DOCUMENT TYPE **MANAGEMENT PLAN**

DOCUMENT TITLE # Significant Species Management Plan

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1. Introduction

WestSide Corporation Pty Limited (WestSide) operates Petroleum Lease (PL) 94, referred to as the Meridian Seam Gas Fields (the Project). PL94 is held 51% by Westside entities (Westside CSG A Pty Ltd and Westside CSG D Pty Ltd) in joint venture with Mitsui E&P Australia Pty Ltd (MEPAU) who holds 49%.

The current Environmental Authority (EA) for the Project is a site specific Environmental Authority, Chapter 5A petroleum activity Permit Number: EPPG00783713.

1.1 Purpose

This Significant Species Management Plan (SSMP) describes the management of potential impacts to significant species listed as Matters of National Environmental Significance (MNES) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), within the Project. The significant species relevant to this SSMP are threatened ecological communities (TECs), threatened species and migratory species.

This SSMP describes:

- Significant species that are known or potentially present within the Meridian Seam Gas Fields;
- Species-specific requirements for managing potential impacts to significant species during pre-construction, construction and operation phases of the Project; and
- Monitoring and reporting requirements.

The information contained in this SSMP has been summarised from the *Petroleum Lease 94 Ecological Assessment: Report for Impacts to Matters of National Environmental Significance* (Umwelt, 2020), documenting the outcomes of a detailed ecological assessment for the Project Stage 2.

1.2 Legislative Requirements

The EPBC Act provides the legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places – defined as MNES.

There is potential for MNES to occur within the Project area including the following prescribed matters relevant to the Project:

- Listed threatened species and communities (section 18 & 18A of the EPBC Act).
- Listed migratory species (section 20 & 20A of the EPBC Act).

2. Location

The Project is located in the Moura-Theodore district of the Banana Shire, Queensland. The area consists of the fields Dawson River, Nipan, Moura, Moura Central and Mungi. The field development occurs as 'pods' within an area extending approximately 36km north to south and up to 8km east to west. Moura is located within the PL94 tenure on the Western boundary and located 3.5km South of the PL94 boundary and 33km North of the Southern boundary. The development lies between the western boundary of various Anglo Coal Mining Leases (MLs) and the Dawson River. Access to the well fields utilises public roads and associated secondary roads which provide access to local properties. Figure 1 shows the Project location.

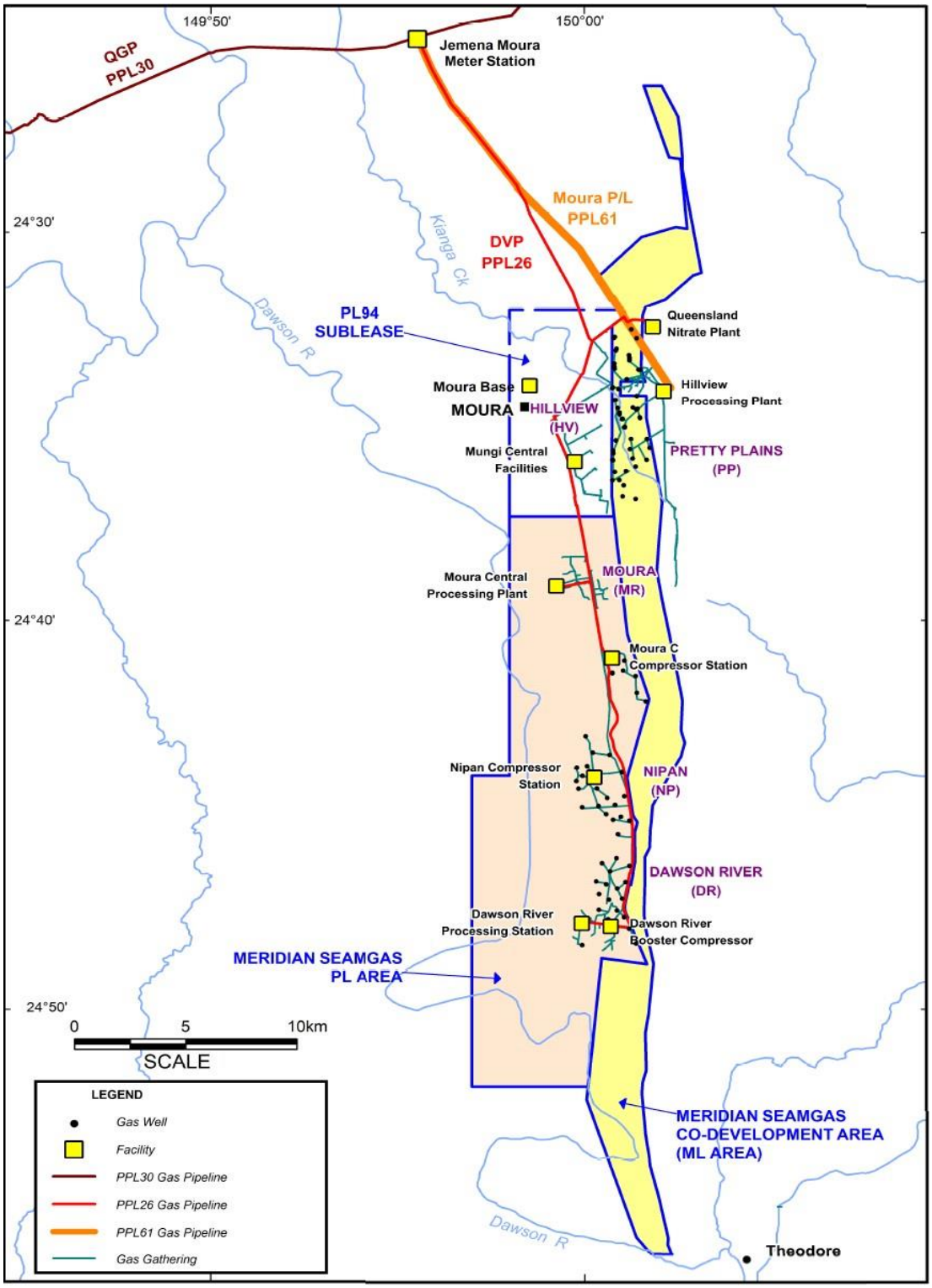


Figure 1 Project Location

3. Significant Species

Species of significant flora, fauna and TECs are known to occur, or could occur within the Project area. The likelihood of occurrence within the Project was determined by Umwelt (2020) through a review of Commonwealth databases, GIS data, peer-reviewed literature, ecological surveys, current (known) distribution range, and the presence and condition of suitable habitat. For the purposes of this management plan, only significant species and communities known to occur or have a high or moderate likelihood of occurrence have been included.

3.1 Threatened Ecological Communities

A search of the Protected Matters Search Tool (PMST) indicate five TECs that are known, are likely to, or may occur in the search extent. Two endangered TECs were confirmed during field surveys as being present within PL94 through ground-truthing of analogous Regional Ecosystems (REs):

- Brigalow (*Acacia harpophylla* dominant and co-dominant) (Table 1)
- Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions (Table 2).

Table 1 Brigalow TEC within PL94

Analogous RE	Short Description
11.3.1	*Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains
11.4.3	*Acacia harpophylla* and/or *Casuarina cristata* shrubby open forest on Cainozoic clay plains
11.4.7	*Eucalyptus populnea* with *Acacia harpophylla* and/or *Casuarina cristata* open forest to woodland on Cainozoic clay plains
11.4.8	*Eucalyptus cambageana* woodland to open forest with *Acacia harpophylla* or *A. argyrodendron* on Cainozoic clay plains
11.4.9a	*Acacia harpophylla, Lysiphyllum carronii +/- Casuarina cristata open forest to woodland*
11.9.5	*Acacia harpophylla* and/or *Casuarina cristata* open forest on fine-grained sedimentary rocks

Table 2 Coolibah TEC within PL94

Analogous RE	Short Description
11.3.3	*Eucalyptus coolabah* woodland on alluvial plains

3.2 Threatened Species

3.2.1 Threatened flora

Three threatened flora species are known to PL94, confirmed during field survey (Umwelt, 2020). The occurrence assessment determined that one species has a moderate likelihood of occurring (Table 3).

Table 3 Threatened Flora

Scientific Name	Common Name	EPBC Act Status
Known		
Solanum dissectum	-	Endangered
Xerothamnella herbacea	-	Endangered
Solanum johnsonianum	-	Endangered
Moderate		
Cadellia pentastylis	ooline	Vulnerable

The known significant species were all recorded from within *Acacia harpophylla* woodlands. Notable habitat features from these locations included the presence of ground timber (presumably affords protection from cattle trampling), abundant leaf litter and sparse grass cover. *Xerothamnella herbacea* was only recorded from *Acacia harpophylla* woodlands along drainage lines and waterways.

Solanum johnsonianum was observed from remnant vegetation associated with the Gibihi Road reserve. The species is known to PL94 from both remnant and regrowth vegetation, at three locations within road reserve north of Dawson Highway, and at one location in the central portion of the Project area, west of Theodore Moura Road and north of Kianga River Road (Atlas of Living Australia, 2020).

Solanum dissectum was observed from one location within *Acacia harpophylla* woodlands in the northern portion of the Project area. The species has been recently recorded elsewhere within the PL, within road reserve north of Dawson Highway. Recent records also exist approximately 2 km outside of the northern PL boundary, along Moura-Baralaba Road.

Xerothamnella herbacea was identified from two locations within *Acacia harpophylla* woodlands in the northern portion of the PL. The species has been recently recorded within the PL, from road reserve in one location north and one location south of Dawson Highway (Atlas of Living Australia, 2020).

3.2.2 Threatened fauna

The likelihood of occurrence was evaluated for threatened fauna species identified in the PMST. One threatened fauna species is known to PL94 (ornamental snake), confirmed during field survey. The occurrence assessment determined that a further four threatened species have a high likelihood of occurring, whilst seven have a moderate likelihood of occurring (Table 4).

Table 4 Threatened Fauna

Scientific Name	Common Name	EPBC Act Status
Known		
Denisonia maculata	ornamental snake	Vulnerable
High		
Petauroides volans	greater glider	Vulnerable
Phascolarctos cinereus	koala	Vulnerable
Elseya albagula	white-throated snapping turtle	Critically Endangered
Rheodytes leukops	Fitzroy River turtle	Vulnerable
Moderate		
Geophaps scripta scripta	squatter pigeon	Vulnerable
Grantiella picta	painted honeyeater	Vulnerable
Hirundapus caudacutus	white-throated needletail	Vulnerable/ Migratory
Rostratula australis	Australian painted snipe	Endangered
Delma torquata	collared delma	Vulnerable
Egernia rugosa	yakka skink	Vulnerable
Furina dunmalli	Dunmall's snake	Vulnerable

3.2.3 Migratory fauna

Ten migratory species are either known to PL94 or have been identified as having a moderate to high likelihood of occurring based on the presence of suitable habitat and recent or nearby records (**Table 5**).

Table 5 Migratory Fauna Known to PL94

Scientific Name	Common Name	EPBC Act Status
Plegadis falcinellus	glossy ibis	Migratory
Hydroprogne caspia	Caspian tern	Migratory
Actitis hypoleucos	common sandpiper	Migratory
Apus pacificus	fork-tailed swift	Migratory
Gallinago hardwickii	Latham's Snipe	Migratory

Scientific Name	Common Name	EPBC Act Status
Calidris acuminata	sharp-tailed sandpiper	Migratory
Calidris melanotos	pectoral sandpiper	Migratory
Cuculus optatus	oriental cuckoo	Migratory
Hirundapus caudacutus	white-throated needletail	Vulnerable/ Migratory
Rhipidura rufifrons	rufous fantail	Migratory

3.3 Species specific management measures

The Environmental Constraints Planning and Field Development Protocol (the Protocol) for the Meridian Seam Gas Fields will be implemented to finalise infrastructure layout. The Protocol documents the process for validating MNES, and implementing a hierarchy of avoiding and minimising impacts to MNES.

Threats and species-specific mitigation and management measures are summarised in Table 6 and Table 7 below. The mitigation and management measures includes TECs, threatened species and migratory species that were confirmed during fields surveys and that were not identified during field surveys, but could occur in the PL94 area based on their known habitat requirements.

MNES confirmed within the PL94 are:

- Two TECs - Brigalow and Coolibah
- Three flora species - *Solanum dissectum*, *Xerothamnella herbacea* and *Solanum johnsonianum*
- One fauna species - ornamental snake (*Denisonia maculata*)
- Two migratory species – glossy ibis (*Plegadis falcinellus*) and Caspian tern (*Hydroprogne caspia*).

Potential direct and indirect impacts to TECs, threatened species, and migratory species known to the Project area are summarised in Table 6.

Other listed TECs, threatened species and migratory species were not identified during field surveys, but could occur in the Project area based on their known habitat requirements. Management measures for these TECs and species are summarised in Table 7.

Table 6 Management Measures for Confirmed MNES

MNES	Threats	Mitigation and Management Measures
TECs identified in the Meridian Seam Gas Fields		
Brigalow (*Acacia harpophylla* dominant and co-dominant) Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	All TECs are threatened by any activities that further reduce their extent, cause a decline in the condition of the vegetation, or impede their recovery. This includes: • Vegetation clearing • Inappropriate fire regimes • Grazing by herbivorous species • Introduction and/or spread of Invasive species • Changes to groundwater hydrology leading to changed aquifer and river levels, and salinity.	**Avoidance of Direct Impacts** No direct disturbance to TECs is proposed for the project. TECs are identified as 'no-go' areas in the Protocol. The extent of confirmed TECs within the PL94 Development Area is presented as Figure 2. **Mitigation & Management Measures for Indirect Impacts** • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under the QLD *Biosecurity Act 2014*. • Construction activities, including vegetation clearing and soil movement, will work from areas with fewer weed species/smaller infestations towards areas where there is a greater abundance of weeds, where practicable. • Implementation of ongoing monitoring throughout the life of the project to ensure early detection of new areas of weed and pathogen spread, identify previously unrecorded invasive species, pest and pathogens, and assess the efficacy of prescribed control measures. • Internal roads will be maintained so that natural drainage patterns and catchments are changed as little as possible. • Toolbox/prestart meeting for all workers and contractors that highlights conservation issues and species- specific sensitivities.
Threatened flora species identified in the Meridian Seam Gas Fields		
Solanum dissectum *Xerothamnella herbacea* *Solanum johnsonianum*	These flora are threatened by any activities that further reduce their extent, cause a decline in the condition of the vegetation, or impede their recovery. This includes: • Vegetation clearing • Inappropriate fire regimes • Grazing by herbivorous species • Introduction and/or spread of invasive species.	**Avoidance of Direct Impacts** No direct disturbance to threatened flora is proposed for the project. Threatened flora are identified as 'no-go' areas in the Protocol. The locations of the records within the site are shown in Figure 3. **Mitigation & Management Measures for Indirect Impacts** • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under the QLD *Biosecurity Act 2014*. • Construction activities, including vegetation clearing and soil movement, will work from areas with fewer weed species/smaller infestations towards areas where there is a greater abundance of weeds, where practicable. • Implementation of ongoing monitoring throughout the life of the project to ensure early detection of new areas of weed and pathogen spread, identify previously unrecorded invasive species, pest and pathogens, and assess the efficacy of prescribed control measures. • Internal roads will be maintained so that natural drainage patterns and catchments are changed as little as possible. • Toolbox/prestart meeting for all workers and contractors that highlights conservation issues and species- specific sensitivities.

Threatened fauna species identified in the Meridian Seam Gas Fields		
Ornamental snake	Threats to this threatened species include: • Land clearing leading to habitat loss and fragmentation • Habitat degradation from overgrazing by stock, or grazing in key gilgai habitat areas • Alteration of landscape hydrology • Alteration of water quality • Predation by feral species • Contact with cane toads.	**Avoidance of Direct Impacts** • No direct disturbance to high suitability ornamental snake habitat is proposed for the project. High suitability ornamental snake habitat (as defined by Umwelt, 2020 and shown on Figure 4) has been identified as 'no-go' areas in the Protocol. Where the project involves disturbance to areas of low and moderate suitability, a significant impact assessment will be undertaken before activities are approved to proceed. Activities will not proceed where a significant impact is identified, or uncertainty exists. **Mitigation & Management Measures for Indirect Impacts** • Implementation of an Erosion and Sediment Control Plan to minimise the risk of sedimentation impacts on gilgai habitat. • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under the QLD • *Biosecurity Act 2014*. • Management measures will be put in place to minimise waste and to reduce potential attraction of predatory fauna and pest species. • Fuel and chemical storage areas will be demarcated, and bunded with storm water directed around these areas. • Fuel and chemical storage in accordance with Australian Standards and the PL94 EA. • Internal roads will be maintained so that natural drainage patterns and catchments are changed as little as possible. • Toolbox/prestart meeting for all workers and contractors that highlights conservation issues and species- specific sensitivities.
Migratory species identified in the Meridian Seam Gas Fields		
Glossy ibis Caspian tern	The main threats to these migratory species are: • Direct mortality • Habitat loss and destruction • Predation by feral animals • Reduction of quality and quantity of water • Disturbance from human activities.	**Avoidance of Direct Impacts** • Avoidance of disturbance to waterbody habitat (e.g. wetlands) for this species, as shown in Figure 5. **Mitigation & Management Measures for Indirect Impacts** • Implementation of pest, weed, and disease/hygiene management measures to minimise the potential for introduction or spread of invasive species or diseases, including compliance with obligations under the QLD *Biosecurity Act 2014*. • Fuel and chemical storage in accordance with Australian Standards and the PL94 EA. • Erosion and sediment controls. • Rehabilitation of all significantly disturbed land in accordance with the PL EA and RehabilitationPlan. • Beneficial use of produced water in accordance with the water quality limits under the PL 94 EA and beneficial use approvals under the *Waste Reduction and Recycling Act 2011* (e.g. ANZECC water quality limits for irrigation). • Implementation of pest, weed, and disease/hygiene management measures to minimise the potential for introduction or spread of invasive species or diseases, including compliance with obligations under the QLD *Biosecurity Act 2014*. • Prohibition of keeping domestic animals (e.g. dogs or cats) within the PL94 Development Area and surrounds by personnel employed for the Project.

Table 7 Management Measures for Potential MNES

MNES	Threats	Mitigation and Management Measures
Potential TECs (not identified by surveys)		
Semi-evergreen Vine Thickets of The Brigalow Belt (North and South) Poplar Box Grassy Woodland on Alluvial Plains	These TECs are threatened by any activities that further reduce their extent, cause a decline in the condition of the vegetation, or impede their recovery. This includes: • Vegetation clearing • Inappropriate fire regimes • Grazing by herbivorous species • Introduction and/or spread of Invasive species.	**Avoidance of Direct Impacts** • Ecological surveys will be undertaken to confirm the absence of these TECs from the PL94 Development Area. Potential TEC habitat is shown in Figure 6. • No direct disturbance to TECs is proposed for the project. TECs are identified as 'no-go' areas in the Protocol. **Mitigation & Management Measures for Indirect Impacts** • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under the QLD *Biosecurity Act 2014*. • Construction activities, including vegetation clearing and soil movement, will work from areas with fewer weed species/smaller infestations towards areas where there is a greater abundance of weeds,where practicable • Implementation of ongoing monitoring throughout the life of the project to ensure early detection of new areas of weed and pathogen spread, identify previously unrecorded invasive species, pest and pathogens, and assess the efficacy of prescribed control measures. • Internal roads will be maintained so that natural drainage patterns and catchments are changed as little as possible. • Toolbox/prestart meeting for all workers and contractors that highlights conservation issues and species- specific sensitivities.
Potential threatened flora species (not identified by surveys)		
Ooline	Threats to populations of ooline include: • Fragmentation and clearing • Inappropriate fire regimes • Overgrazing by stock • Increase in tunnel and sheet erosion • Insect attack and herbivory • Damage to roadside populations during roadworks.	**Avoidance of Direct Impacts** • Preclearance surveys will be undertaken for populations of Ooline and project infrastructure will avoid disturbance to identified populations. • No direct disturbance to ooline habitat is proposed for the project. Ooline habitat has been identified as 'no-go' areas in the Protocol. Potential ooline habitat within PL94 is presented as Figure 7. **Mitigation & Management Measures for Indirect Impacts** • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under theQLD *Biosecurity Act 2014*. • Implementation of an Erosion and Sediment Control Plan. • Implementation of ongoing monitoring throughout the life of the project to ensure early detection of new areas of weed and pathogen spread, identify previously unrecorded invasive species, pest and pathogens, and assess the efficacy of prescribed control measures.
Potential threatened fauna species (not identified by surveys)		
Greater glider	Threats to greater gliders include: • Habitat loss and fragmentation • Inappropriate fire regimes	**Avoidance of Direct Impacts** • No direct disturbance to Greater glider habitat is proposed for the Project. Greater Glider habitat has been identified as 'no-go' areas in the Protocol . Potential glider habitat is shown in Figure 8. • All vegetation clearing shall be undertaken in a sequential manner to allow fauna to naturally escape

	• Barbed wire fencing entanglement • Selective logging of old growth, hollow bearing trees • Competition for breeding hollows from sulphur crested cockatoos (*Cacatua galerita*).	**Mitigation & Management Measures for Indirect Impacts** • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under the QLD *Biosecurity Act 2014* including hygiene procedures to manage unintentional introduction and spread of *Phytophthora cinnamomi* and myrtle rust. • Preferential positioning of infrastructure in areas of non-remnant vegetation to avoid a significant increase in tree hollow competition from other hollow dependent fauna such as corellas / cockatoos. • Implementation of ongoing monitoring throughout the life of the project to ensure early detection of new areas of weed and pathogen spread, identify previously unrecorded invasive species, pest and pathogens, and assess the efficacy of prescribed control measures. • Mandatory environmental training for all workers and contractors that highlights conservation issues and species- specific sensitivities. • Undertake regular and ongoing monitoring to ensure the effectiveness of mitigation measures to avoid impacts to Greater Glider. • The proposed action will not lead to an increase in grazing pressures or fire frequency /intensity. • Avoid using barbed wire in areas where greater glider maybe present when fencing project infrastructure (such as, pilot wells, gas compression facilities etc).
Koala	Threats to koalas include: • Land clearing leading to habitat loss and fragmentation • Mortality arising from dog attacks and car strikes • Disease, particularly from Chlamydia infection • Inappropriate fire regimes.	**Avoidance of Direct Impacts** Avoidance of mapped habitat areas for this species (Figure 8). **Mitigation & Management Measures for Indirect Impacts** • Enforceable operational (on property) speed limits shall be set to 40 km/h at all times, especially on accesstracks. • Vehicles movement will be predominantly during daylight hours • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under the QLD *Biosecurity Act 2014* , including hygiene procedures to manage unintentional introduction and spread of *Phytophthora cinnamomi* and Myrtle Rust. • Management measures will be put in place to minimise waste and to reduce potential attraction of predatory fauna and pest species. • Toolbox/prestart meeting for all workers and contractors that highlights conservation issues and species- specific sensitivities. • Management measures will be put in place to minimise waste and to reduce potential attraction of predatory fauna and pest species.
Squatter pigeon	Threats to squatter pigeons include: • Habitat loss and fragmentation • Degradation of habitat by overgrazing by domesticated herbivores • Introduction and/or spread of invasive species • Predation by numerous avian and terrestrial predators.	**Avoidance of Direct Impacts** • Avoidance of mapped habitat areas for this species (Figure 9). **Mitigation & Management Measures for Indirect Impacts** • Additional ecological assessments to identify the presence of this species. • Erosion and sediment controls. • Rehabilitation of all significantly disturbed land in accordance with the PL94 EA and RehabilitationPlan. • Beneficial use of produced water in accordance with the water quality limits under the PL94 EA and beneficial use approvals under the *Waste Reduction and Recycling Act 2011* (e.g. ANZECC water quality limits for irrigation). • Implement a weed, pest and biosecurity management plan including compliance with obligations underthe QLD *Biosecurity Act 2014*. • Prohibition of keeping domestic animals (e.g. dogs or cats) within the PL94 Development Area and surrounds by personnel employed for the Project. • Management measures will be put in place to minimise waste and to reduce potential attraction of predatory fauna and pest

		species.
Painted honeyeater	Threats to painted honeyeaters include: • Habitat loss and fragmentation • Degradation of habitat by overgrazing by domesticated herbivores • Predation by invasive species such as black rat (*Rattus rattus*).	**Avoidance of Direct Impacts** • Avoidance of disturbance to breeding habitat for this species and minimising disturbance within other habitat for this species (Figure 10). **Mitigation & Management Measures for Indirect Impacts** • Additional ecological assessments to identify the presence of this species. • Erosion and sediment controls. • Rehabilitation of all significantly disturbed land in accordance with the PL94 EA and RehabilitationPlan. • Prohibition of keeping domestic animals (e.g. dogs or cats) within the PL94 Development Area and surrounds by personnel employed for the Project. • Implement a weed, pest and biosecurity management plan including compliance with obligations underthe QLD *Biosecurity Act 2014*. • Management measures will be put in place to minimise waste and to reduce potential attraction of predatory fauna and pest species.
Australian painted snipe	Threats to Australian painted snipes include: • Loss and degradation of wetland habitat • Replacement of endemic wetland vegetation by invasive, noxious weeds • Changes to fire regimes • Predation by feral cats and foxes.	**Avoidance of Direct Impacts** • Avoidance of disturbance to breeding habitat for this species and minimising disturbance within other habitat for this species (Figure 10). **Mitigation & Management Measures for Indirect Impacts** • Avoidance of disturbance to waterbody habitat (e.g. wetlands) for this species. • Erosion and sediment controls to minimise degradation of wetland habitat. • Rehabilitation of all significantly disturbed land in accordance with the PL94 EA and Rehabilitation Plan. • Prohibition of keeping domestic animals (e.g. dogs or cats) within the PL94 Development Area and surrounds by personnel employed for the Project. • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under the QLD *Biosecurity Act 2014*. • Implementation of ongoing monitoring throughout the life of the project to ensure early detection of new areas of weed and pathogen spread, identify previously unrecorded invasive species, pest and pathogens, and assess the efficacy of prescribed control measures. • Management measures will be put in place to minimise waste and to reduce potential attraction of predatory fauna and pest species.

Collared delma Yakka skink Dunmall's snake	The main threats to these species include: • Loss and degradation of habitat for agriculture and industry developments • Removal of habitat features such as rocks, course woody debris and ground litter • Use of agricultural chemicals • Predation by feral cats and foxes • Overabundance of invasive weeds.	**Avoidance of Direct Impacts** • Avoidance of disturbance to breeding habitat for these species and minimising disturbance within other habitat for these species Figure 11). **Mitigation & Management Measures for Indirect Impacts** • Fuel and chemical storage in accordance with Australian Standards. • Erosion and sediment controls. • Rehabilitation of all significantly disturbed land in accordance with the PL94 EA and Rehabilitation Plan. • Prohibition of keeping domestic animals (e.g. dogs or cats) within the PL94 Development Area and surrounds by personnel employed for the Project. • Implementation of a weed, pest and biosecurity management plan including compliance with obligations underthe QLD *Biosecurity Act 2014*. • Management measures will be put in place to minimise waste and to reduce potential attraction of predatory fauna and pest species.
Potential migratory fauna species (not identified by surveys)		
Migratory species	The main threats to migratory species inxlude: • Direct mortality • Habitat loss and destruction • Predation by feral animals • Reduction of quality and quantity of water • Disturbance from human activities.	**Avoidance of Direct Impacts** • Additional ecological assessments to identify the presence of these species. • Avoidance of disturbance to waterbody habitat (e.g. wetlands) for these species (Figure 5). **Mitigation & Management Measures for Indirect Impacts** • Implementation of a weed, pest and biosecurity management plan including compliance with obligations under the QLD *Biosecurity Act 2014*. • Fuel and chemical storage in accordance with Australian Standards. • Erosion and sediment controls. • Rehabilitation of all significantly disturbed land in accordance with the PL94 EA and RehabilitationPlan. • Beneficial use of produced water in accordance with the water quality limits under the PL94 EA and beneficial use approvals under the *Waste Reduction and Recycling Act 2011* (e.g. ANZECC water quality limits for irrigation). • Prohibition of keeping domestic animals (e.g. dogs or cats) within the PL94 and surrounds by personnel employed for the Project.

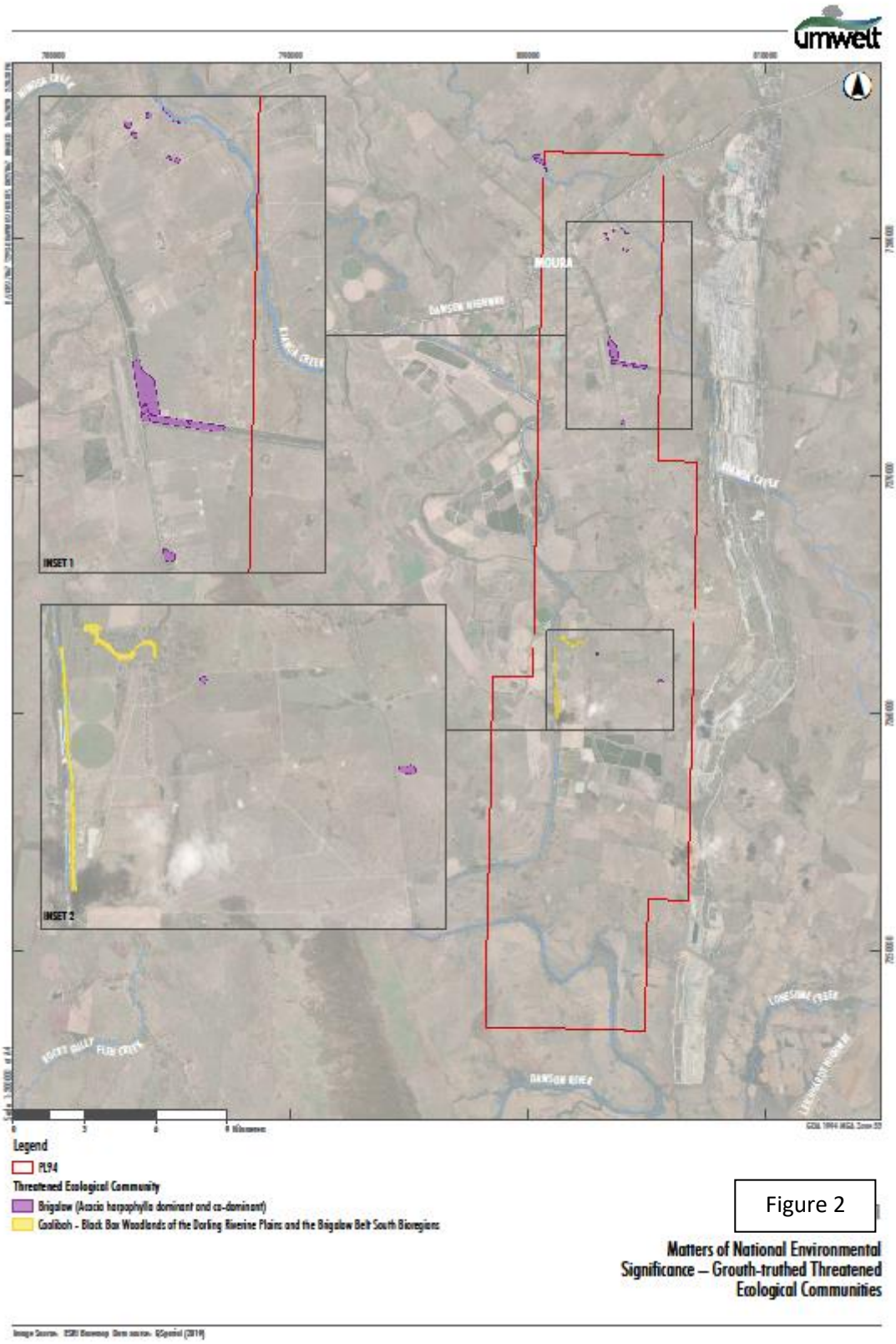


Figure 2 Extent of confirmed TECs within PL94

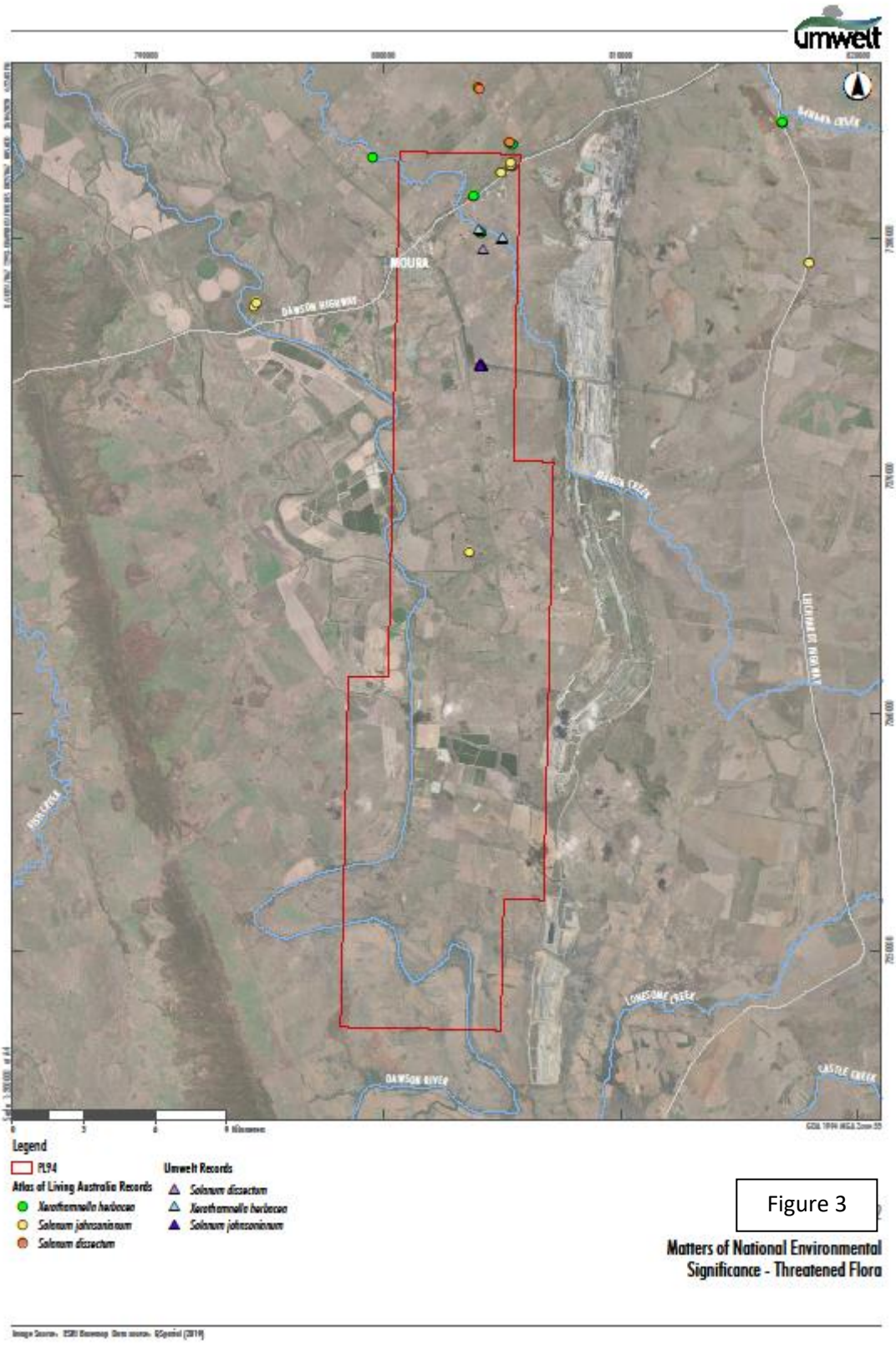
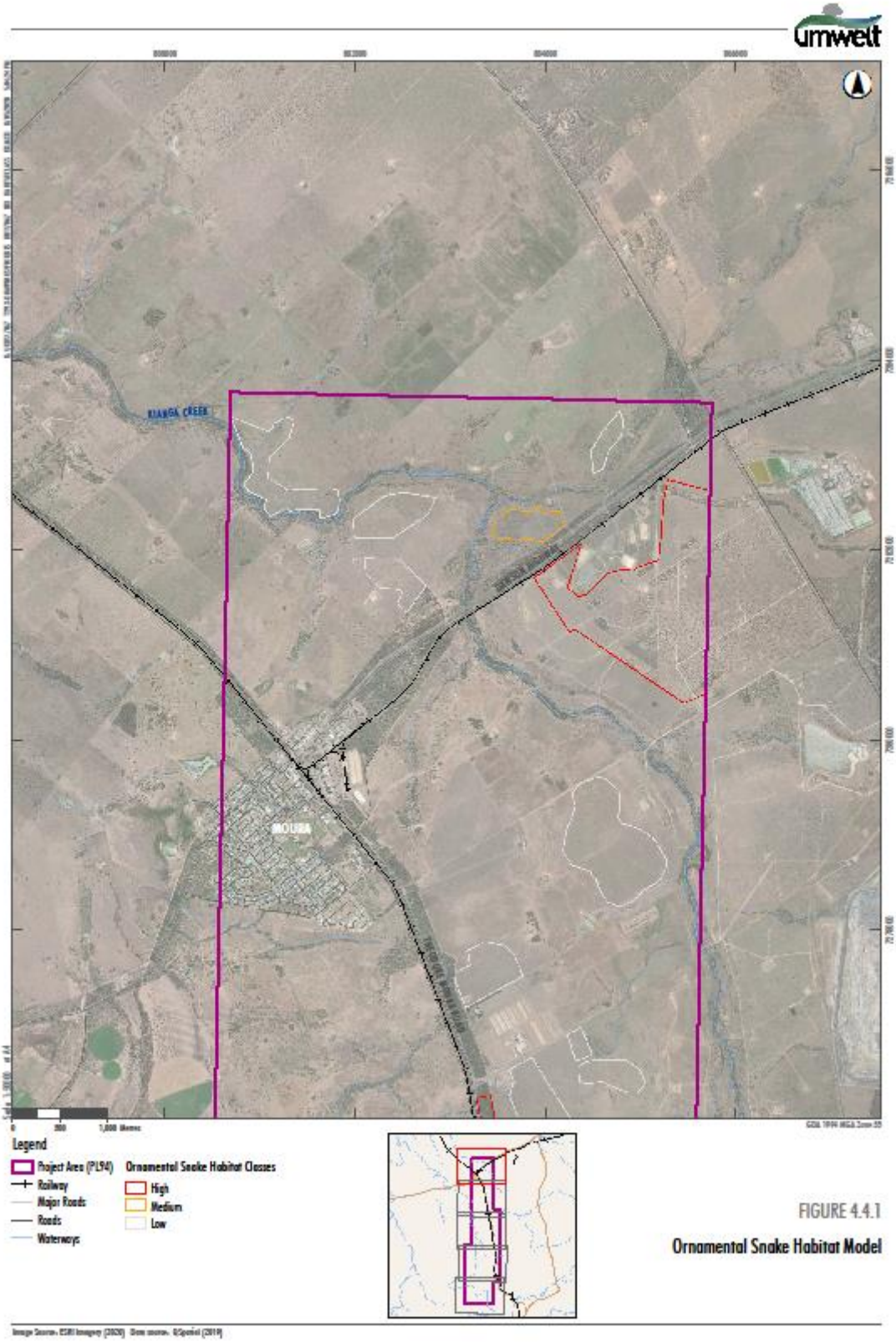


Figure 3 Records of Threatened Flora


Umwelt
KIANGA CREEK
MOURA
Legend
Project Area (PL94)
Railway
Major Roads
Roads
Waterways
Ornamental Snake Habitat Classes
High
Medium
Low
FIGURE 4.4.1
Ornamental Snake Habitat Model

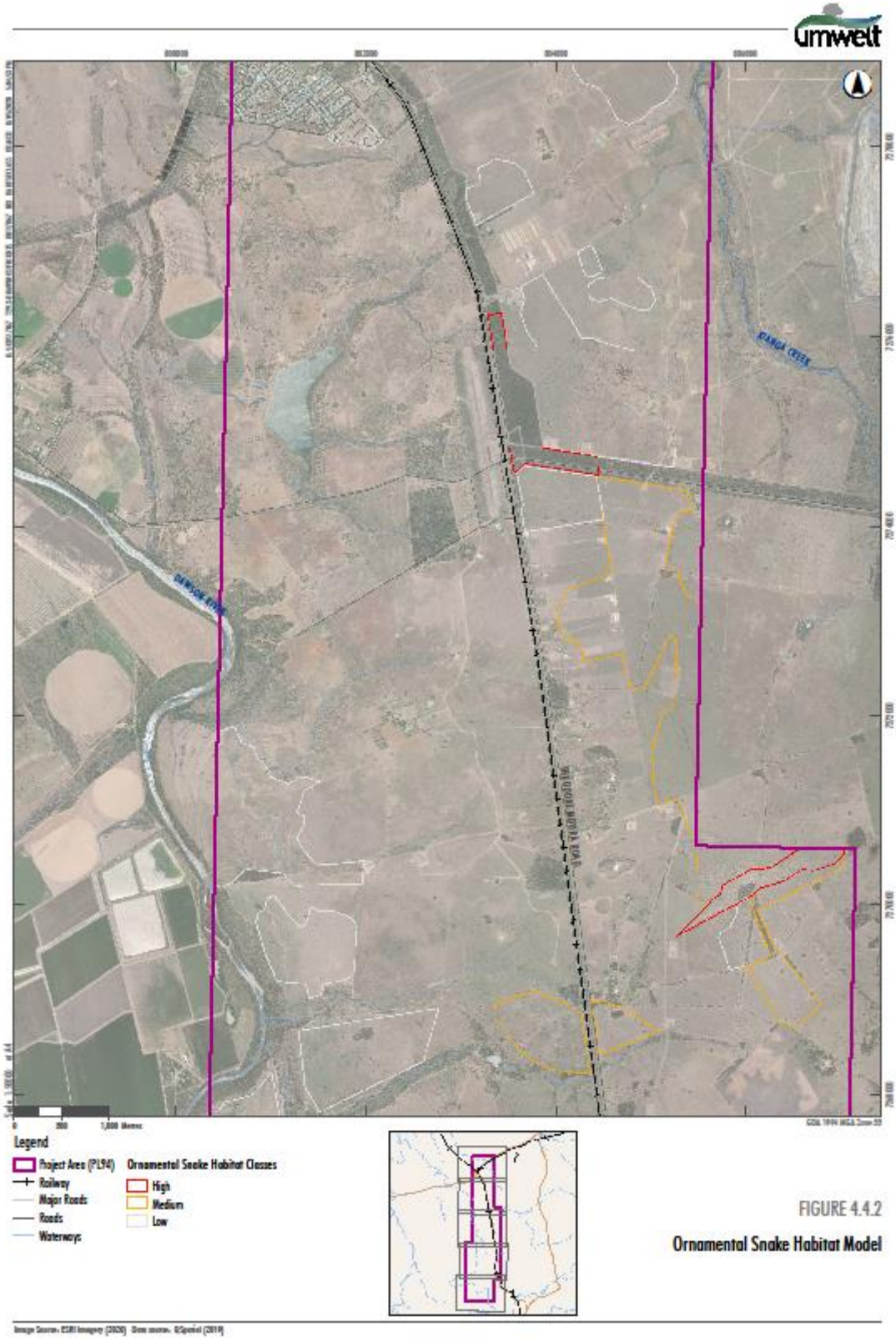


FIGURE 4.4.2

Ornamental Snake Habitat Model

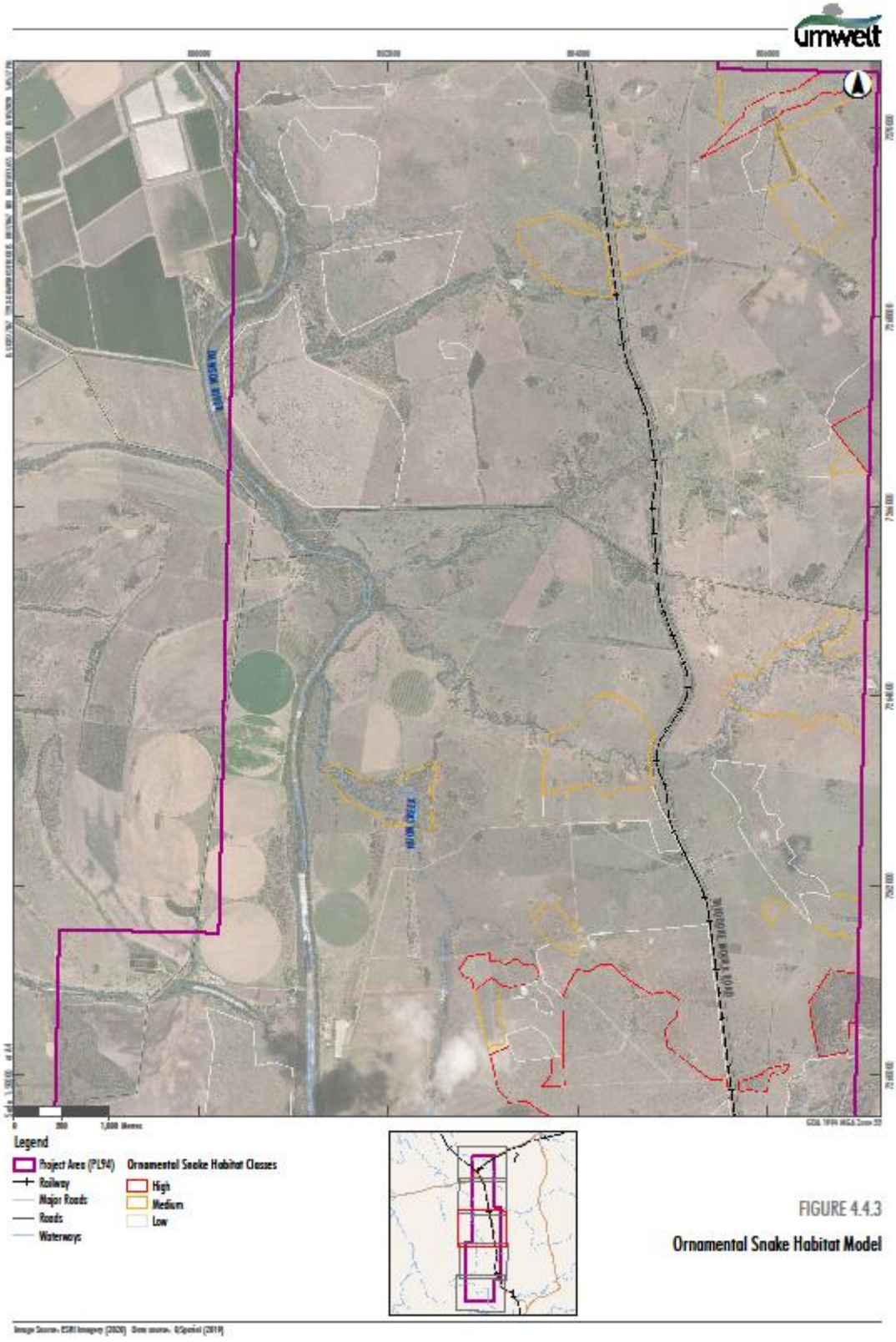


FIGURE 4.4.3

Ornamental Snake Habitat Model

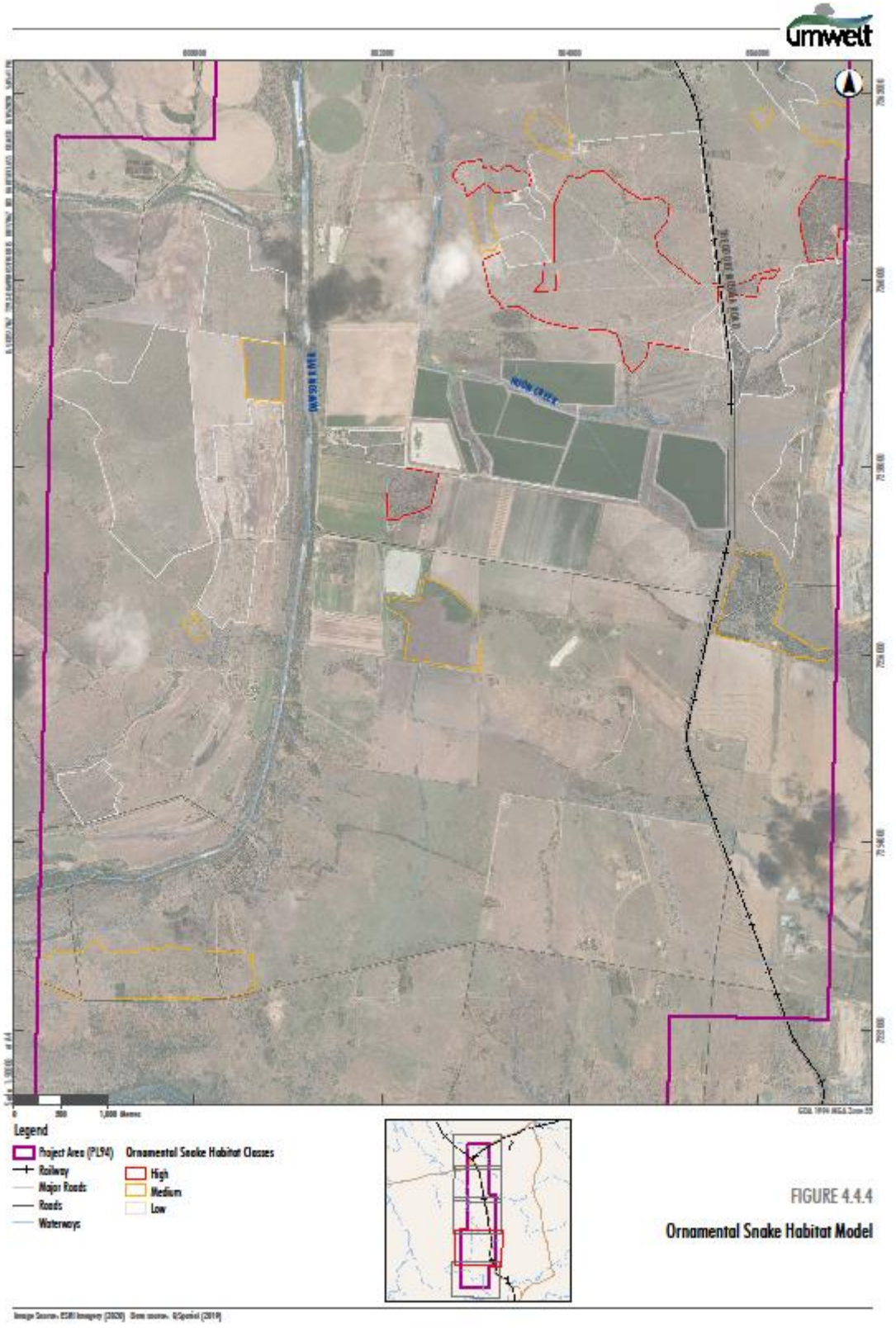


FIGURE 4.4.4

Ornamental Snake Habitat Model

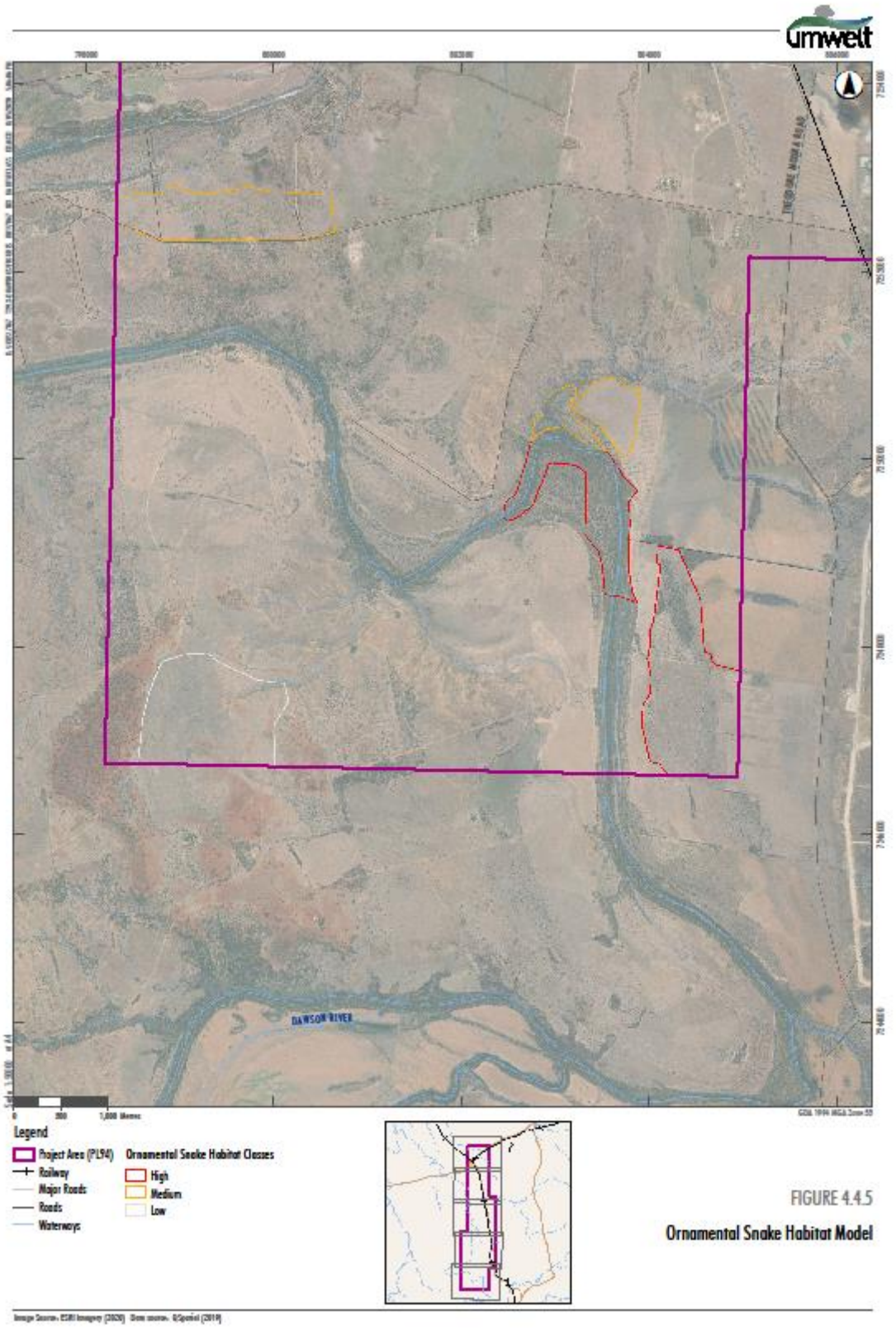


Figure 4 Ornamental Snake Habitat within PL94

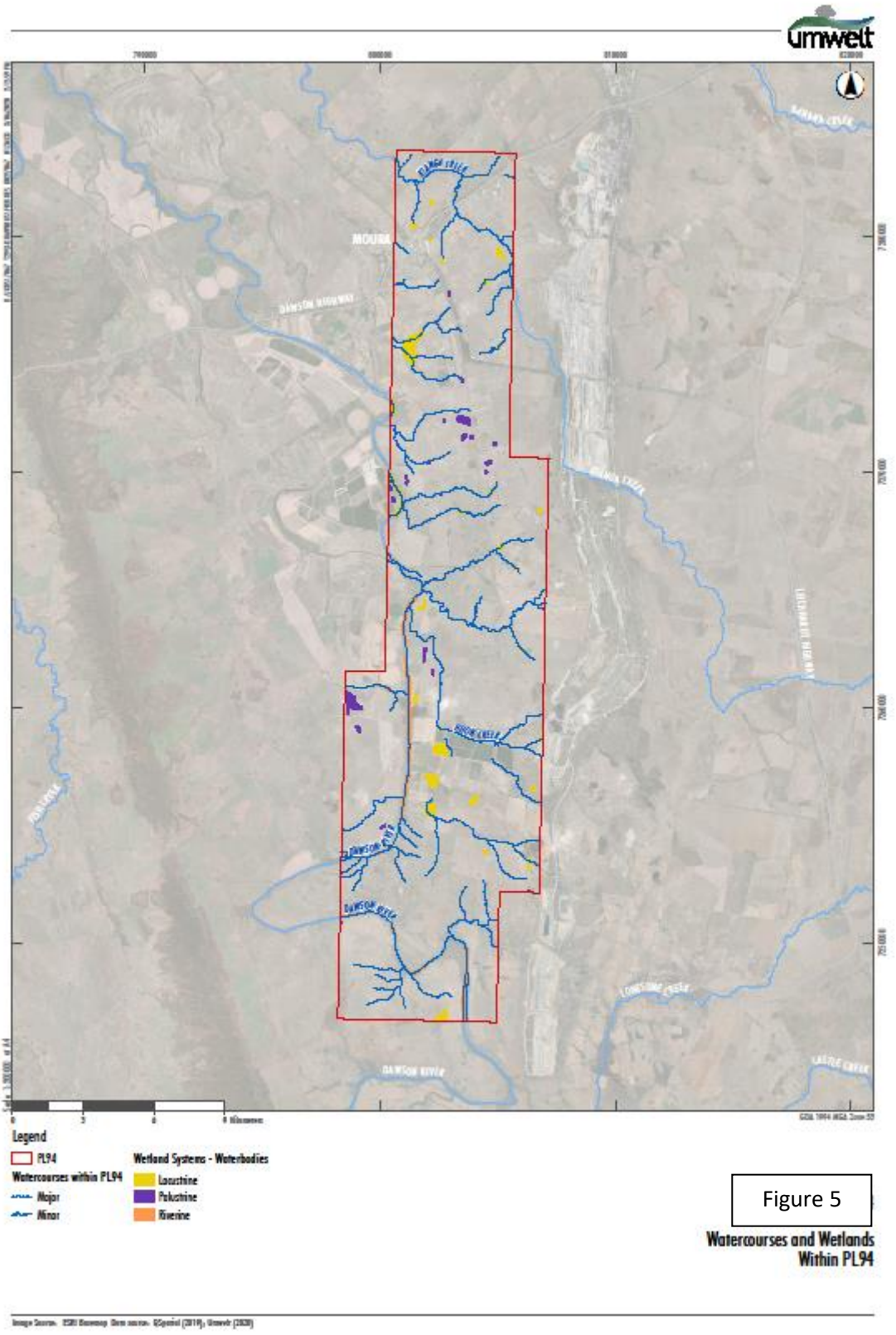


Figure 5 Wetland Habitat within PL94

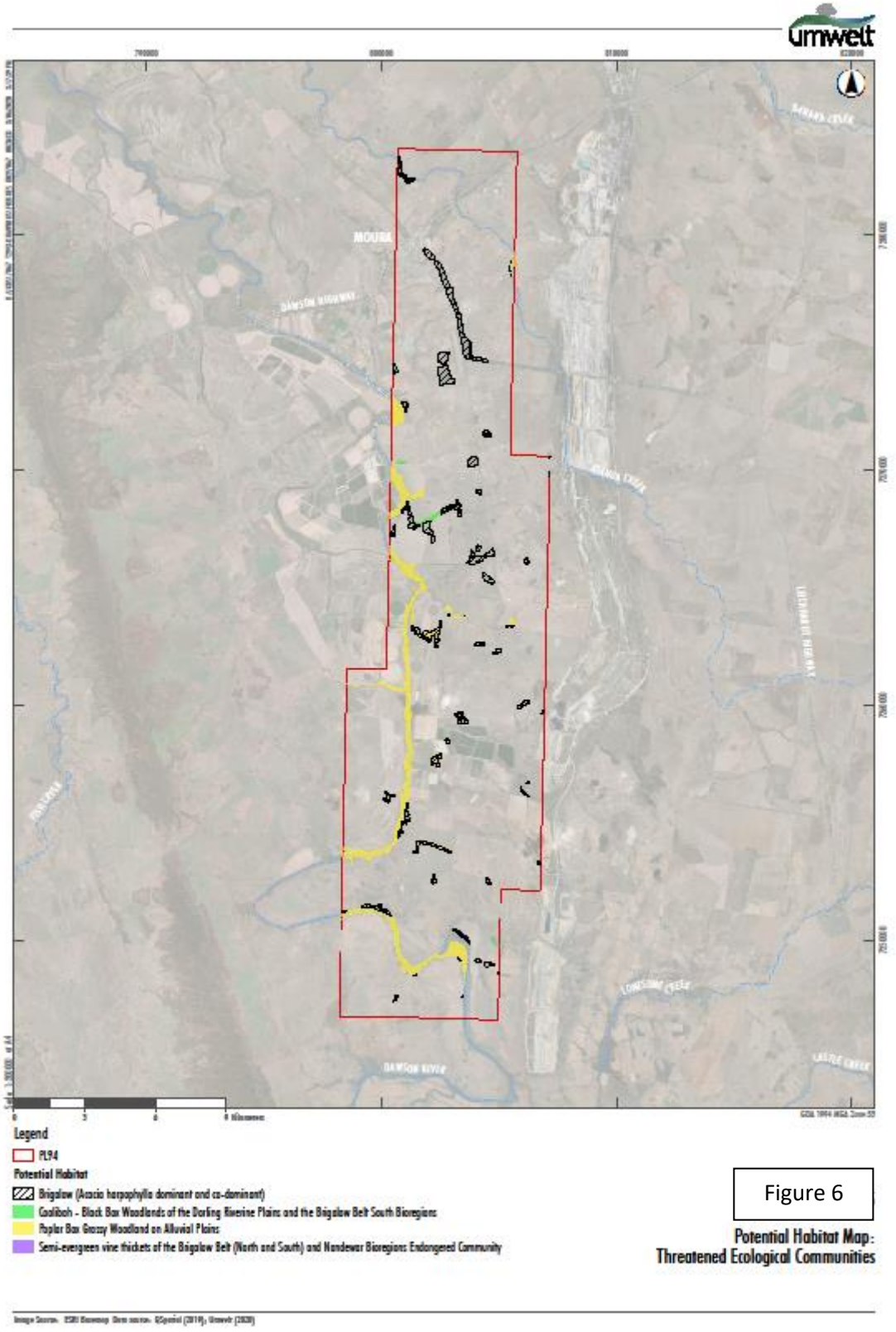


Figure 6 Extent of potential TECs within PL94

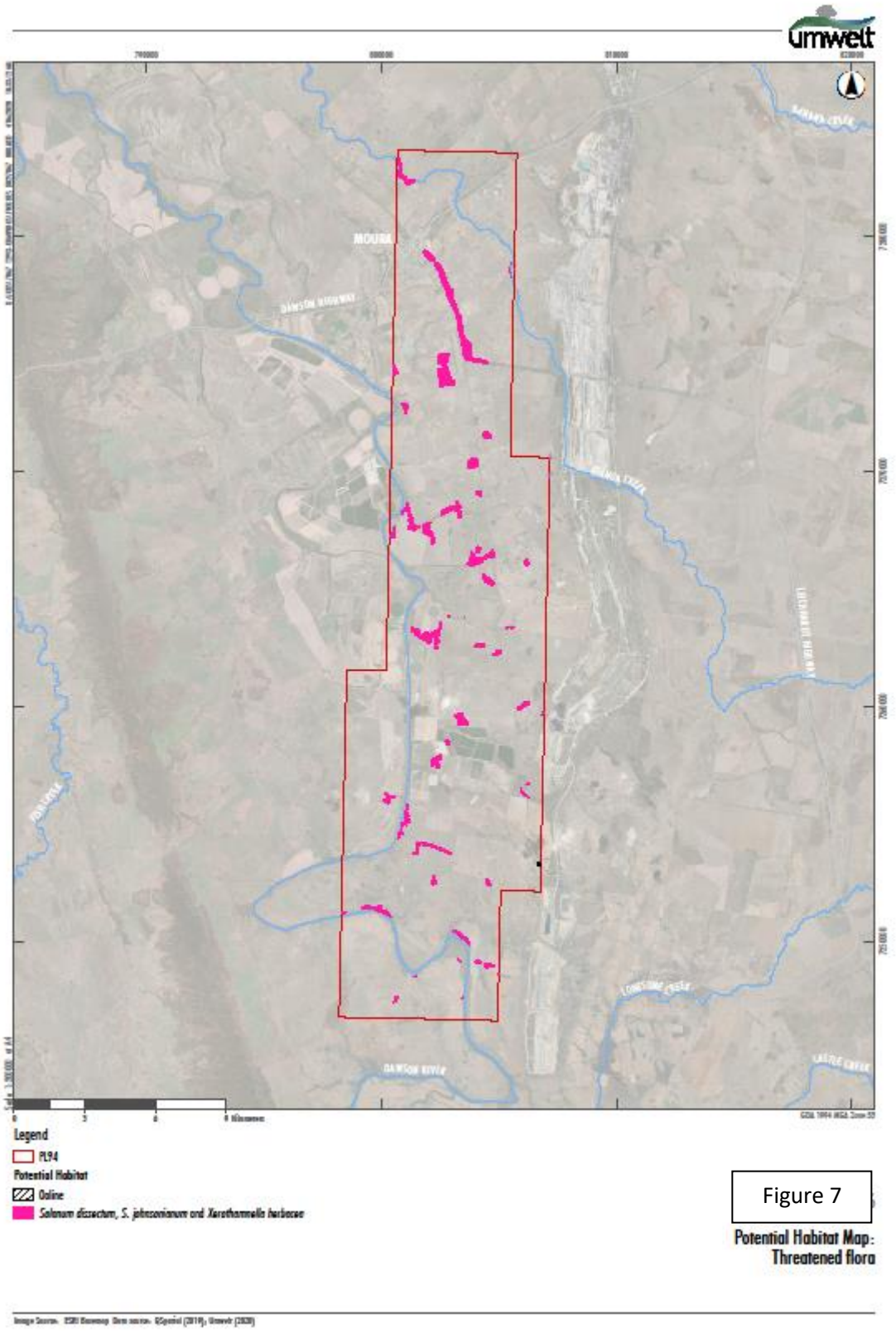


Figure 7 Potential Threatened Flora Habitat within PL94

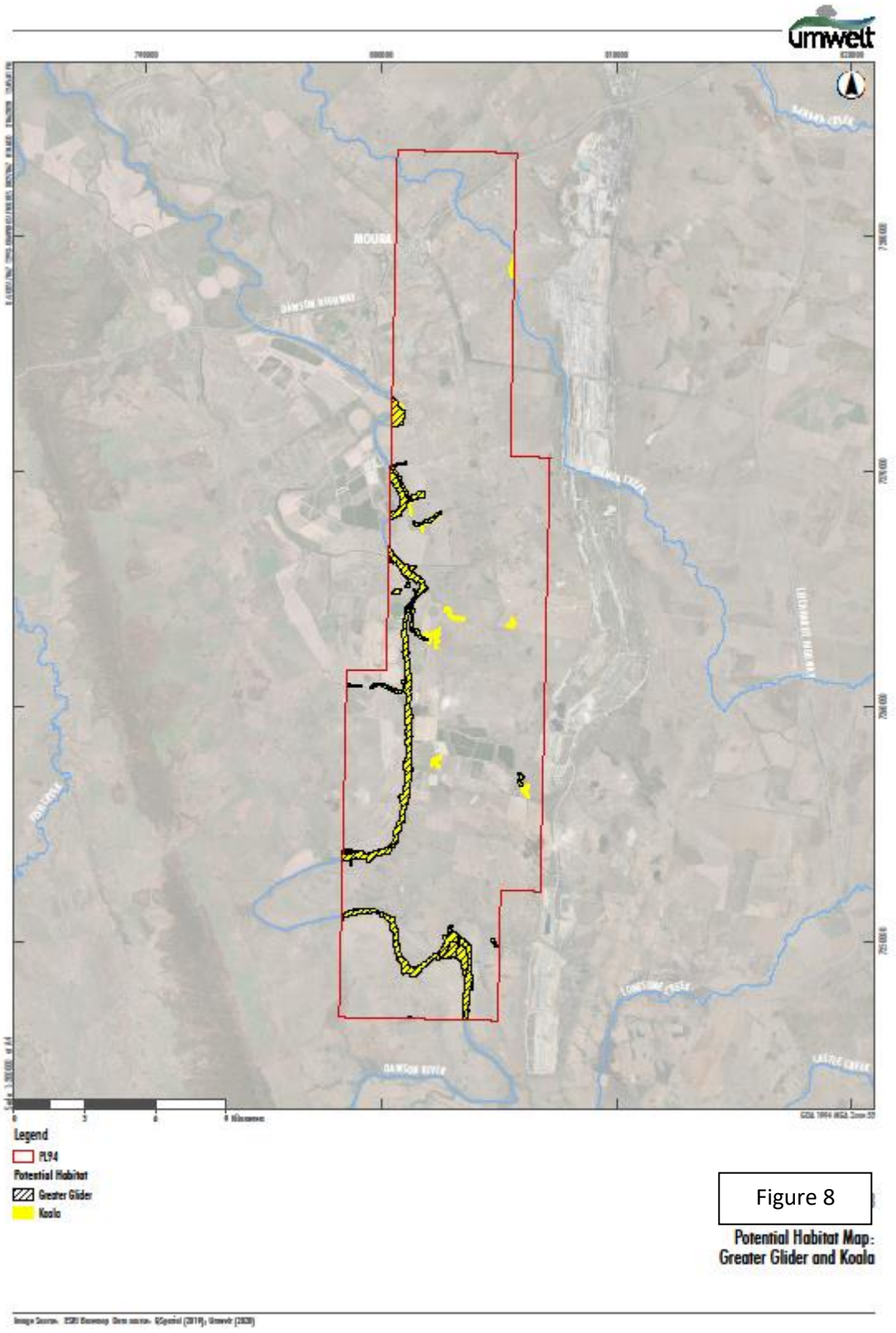


Figure 8 Potential Koala/Greater Glider Habitat within PL94

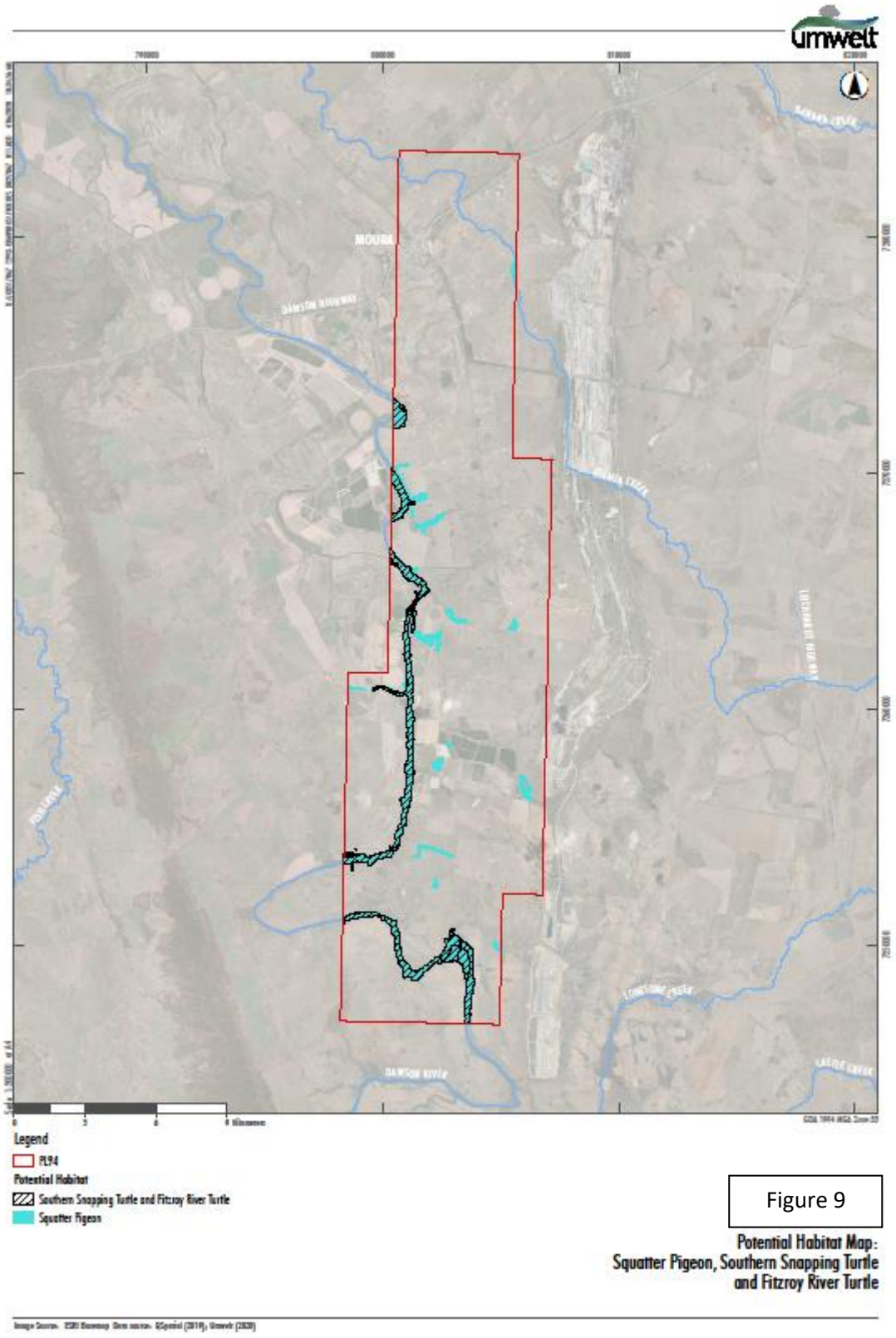


Figure 9 Potential Squatter Pigeon Habitat within PL94

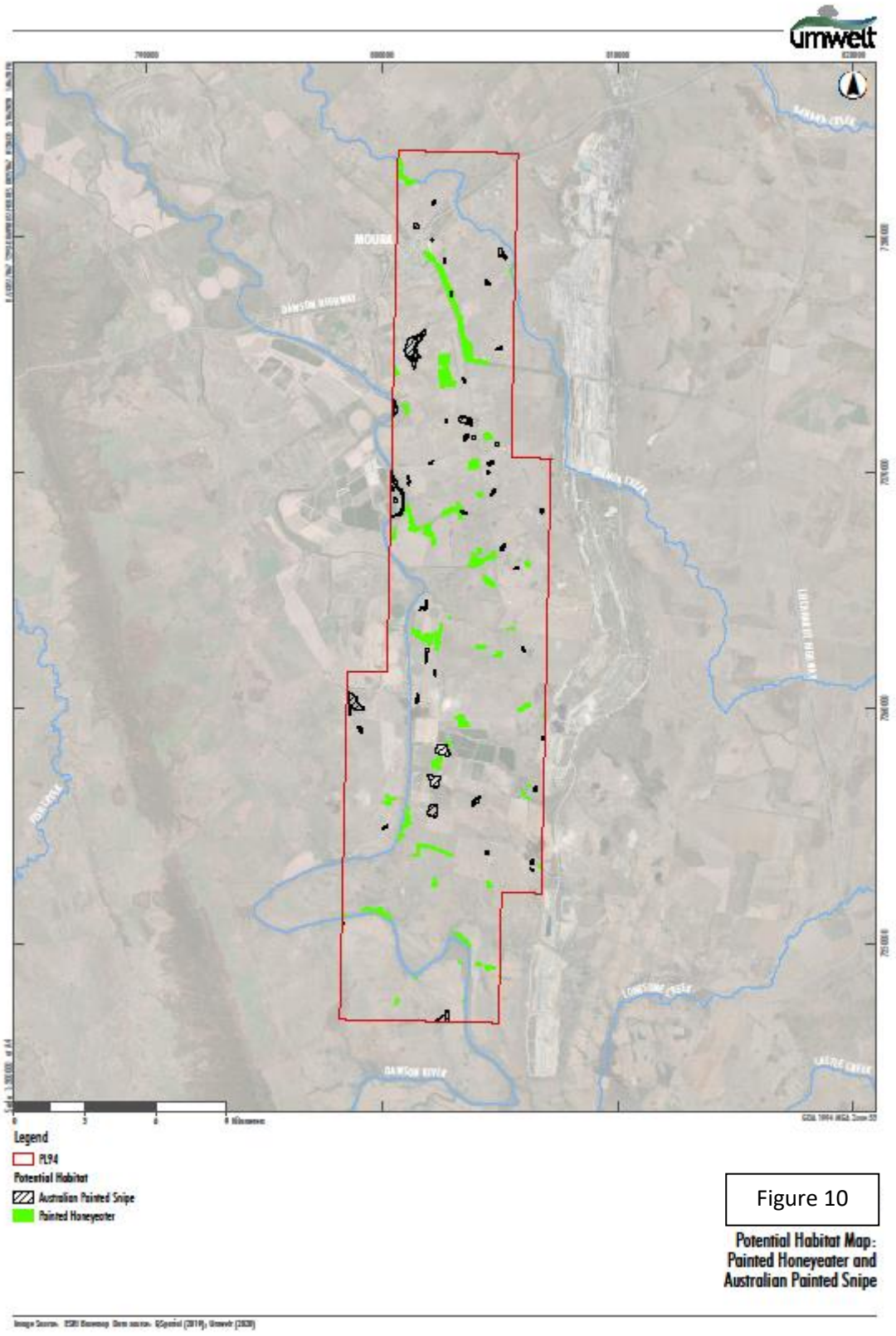


Figure 10 Potential Painted Honeyeater / Australian Painted Snipe Habitat within PL94

4. Additional Ecological Assessments and Monitoring

Although not identified by existing ecological assessments, additional ecological assessments would be undertaken to identify the presence of the potential TECs and listed species identified in this plan, and refine the potential extent of TECs and habitat shown in Figures 2 to Figure 10.

Monitoring for the Project will be undertaken in accordance with the EA and regulatory requirements as well as the Meridian Gas Field Rehabilitation Management Plan detailing rehabilitation monitoring requirements.

5. Abbreviations

Abbreviation	
CSG	Coal Seam Gas
EA	Environmental Authority
EMP	Environmental Management Plan
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
Ha	Hectares
ML	Mining Lease
NES	National Environmental Significance
PL	Petroleum Lease
RE	Regional Ecosystem
The Project	Meridian Seam Gas Fields