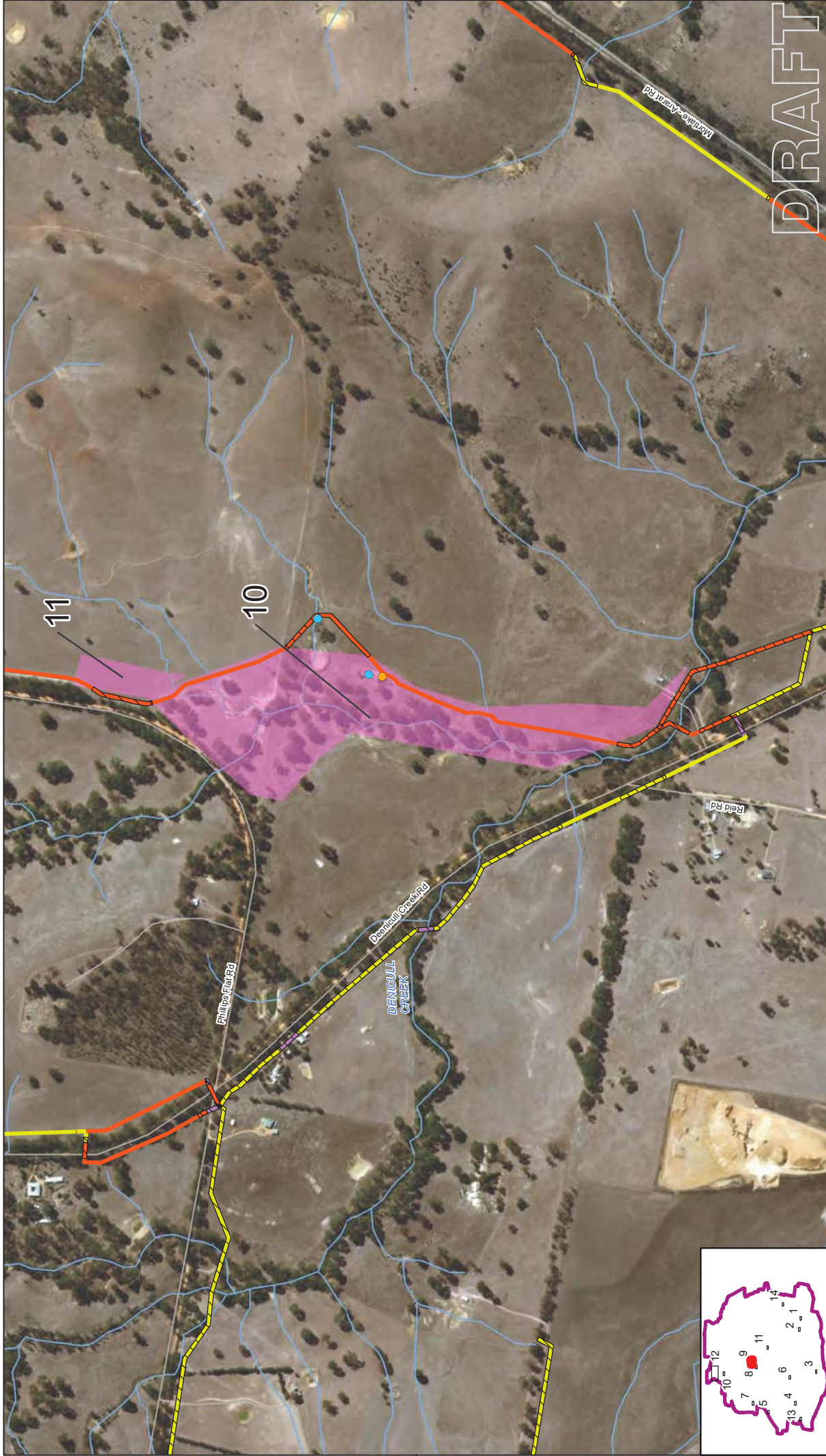
**Location of targeted flora and vegetation community surveys**



- LEGEND**
- Study Area
  - Rural Supply Area
  - Boundary
  - Targeted Assessment October
  - Stream
  - Pipeline Corridor
  - Trench
  - X Impact
  - Not assessed
  - Road
  - Assessed
  - HDD
  - X Native Vegetation
  - X Wetland

Paper Size A4  
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 Metres

Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984



Gramplains Wimmera Mallee Water  
 GWMWater East Gramplains Pipeline Ecology Surveys  
 Job Number 31-36625  
 Revision G  
 Date 13/03/2019



Location of targeted flora  
 and vegetation community surveys

**Pipeline Corridor**  
 Not assessed  
 Impact  
 Native Vegetation

**Assessed**  
 HDD  
 Trench

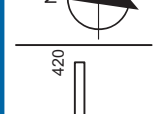
**Rytidosperra monticola**

**Watercourse**  
 Stream

**Threatened flora and communities**  
 Leptorhynchus orientalis

Road

**LEGEND**  
 Study Area  
 Rural Supply Area Boundary  
 Targeted Assessment November



Paper Size A4  
 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984



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Grampians Wimmera Mallee Water  
 GWNWater East Grampians Pipeline Ecology Surveys Revision G  
 Job Number 31-36625  
 Date 13/03/2019

**GHD**

Location of targeted flora  
 and vegetation community surveys

**LEGEND**

- Study Area
- Rural Supply Area
- Boundary
- Targeted Assessment October
- Stream
- Pipeline Corridor
- Trench
- Road
- Assessed
- HDD
- X Native Vegetation
- X Wetland
- X Impact
- X Not assessed

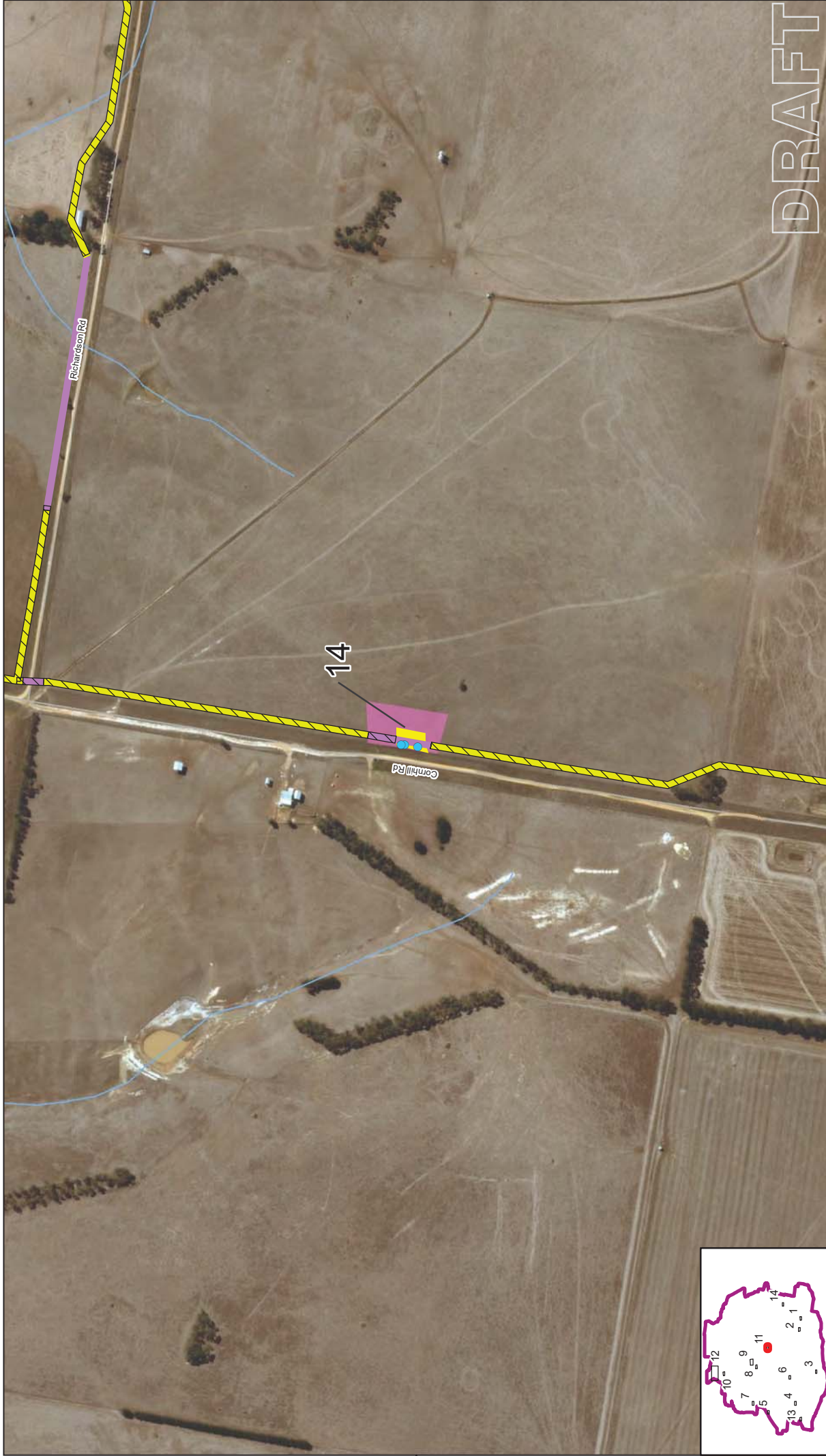
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Metres

Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

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 GWMWater East Grampians Pipeline Ecology Surveys

**GHD**

Location of targeted flora  
 and vegetation community surveys

EPBC Act/FFG Act listed community  Not assessed  Assessed  Impact  X Native Vegetation  X Wetland

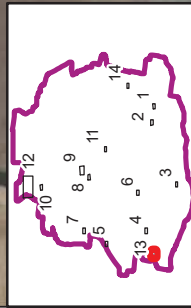
Watercourse  Stream  HDD  Trench

Threatened flora and communities  Leptorhynchus orientalis

Study Area  Rural Supply Area Boundary  Targeted Assessment November

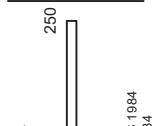
Road





**LEGEND**

- Study Area
- Rural Supply Area Boundary
- Road
- Threatened flora and communities  
Lachnagrostis adamsonii
- Watercourse  
Drain/Channel/O...
- Pipeline Corridor  
 Not assessed
- Assessed  
HDD  
Trench  
X Impact
- X Native Vegetation
- X Wetland



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Job Number 31-36625  
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**GHD**

Location of targeted flora and vegetation community surveys



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**LEGEND**

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## Appendix K – Threatened fauna considered (VBA and PMST)

### Key to table

VBA	Victorian Biodiversity Atlas
PMST	Protected Matters Search Tool (EPBC Act)
EPBC	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
FFG	<i>Flora and Fauna Guarantee Act 1988</i>
DELWP	DELWP Advisory List of Threatened Vertebrates or Invertebrates in Victoria
Records	Number of records within search area (VBA)
Source	Indicates if record is from the PMST or VBA. VBA records are displayed as the most recent date of record.

### Status of species:

CR	Critically Endangered
EN	Endangered
VU	Vulnerable
L	Listed as threatened under the FFG Act
NT	Near Threatened
EW	Extinct in the Wild

Scientific Name	Common Name	EPBC	FF G	DELW P	Records	Source
<b>Mammals</b>						
Smoky Mouse	<i>Pseudomys fumeus</i>	EN	L	EN	0	PMST
Spot-tailed Quoll	<i>Dasyurus maculatus maculatus</i>	EN	L	EN	0	PMST
Eastern Barred Bandicoot	<i>Perameles gunnii</i>	EN	L	EW	3	2005
Southern Brown Bandicoot	<i>Isoodon obesulus obesulus</i>	EN	L	NT	12	2001/ PMST
Brush-tailed Rock-wallaby	<i>Petrogale penicillata</i>	VU	L	CR	0	PMST
Heath Mouse	<i>Pseudomys shortridgei</i>	VU	L	NT	17	1971/ PMST
Long-nosed Potoroo	<i>Potorous tridactylus</i>	VU	L	NT	4	1969/ PMST
Grey-headed Flying-fox	<i>Pteropus poliocephalus</i>	VU	L	VU	1	1973/ PMST
Squirrel Glider	<i>Petaurus norfolcensis</i>		L	EN	3	2006
Brush-tailed Phascogale	<i>Phascogale tapoatafa</i>		L	VU	35	2016
<b>Birds</b>						
Plains-wanderer	<i>Pedionomus torquatus</i>	CR	L	CR	4	1988/ PMST
Regent Honeyeater	<i>Anthochaera (Xanthomyza) phrygia</i>	CR	L	CR	1	1898/ PMST
Curlew Sandpiper	<i>Calidris ferruginea</i>	CR	L	EN	9	2004/ PMST
Swift Parrot	<i>Lathamus discolor</i>	CR	L	EN	13	2004/ PMST
Eastern Curlew	<i>Numenius madagascariensis</i>	CR	L	VU	0	PMST
Bar-tailed Godwit	<i>Limosa lapponica</i>	CR or VU			1	1965
Australian Painted Snipe	<i>Rostratula australis (=benghalensis)</i>	EN	L	CR	1	1965/ PMST
Australasian Bittern	<i>Botaurus poiciloptilus</i>	EN	L	EN	7	1998/ PMST
Red Knot	<i>Calidris canutus</i>	EN		EN	3	1986
Night Parrot	<i>Pezoporus occidentalis</i>	EN		RX	0	PMST
Malleefowl	<i>Leipoa ocellata</i>	VU	L	EN	0	PMST
Painted Honeyeater	<i>Grantiella picta</i>	VU	L	VU	0	PMST
Australian Bustard	<i>Ardeotis australis</i>		L	CR	2	1905
Barking Owl	<i>Ninox connivens</i>		L	EN	12	2011
Blue-billed Duck	<i>Oxyura australis</i>		L	EN	51	2004
Bush Stone-curlew	<i>Burhinus grallarius</i>		L	EN	2	1993
Freckled Duck	<i>Stictonetta naevosa</i>		L	EN	21	1999

Scientific Name	Common Name	EPBC	FF G	DELW P	Records	Source
Grey-crowned Babbler	<i>Pomatostomus temporalis</i>		L	EN	2	1980
Gull-billed Tern	<i>Sterna nilotica</i>		L	EN	14	1988
Intermediate Egret	<i>Ardea intermedia</i>		L	EN	4	2005
Little Egret	<i>Egretta garzetta</i>		L	EN	2	1990
Caspian Tern	<i>Sterna caspia</i>		L	NT	1	1965
Crested Bellbird	<i>Oreoica gutturalis</i>		L	NT	1	1894
Diamond Dove	<i>Geopelia cuneata</i>		L	NT	3	1978
Diamond Firetail	<i>Stagonopleura guttata</i>		L	NT	27	2014
Hooded Robin	<i>Melanodryas cucullata</i>		L	NT	14	2004
Magpie Goose	<i>Anseranas semipalmata</i>		L	NT	1	1994
Baillon's Crake	<i>Porzana pusilla</i>		L	VU	1	2001
Black Falcon	<i>Falco subniger</i>		L	VU	5	1990
Brolga	<i>Grus rubicunda</i>		L	VU	421	2016
Chestnut-rumped Heathwren	<i>Hylacola pyrrhopygia</i>		L	VU	8	2001
Eastern Great Egret	<i>Ardea modesta (=alba)</i>		L	VU	44	2012
Grey Goshawk	<i>Accipiter novaehollandiae</i>		L	VU	2	2005
Lewin's Rail	<i>Rallus pectoralis</i>		L	VU	2	1987
Powerful Owl	<i>Ninox strenua</i>		L	VU	31	2014
Red-chested Button-quail	<i>Turnix pyrrhotorax</i>		L	VU	1	1965
Speckled Warbler	<i>Chthonicola sagittata</i>		L	VU	24	2005
Square-tailed Kite	<i>Lophoictinia isura</i>		L	VU	11	2001
White-throated Needletail	<i>Hirundapus caudacutus</i>		L	VU	11	2014/ PMST
Australasian Shoveler	<i>Anas rhynchotis</i>			VU	242	2008
Black-tailed Godwit	<i>Limosa limosa</i>			VU	2	1965
Common Greenshank	<i>Tringa nebularia</i>			VU	17	2004/ PMST
Common Sandpiper	<i>Actitis hypoleucos</i>			VU	1	2012/ PMST
Elegant Parrot	<i>Neophema elegans</i>			VU	5	1999
Hardhead	<i>Aythya australis</i>			VU	140	2006
Marsh Sandpiper	<i>Tringa stagnatilis</i>			VU	2	1986
Musk Duck	<i>Biziura lobata</i>			VU	163	2008
Pacific Golden Plover	<i>Pluvialis fulva</i>			VU	1	1965

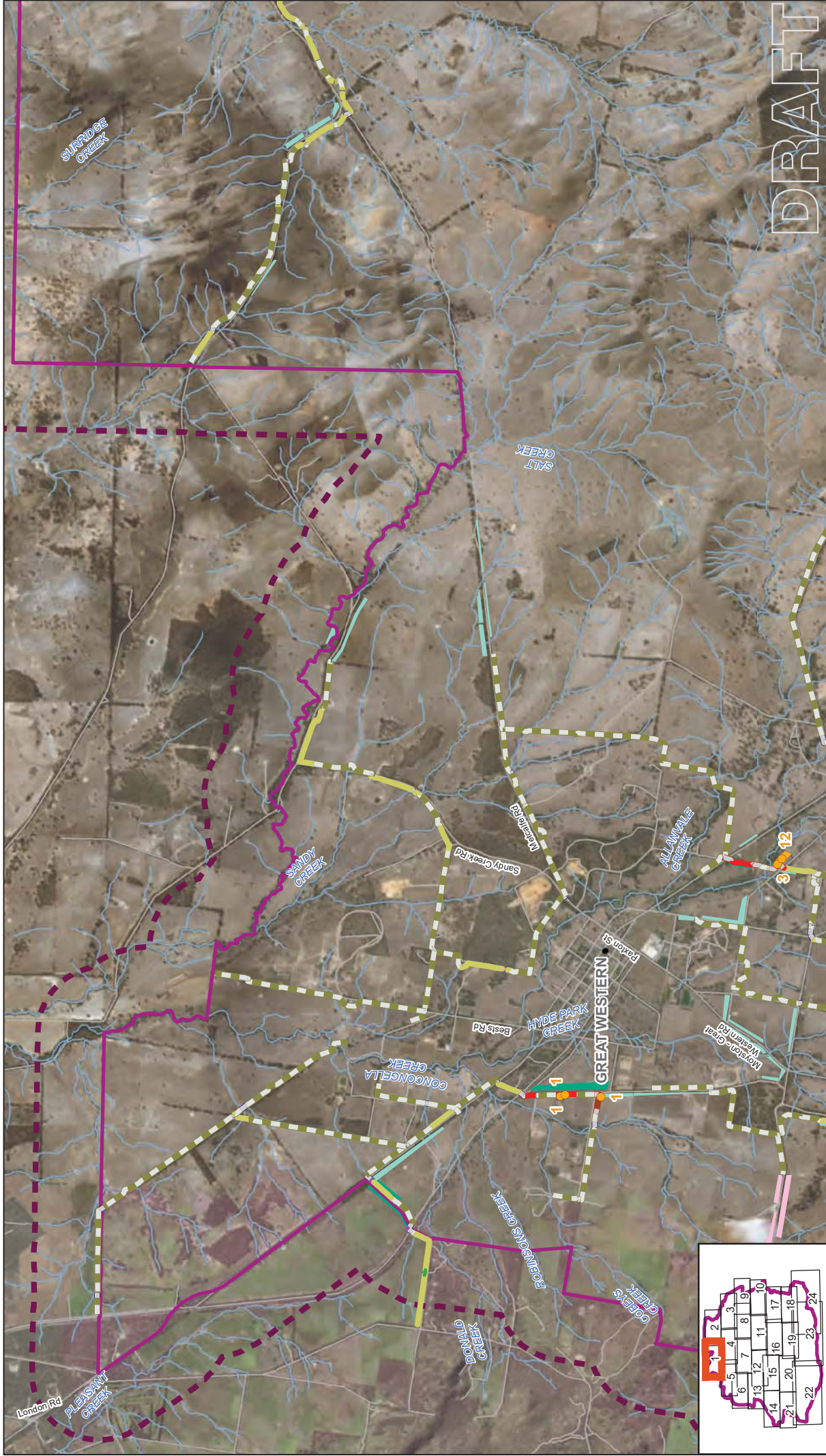
Scientific Name	Common Name	EPBC	FF G	DELW P	Records	Source
<b>Reptiles</b>						
Corangamite Water Skink	<i>Eulamprus tympanum marnieae</i>	EN	L	CR	1	1998/ PMST
Pink-tailed Worm-Lizard	<i>Aprasia parapulchella</i>	VU	L	EN	0	PMST
Striped Legless Lizard	<i>Delma impar</i>	VU	L	EN	142	2015/ PMST
Lace Monitor	<i>Varanus varius</i>			EN	12	2011
Bearded Dragon	<i>Pogona barbata</i>			VU	10	2013
Tussock Skink	<i>Pseudemoia pagenstecheri</i>			VU	123	2010
<b>Frogs</b>						
Growling Grass Frog	<i>Litoria raniformis</i>	VU	L	EN	34	2011 / PMST
Brown Toadlet	<i>Pseudophryne bibronii</i>		L	EN	122	2014
Southern Toadlet	<i>Pseudophryne semimarmorata</i>			VU	1	2012
<b>Invertebrates</b>						
Golden Sun Moth	<i>Synemon plana</i>	CR	L	CR	213	2012/ PMST
Glenelg Spiny Cray	<i>Euastacus bispinosus</i>	EN	L	EN	1	2001
Giant Gippsland Earthworm	<i>Megascolides australis</i>	VU	L	EN	3	2014
Western Swamp Cray	<i>Gramastacus insolitus</i>		L	CR	1	1969
Yellow Sedge Skipper	<i>Hesperilla flavescens flavescens</i>		L	VU	6	1989
Western Cray	<i>Geocharax falcata</i>			EN	4	2007

## Appendix L – Migratory fauna considered (VBA and PMST)

Common name	Scientific Name
Common Sandpiper	<i>Actitis hypoleucos</i>
Fork-tailed Swift	<i>Apus pacificus</i>
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>
Red Knot	<i>Calidris canutus</i>
Curlew Sandpiper	<i>Calidris ferruginea</i>
Pectoral Sandpiper	<i>Calidris melanotos</i>
Red-necked Stint	<i>Calidris ruficollis</i>
Long-toed Stint	<i>Calidris subminuta</i>
Double-banded Plover	<i>Charadrius bicinctus</i>
Latham's Snipe	<i>Gallinago hardwickii</i>
White-throated Needletail	<i>Hirundapus caudacutus</i>
Bar-tailed Godwit	<i>Limosa lapponica</i>
Black-tailed Godwit	<i>Limosa limosa</i>
Yellow Wagtail	<i>Motacilla flava</i>
Satin Flycatcher	<i>Myiagra cyanoleuca</i>
Eastern Curlew	<i>Numenius madagascariensis</i>
Night Parrot	<i>Pezoporus occidentalis</i>
Ruff	<i>Philomachus pugnax</i>
Glossy Ibis	<i>Plegadis falcinellus</i>
Pacific Golden Plover	<i>Pluvialis fulva</i>
Rufous Fantail	<i>Rhipidura rufifrons</i>
Caspian Tern	<i>Sterna caspia</i>
Gull-billed Tern	<i>Sterna nilotica</i>
Common Greenshank	<i>Tringa nebularia</i>
Marsh Sandpiper	<i>Tringa stagnatilis</i>

## Appendix M – Threatened fauna habitat





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Job Number 31-36625  
 Revision J  
 Date 13/03/2019

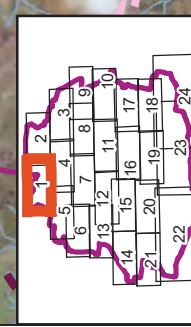
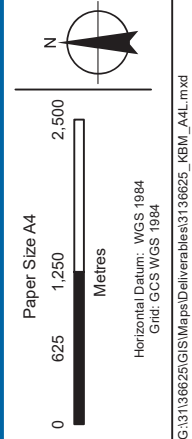


Grampians Wimmera Mallee Water  
 GWM Water East Grampians Pipeline Ecology Surveys

## Threatened fauna habitat

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- LEGEND**
- Township point
  - GSM Observed
  - Study Area
  - Rural Supply Area
  - Boundary
  - Road
  - Threatened fauna habitat
    - GSM
    - GSM/SSL
    - SLL
  - Actual GSM Habitat Pipeline Alignment
    - HDD
    - Trench
    - X Impact
  - Location of GSM targeted survey
  - Watercourse
    - Stream
    - HDD
    - Trench
    - X Impact
  - Assessed
    - HDD
    - Trench
    - X Impact
    - X Native Vegetation





Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys Revision J  
 Job Number 31-36625  
 Date 13/03/2019



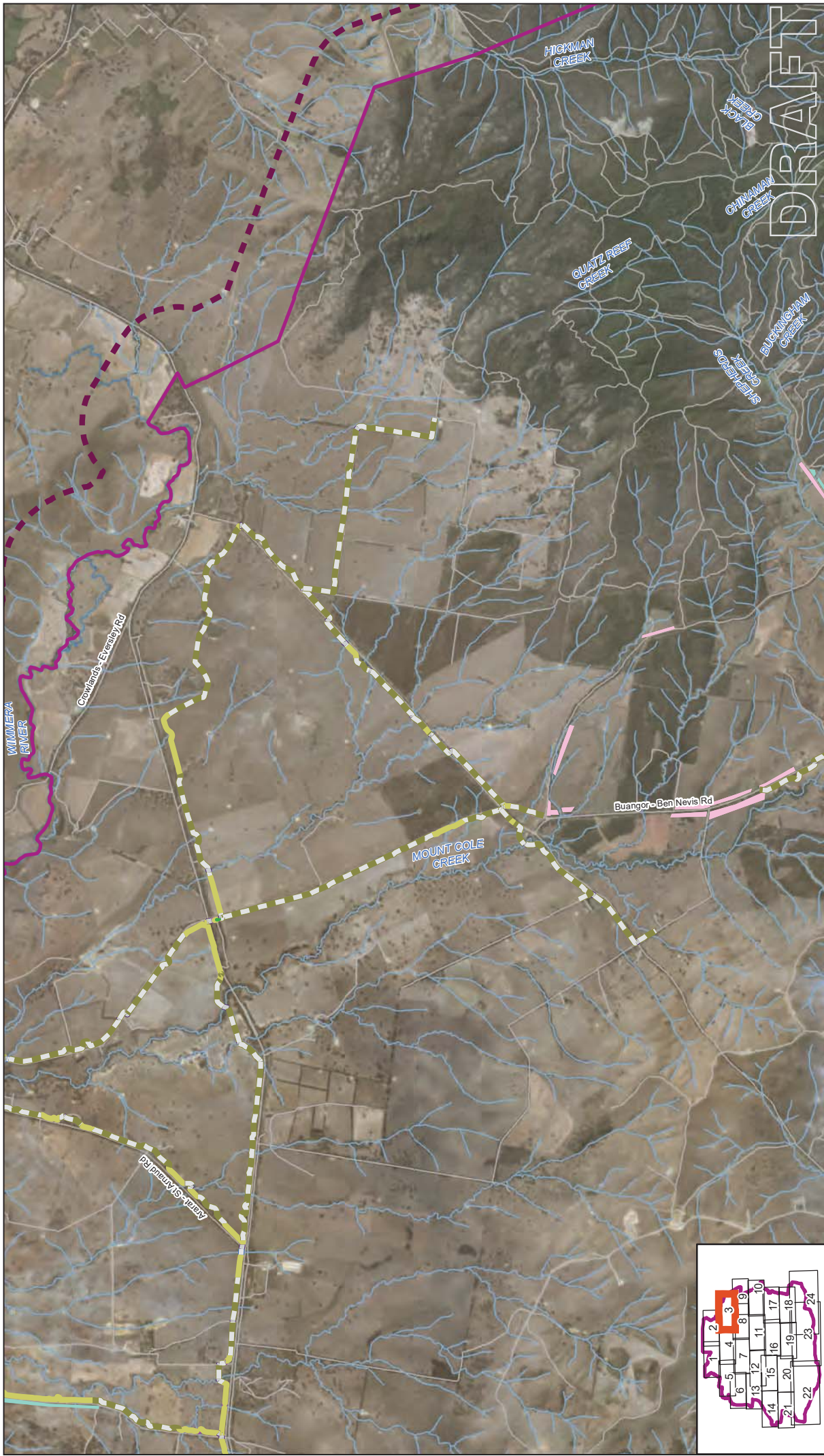
**Threatened fauna habitat**  
 X Native Vegetation  
 X Wetland  
 Assessed  
 HDD  
 Trench

**Threatened fauna habitat**  
 GSM  
 GSM/SSL  
 SLL

**LEGEND**  
 Study Area  
 Rural Supply Area  
 Boundary  
 Road  
 River  
 Stream  
 Trench  
 Not Assessed  
 HDD  
 Trench  
 X Native Vegetation  
 X Wetland  
 Assessed  
 HDD  
 Trench

Paper Size A4  
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 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

# Appendix M



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Legend  
 Study Area  
 Rural Supply Area  
 Boundary  
 Road  
 Threatened fauna habitat  
 GSM  
 GSM/SSL  
 SLL  
 Watercourse Pipeline Alignment  
 River  
 Stream  
 Not Assessed  
 HDD  
 Trench  
 Wetland  
 Native Vegetation  
 Assessed  
 HDD  
 Trench

Scale  
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 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

Job Number 31-36625  
 Revision J  
 Date 13/03/2019  
 GHD  
 GHD Logo

Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys  
 Threatened fauna habitat  
 Appendix M



Job Number 31-36625  
 Revision J  
 Date 13/03/2019

Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys



Threatened fauna habitat

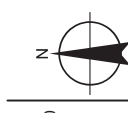
180 Lonsdale Street Melbourne VIC 3000 Australia  
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Horizontal Datum: WGS 1984  
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LEGEND

- GSM Observed
- Great Western Off
- Take to Ararat
- Study Area
- Rural Supply Area
- Boundary
- Road
- Threatened fauna habitat
- GSM
- GSM/SSL
- SLL
- Actual GSM Habitat
- Not Assessed
- Assessed
- HDD
- Watercourse
- Stream
- Waterbodies
- Lake
- Pipeline Alignment
- Not Assessed
- Assessed
- HDD
- Trench
- X Impact
- X Native Vegetation
- X Native Vegetation
- X Wetland
- HDD



Appendix M

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**Grampians Wimmera Mallee Water**  
**GWMWater East Grampians Pipeline Ecology Surveys Revision J**  
 Job Number 31-36625  
 Date 13/03/2019

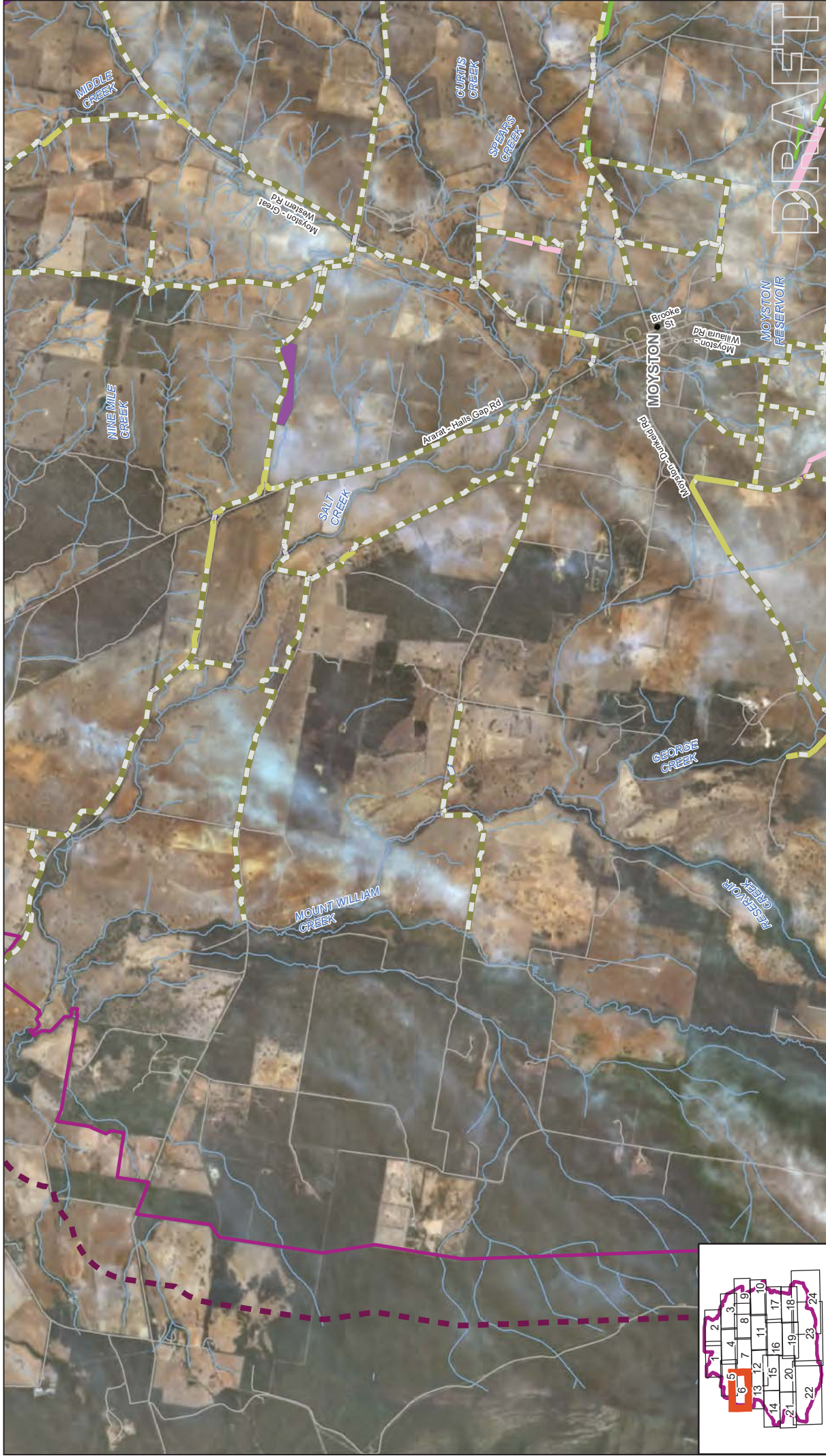


**Threatened fauna habitat**

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**LEGEND**  
 Pump Stations: Green square  
 GSM Observed: Orange circle  
 Great Western Off take to Ararat: Purple line  
 Study Area: Pink outline  
 Rural Supply Area: Red outline  
 Boundary: Dashed purple line  
 Road: Dashed black line  
 Threatened fauna habitat: Yellow/Green outline  
 GSM: Green outline  
 GSM/SSL: Green outline  
 SLL: Green outline  
 Actual GSM Habitat: Yellow square  
 Waterbodies: Blue square  
 Lake: Blue square  
 Pipeline Alignment: Dashed green line  
 Location of GSM targeted survey: Green square  
 Watercourse: Blue line  
 Stream: Blue line  
 Not Assessed: Purple line  
 HDD: Purple line  
 Trench: Yellow line  
 X Impact: Red line  
 X Wetland: Blue square  
 X Native Vegetation: Green square

Paper Size A4  
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 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984



Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys Revision J  
 Job Number 31-36625  
 Date 13/03/2019



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## Threatened fauna habitat

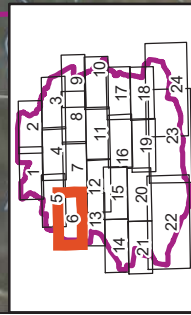
- LEGEND**
- Township point
  - Great Western Off Take to Ararat
  - Study Area
  - Rural Supply Area
  - Boundary
  - Road
  - Threatened fauna habitat
    - GSM
    - GSM/SSL
    - SLL
    - GGF
  - Pipeline Alignment
    - Not Assessed
      - HDD
      - Trench
      - X Wetland
    - Assessed
      - HDD
      - Trench
  - Watercourse
    - Stream
    - Drain/Channel/O...
    - Waterbodies
      - Lake

Paper Size A4

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Metres

Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984





Job Number 31-36625  
 Revision J  
 Date 13/03/2019

Grampians Wimmera Mallee Water  
 GWM Water East Grampians Pipeline Ecology Surveys

**Threatened fauna habitat**

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 Revision | J  
 Date | 13/03/2019

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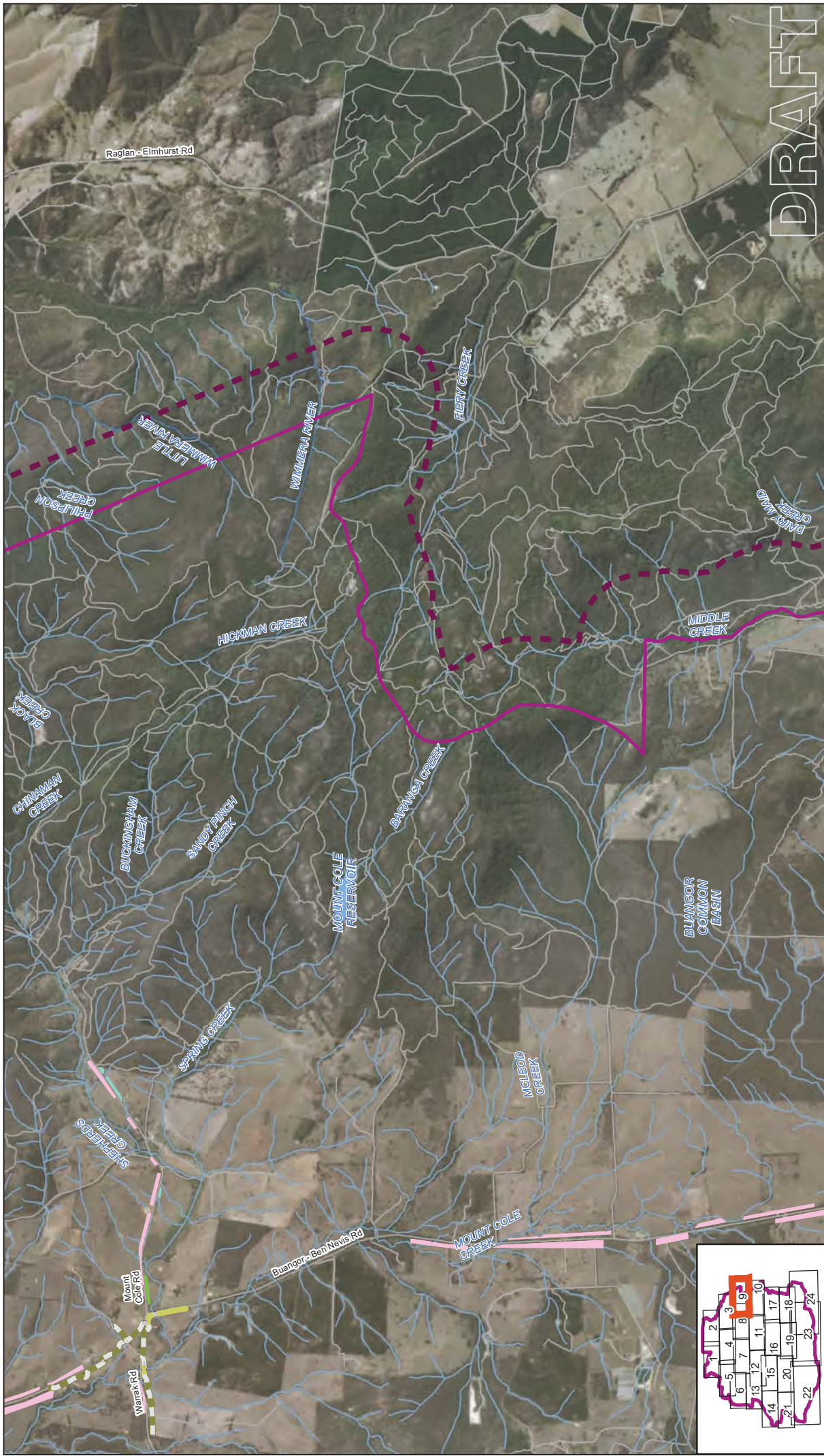
North Arrow

**LEGEND**

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**Threatened fauna habitat**





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Grampians Wimmera Mallee Water  
 GWNWater East Grampians Pipeline Ecology Surveys Revision J  
 Job Number 31-36625  
 Date 13/03/2019



**Threatened fauna habitat**

- Study Area
- Rural Supply Area
- Boundary
- Road
- SLL
- Lake
- River
- Stream
- Trench
- X Wetland
- Assessed
- HDD

**Waterbodies Pipeline Alignment**

- Not Assessed
- HDD

**Threatened fauna habitat**

- GSM
- GSM/SSL

**Threatened fauna habitat**

- Not Assessed
- HDD

**Threatened fauna habitat**

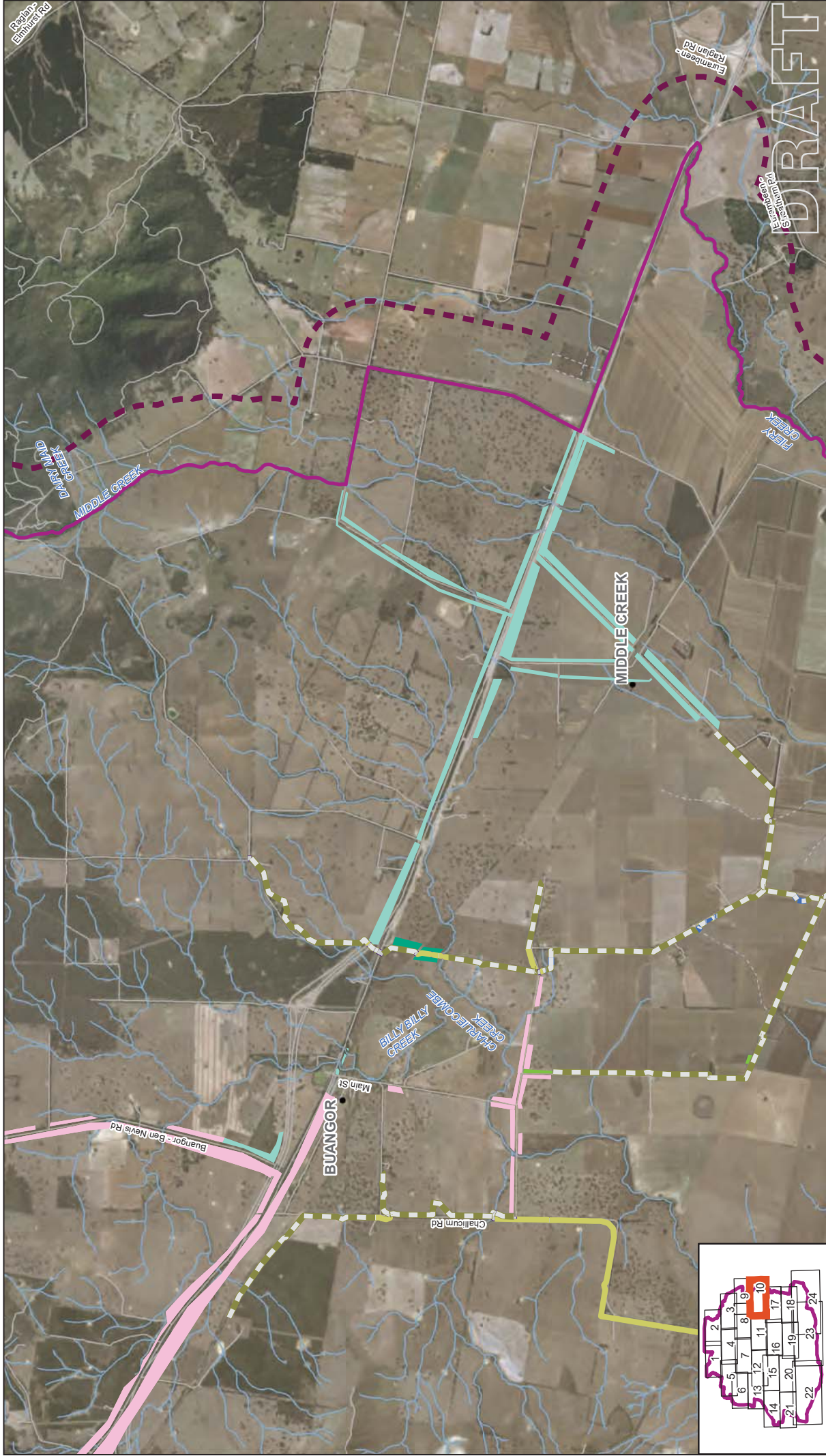
- Not Assessed
- HDD

**Threatened fauna habitat**

- Not Assessed
- HDD

**Threatened fauna habitat**

- Not Assessed
- HDD



Job Number 31-36625  
 Revision J  
 Date 13/03/2019

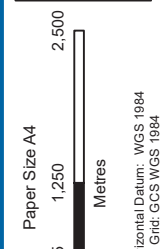
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### Threatened fauna habitat

- LEGEND**
- Township point
  - Study Area
  - Rural Supply Area
  - Boundary
  - Road
  - Threatened fauna habitat
    - GSM
    - GSM/SSL
    - SLL
  - Location of GSM targeted survey
  - Watercourse
    - Stream
    - Drain/Channel/O...
  - Pipeline Alignment
    - Not Assessed
      - HDD
      - Trench
      - X Wetland
    - Assessed
      - HDD
      - Trench
      - X Wetland





Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys Revision J  
 Job Number 31-36625  
 Date 13/03/2019



# Appendix M

## Threatened fauna habitat

**LEGEND**

GSM Observed	X Native Vegetation	X Native Vegetation	X Native Vegetation
Study Area	X Wetland	X Wetland	X Wetland
Rural Supply Area	X Wetland	X Wetland	X Wetland
Boundary	X Wetland	X Wetland	X Wetland
Road	X Wetland	X Wetland	X Wetland
Location of GSM targeted survey	X Wetland	X Wetland	X Wetland
GSM	X Wetland	X Wetland	X Wetland
GSM/SSL	X Wetland	X Wetland	X Wetland
SLL	X Wetland	X Wetland	X Wetland
Actual GSM Habitat	X Wetland	X Wetland	X Wetland
Watercourse	X Wetland	X Wetland	X Wetland
River	X Wetland	X Wetland	X Wetland
Stream	X Wetland	X Wetland	X Wetland
Drain/Channel/O...	X Wetland	X Wetland	X Wetland
Flat	X Wetland	X Wetland	X Wetland
Pipeline Alignment	X Wetland	X Wetland	X Wetland
Not Assessed	X Wetland	X Wetland	X Wetland
HDD	X Wetland	X Wetland	X Wetland
Trench	X Wetland	X Wetland	X Wetland
X Impact	X Wetland	X Wetland	X Wetland

Paper Size A4

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North arrow pointing up.

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 Revision J  
 Date 13/03/2019

Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys

**GHD**

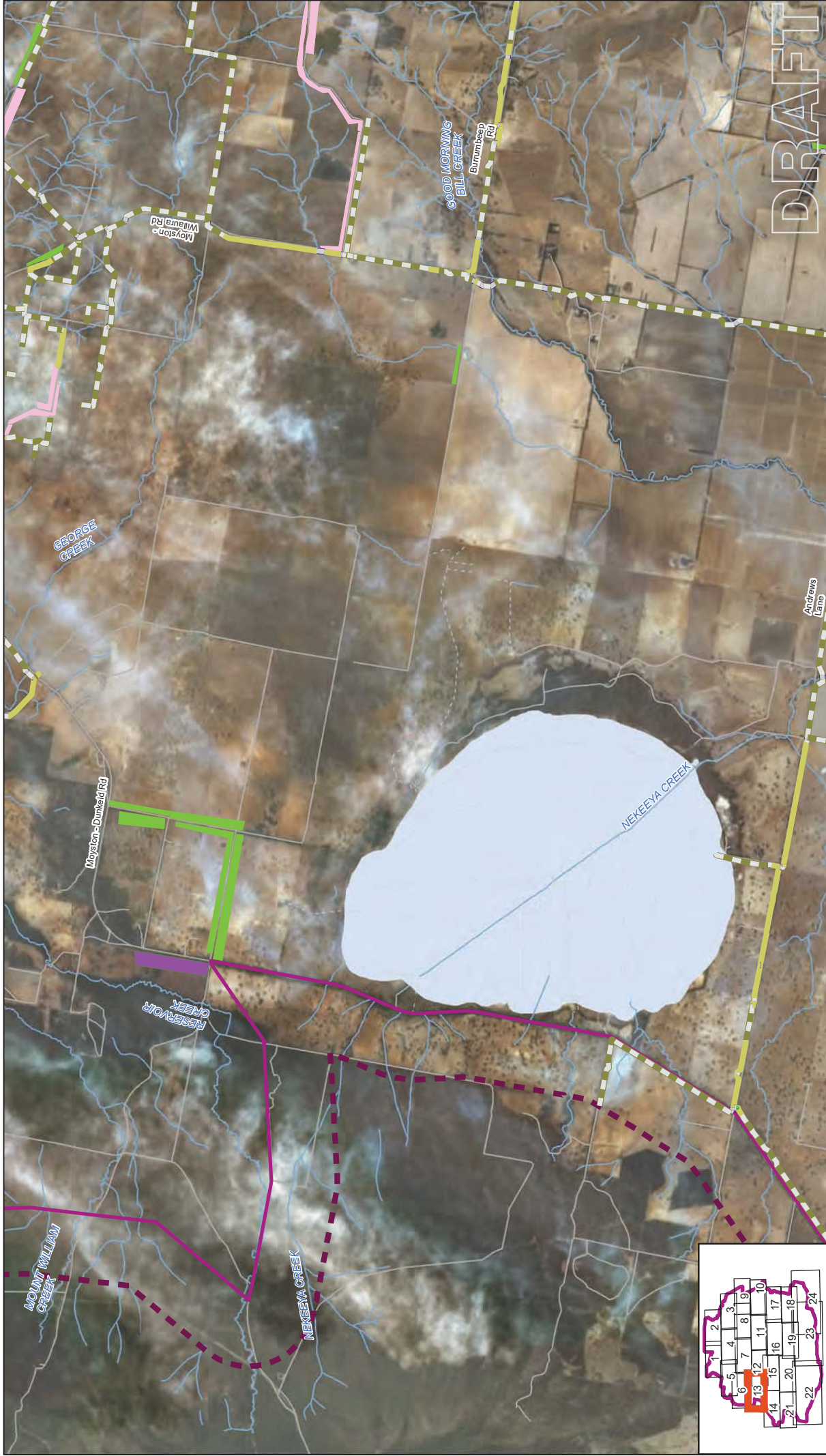
Threatened fauna habitat

LEGEND	
	Study Area
	Rural Supply Area
	Boundary
	Road
	Threatened fauna habitat
	GSM
	GSM/SSL
	SLL
	Watercourse
	River
	Stream
	Drain/Channel/O...
	Waterbodies
	Flat
	Pipeline Alignment
	Not Assessed
	HDD
	Trench
	X Impact
	X Wetland
	Native Vegetation
	Assessed
	HDD
	X Wetland

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 Date 13/03/2019

Grampians Wimmera Mallee Water  
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## Threatened fauna habitat

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Job Number 31-36625  
 Revision J  
 Date 13/03/2019  
 Grampians Wimmera Mallee Water  
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**GHD**  
 Threatened fauna habitat

**LEGEND**

	Study Area		Swamp		X Native Vegetation		X Native Vegetation
	Rural Supply Area		Pipeline Alignment		X Wetland		X Wetland
	Boundary		Not Assessed		HDD		HDD
	Road		Trench		Trench		Trench

**Threatened fauna habitat**  
 GSM  
 GSM/SSL  
 SLL  
 Stream  
 Drain/Channel/O...  
**Waterbodies**  
 Lake

Paper Size A4  
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 Horizontal Datum: WGS 1984  
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## Threatened fauna habitat

Threatened fauna habitat  
 Threatened fauna habitat  
 Threatened fauna habitat

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 Revision J  
 Date 13/03/2019

Grampians Wimmera Mallee Water  
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**GHD**

**Threatened fauna habitat**

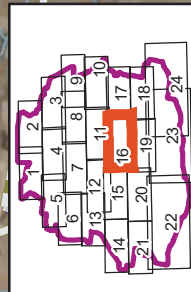
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North Arrow

**LEGEND**

<ul style="list-style-type: none"> <li>GSM Observed</li> <li>Study Area</li> <li>Rural Supply Area</li> <li>Boundary</li> <li>Road</li> </ul>	<ul style="list-style-type: none"> <li>Threatened fauna habitat</li> <li>GSM</li> <li>GSM/SSL</li> <li>SLL</li> </ul>	<ul style="list-style-type: none"> <li>Actual GSM Habitat Pipeline Alignment</li> <li>Not Assessed</li> <li>Watercourse</li> <li>Drain/Channel/O...</li> </ul>	<ul style="list-style-type: none"> <li>X Wetland</li> <li>Assessed</li> <li>HDD</li> <li>Trench</li> <li>X Impact</li> </ul>	<ul style="list-style-type: none"> <li>X Native Vegetation</li> <li>X Wetland</li> <li>HDD</li> <li>Trench</li> <li>X Impact</li> </ul>
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Job Number 31-36625  
 Revision J  
 Date 13/03/2019



Granpians Wimmera Mallee Water  
 GWM Water East Granpians Pipeline Ecology Surveys

**Pipeline Alignment**  
 Not Assessed: HDD, Trench  
 Assessed: HDD, Trench  
 X Wetland, X Native Vegetation, X Impact

**Threatened fauna habitat**  
 GSM, GSM/SSL, SLL, GGF

**Watercourse**  
 Stream, Drain/Channel/O...

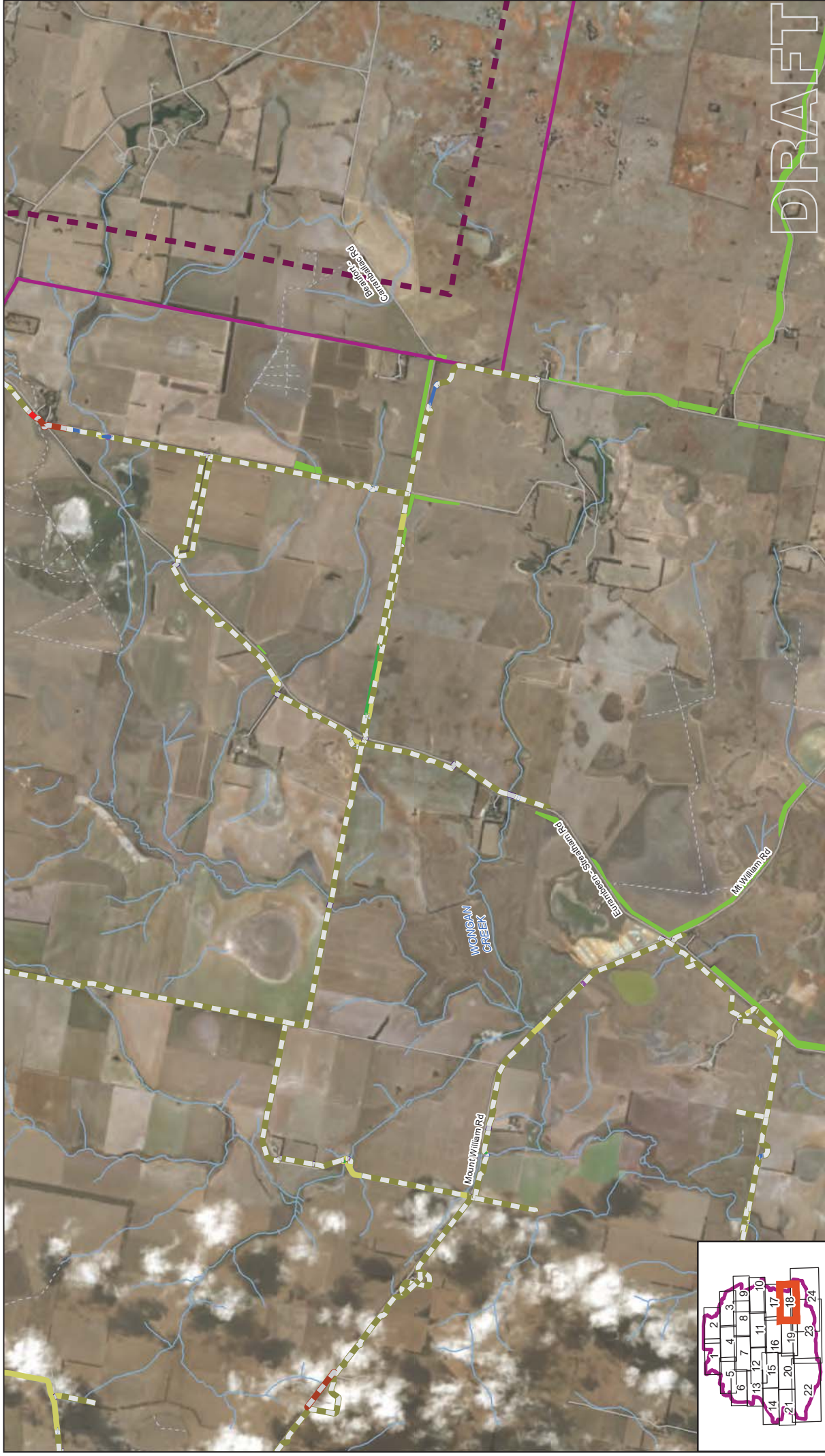
**LEGEND**  
 Study Area, Rural Supply Area, Boundary, Road

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 GWMWater East Grampians Pipeline Ecology Surveys Revision J  
 Job Number 31-36625  
 Date 13/03/2019



**Pipeline Alignment**  
 X Native Vegetation  
 X Wetland  
 X Wetland  
 X Impact  
**Not Assessed**  
 HDD  
 Trench  
 X Impact  
**Assessed**  
 HDD  
 Trench

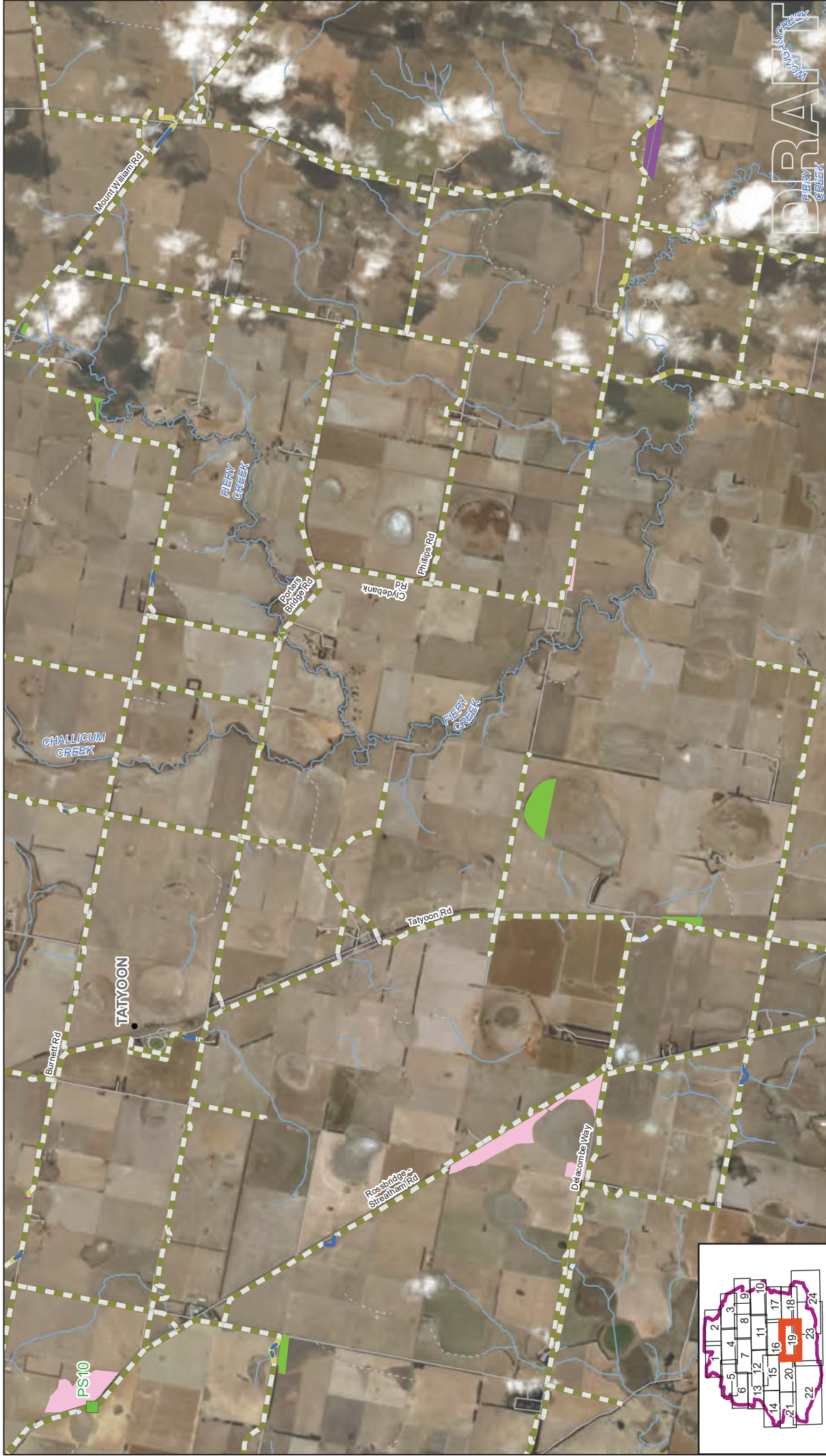
**Threatened fauna habitat**  
 Stream  
 Drain/Channel/O...  
 GSM  
 GSM/SSL  
 SLL

**LEGEND**  
 Study Area  
 Rural Supply Area  
 Boundary  
 Road

Paper Size A4  
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Threatened fauna habitat  
 Appendix M

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**DRAFT**  
 FERRY CREEK  
 WOODMOUNT CREEK

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 Job Title Grampians Wimmera Mallee Water  
 Revision J  
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GHD  
 GHD logo

Threatened fauna habitat  
 Threatened fauna habitat

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Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

**LEGEND**  
 • Township point  
 ■ Pump Stations  
 ■ Study Area  
 ■ Rural Supply Area  
 ■ Boundary  
 — Road  
**Threatened fauna habitat**  
 ■ GSM  
 ■ GSM/SSL  
 ■ SLL  
 ■ GGF  
**Watercourse**  
 — Stream  
 — Drain/Channel/O...  
**Pipeline Alignment**  
 ■ HDD  
 ■ Trench  
 ■ X Wetland  
**Not Assessed**  
 ■ HDD  
 ■ Trench  
 ■ X Wetland  
**Assessed**  
 ■ HDD  
 ■ Trench  
 ■ X Native Vegetation  
 ■ X Wetland

# Appendix M



Paper Size A4  
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 Metres

Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

Threatened fauna habitat  
 Swamp  
 Pipeline Alignment  
 Not Assessed  
 Watercourse  
 River  
 Stream  
 Drain/Channel/O...  
 Waterbodies  
 Lake

Townshipp point  
 Pump Stations  
 Study Area  
 Rural Supply Area  
 Boundary  
 Road

X Wetland  
 Assessed  
 HDD  
 Trench  
 X Wetland

X Wetland  
 Assessed  
 HDD  
 Trench  
 X Wetland

X Wetland  
 Assessed  
 HDD  
 Trench  
 X Wetland

X Wetland  
 Assessed  
 HDD  
 Trench  
 X Wetland



Job Number 31-36625  
Revision J  
Date 13/03/2019

Grampians Wimmera Mallee Water  
GWMWater East Grampians Pipeline Ecology Surveys

**GHD**

180 Lonsdale Street Melbourne VIC 3000 Australia  
T 61 3 8687 8000 F 61 3 8687 8111 E meimail@ghd.com W www.ghd.com

**Appendix M**  
Threatened fauna habitat

**LEGEND**

Study Area	Threatened fauna habitat	GGF	Watercourse	Lake	Waterbodies Pipeline Alignment	X Wetland	Assessed
Rural Supply Area	GSM	Stream	Drain/Channel/O...	Not Assessed	HDD	Trench	X Wetland
Boundary	GSM/SSL	Road			Trench		
Road	SLL						

Paper Size A4  
0 625 1,250 2,500  
Metres

Horizontal Datum: WGS 1984  
Grid: GCS WGS 1984

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Data source: DEWLP, VicMap, Grampians Wimmera Mallee Water, 2018-2019; Imagery source: Esri, DigitalGlobe, GeoEye, Earthstar, Geographics, CNES/Airbus DS-USA, USGS, AeroGRID, IGN, and the GIS User Community, GHD, 2019. Created by: Cjainiiau



Paper Size A4  
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 Metres

Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

LEGEND

- Township point
- Study Area
- Rural Supply Area
- Boundary
- Road

- Threatened fauna habitat
  - GSM
  - GSM/SSL
  - SLL
- Watercourse
  - River
  - Stream
  - Drain/Channel/O...
- Waterbodies Pipeline Alignment
  - Lake
  - Not Assessed
    - HDD
    - Trench
- Assessed
  - HDD
  - Trench
- X Wetland
- X Wetland

Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys Revision J  
 Job Number 31-36625  
 Date 13/03/2019

Threatened fauna habitat

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 Data source: DEWLP, VicMap, Grampians Wimmera Mallee Water, Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS-USA, USGS, AeroGRID, IGN and the GIS User Community, GHD, 2019 Created by: Cjouniau



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Job Number 31-36625  
 Date 13/03/2019  
 Revision J  
 Job Title: Grampians Wimmera Mallee Water  
 Project: GWMWater East Grampians Pipeline Ecology Surveys



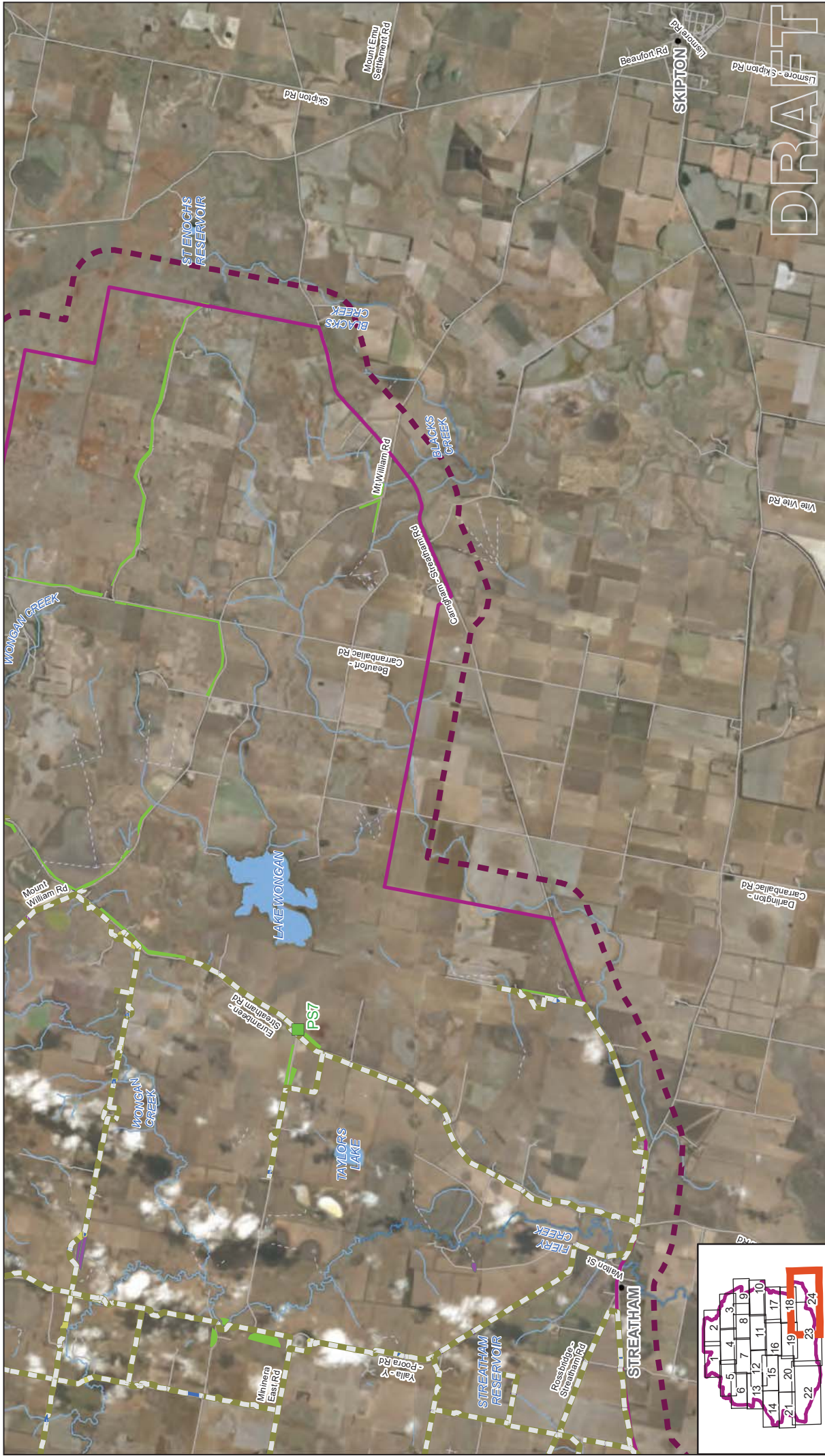
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- LEGEND**
- Township point
  - Pump Stations
  - Study Area
  - Rural Supply Area
  - Boundary
  - Road
  - Drain/Channel/O...
  - SLL
  - GGF
  - Threatened fauna habitat
  - GSM
  - GSM/SSL
  - Pipeline Alignment
  - Not Assessed
  - Watercourse
  - Lake
  - River
  - Stream
  - X Wetland
  - Assessed
  - HDD
  - Trench
  - X Wetland

Paper Size A4  
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 Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

Appendix M  
 Threatened fauna habitat

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 Data source: DEWLP, VicMap, Grampians Wimmera Mallee Water, 2018-2019; Imagery source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS-USA, USGS, AeroGRID, IGN, and the GIS User Community, GHD, 2019. Created by: Cjantiau



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Grampians Wimmera Mallee Water  
 GWMWater East Grampians Pipeline Ecology Surveys Revision J  
 Job Number 31-36625  
 Date 13/03/2019

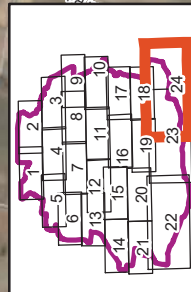
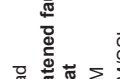


- X Wetland
- Assessed
- HDD
- Trench
- X Wetland

- SLL
- Drain/Channel/O...
- Waterbodies
- Lake
- Watercourse
- River
- Stream

- Road
- Township point
- Pump Stations
- Threatened fauna habitat
- Study Area
- Rural Supply Area
- Boundary

- GSM
- GSM/SSL
- HDD
- Trench



Paper Size A4  
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 Metres

Horizontal Datum: WGS 1984  
 Grid: GCS WGS 1984

## Appendix M

### Threatened fauna habitat

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 Data source: DEWLP, VicMap, Grampians Wimmera Mallee Water, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS-USA, USGS, AeroGRID, IGN, and the GIS User Community, GHD, 2019 Created by: Cjainiau



# Appendix N – Native vegetation removal report

# Scenario test – native vegetation removal

This report provides offset requirements for internal testing of different proposals to remove native vegetation. **This report DOES NOT support an application to remove, destroy or lop native vegetation under Clause 52.16 or 52.17 of planning schemes in Victoria.** A report must be obtained from the Department of Environment, Land, Water and Planning (DELWP).

Date of issue: 12/03/2019  
Time of issue: 5:49 pm

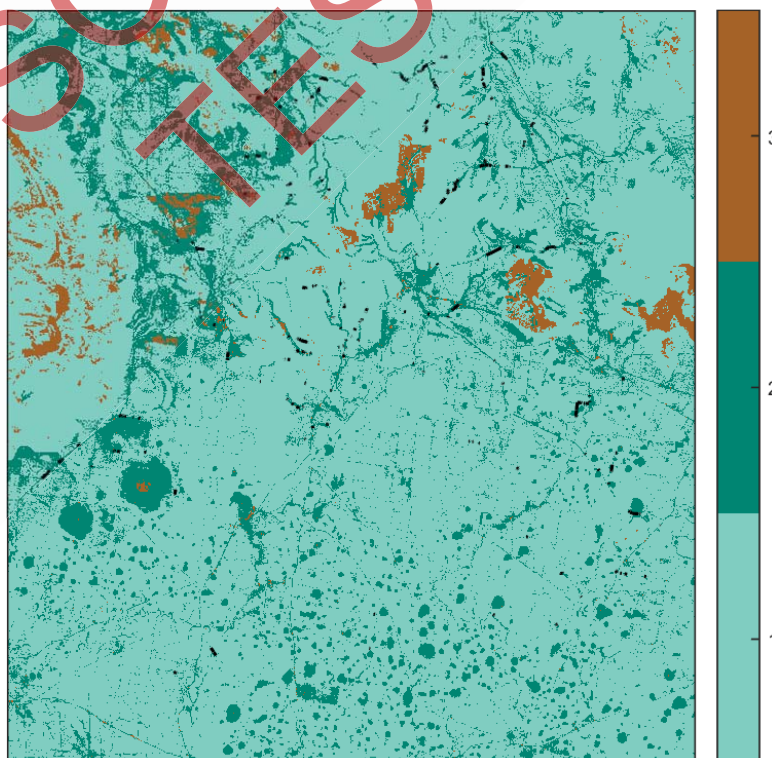
Report ID: Scenario Testing

Project ID	EGRP_VG94_Ensym4B
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## Assessment pathway

Assessment pathway	Detailed Assessment Pathway
Extent including past and proposed	36.505 ha
Extent of past removal	0.000 ha
Extent of proposed removal	36.505 ha
No. Large trees proposed to be removed	71
Location category of proposed removal	Location 3 The native vegetation is in an area where the removal of less than 0.5 hectares could have a significant impact on habitat for one or more rare or threatened species. The native vegetation is also in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map).

### 1. Location map



# Scenario test – native vegetation removal

## Offset requirements if a permit is granted

Any approval granted will include a condition to obtain an offset that meets the following requirements:

<b>General offset amount<sup>1</sup></b>	15.792 general habitat units
Vicinity	Glenelg Hopkins, Wimmera Catchment Management Authority (CMA) or Ararat Rural City, Northern Grampians Shire, Pyrenees Shire Council
Minimum strategic biodiversity value score <sup>2</sup>	0.453
Large trees	71 large trees

NB: values within tables in this document may not add to the totals shown above due to rounding

Appendix 1 includes information about the native vegetation to be removed

Appendix 2 includes information about the rare or threatened species mapped at the site.

Appendix 3 includes maps showing native vegetation to be removed and extracts of relevant species habitat importance maps

SCENARIO TESTING

<sup>1</sup> The general offset amount required is the sum of all general habitat units in Appendix 1.

<sup>2</sup> Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

# Scenario test – native vegetation removal

## Next steps

Any proposal to remove native vegetation must meet the application requirements of the Detailed Assessment Pathway and it will be assessed under the Detailed Assessment Pathway.

**This report DOES NOT support an application to remove, destroy or lop native vegetation under Clause 52.16 or 52.17 of planning schemes in Victoria.**

If you wish to remove the mapped native vegetation you must submit the related shapefiles to the Department of Environment, Land, Water and Planning (DELWP) for processing, by email to [ensymnvrtool.support@delwp.vic.gov.au](mailto:ensymnvrtool.support@delwp.vic.gov.au). DELWP will provide a *Native vegetation removal report* that is required to meet the permit application requirements in accordance with *Guidelines for the removal, destruction or lopping of native vegetation* (Guidelines).

SCENARIO  
TESTING

## Appendix 1: Description of native vegetation to be removed

The species-general offset test was applied to your proposal. This test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the species offset threshold. The threshold is set at 0.005 per cent of the mapped habitat value for a species. When the proportional impact is above the species offset threshold a species offset is required. This test is done for all species mapped at the site. Multiple species offsets will be required if the species offset threshold is exceeded for multiple species.

Where a zone requires species offset(s), the species habitat units for each species in that zone is calculated by the following equation in accordance with the Guidelines:

$$\text{Species habitat units} = \text{extent} \times \text{condition} \times \text{species landscape factor} \times 2, \text{ where the species landscape factor} = 0.5 + (\text{habitat importance score}/2)$$

The species offset amount(s) required is the sum of all species habitat units per zone

Where a zone does not require a species offset, the general habitat units in that zone is calculated by the following equation in accordance with the Guidelines:

$$\text{General habitat units} = \text{extent} \times \text{condition} \times \text{general landscape factor} \times 1.5, \text{ where the general landscape factor} = 0.5 + (\text{strategic biodiversity value score}/2)$$

The general offset amount required is the sum of all general habitat units per zone.

### Native vegetation to be removed

Zone	Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym				
	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
101-R	Patch	gold0068	Endangered	0	no	0.310	0.033	0.033	0.462		0.011	General
103-M	Patch	gold0022	Depleted	0	no	0.300	0.059	0.059	0.500		0.020	General
104-M	Patch	gold0022	Depleted	0	no	0.300	0.022	0.022	0.519		0.007	General
105-M	Patch	gold0022	Depleted	0	no	0.300	0.023	0.023	0.334		0.007	General
106-M	Patch	gold0022	Depleted	0	no	0.300	0.033	0.033	0.486		0.011	General
107-M	Patch	gold0022	Depleted	0	no	0.300	0.011	0.011	0.500		0.004	General
108-M	Patch	gold0022	Depleted	0	no	0.300	0.002	0.002	0.480		0.001	General

Information provided by or on behalf of the applicant in a GIS file										Information calculated by EnSym				
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
109-R	Patch	gold0068	Endangered	0	no	0.310	0.072	0.072	0.701		0.028	General		
110-Q	Patch	gold0067	Endangered	0	no	0.300	0.173	0.173	0.590		0.062	General		
111-Q	Patch	gold0067	Endangered	1	no	0.300	0.022	0.022	0.690		0.008	General		
112-Q	Patch	gold0067	Endangered	0	no	0.300	0.096	0.096	0.690		0.036	General		
113-E	Patch	cvu_0055	Endangered	0	no	0.260	0.014	0.014	0.722		0.005	General		
114-Q	Patch	gold0067	Endangered	0	no	0.300	0.263	0.263	0.549		0.092	General		
115-M	Patch	gold0022	Depleted	0	no	0.300	0.012	0.012	0.299		0.004	General		
116-M	Patch	gold0022	Depleted	0	no	0.300	0.067	0.067	0.480		0.022	General		
119-Q	Patch	gold0067	Endangered	0	no	0.300	0.006	0.006	0.520		0.002	General		
120-Q	Patch	gold0067	Endangered	0	no	0.300	0.019	0.019	0.578		0.007	General		
121-Q	Patch	gold0067	Endangered	0	no	0.300	0.172	0.172	0.386		0.054	General		
122-T	Patch	gold0175	Vulnerable	1	no	0.430	0.028	0.028	0.500		0.014	General		
123-T	Patch	gold0175	Vulnerable	0	no	0.430	0.001	0.001	0.510		0.000	General		
124-T	Patch	gold0175	Vulnerable	0	no	0.430	0.000	0.000	0.510		0.000	General		
127-Q	Patch	gold0067	Endangered	0	no	0.300	0.072	0.072	0.493		0.024	General		

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
128-T	Patch	gold0175	Vulnerable	0	no	0.430	0.071	0.071	0.550		0.035	General
129-T	Patch	gold0175	Vulnerable	0	no	0.430	0.017	0.017	0.480		0.008	General
130-T	Patch	gold0175	Vulnerable	0	no	0.430	0.007	0.007	0.547		0.004	General
131-Q	Patch	gold0067	Endangered	0	no	0.300	0.003	0.003	0.320		0.001	General
132-Q	Patch	gold0067	Endangered	1	no	0.300	0.002	0.002	0.320		0.001	General
133-Q	Patch	gold0067	Endangered	0	no	0.300	0.130	0.130	0.615		0.047	General
134-T	Patch	gold0175	Vulnerable	0	no	0.430	0.547	0.547	0.454		0.256	General
135-T	Patch	gold0175	Vulnerable	0	no	0.430	0.095	0.095	0.500		0.046	General
136-E	Patch	cvu_0055	Endangered	0	no	0.260	0.009	0.009	0.743		0.003	General
137-E	Patch	cvu_0055	Endangered	0	no	0.260	0.115	0.115	0.780		0.040	General
138-T	Patch	gold0175	Vulnerable	0	no	0.510	0.024	0.024	0.490		0.014	General
139-T	Patch	gold0175	Vulnerable	0	no	0.510	0.359	0.359	0.622		0.223	General
140-T	Patch	gold0175	Vulnerable	0	no	0.510	0.239	0.239	0.537		0.141	General
141-T	Patch	gold0175	Vulnerable	0	no	0.430	0.018	0.018	0.580		0.009	General
142-T	Patch	gold0175	Vulnerable	0	no	0.430	0.025	0.025	0.540		0.012	General

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
143-T	Patch	gold0175	Vulnerable	0	no	0.430	0.047	0.047	0.540		0.023	General
144-R	Patch	gold0068	Endangered	0	no	0.310	0.029	0.029	0.310		0.009	General
145-T	Patch	gold0175	Vulnerable	0	no	0.430	0.060	0.060	0.480		0.029	General
146-T	Patch	gold0175	Vulnerable	0	no	0.430	0.033	0.033	0.340		0.014	General
147-T	Patch	gold0175	Vulnerable	1	no	0.430	0.014	0.014	0.340		0.006	General
148-R	Patch	gold0068	Endangered	0	no	0.310	0.002	0.002	0.310		0.001	General
149-T	Patch	gold0175	Vulnerable	0	no	0.430	0.019	0.019	0.490		0.009	General
150-Q	Patch	gold0067	Endangered	0	no	0.300	0.004	0.004	0.340		0.001	General
151-T	Patch	gold0175	Vulnerable	0	no	0.430	0.204	0.204	0.530		0.100	General
152-T	Patch	gold0175	Vulnerable	0	no	0.430	0.015	0.015	0.510		0.007	General
153-T	Patch	gold0175	Vulnerable	0	no	0.430	0.708	0.708	0.561		0.357	General
154-T	Patch	gold0175	Vulnerable	0	no	0.430	0.031	0.031	0.401		0.014	General
155-T	Patch	gold0175	Vulnerable	0	no	0.430	0.009	0.009	0.510		0.005	General
156-Q	Patch	gold0067	Endangered	0	no	0.300	0.011	0.011	0.340		0.003	General
157-T	Patch	gold0175	Vulnerable	0	no	0.430	0.095	0.095	0.510		0.046	General



Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
158-T	Patch	gold0175	Vulnerable	0	no	0.430	0.057	0.057	0.483		0.027	General
159-T	Patch	gold0175	Vulnerable	0	no	0.430	0.120	0.120	0.511		0.059	General
161-T	Patch	gold0175	Vulnerable	1	no	0.510	0.457	0.457	0.681		0.294	General
162-T	Patch	gold0175	Vulnerable	0	no	0.510	0.092	0.092	0.480		0.052	General
163-T	Patch	gold0175	Vulnerable	0	no	0.430	0.013	0.013	0.540		0.006	General
164-T	Patch	gold0175	Vulnerable	0	no	0.430	0.034	0.034	0.407		0.015	General
165-T	Patch	gold0175	Vulnerable	0	no	0.430	0.059	0.059	0.280		0.024	General
166-T	Patch	gold0175	Vulnerable	0	no	0.430	0.004	0.004	0.280		0.002	General
167-T	Patch	gold0175	Vulnerable	0	no	0.430	0.065	0.065	0.441		0.030	General
168-T	Patch	gold0175	Vulnerable	0	no	0.430	0.019	0.019	0.490		0.009	General
169-T	Patch	gold0175	Vulnerable	0	no	0.430	0.009	0.009	0.286		0.004	General
170-T	Patch	gold0175	Vulnerable	0	no	0.430	0.006	0.006	0.520		0.003	General
171-T	Patch	gold0175	Vulnerable	0	no	0.430	0.001	0.001	0.520		0.000	General
172-T	Patch	gold0175	Vulnerable	0	no	0.430	0.000	0.000	0.520		0.000	General
173-T	Patch	gold0175	Vulnerable	0	no	0.430	0.167	0.167	0.438		0.077	General

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
174-T	Patch	gold0175	Vulnerable	0	no	0.430	0.010	0.010	0.570		0.005	General
175-T	Patch	gold0175	Vulnerable	0	no	0.430	0.023	0.023	0.570		0.012	General
176-T	Patch	gold0175	Vulnerable	0	no	0.430	0.339	0.339	0.649		0.180	General
177-E	Patch	cvu_0055	Endangered	0	no	0.260	0.176	0.176	0.632		0.056	General
178-E	Patch	cvu_0055	Endangered	0	no	0.260	0.025	0.025	0.540		0.008	General
179-T	Patch	gold0175	Vulnerable	0	no	0.510	0.010	0.010	0.580		0.006	General
180-T	Patch	gold0175	Vulnerable	0	no	0.430	0.052	0.052	0.704		0.029	General
181-D	Patch	cvu_0048	Depleted	0	no	0.340	0.115	0.115	0.560		0.046	General
182-E	Patch	cvu_0055	Endangered	0	no	0.260	0.258	0.258	0.623		0.081	General
183-E	Patch	cvu_0055	Endangered	0	no	0.260	0.030	0.030	0.530		0.009	General
184-E	Patch	cvu_0055	Endangered	0	no	0.260	0.150	0.150	0.521		0.045	General
186-D	Patch	cvu_0048	Depleted	0	no	0.180	0.114	0.114	0.480		0.023	General
187-D	Patch	cvu_0048	Depleted	0	no	0.180	0.051	0.051	0.645		0.011	General
188-D	Patch	cvu_0048	Depleted	0	no	0.180	0.048	0.048	0.730		0.011	General
189-D	Patch	cvu_0048	Depleted	0	no	0.180	0.000	0.000	0.730		0.000	General

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
190-D	Patch	cvu_0048	Depleted	0	no	0.180	0.000	0.000	0.710		0.000	General
191-D	Patch	cvu_0048	Depleted	0	no	0.340	0.032	0.032	0.560		0.013	General
192-D	Patch	cvu_0048	Depleted	0	no	0.340	0.082	0.082	0.550		0.032	General
193-T	Patch	gold0175	Vulnerable	0	no	0.510	0.057	0.057	0.560		0.034	General
194-T	Patch	gold0175	Vulnerable	0	no	0.510	0.160	0.160	0.577		0.096	General
195-E	Patch	cvu_0055	Endangered	0	no	0.260	0.225	0.225	0.685		0.074	General
196-Q	Patch	gold0067	Endangered	0	no	0.300	0.172	0.172	0.492		0.058	General
199-Q	Patch	gold0067	Endangered	0	no	0.300	0.012	0.012	0.660		0.004	General
200-Q	Patch	gold0067	Endangered	0	no	0.300	0.025	0.025	0.540		0.009	General
201-M	Patch	gold0022	Depleted	0	no	0.300	0.319	0.319	0.452		0.104	General
202-M	Patch	gold0022	Depleted	0	no	0.300	0.095	0.095	0.500		0.032	General
203-M	Patch	gold0022	Depleted	1	no	0.300	0.072	0.072	0.349		0.022	General
204-M	Patch	gold0022	Depleted	0	no	0.300	0.030	0.030	0.510		0.010	General
205-Q	Patch	gold0067	Endangered	0	no	0.300	0.101	0.101	0.660		0.038	General
206-T	Patch	gold0175	Vulnerable	0	no	0.430	0.083	0.083	0.680		0.045	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
207-M	Patch	gold0022	Depleted	0	no	0.300	0.019	0.019	0.300		0.006	General		
208-M	Patch	gold0022	Depleted	1	no	0.300	0.012	0.012	0.340		0.004	General		
210-M	Patch	gold0022	Depleted	0	no	0.300	0.028	0.028	0.467		0.009	General		
211-M	Patch	gold0022	Depleted	0	no	0.300	0.056	0.056	0.812		0.023	General		
212-M	Patch	gold0022	Depleted	0	no	0.300	0.013	0.013	0.530		0.005	General		
213-M	Patch	gold0022	Depleted	0	no	0.300	0.054	0.054	0.530		0.019	General		
214-M	Patch	gold0022	Depleted	0	no	0.300	0.200	0.200	0.808		0.081	General		
215-M	Patch	gold0022	Depleted	0	no	0.300	0.189	0.189	0.718		0.073	General		
216-O	Patch	gold0055	Endangered	0	no	0.400	0.062	0.062	0.529		0.028	General		
217-T	Patch	gold0175	Vulnerable	0	no	0.430	0.016	0.016	0.290		0.007	General		
218-T	Patch	gold0175	Vulnerable	0	no	0.360	0.001	0.001	0.510		0.000	General		
219-T	Patch	gold0175	Vulnerable	0	no	0.430	0.050	0.050	0.494		0.024	General		
220-O	Patch	gold0055	Endangered	0	no	0.200	0.002	0.002	0.530		0.000	General		
221-O	Patch	gold0055	Endangered	0	no	0.200	0.002	0.002	0.530		0.001	General		
222-O	Patch	gold0055	Endangered	0	no	0.200	0.006	0.006	0.529		0.001	General		

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
223-O	Patch	gold0055	Endangered	0	no	0.200	0.001	0.001	0.370		0.000	General
224-O	Patch	gold0055	Endangered	0	no	0.200	0.000	0.000	0.530		0.000	General
226-F	Patch	cvu_0067	Endangered	5	no	0.270	0.064	0.064	0.590		0.021	General
227-O	Patch	gold0055	Endangered	0	no	0.200	0.000	0.000	0.370		0.000	General
228-O	Patch	gold0055	Endangered	0	no	0.200	0.057	0.057	0.370		0.012	General
229-O	Patch	gold0055	Endangered	0	no	0.200	0.019	0.019	0.550		0.005	General
231-T	Patch	gold0175	Vulnerable	0	no	0.430	0.000	0.000	0.510		0.000	General
232-T	Patch	gold0175	Vulnerable	0	no	0.430	0.062	0.062	0.510		0.030	General
233-I	Patch	cvu_0175	Endangered	0	no	0.330	0.105	0.105	0.527		0.040	General
235-I	Patch	cvu_0175	Endangered	0	no	0.330	0.009	0.009	0.660		0.004	General
236-H	Patch	cvu_0071	Vulnerable	0	no	0.200	0.044	0.044	0.580		0.010	General
237-H	Patch	cvu_0071	Vulnerable	0	no	0.200	0.031	0.031	0.580		0.007	General
238-H	Patch	cvu_0071	Vulnerable	0	no	0.480	0.228	0.228	0.597		0.131	General
239-H	Patch	cvu_0071	Vulnerable	0	no	0.480	0.016	0.016	0.659		0.010	General
240-H	Patch	cvu_0071	Vulnerable	0	no	0.480	0.070	0.070	0.610		0.041	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
241-F	Patch	cvu_0067	Endangered	0	no	0.270	0.224	0.224	0.583		0.072	General
242-O	Patch	gold0055	Endangered	0	no	0.400	0.002	0.002	0.550		0.001	General
243-O	Patch	gold0055	Endangered	1	no	0.400	0.009	0.009	0.548		0.004	General
244-F	Patch	cvu_0067	Endangered	0	no	0.270	0.076	0.076	0.623		0.025	General
246-Q	Patch	gold0067	Endangered	0	no	0.400	0.010	0.010	0.520		0.005	General
247-T	Patch	gold0175	Vulnerable	0	no	0.430	0.115	0.115	0.517		0.056	General
248-O	Patch	gold0055	Endangered	0	no	0.400	0.010	0.010	0.550		0.004	General
249-O	Patch	gold0055	Endangered	0	no	0.400	0.035	0.035	0.596		0.017	General
250-T	Patch	gold0175	Vulnerable	0	no	0.430	0.045	0.045	0.569		0.023	General
251-T	Patch	gold0175	Vulnerable	0	no	0.430	0.016	0.016	0.570		0.008	General
253-N	Patch	gold0048	Depleted	0	no	0.270	0.049	0.049	0.510		0.015	General
254-Q	Patch	gold0067	Endangered	0	no	0.300	0.027	0.027	0.630		0.010	General
255-T	Patch	gold0175	Vulnerable	0	no	0.430	0.070	0.070	0.520		0.034	General
256-T	Patch	gold0175	Vulnerable	0	no	0.430	0.218	0.218	0.647		0.116	General
257-T	Patch	gold0175	Vulnerable	0	no	0.430	0.011	0.011	0.590		0.005	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
258-T	Patch	gold0175	Vulnerable	0	no	0.430	0.362	0.362	0.555		0.182	General
259-T	Patch	gold0175	Vulnerable	0	no	0.430	0.195	0.195	0.570		0.099	General
260-T	Patch	gold0175	Vulnerable	1	no	0.430	0.053	0.053	0.634		0.028	General
261-T	Patch	gold0175	Vulnerable	0	no	0.430	0.192	0.192	0.526		0.095	General
263-M	Patch	gold0022	Depleted	0	no	0.490	0.071	0.071	0.896		0.049	General
264-M	Patch	gold0022	Depleted	0	no	0.490	0.112	0.112	0.930		0.080	General
265-M	Patch	gold0022	Depleted	0	no	0.490	0.039	0.039	0.930		0.027	General
267-Q	Patch	gold0067	Endangered	0	no	0.400	0.059	0.059	0.520		0.027	General
268-Q	Patch	gold0067	Endangered	0	no	0.400	0.131	0.131	0.530		0.060	General
269-Q	Patch	gold0067	Endangered	0	no	0.240	0.033	0.033	0.320		0.008	General
270-T	Patch	gold0175	Vulnerable	0	no	0.430	0.143	0.143	0.437		0.066	General
271-M	Patch	gold0022	Depleted	0	no	0.490	0.016	0.016	0.880		0.011	General
272-T	Patch	gold0175	Vulnerable	0	no	0.360	0.146	0.146	0.548		0.061	General
273-I	Patch	cvu_0175	Endangered	1	no	0.250	0.169	0.169	0.624		0.051	General
274-M	Patch	gold0022	Depleted	2	no	0.300	0.321	0.321	0.522		0.110	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
275-M	Patch	gold0022	Depleted	0	no	0.300	0.058	0.058	0.623		0.021	General
276-M	Patch	gold0022	Depleted	4	no	0.490	0.179	0.179	0.590		0.105	General
277-M	Patch	gold0022	Depleted	0	no	0.300	0.064	0.064	0.490		0.021	General
278-T	Patch	gold0175	Vulnerable	0	no	0.430	0.004	0.004	0.560		0.002	General
279-T	Patch	gold0175	Vulnerable	0	no	0.430	0.011	0.011	0.870		0.007	General
280-F	Patch	cvu_0067	Endangered	0	no	0.280	0.009	0.009	0.650		0.003	General
281-M	Patch	gold0022	Depleted	1	no	0.490	0.022	0.022	0.650		0.013	General
282-M	Patch	gold0022	Depleted	0	no	0.490	0.053	0.053	0.620		0.032	General
284-I	Patch	cvu_0175	Endangered	0	no	0.330	0.067	0.067	0.510		0.025	General
286-Q	Patch	gold0067	Endangered	0	no	0.220	0.030	0.030	0.560		0.008	General
287-M	Patch	gold0022	Depleted	0	no	0.490	0.042	0.042	0.560		0.024	General
288-Q	Patch	gold0067	Endangered	0	no	0.220	0.035	0.035	0.376		0.008	General
289-Q	Patch	gold0067	Endangered	0	no	0.220	0.029	0.029	0.380		0.007	General
290-Q	Patch	gold0067	Endangered	0	no	0.220	0.027	0.027	0.320		0.006	General
293-G	Patch	cvu_0068	Endangered	0	no	0.260	0.012	0.012	0.290		0.003	General



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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
294-G	Patch	cvu_0068	Endangered	0	no	0.260	0.012	0.012	0.470		0.003	General
295-Z	Patch	wim_0055	Endangered	0	no	0.260	0.007	0.007	0.680		0.002	General
296-Z	Patch	wim_0055	Endangered	0	no	0.260	0.035	0.035	0.680		0.012	General
297-Z	Patch	wim_0055	Endangered	0	no	0.260	0.095	0.095	0.626		0.030	General
303-Z	Patch	wim_0055	Endangered	0	no	0.260	0.046	0.046	0.510		0.013	General
308-Q	Patch	gold0067	Endangered	0	no	0.300	0.009	0.009	0.360		0.003	General
312-F	Patch	cvu_0067	Endangered	0	no	0.410	0.016	0.016	0.480		0.007	General
313-F	Patch	cvu_0067	Endangered	0	no	0.410	0.139	0.139	0.569		0.067	General
314-F	Patch	cvu_0067	Endangered	0	no	0.410	0.024	0.024	0.327		0.010	General
315-F	Patch	cvu_0067	Endangered	0	no	0.410	0.148	0.148	0.399		0.064	General
316-F	Patch	cvu_0067	Endangered	0	no	0.410	0.642	0.642	0.440		0.285	General
317-F	Patch	cvu_0067	Endangered	0	no	0.410	0.019	0.019	0.490		0.009	General
318-I	Patch	cvu_0175	Endangered	0	no	0.330	0.001	0.001	0.490		0.000	General
319-I	Patch	cvu_0175	Endangered	0	no	0.330	0.006	0.006	0.490		0.002	General
320-F	Patch	cvu_0067	Endangered	0	no	0.410	0.092	0.092	0.541		0.044	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
321-F	Patch	cvu_0067	Endangered	0	no	0.410	0.226	0.226	0.721		0.119	General
322-F	Patch	cvu_0067	Endangered	0	no	0.410	0.209	0.209	0.886		0.121	General
323-I	Patch	cvu_0175	Endangered	0	no	0.330	0.003	0.003	0.490		0.001	General
324-F	Patch	cvu_0067	Endangered	0	no	0.410	0.024	0.024	0.490		0.011	General
325-F	Patch	cvu_0067	Endangered	0	no	0.410	0.002	0.002	0.510		0.001	General
326-F	Patch	cvu_0067	Endangered	1	no	0.410	0.001	0.001	0.560		0.001	General
327-O	Patch	gold0055	Endangered	0	no	0.400	0.039	0.039	0.554		0.018	General
328-F	Patch	cvu_0067	Endangered	0	no	0.410	0.000	0.000	0.500		0.000	General
329-F	Patch	cvu_0067	Endangered	0	no	0.410	0.002	0.002	0.500		0.001	General
330-F	Patch	cvu_0067	Endangered	0	no	0.410	0.445	0.445	0.515		0.207	General
331-F	Patch	cvu_0067	Endangered	0	no	0.410	0.000	0.000	0.500		0.000	General
332-O	Patch	gold0055	Endangered	0	no	0.400	0.012	0.012	0.600		0.006	General
333-F	Patch	cvu_0067	Endangered	0	no	0.410	0.019	0.019	0.500		0.009	General
334-S	Patch	gold0072	Endangered	1	no	0.320	0.038	0.038	0.540		0.014	General
335-S	Patch	gold0072	Endangered	1	no	0.320	0.134	0.134	0.558		0.050	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
336-S	Patch	gold0072	Endangered	0	no	0.320	0.102	0.102	0.551		0.038	General
337-I	Patch	cvu_0175	Endangered	1	no	0.330	0.043	0.043	0.290		0.014	General
338-T	Patch	gold0175	Vulnerable	0	no	0.430	0.111	0.111	0.433		0.051	General
339-C	Patch	cvu_0022	Depleted	0	no	0.340	0.070	0.070	0.560		0.028	General
342-M	Patch	gold0022	Depleted	0	no	0.490	0.024	0.024	0.480		0.013	General
343-T	Patch	gold0175	Vulnerable	0	no	0.240	0.107	0.107	0.481		0.029	General
344-Q	Patch	gold0067	Endangered	0	no	0.220	0.019	0.019	0.540		0.005	General
345-Q	Patch	gold0067	Endangered	0	no	0.220	0.082	0.082	0.527		0.021	General
346-T	Patch	gold0175	Vulnerable	0	no	0.240	0.090	0.090	0.540		0.025	General
347-T	Patch	gold0175	Vulnerable	0	no	0.240	0.358	0.358	0.506		0.097	General
349-T	Patch	gold0175	Vulnerable	0	no	0.240	0.015	0.015	0.570		0.004	General
350-M	Patch	gold0022	Depleted	1	no	0.350	0.026	0.026	0.610		0.011	General
351-M	Patch	gold0022	Depleted	0	no	0.350	0.009	0.009	0.610		0.004	General
354-Q	Patch	gold0067	Endangered	0	no	0.220	0.023	0.023	0.660		0.006	General
356-U	Patch	wp_0055	Endangered	0	no	0.270	0.039	0.039	0.920		0.015	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type			
357-F	Patch	cvu_0067	Endangered	0	no	0.280	0.023	0.023	0.610		0.008	General			
358-Q	Patch	gold0067	Endangered	0	no	0.220	0.125	0.125	0.720		0.035	General			
359-F	Patch	cvu_0067	Endangered	0	no	0.280	0.054	0.054	0.608		0.018	General			
361-F	Patch	cvu_0067	Endangered	0	no	0.280	0.052	0.052	0.530		0.017	General			
362-M	Patch	gold0022	Depleted	0	no	0.350	0.053	0.053	0.873		0.026	General			
363-M	Patch	gold0022	Depleted	2	no	0.490	0.185	0.185	0.604		0.109	General			
364-M	Patch	gold0022	Depleted	1	no	0.490	0.221	0.221	0.684		0.137	General			
365-I	Patch	cvu_0175	Endangered	1	no	0.250	0.040	0.040	0.880		0.014	General			
366-M	Patch	gold0022	Depleted	0	no	0.490	0.017	0.017	0.700		0.011	General			
367-Y	Patch	vvp_0132_61	Endangered	0	no	0.120	0.148	0.148	0.591		0.021	General			
368-Y	Patch	vvp_0132_61	Endangered	0	no	0.120	0.136	0.136	0.317		0.016	General			
369-I	Patch	cvu_0175	Endangered	0	no	0.310	0.070	0.070	0.670		0.027	General			
370-U	Patch	vvp_0055	Endangered	0	no	0.270	0.000	0.000	0.920		0.000	General			
371-M	Patch	gold0022	Depleted	1	no	0.490	0.050	0.050	0.523		0.028	General			
372-U	Patch	vvp_0055	Endangered	0	no	0.210	0.069	0.069	0.840		0.020	General			
373-I	Patch	cvu_0175	Endangered	0	no	0.250	0.056	0.056	0.850		0.019	General			

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
374-M	Patch	gold0022	Depleted	1	no	0.490	0.006	0.006	0.580		0.004	General		
375-M	Patch	gold0022	Depleted	1	no	0.490	0.024	0.024	0.587		0.014	General		
376-M	Patch	gold0022	Depleted	1	no	0.490	0.013	0.013	0.530		0.007	General		
377-M	Patch	gold0022	Depleted	0	no	0.490	0.018	0.018	0.530		0.010	General		
378-I	Patch	cvu_0175	Endangered	0	no	0.250	0.178	0.178	0.594		0.053	General		
379-M	Patch	gold0022	Depleted	0	no	0.490	0.040	0.040	0.709		0.025	General		
380-S	Patch	gold0072	Endangered	0	no	0.320	0.051	0.051	0.480		0.018	General		
381-T	Patch	gold0175	Vulnerable	0	no	0.240	0.103	0.103	0.827		0.034	General		
382-M	Patch	gold0022	Depleted	0	no	0.490	0.165	0.165	0.523		0.092	General		
383-Q	Patch	gold0067	Endangered	0	no	0.220	0.161	0.161	0.673		0.045	General		
384-Q	Patch	gold0067	Endangered	2	no	0.220	0.836	0.836	0.657		0.229	General		
385-Q	Patch	gold0067	Endangered	0	no	0.220	0.041	0.041	0.540		0.010	General		
386-Q	Patch	gold0067	Endangered	0	no	0.220	0.062	0.062	0.585		0.016	General		
387-Q	Patch	gold0067	Endangered	0	no	0.220	0.002	0.002	0.520		0.000	General		
388-M	Patch	gold0022	Depleted	1	no	0.350	0.135	0.135	0.664		0.059	General		

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
389-M	Patch	gold0022	Depleted	0	no	0.350	0.012	0.012	0.480		0.004	General		
390-M	Patch	gold0022	Depleted	0	no	0.490	0.024	0.024	0.520		0.014	General		
391-Q	Patch	gold0067	Endangered	0	no	0.220	0.073	0.073	0.780		0.022	General		
392-Q	Patch	gold0067	Endangered	0	no	0.220	0.094	0.094	0.690		0.026	General		
393-U	Patch	vvp_0055	Endangered	0	no	0.270	0.033	0.033	0.600		0.011	General		
394-U	Patch	vvp_0055	Endangered	0	no	0.270	0.359	0.359	0.757		0.128	General		
395-Q	Patch	gold0067	Endangered	4	no	0.220	0.090	0.090	0.622		0.024	General		
396-Q	Patch	gold0067	Endangered	1	no	0.220	0.062	0.062	0.520		0.016	General		
397-P	Patch	gold0056	Endangered	0	no	0.240	0.011	0.011	0.530		0.003	General		
400-P	Patch	gold0056	Endangered	0	no	0.240	0.000	0.000	0.530		0.000	General		
401-F	Patch	cvu_0067	Endangered	1	no	0.280	0.106	0.106	0.810		0.040	General		
402-S	Patch	gold0072	Endangered	0	no	0.320	0.136	0.136	0.711		0.056	General		
403-S	Patch	gold0072	Endangered	0	no	0.320	0.028	0.028	0.500		0.010	General		
404-S	Patch	gold0072	Endangered	0	no	0.320	0.105	0.105	0.527		0.038	General		
406-F	Patch	cvu_0067	Endangered	0	no	0.280	0.033	0.033	0.510		0.010	General		

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
407-F	Patch	cvu_0067	Endangered	0	no	0.280	0.025	0.025	0.584		0.008	General		
408-F	Patch	cvu_0067	Endangered	0	no	0.280	0.019	0.019	0.870		0.008	General		
409-F	Patch	cvu_0067	Endangered	1	no	0.280	0.216	0.216	0.870		0.085	General		
411-V	Patch	wp_0056	Endangered	0	no	0.280	0.192	0.192	0.873		0.075	General		
412-T	Patch	gold0175	Vulnerable	0	no	0.430	0.028	0.028	0.820		0.017	General		
413-U	Patch	wp_0055	Endangered	0	no	0.270	0.155	0.155	0.650		0.052	General		
414-S	Patch	gold0072	Endangered	0	no	0.320	0.196	0.196	0.498		0.070	General		
415-C	Patch	cvu_0022	Depleted	0	no	0.340	0.024	0.024	0.340		0.008	General		
416-U	Patch	wp_0055	Endangered	0	no	0.210	0.066	0.066	0.750		0.018	General		
417-Y	Patch	wp_0132_61	Endangered	0	no	0.120	0.052	0.052	0.570		0.007	General		
419-I	Patch	cvu_0175	Endangered	0	no	0.330	0.102	0.102	0.360		0.034	General		
420-C	Patch	cvu_0022	Depleted	0	no	0.340	0.063	0.063	0.600		0.026	General		
421-F	Patch	cvu_0067	Endangered	4	no	0.280	0.072	0.072	0.483		0.023	General		
422-C	Patch	cvu_0022	Depleted	0	no	0.180	0.068	0.068	0.480		0.014	General		
423-C	Patch	cvu_0022	Depleted	0	no	0.180	0.002	0.002	0.480		0.000	General		

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
424-F	Patch	cvu_0067	Endangered	0	no	0.410	0.092	0.092	0.760		0.050	General		
425-F	Patch	cvu_0067	Endangered	0	no	0.410	0.049	0.049	0.760		0.026	General		
426-E	Patch	cvu_0055	Endangered	1	no	0.300	0.025	0.025	0.420		0.008	General		
427-E	Patch	cvu_0055	Endangered	0	no	0.240	0.089	0.089	0.402		0.022	General		
428-V	Patch	wp_0056	Endangered	0	no	0.280	0.013	0.013	0.510		0.004	General		
429-I	Patch	cvu_0175	Endangered	0	no	0.330	0.038	0.038	0.370		0.013	General		
430-I	Patch	cvu_0175	Endangered	0	no	0.330	0.087	0.087	0.387		0.030	General		
431-I	Patch	cvu_0175	Endangered	0	no	0.330	0.231	0.231	0.404		0.080	General		
432-I	Patch	cvu_0175	Endangered	0	no	0.330	0.064	0.064	0.813		0.029	General		
433-I	Patch	cvu_0175	Endangered	0	no	0.330	0.085	0.085	0.580		0.033	General		
436-F	Patch	cvu_0067	Endangered	1	no	0.280	0.070	0.070	0.798		0.027	General		
437-F	Patch	cvu_0067	Endangered	1	no	0.280	0.078	0.078	0.790		0.029	General		
438-C	Patch	cvu_0022	Depleted	4	no	0.340	0.261	0.261	0.699		0.113	General		
439-C	Patch	cvu_0022	Depleted	0	no	0.340	0.007	0.007	0.630		0.003	General		
440-C	Patch	cvu_0022	Depleted	0	no	0.340	0.046	0.046	0.630		0.019	General		
441-C	Patch	cvu_0022	Depleted	0	no	0.340	0.006	0.006	0.630		0.002	General		
442-I	Patch	cvu_0175	Endangered	0	no	0.330	0.293	0.293	0.407		0.102	General		



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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type			
443-I	Patch	cvu_0175	Endangered	0	no	0.330	0.278	0.278	0.532		0.105	General			
444-I	Patch	cvu_0175	Endangered	1	no	0.330	0.023	0.023	0.571		0.009	General			
445-K	Patch	dunt0055	Endangered	0	no	0.260	0.011	0.011	0.630		0.004	General			
446-K	Patch	dunt0055	Endangered	0	no	0.260	0.050	0.050	0.804		0.018	General			
447-K	Patch	dunt0055	Endangered	0	no	0.260	0.092	0.092	0.712		0.031	General			
448-K	Patch	dunt0055	Endangered	0	no	0.260	0.052	0.052	0.830		0.019	General			
449-K	Patch	dunt0055	Endangered	0	no	0.260	0.017	0.017	0.775		0.006	General			
450-K	Patch	dunt0055	Endangered	0	no	0.260	0.030	0.030	0.686		0.010	General			
451-K	Patch	dunt0055	Endangered	0	no	0.260	0.094	0.094	0.600		0.029	General			
453-K	Patch	dunt0055	Endangered	0	no	0.260	0.038	0.038	0.760		0.013	General			
454-I	Patch	cvu_0175	Endangered	2	no	0.330	0.100	0.100	0.616		0.040	General			
455-K	Patch	dunt0055	Endangered	0	no	0.260	0.022	0.022	0.640		0.007	General			
456-K	Patch	dunt0055	Endangered	0	no	0.260	0.147	0.147	0.559		0.045	General			
457-E	Patch	cvu_0055	Endangered	0	no	0.300	0.117	0.117	0.686		0.044	General			
458-I	Patch	cvu_0175	Endangered	0	no	0.330	0.023	0.023	0.736		0.010	General			
459-V	Patch	wp_0056	Endangered	0	no	0.280	0.058	0.058	0.630		0.020	General			

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
460-V	Patch	wp_0056	Endangered	0	no	0.280	0.001	0.001	0.630		0.000	General		
461-V	Patch	wp_0056	Endangered	0	no	0.280	0.015	0.015	0.453		0.005	General		
463-K	Patch	dunt0055	Endangered	0	no	0.360	0.034	0.034	0.780		0.017	General		
464-K	Patch	dunt0055	Endangered	2	no	0.360	0.221	0.221	0.780		0.106	General		
468-I	Patch	cvu_0175	Endangered	0	no	0.330	0.044	0.044	0.510		0.016	General		
469-K	Patch	dunt0055	Endangered	0	no	0.360	0.008	0.008	0.640		0.003	General		
470-K	Patch	dunt0055	Endangered	0	no	0.360	0.010	0.010	0.640		0.004	General		
471-K	Patch	dunt0055	Endangered	0	no	0.360	0.067	0.067	0.634		0.029	General		
472-K	Patch	dunt0055	Endangered	0	no	0.360	0.040	0.040	0.630		0.018	General		
473-K	Patch	dunt0055	Endangered	0	no	0.360	0.012	0.012	0.630		0.005	General		
474-K	Patch	dunt0055	Endangered	0	no	0.360	0.196	0.196	0.611		0.085	General		
475-K	Patch	dunt0055	Endangered	0	no	0.360	0.002	0.002	0.600		0.001	General		
476-K	Patch	dunt0055	Endangered	0	no	0.360	0.146	0.146	0.345		0.053	General		
477-W	Patch	wp_0125	Endangered	0	no	0.250	0.127	0.127	0.211		0.029	General		
479-J	Patch	dunt0003	Vulnerable	0	no	0.150	0.379	0.379	0.334		0.057	General		

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
481-Y	Patch	vp_0132_61	Endangered	0	no	0.120	0.130	0.130	0.596		0.019	General
482-Y	Patch	vp_0132_61	Endangered	0	no	0.120	0.207	0.207	0.595		0.030	General
483-Y	Patch	vp_0132_61	Endangered	0	no	0.510	0.087	0.087	0.713		0.057	General
484-Y	Patch	vp_0132_61	Endangered	0	no	0.120	0.040	0.040	0.940		0.007	General
485-Y	Patch	vp_0132_61	Endangered	0	no	0.120	0.037	0.037	0.890		0.006	General
486-Y	Patch	vp_0132_61	Endangered	0	no	0.120	0.046	0.046	0.790		0.007	General
489-A	Patch	vp_0641	Endangered	0	no	0.140	0.112	0.112	0.525		0.018	General
490-X	Patch	vp_0125	Endangered	0	no	0.280	0.072	0.072	0.235		0.019	General
491-K	Patch	dunt0055	Endangered	0	no	0.270	0.004	0.004	0.620		0.001	General
492-K	Patch	dunt0055	Endangered	1	no	0.270	0.004	0.004	0.620		0.001	General
493-M	Patch	gold0022	Depleted	0	no	0.300	0.001	0.001	0.500		0.000	General
495-T	Patch	gold0175	Vulnerable	0	no	0.430	0.001	0.001	0.540		0.000	General
497-M	Patch	gold0022	Depleted	0	no	0.300	0.003	0.003	0.860		0.001	General
499-O	Patch	gold0055	Endangered	0	no	0.200	0.201	0.201	0.518		0.046	General
501-T	Patch	gold0175	Vulnerable	0	no	0.430	0.001	0.001	0.520		0.000	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
502-T	Patch	gold0175	Vulnerable	0	no	0.430	0.001	0.001	0.870		0.000	General		
507-F	Patch	cvu_0067	Endangered	0	no	0.410	0.001	0.001	0.940		0.001	General		
508-F	Patch	cvu_0067	Endangered	0	no	0.410	0.000	0.000	0.970		0.000	General		
509-F	Patch	cvu_0067	Endangered	0	no	0.410	0.000	0.000	0.510		0.000	General		
511-F	Patch	cvu_0067	Endangered	0	no	0.410	0.001	0.001	0.560		0.000	General		
513-U	Patch	wp_0055	Endangered	0	no	0.210	0.000	0.000	0.840		0.000	General		
514-F	Patch	cvu_0067	Endangered	0	no	0.280	0.001	0.001	0.810		0.000	General		
516-F	Patch	cvu_0067	Endangered	0	no	0.410	0.000	0.000	0.760		0.000	General		
517-I	Patch	cvu_0175	Endangered	0	no	0.330	0.002	0.002	0.585		0.001	General		
518-I	Patch	cvu_0175	Endangered	0	no	0.330	0.001	0.001	0.600		0.000	General		
519-E	Patch	cvu_0055	Endangered	0	no	0.300	0.012	0.012	0.750		0.005	General		
520-E	Patch	cvu_0055	Endangered	0	no	0.300	0.001	0.001	0.640		0.000	General		
521-I	Patch	cvu_0175	Endangered	0	no	0.330	0.001	0.001	0.750		0.000	General		
522-E	Patch	cvu_0055	Endangered	0	no	0.300	0.000	0.000	0.750		0.000	General		
526-Y	Patch	wp_0132_61	Endangered	0	no	0.120	0.002	0.002	0.710		0.000	General		
528-Y	Patch	wp_0132_61	Endangered	0	no	0.510	0.000	0.000	0.923		0.000	General		

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
529-Y	Patch	vvp_0132_61	Endangered	0	no	0.120	0.003	0.003	0.940		0.000	General
530-Y	Patch	vvp_0132_61	Endangered	0	no	0.120	0.000	0.000	0.940		0.000	General
532-E	Patch	cvu_0055	Endangered	0	no	0.300	0.000	0.000	0.750		0.000	General
534-A	Patch	cvu_0067	Endangered	0	no	0.640	0.000	0.000	0.480		0.000	General
535-A	Patch	cvu_0067	Endangered	0	no	0.595	0.007	0.007	0.940		0.006	General
536-A	Patch	cvu_0067	Endangered	0	no	0.620	0.001	0.001	0.940		0.001	General
537-A	Patch	cvu_0067	Endangered	0	no	0.700	0.003	0.003	0.970		0.003	General
538-A	Patch	cvu_0067	Endangered	0	no	0.693	0.250	0.250	0.643		0.213	General
540-A	Patch	cvu_0068	Endangered	0	no	0.620	0.021	0.021	0.578		0.016	General
541-A	Patch	cvu_0152	Endangered	0	no	0.700	0.019	0.019	0.640		0.016	General
542-A	Patch	cvu_0152	Endangered	0	no	0.260	0.101	0.101	0.500		0.029	General
545-A	Patch	gold0055	Endangered	0	no	0.095	0.080	0.080	0.576		0.009	General
551-A	Patch	dunt0175	Endangered	0	no	0.355	0.197	0.197	0.511		0.079	General
552-A	Patch	dunt0175	Endangered	0	no	0.460	0.038	0.038	0.526		0.020	General
553-A	Patch	vvp_0641	Endangered	0	no	0.200	0.053	0.053	0.378		0.011	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
555-A	Patch	wp_0055	Endangered	0	no	0.255	0.032	0.032	0.610		0.010	General
558-A	Patch	wp_0125	Endangered	0	no	0.227	0.113	0.113	0.500		0.029	General
562-A	Patch	wp_0125	Endangered	0	no	0.597	0.077	0.077	0.469		0.051	General
566-A	Patch	wp_0897	Endangered	0	no	0.210	0.000	0.000	0.230		0.000	General
571-A	Patch	wp_0132	Endangered	0	no	0.200	0.000	0.000	0.320		0.000	General
580-A	Patch	dunt0055	Endangered	2	no	0.640	0.113	0.113	0.588		0.086	General
581-A	Patch	dunt0055	Endangered	0	no	0.655	0.036	0.036	0.630		0.029	General
582-A	Patch	dunt0055	Endangered	0	no	0.691	0.290	0.290	0.810		0.272	General
585-A	Patch	wp_0132	Endangered	0	no	0.568	0.129	0.129	0.927		0.106	General
587-A	Patch	cvu_0896	Endangered	0	no	0.200	0.000	0.000	0.310		0.000	General
588-A	Patch	wp_0055	Endangered	0	no	0.680	0.024	0.024	0.667		0.021	General
589-A	Patch	wp_0055	Endangered	0	no	0.530	0.042	0.042	0.640		0.027	General
591-A	Patch	wp_0132	Endangered	0	no	0.330	0.122	0.122	0.180		0.036	General
601-A	Patch	cvu_0896	Endangered	0	no	0.230	0.073	0.073	0.516		0.019	General
602-A	Patch	wp_0132	Endangered	0	no	0.194	0.000	0.000	0.400		0.000	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
604-A	Patch	wp_0132	Endangered	0	no	0.247	0.087	0.087	0.536		0.025	General		
615-A	Patch	wp_0056	Endangered	0	no	0.610	0.000	0.000	0.450		0.000	General		
616-A	Patch	wp_0647	Endangered	0	no	0.503	0.114	0.114	0.630		0.070	General		
617-A	Patch	wp_0132	Endangered	0	no	0.225	0.064	0.064	0.490		0.016	General		
626-A	Patch	wim_0055	Endangered	0	no	0.172	0.697	0.697	0.374		0.124	General		
627-A	Patch	wim_0055	Endangered	0	no	0.380	0.125	0.125	0.624		0.058	General		
635-A	Patch	wp_0055	Endangered	0	no	0.250	0.074	0.074	0.370		0.019	General		
636-A	Patch	dunt0055	Endangered	0	no	0.660	0.064	0.064	0.585		0.050	General		
643-A	Patch	cvu_0175	Endangered	0	no	0.380	0.013	0.013	0.380		0.005	General		
644-A	Patch	cvu_0175	Endangered	0	no	0.435	0.056	0.056	0.380		0.025	General		
652-A	Patch	wp_0132	Endangered	0	no	0.347	0.126	0.126	0.402		0.046	General		
655-A	Patch	wp_0152	Endangered	0	no	0.688	0.517	0.517	0.658		0.442	General		
656-A	Patch	wp_0152	Endangered	2	no	0.700	0.162	0.162	0.831		0.156	General		
659-A	Patch	wp_0132	Endangered	0	no	0.200	0.028	0.028	0.350		0.006	General		
660-A	Patch	wp_0132	Endangered	0	no	0.235	0.062	0.062	0.342		0.015	General		

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type		
670-A	Patch	cvu_0067	Endangered	0	no	0.350	0.003	0.003	0.690		0.001	General		
673-A	Patch	wp_0132	Endangered	0	no	0.545	0.074	0.074	0.676		0.051	General		
679-A	Patch	wp_0055	Endangered	0	no	0.750	0.032	0.032	0.840		0.033	General		
682-A	Patch	gold0175	Vulnerable	0	no	0.555	0.107	0.107	0.805		0.080	General		
683-A	Patch	gold0175	Vulnerable	0	no	0.540	0.409	0.409	0.478		0.245	General		
687-A	Patch	wp_0132	Endangered	0	no	0.403	0.190	0.190	0.617		0.093	General		
689-A	Patch	cvu_0896	Endangered	0	no	0.483	0.071	0.071	0.599		0.041	General		
690-A	Patch	cvu_0896	Endangered	0	no	0.523	0.115	0.115	0.380		0.062	General		
691-A	Patch	cvu_0055	Endangered	1	no	0.728	0.111	0.111	0.668		0.101	General		
709-A	Patch	wp_0641	Endangered	0	no	0.363	0.080	0.080	0.450		0.031	General		
715-A	Patch	wp_0132	Endangered	0	no	0.380	0.205	0.205	0.401		0.082	General		
717-A	Patch	gold0048	Depleted	0	no	0.490	0.022	0.022	0.520		0.012	General		
719-A	Patch	wp_0897	Endangered	0	no	0.310	0.084	0.084	0.460		0.028	General		
722-A	Patch	dunt0055	Endangered	3	no	0.460	0.849	0.849	0.479		0.433	General		
729-A	Patch	wp_0132	Endangered	0	no	0.302	0.541	0.541	0.466		0.179	General		



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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
732-A	Patch	wp_0055	Endangered	0	no	0.508	0.300	0.300	0.654		0.189	General
734-A	Patch	wp_0055	Endangered	0	no	0.628	0.244	0.244	0.635		0.188	General
737-A	Patch	wp_0897	Endangered	0	no	0.042	0.192	0.192	0.233		0.007	General
745-A	Patch	gold0076	Endangered	0	no	0.590	0.057	0.057	0.480		0.037	General
746-A	Patch	gold0022	Depleted	0	no	0.545	0.786	0.786	0.474		0.474	General
748-A	Patch	gold0022	Depleted	0	no	0.570	0.078	0.078	0.920		0.064	General
750-A	Patch	wp_0125	Endangered	0	no	0.230	0.151	0.151	0.430		0.037	General
752-A	Patch	wp_0132	Endangered	0	no	0.690	0.006	0.006	0.640		0.005	General
753-A	Patch	wp_0132	Endangered	1	no	0.690	0.022	0.022	0.630		0.019	General
754-A	Patch	wp_0068	Endangered	0	no	0.603	0.094	0.094	0.620		0.069	General
777-A	Patch	dunt0056	Vulnerable	0	no	0.360	0.382	0.382	0.438		0.148	General
778-A	Patch	dunt0055	Endangered	0	no	0.370	0.000	0.000	0.380		0.000	General
789-B	Patch	wp_0132	Endangered	0	no	0.200	0.000	0.000	0.320		0.000	General
791-B	Patch	gold0048	Depleted	0	no	0.430	0.001	0.001	0.520		0.000	General
793-B	Patch	gold0076	Endangered	0	no	0.550	0.002	0.002	0.480		0.001	General

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Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
797-B	Patch	gold0022	Depleted	0	no	0.650	0.001	0.001	0.570		0.001	General
798-B	Patch	gold0022	Depleted	0	no	0.557	0.006	0.006	0.320		0.003	General
799-B	Patch	gold0022	Depleted	0	no	0.510	0.000	0.000	0.920		0.000	General
801-B	Patch	gold0175	Vulnerable	0	no	0.710	0.001	0.001	0.870		0.001	General
805-B	Patch	cvu_0152	Endangered	0	no	0.200	0.006	0.006	0.500		0.001	General
806-B	Patch	cvu_0067	Endangered	0	no	0.677	0.000	0.000	0.970		0.000	General
810-B	Patch	cvu_0067	Endangered	0	no	0.677	0.000	0.000	0.970		0.000	General
812-B	Patch	cvu_0067	Endangered	0	no	0.677	0.000	0.000	0.970		0.000	General
817-B	Patch	wp_0152	Endangered	0	no	0.695	0.004	0.004	0.670		0.003	General
818-B	Patch	wp_0152	Endangered	0	no	0.695	0.003	0.003	0.670		0.002	General
819-B	Patch	wp_0055	Endangered	0	no	0.750	0.000	0.000	0.840		0.000	General
826-B	Patch	cvu_0067	Endangered	0	no	0.350	0.001	0.001	0.690		0.000	General
828-B	Patch	cvu_0896	Endangered	0	no	0.465	0.001	0.001	0.600		0.001	General
830-B	Patch	cvu_0896	Endangered	0	no	0.465	0.000	0.000	0.600		0.000	General
832-B	Patch	cvu_0896	Endangered	0	no	0.727	0.001	0.001	0.603		0.001	General

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
833-B	Patch	cvu_0896	Endangered	0	no	0.727	0.005	0.005	0.750		0.005	General
835-B	Patch	cvu_0055	Endangered	0	no	0.727	0.001	0.001	0.750		0.001	General
836-B	Patch	cvu_0055	Endangered	0	no	0.770	0.000	0.000	0.750		0.000	General
837-B	Patch	cvu_0055	Endangered	0	no	0.770	0.000	0.000	0.640		0.000	General
842-B	Patch	cvu_0055	Endangered	0	no	0.760	0.001	0.001	0.640		0.001	General
844-B	Patch	cvu_0055	Endangered	0	no	0.705	0.000	0.000	0.640		0.000	General
845-B	Patch	wp_0055	Endangered	0	no	0.705	0.000	0.000	0.640		0.000	General
849-B	Patch	wp_0055	Endangered	0	no	0.500	0.000	0.000	0.370		0.000	General
850-B	Patch	wp_0055	Endangered	0	no	0.200	0.000	0.000	0.370		0.000	General
853-B	Patch	cvu_0896	Endangered	0	no	0.145	0.000	0.000	0.510		0.000	General
857-B	Patch	wp_0125	Endangered	0	no	0.140	0.001	0.001	0.500		0.000	General
858-B	Patch	dunt0055	Endangered	0	no	0.580	0.002	0.002	0.510		0.001	General
862-B	Patch	dunt0055	Endangered	0	no	0.700	0.000	0.000	0.540		0.000	General
867-B	Patch	wp_0132	Endangered	0	no	0.530	0.000	0.000	0.550		0.000	General
879-B	Patch	wp_0691	Endangered	0	no	0.440	0.000	0.000	0.710		0.000	General

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
880-B	Patch	wp_0132	Endangered	0	no	0.440	0.004	0.004	0.845		0.002	General
882-B	Patch	wp_0132	Endangered	0	no	0.700	0.004	0.004	0.940		0.004	General
908-B	Patch	wp_0055	Endangered	0	no	0.510	0.000	0.000	0.610		0.000	General
910-B	Patch	wp_0132	Endangered	0	no	0.390	0.001	0.001	0.451		0.000	General
912-B	Patch	wp_0055	Endangered	0	no	0.660	0.000	0.000	0.650		0.000	General
913-B	Patch	wp_0055	Endangered	0	no	0.590	0.000	0.000	0.650		0.000	General
917-B	Patch	wp_0132	Endangered	0	no	0.225	0.000	0.000	0.400		0.000	General
924-B	Patch	wp_0641	Endangered	0	no	0.200	0.000	0.000	0.450		0.000	General
925-B	Patch	wp_0641	Endangered	0	no	0.470	0.000	0.000	0.450		0.000	General
930-B	Patch	wp_0125	Endangered	0	no	0.620	0.001	0.001	0.610		0.001	General
931-B	Patch	wp_0125	Endangered	0	no	0.620	0.002	0.002	0.610		0.001	General
938-B	Patch	wp_0056	Endangered	0	no	0.630	0.004	0.004	0.800		0.004	General
939-B	Patch	wp_0055	Endangered	0	no	0.660	0.001	0.001	0.440		0.001	General
951-B	Patch	cvu_0896	Endangered	0	no	0.145	0.001	0.001	0.510		0.000	General
954-B	Patch	wp_0132	Endangered	0	no	0.200	0.000	0.000	0.360		0.000	General

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
955-B	Patch	wp_0132	Endangered	0	no	0.200	0.008	0.008	0.310		0.002	General
961-B	Patch	wp_0132	Endangered	0	no	0.200	0.000	0.000	0.350		0.000	General
968-B	Patch	wp_0055	Endangered	0	no	0.200	0.000	0.000	0.610		0.000	General
972-B	Patch	wp_0132	Endangered	0	no	0.225	0.000	0.000	0.400		0.000	General
973-B	Patch	wp_0125	Endangered	0	no	0.200	0.001	0.001	0.430		0.000	General
976-B	Patch	wp_0641	Endangered	0	no	0.200	0.000	0.000	0.250		0.000	General

## Appendix 2: Information about impacts to rare or threatened species' habitats on site

This table lists all rare or threatened species' habitats mapped at the site.

Species common name	Species scientific name	Species number	Conservation status	Group	Habitat impacted	% habitat value affected
Tawny Spider-orchid	<i>Caladenia fulva</i>	504498	Endangered	Dispersed	Habitat importance map	0.0050
White Sunray	<i>Leucochrysum albicans subsp. tricolor</i>	504581	Endangered	Dispersed	Habitat importance map	0.0042
Striped Legless Lizard	<i>Delma impar</i>	12159	Endangered	Dispersed	Habitat importance map	0.0036
Button Wrinklewort	<i>Rutidosia leptorhynchoides</i>	502982	Endangered	Dispersed	Habitat importance map	0.0034
Stuart Mill Spider-orchid	<i>Caladenia cretacea</i>	505592	Endangered	Dispersed	Habitat importance map	0.0032
Large-headed Fireweed	<i>Senecio macrocarpus</i>	503116	Endangered	Dispersed	Habitat importance map	0.0032
Basalt Sun-orchid	<i>Thelymitra gregaria</i>	504019	Endangered	Dispersed	Top ranking map	0.0031
Rising Star Guinea-flower	<i>Hibbertia humifusa subsp. humifusa</i>	505082	Rare	Dispersed	Habitat importance map	0.0027
Fragrant Leek-orchid	<i>Prasophyllum suaveolens</i>	504567	Endangered	Dispersed	Top ranking map	0.0026
Emerald-lip Greenhood	<i>Pterostylis smaragdina</i>	503915	Rare	Dispersed	Habitat importance map	0.0023
Striped Legless Lizard	<i>Delma impar</i>	12159	Endangered	Dispersed	Top ranking map	0.0021
Fragrant Leek-orchid	<i>Prasophyllum suaveolens</i>	504567	Endangered	Dispersed	Habitat importance map	0.0019
Flat Bluebell	<i>Wahlenbergia planiflora subsp. planiflora</i>	504064	Vulnerable	Dispersed	Habitat importance map	0.0018
Woodland Leek-orchid	<i>Prasophyllum sp. aff. validum A</i>	505904	Endangered	Dispersed	Habitat importance map	0.0016
Golden Sun Moth	<i>Syneon plana</i>	15021	Critically endangered	Dispersed	Habitat importance map	0.0016
Basalt Sun-orchid	<i>Thelymitra gregaria</i>	504019	Endangered	Dispersed	Habitat importance map	0.0015
Clumping Golden Moths	<i>Diuris gregaria</i>	504887	Endangered	Dispersed	Habitat importance map	0.0013
Plump Swamp Wallaby-grass	<i>Amphibromus pithogastrus</i>	503624	Endangered	Dispersed	Habitat importance map	0.0013

Yellow Watercrown Grass	<i>Paspalidium flavidum</i>	507820	Endangered	Dispersed	Habitat importance map	0.0013
Golden Cowslips	<i>Diuris behrii</i>	501061	Vulnerable	Dispersed	Habitat importance map	0.0013
Veined Beard-heath	<i>Leucopogon neurophyllus</i>	501986	Rare	Dispersed	Habitat importance map	0.0012
Pale-flower Crane's-bill	<i>Geranium</i> sp. 3	505344	Rare	Dispersed	Habitat importance map	0.0012
Brilliant Sun-orchid	<i>Thelymitra mackibbinii</i>	503376	Endangered	Dispersed	Habitat importance map	0.0012
Green Leek-orchid	<i>Prasophyllum lindleyanum</i>	502702	Vulnerable	Dispersed	Habitat importance map	0.0010
Tiny Bog-sedge	<i>Schoenus nanus</i>	503050	Rare	Dispersed	Habitat importance map	0.0010
Trailing Hop-bush	<i>Dodonaea procumbens</i>	501090	Vulnerable	Dispersed	Habitat importance map	0.0010
Spiny Rice-flower	<i>Pimelea spinescens</i> subsp. <i>spinescens</i>	504823	Endangered	Dispersed	Habitat importance map	0.0010
Brackish Plains Buttercup	<i>Ranunculus diminutus</i>	504314	Rare	Dispersed	Habitat importance map	0.0009
Arching Flax-lily	<i>Dianella</i> sp. <i>aff. longifolia</i> (Benambra)	505560	Vulnerable	Dispersed	Habitat importance map	0.0009
Yarra Gum	<i>Eucalyptus yarraensis</i>	501326	Rare	Dispersed	Habitat importance map	0.0009
Purple Blown-grass	<i>Lachnagrostis punicea</i> subsp. <i>punicea</i>	504206	Rare	Dispersed	Habitat importance map	0.0009
Small Milkwort	<i>Comesperma polygaloides</i>	500798	Vulnerable	Dispersed	Habitat importance map	0.0009
Fringed Sun-orchid	<i>Thelymitra luteociliatum</i>	503375	Rare	Dispersed	Habitat importance map	0.0008
Plains Yam-daisy	<i>Microseris scapigera</i> s.s.	504657	Vulnerable	Dispersed	Habitat importance map	0.0007
Brolga	<i>Grus rubicunda</i>	10177	Vulnerable	Dispersed	Habitat importance map	0.0007
Growing Grass Frog	<i>Litoria raniformis</i>	13207	Endangered	Dispersed	Habitat importance map	0.0007
Matted Flax-lily	<i>Dianella amoena</i>	505084	Endangered	Dispersed	Habitat importance map	0.0007
Salt Blown-grass	<i>Lachnagrostis robusta</i>	504223	Rare	Dispersed	Habitat importance map	0.0007
Wind-blown Tussock-grass	<i>Poa physoclina</i>	507791	Endangered	Dispersed	Habitat importance map	0.0007
Shelford Leek-orchid	<i>Prasophyllum fosteri</i>	505632	Endangered	Dispersed	Habitat importance map	0.0007
Brilliant Sun-orchid	<i>Thelymitra mackibbinii</i>	503376	Endangered	Dispersed	Top ranking map	0.0006

Goldfields Grevillea	<i>Grevillea dryophylla</i>	501533	Rare	Dispersed	Habitat importance map	0.0006
Wimmera Scentbark	<i>Eucalyptus sabulosa</i>	505174	Rare	Dispersed	Habitat importance map	0.0006
Tussock Skink	<i>Pseudemoia pagenstecheri</i>	12993	Vulnerable	Dispersed	Habitat importance map	0.0005
Purple Blown-grass	<i>Lachnagrostis punicea</i> subsp. <i>filifolia</i>	504222	Rare	Dispersed	Habitat importance map ; special site	0.0005
Curly Sedge	<i>Carex tasmanica</i>	500650	Vulnerable	Dispersed	Habitat importance map	0.0005
Tough Scurf-pea	<i>Cullen tenax</i>	502776	Endangered	Dispersed	Habitat importance map	0.0005
Pale Swamp Everlasting	<i>Coronidium gunnianum</i>	504655	Vulnerable	Dispersed	Habitat importance map	0.0005
Bearded Dragon	<i>Pogona barbata</i>	12177	Vulnerable	Dispersed	Habitat importance map	0.0005
Hairy Tails	<i>Ptilotus erubescens</i>	502825	Vulnerable	Dispersed	Habitat importance map	0.0004
Candy Spider-orchid	<i>Caladenia versicolor</i>	500522	Endangered	Dispersed	Habitat importance map	0.0004
Clover Glycine	<i>Glycine latrobeana</i>	501456	Vulnerable	Dispersed	Habitat importance map	0.0004
Rock Wattle	<i>Acacia rupicola</i>	500082	Rare	Dispersed	Habitat importance map	0.0004
Snowy Mint-bush	<i>Prostanthera nivea</i> var. <i>nivea</i>	502746	Rare	Dispersed	Habitat importance map	0.0004
Basalt Podolepis	<i>Podolepis linearifolia</i>	504658	Endangered	Dispersed	Habitat importance map	0.0004
Lewin's Rail	<i>Lewinia pectoralis pectoralis</i>	10045	Vulnerable	Dispersed	Habitat importance map	0.0004
Large White Spider-orchid	<i>Caladenia venusta</i>	500533	Rare	Dispersed	Habitat importance map	0.0004
Gull-billed Tern	<i>Gelochelidon nilotica macrotarsa</i>	10111	Endangered	Dispersed	Habitat importance map	0.0003
Rosemary Grevillea	<i>Grevillea rosmarinifolia</i> subsp. <i>rosmarinifolia</i>	504066	Rare	Dispersed	Habitat importance map	0.0003
Purple Diuris	<i>Diuris punctata</i>	501084	Vulnerable	Dispersed	Habitat importance map	0.0003
Slender Club-sedge	<i>Isolepis congrua</i>	501773	Vulnerable	Dispersed	Habitat importance map	0.0003
Black Falcon	<i>Falco subniger</i>	10238	Vulnerable	Dispersed	Habitat importance map	0.0003
Branching Groundsel	<i>Senecio cunninghamii</i> var. <i>cunninghamii</i>	503104	Rare	Dispersed	Habitat importance map	0.0003
Southern Swainson-pea	<i>Swainsona behriana</i>	504944	Rare	Dispersed	Habitat importance map	0.0003



Speckled Warbler	<i>Chthonicola sagittatus</i>	10504	Vulnerable	Dispersed	Habitat importance map	0.0003
Swamp Everlasting	<i>Xerochrysum palustre</i>	503763	Vulnerable	Dispersed	Habitat importance map	0.0003
Hairy Correa	<i>Correa aemula</i>	500828	Rare	Dispersed	Habitat importance map	0.0003
Purple Eyebright	<i>Euphrasia collina subsp. muelleri</i>	504468	Endangered	Dispersed	Habitat importance map	0.0002
Spear-grass	<i>Austrostipa trichophylla</i>	504512	Rare	Dispersed	Habitat importance map	0.0002
Australasian Shoveler	<i>Anas rhynchos</i>	10212	Vulnerable	Dispersed	Habitat importance map	0.0002
Brown Toadlet	<i>Pseudophryne bibronii</i>	13117	Endangered	Dispersed	Habitat importance map ; special site	0.0002
Small Scurf-pea	<i>Cullen parvum</i>	502773	Endangered	Dispersed	Habitat importance map	0.0002
Swamp Diuris	<i>Diuris palustris</i>	501082	Vulnerable	Dispersed	Habitat importance map	0.0002
Hardhead	<i>Aythya australis</i>	10215	Vulnerable	Dispersed	Habitat importance map	0.0002
Ridged Water-milfoil	<i>Myriophyllum porcatum</i>	502257	Vulnerable	Dispersed	Habitat importance map	0.0002
Half-bearded Spear-grass	<i>Austrostipa hemipogon</i>	503985	Rare	Dispersed	Habitat importance map	0.0002
Wavy Swamp Wallaby-grass	<i>Amphibromus sinuatus</i>	503625	Vulnerable	Dispersed	Habitat importance map	0.0002
Mclvor Spider-orchid	<i>Caladenia audasii</i>	503664	Endangered	Dispersed	Habitat importance map	0.0002
Salt Lawrencea	<i>Lawrencea spicata</i>	501888	Rare	Dispersed	Habitat importance map	0.0002
Australian Painted Snipe	<i>Rostratula australis</i>	10170	Critically endangered	Dispersed	Habitat importance map	0.0002
Buloke	<i>Allocasuarina luehmanna</i>	500678	Endangered	Dispersed	Habitat importance map	0.0002
Fine-hairy Spear-grass	<i>Austrostipa puberula</i>	503988	Rare	Dispersed	Habitat importance map	0.0002
Small-leaf Goodenia	<i>Goodenia benthamiana</i>	501493	Rare	Dispersed	Habitat importance map	0.0002
Common Beard-heath	<i>Leucopogon virgatus var. brevifolius</i>	504392	Rare	Dispersed	Habitat importance map	0.0002
Grey Grass-tree	<i>Xanthorrhoea glauca subsp. angustifolia</i>	507229	Endangered	Dispersed	Habitat importance map	0.0001
Yarra Pygmy Perch	<i>Nannoperca obscura</i>	4882	Vulnerable	Dispersed	Habitat importance map	0.0001
Swamp Flax-lily	<i>Dianella callicarpa</i>	505086	Rare	Dispersed	Habitat importance map	0.0001

Forked Rice-flower	<i>Pimelea hewardiana</i>	502522	Rare	Dispersed	Habitat importance map	0.0001
Australian Little Bittern	<i>Ixobrychus dubius</i>	10195	Endangered	Dispersed	Habitat importance map	0.0001
Small-flower Mat-rush	<i>Lomandra micrantha</i> subsp. <i>tuberculata</i>	504711	Rare	Dispersed	Habitat importance map	0.0001
Grampians Bitter-pea	<i>Daviesia laevis</i>	504423	Vulnerable	Dispersed	Habitat importance map	0.0001
Button Immortelle	<i>Leptorhynchus waitzia</i>	501949	Vulnerable	Dispersed	Habitat importance map	0.0001
Bush Stone-curlew	<i>Burhinus grallarius</i>	10174	Endangered	Dispersed	Habitat importance map	0.0001
Shiny Tea-tree	<i>Leptospermum turbinatum</i>	501963	Rare	Dispersed	Habitat importance map	0.0001
Austral Crane's-bill	<i>Geranium solanderi</i> var. <i>solanderi</i> s.s.	505337	Vulnerable	Dispersed	Habitat importance map	0.0001
Grassland Earless Dragon	<i>Tympanocryptis pinguicollis</i>	12922	Critically endangered	Dispersed	Habitat importance map	0.0001
Baillon's Crake	<i>Porzana pusilla palustris</i>	10050	Vulnerable	Dispersed	Habitat importance map	0.0001
Little Galaxias	<i>Galaxiella toourtkoort</i>	903034	Vulnerable	Dispersed	Habitat importance map	0.0001
Ben Major Grevillea	<i>Grevillea floripendula</i>	501535	Vulnerable	Dispersed	Habitat importance map	0.0001
Swift Parrot	<i>Lathamus discolor</i>	10309	Endangered	Dispersed	Habitat importance map	0.0001
Dwarf Boronia	<i>Boronia nana</i> var. <i>pubescens</i>	504278	Rare	Dispersed	Habitat importance map	0.0001
Hairy Hop-bush	<i>Dodonaea boroniifolia</i>	501087	Rare	Dispersed	Habitat importance map	0.0001
Musk Duck	<i>Biziura lobata</i>	10217	Vulnerable	Dispersed	Habitat importance map	0.0001
Black-tailed Godwit	<i>Limosa limosa</i>	528553	Vulnerable	Dispersed	Habitat importance map	0.0000
Square-tailed Kite	<i>Lophoictinia isura</i>	10230	Vulnerable	Dispersed	Habitat importance map	0.0000
Barking Owl	<i>Ninox connivens connivens</i>	10246	Endangered	Dispersed	Habitat importance map ; special site	0.0000
Australasian Bittern	<i>Botaurus poiciloptilus</i>	10197	Endangered	Dispersed	Habitat importance map	0.0000
Common Pipewort	<i>Eriocaulon scariosum</i>	501218	Rare	Dispersed	Habitat importance map	0.0000
Freckled Duck	<i>Stictonetta naevosa</i>	10214	Endangered	Dispersed	Habitat importance map	0.0000
Blue-billed Duck	<i>Oxyura australis</i>	10216	Endangered	Dispersed	Habitat importance map	0.0000

Elegant Parrot	<i>Neophema elegans</i>	10307	Vulnerable	Dispersed	Habitat importance map	0.0000
Leafy Twig-sedge	<i>Cladium procerum</i>	500786	Rare	Dispersed	Habitat importance map	0.0000
Twisting Scale-rush	<i>Lepyrodia flexuosa</i>	501967	Rare	Dispersed	Habitat importance map	0.0000
Eastern Great Egret	<i>Ardea modesta</i>	10187	Vulnerable	Dispersed	Habitat importance map	0.0000
Intermediate Egret	<i>Ardea intermedia</i>	10186	Endangered	Dispersed	Habitat importance map	0.0000
Painted Honeyeater	<i>Grantiella picta</i>	10598	Vulnerable	Dispersed	Habitat importance map	0.0000
Little Egret	<i>Egretta garzetta nigripes</i>	10185	Endangered	Dispersed	Habitat importance map	0.0000
Hoary Rapiersedge	<i>Lepidosperma canescens</i>	501915	Rare	Dispersed	Habitat importance map	0.0000
Common Greenshank	<i>Tringa nebularia</i>	10158	Vulnerable	Dispersed	Habitat importance map	0.0000
Rough Wattle	<i>Acacia aspera subsp. parviceps</i>	507308	Rare	Dispersed	Habitat importance map	0.0000
Rigid Spider-orchid	<i>Caladenia tensa</i>	500338	Vulnerable	Dispersed	Habitat importance map	0.0000
Regent Honeyeater	<i>Anthochaera phrygia</i>	10603	Critically endangered	Dispersed	Habitat importance map	0.0000
Lace Monitor	<i>Varanus varius</i>	12283	Endangered	Dispersed	Habitat importance map	0.0000
Red-chested Button-quail	<i>Turnix pyrrhothorax</i>	10019	Vulnerable	Dispersed	Habitat importance map	0.0000
Austral Tobacco	<i>Nicotiana suaveolens</i>	502275	Rare	Dispersed	Habitat importance map	0.0000
Chestnut-rumped Heathwren	<i>Calamanthus pyrrhopygius</i>	10498	Vulnerable	Dispersed	Habitat importance map	0.0000
Western Peppermint	<i>Eucalyptus falconiformis</i>	505358	Rare	Dispersed	Habitat importance map	0.0000
Forest Bitter-cress	<i>Cardamine papillata</i>	505034	Vulnerable	Dispersed	Habitat importance map	0.0000
One-flower Early Nancy	<i>Wurmbea uniflora</i>	503583	Rare	Dispersed	Habitat importance map	0.0000
Brush-tailed Phascogale	<i>Phascogale tapoatafa</i>	11017	Vulnerable	Dispersed	Habitat importance map	0.0000
Southern Bent-wing Bat	<i>Miniopterus schreibersii bassanii</i>	61343	Critically endangered	Dispersed	Habitat importance map	0.0000
Grey Billy-buttons	<i>Craspedia canens</i>	504643	Endangered	Dispersed	Habitat importance map	0.0000
Slender Fireweed	<i>Senecio microbasis</i>	507171	Rare	Dispersed	Habitat importance map	0.0000

Tremont Bundy	<i>Eucalyptus aff. goniocalyx</i> (Dandenong Ranges)	507008	Vulnerable	Dispersed	Habitat importance map	0.0000
Tight Bedstraw	<i>Galium curvifolium</i>	501407	Rare	Dispersed	Habitat importance map	0.0000
Swamp Fireweed	<i>Senecio psilocarpus</i>	504659	Vulnerable	Dispersed	Habitat importance map	0.0000
Grey Goshawk	<i>Accipiter novae-hollandiae</i> <i>novae-hollandiae</i>	10220	Vulnerable	Dispersed	Habitat importance map	0.0000
Spiny Lignum	<i>Duma horrida subsp. horrida</i>	502230	Rare	Dispersed	Habitat importance map	0.0000
Dwarf Brooklime	<i>Gratiola pumilo</i>	503753	Rare	Dispersed	Habitat importance map	0.0000
Slender Mint-bush	<i>Prostanthera saxicola</i> var. <i>bracteolata</i>	502750	Rare	Dispersed	Habitat importance map	0.0000
Australian Bustard	<i>Ardeotis australis</i>	10176	Critically endangered	Dispersed	Habitat importance map	0.0000
White-throated Needletail	<i>Hirundapus caudacutus</i>	10334	Vulnerable	Dispersed	Habitat importance map	0.0000
Powerful Owl	<i>Ninox strenua</i>	10248	Vulnerable	Dispersed	Habitat importance map	0.0000

#### Habitat group

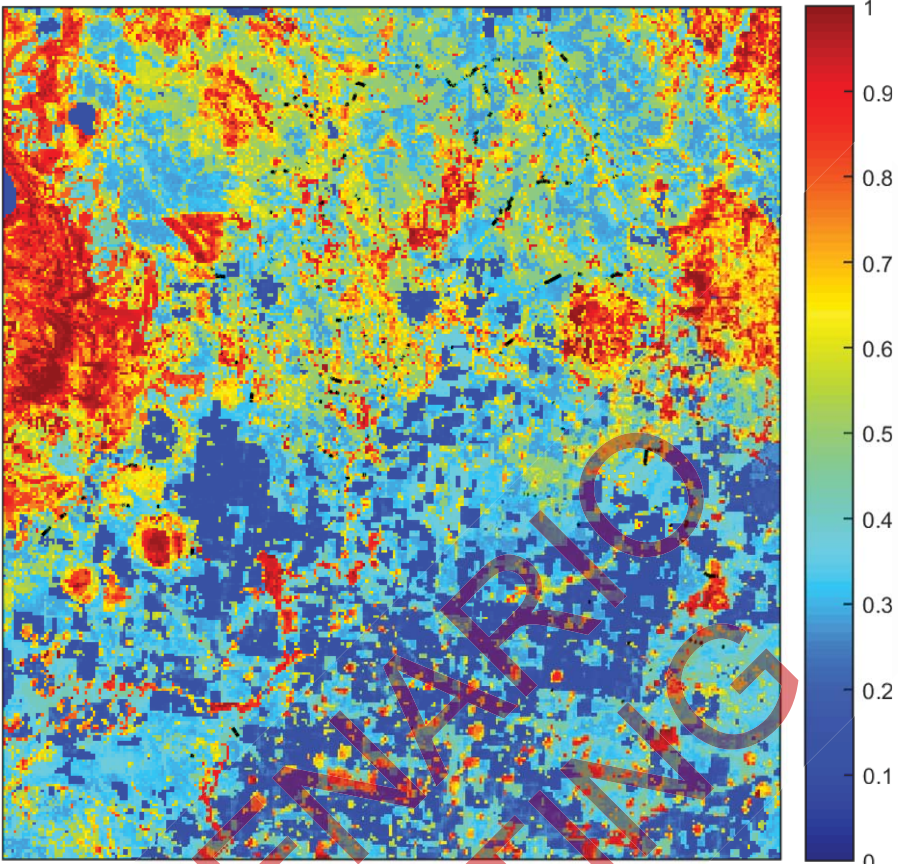
- Highly localised habitat means there is 2000 hectares or less mapped habitat for the species
- Dispersed habitat means there is more than 2000 hectares of mapped habitat for the species

#### Habitat impacted

- Habitat importance maps are the maps defined in the Guidelines that include all the mapped habitat for a rare or threatened species
- Top ranking maps are the maps defined in the Guidelines that depict the important areas of a dispersed species habitat, developed from the highest habitat importance scores in dispersed species habitat maps and selected VBA records
- Selected VBA record is an area in Victoria that represents a large population, roosting or breeding site etc.

# Appendix 3 – Images of mapped native vegetation

## 2. Strategic biodiversity values map



# SCENARIO TESTING

GHD

Level 18 180 Lonsdale Street  
Melbourne VIC 3000

T: 61 3 8687 8000 F: 61 3 8687 8522 E: melmail@ghd.com




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82411/<https://projects.ghd.com/oc/Victoria1/eastgrampiansruralpi2/Delivery/Documents/3136625-REP-B-Flora and Fauna Report.docx>

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