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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure 4-2: Low Dense Forest/Forest Fauna Habitat

Legend

Other habitat

Low dense forest/forest habitat

Ravensthorpe Gold/Copper Project Tenements

Date: 12/12/2016

Scale: 1:10,000

N

0 0.45 0.9

Kilometres

ACH

APM ANIMAL PLANT MINERAL

ems@animalplantmineral.com.au

GDA 1994 MGA Zone 51

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Damplands and Drainage

The Damplands and Drainage lines contain common eucalyptus species such as *Eucalyptus platypus* subsp. *platypus* and the mallees *Eucalyptus suggrandis* subsp. *suggrandis*. Tall shrubs are dominated by *Melaleuca* providing a point of difference between this habitat and the low dense forest/forest with more than six species dominant in the upper strata including *Melaleuca cucullata, Melaleuca bromelioides*, *Melaleuca haplantha*, *Melaleuca pauperiflora* subsp. *pauperiflora*, *Melaleuca bracteosa*, *Melaleuca* sp. Kundip (GF Craig 6020), *Melaleuca stramentosa*, *Melaleuca acuminata* subsp. *acuminata* and *Melaleuca cuticularis*. Acacias are also present in the mid to upper storey.

Sedges (*Gahnia trifida, Gahnia ancistrophylla, Mesomelaena stygia* subsp. *stygia, Lepidosperma* sp. *Cordingup* (GF Craig 6138)), grasses (*Spartochloa scirpoidea*) and Herbs (**Asparagus asparagoides, Cassytha melantha*) are common ground story component.

Few species were captured in this habitat type and this may have been primarily due to the poor survey conditions with a delayed onset of Spring and little to no warm weather during the survey. Surveys in drainage lines during the Biota surveys in January would also not have been particularly productive due to lack of water. Only *Litoria moorei* Motorbike Frog, *Lymnodynastes dorsalis* Western banjo frog, *Tiliqua rugosa* Bobtail lizard, *Rattus fuscipes* Bush rat and *Mus musculus* House mouse were recorded.

This habitat has intrinsic value as a connective or corridor habitat to avoid fragmentation of other habitats within the project area. Figure 4-3 illustrates the location of this habitat type in the Project area.

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure 4-3: Damplands and Drainage Fauna Habitat

Legend

Other habitat

Damplands and drainage habitat

Ravensthorpe Gold/Copper Project Tenements

Date: 12/12/2016

Scale: 1:10,000

N

0 0.45 0.9

Kilometres

ACH

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Low Woodland Mallee and Heath

The dry low mallee woodlands contain a broad variety of Eucalypt species including *Eucalyptus falcata* subsp. *falcata*, *Eucalyptus flocktoniae* subsp. *flocktoniae*, *Eucalyptus incrassata*, *Eucalyptus pleurocarpa*, *Eucalyptus phaenophylla*, *Eucalyptus proxima*, *Eucalyptus suggrandis* subsp. *suggrandis*, and *Eucalyptus uncinata*. The primary point of difference between this habitat and the Dampland and Drainage Lines is the location of this habitat over all rises and hills and the presence of a more diverse array of species preferring dry or better drained substrates. Banksia (*Banksia media*) and Hakea (*Hakea laurina*, *Hakea pandanicarpa* subsp. *crassifolia*, *Hakea pandanicarpa* subsp. *pandanicarpa*) species were more prevalent and the mid-shub layer was very diverse including *Allocasuarina humilis*, *Calothamnus gibbosus*, *Calothamnus gracilis*, *Dryandra cirsioides*, *Grevillea oligantha* and *Hakea corymbosa*.

Low shrubs were also diverse and dense, including *Acacia gonophylla*, *Baeckea corynophylla*, *Beaufortia micrantha* var. *micrantha*, *Beaufortia schaueri*, *Boronia inornata*, *Hakea marginata*, *Isopogon* sp. Fitzgerald River (DB Foreman 813), *Leucopogon fimbriatus*, *Lysinema ciliatum*, *Petrophile squamata* subsp. northern (J Monks 40).

Of the 128 records of species/vegetation unity, the six vegetation units that make up this fauna community reported 102 records. Of the 47 species recorded throughout the project area 42 were recorded within this fauna habitat.

The records emphasise both a dominance of this vegetation type in the area and an associated sampling bias that is unavoidable in impact assessment. That is, this habitat was sampled more because it is better represented in the site and is also present in more areas likely to be impacted.

This is not a shortcoming of the survey design however, as more intensive sampling and a better understanding of this fauna habitat is essential when this is the fauna habitat most likely to be impacted by the development due to its representation across the entire site.

Within this habitat type all four of the Pygopid (true legless lizards) were collected. Large skinks, *Tiliqua rugosa* and *Egernia kingii* were located with the latter collected under building refuge near the historic heap leach facility.

In addition to the frequent captures of bush rat during the survey the Heath Rat was also collected in this habitat at the northern end of the Project area. This was the same area that the Ravensthorpe Slider *Lerista viduata* was recorded by Biota (Biota 2004). Chuditch were recorded on motion sensing cameras around the Kundip battery in the lower south western section of the project area and Malleefowl observed foraging in the same location. In addition to the Dugite, the two small elapids, *Elapognathus coronatus* Crown snake and *Parasuta gouldii* Gould's hooded snake, were collected under building material in this habitat. The mygalomorph spider *Aname mainae* was recorded in this habitat during the 2016 survey and 2004 Biota survey. Biota also recorded this species in the low dense forest/forest and damplands and drainage habitats.

Figure 4-4 illustrates the location of this habitat type in the Project area.