

### 3. LEGISLATIVE CONTEXT

This Report has been undertaken in consideration of the Commonwealth legislation and policies as summarised in Table 3-1.

**TABLE 3-1 KEY LEGISLATION AND POLICIES**

Act/Policy	Administering Authority	Purpose
<b>Commonwealth Legislation</b>		
EPBC Act	Department of Climate Change, Energy, the Environment and Water (DCCEEW)	<p>This act administers the protection of the environment within Australia – particularly MNES, which include:</p> <ul style="list-style-type: none"> <li>• World heritage properties;</li> <li>• national heritage properties;</li> <li>• wetlands of international importance;</li> <li>• threatened species and ecological communities;</li> <li>• migratory species;</li> <li>• Commonwealth marine areas;</li> <li>• the Great Barrier Reef Marine Park;</li> <li>• nuclear actions (including uranium mines); and</li> <li>• a water resource, in relation to coal seam gas developments and large coal mining developments. <p>This assessment has identified known, likely or potential occurrence of listed threatened and migratory species within the Project Area. The extent and nature of impacts will influence whether a referral to the DCCEEW is required due to potential for a significant impact to MNES.</p> </li></ul>
EPBC Act Environmental Offsets Policy 2012	DCCEEW	<p>This policy applies where a residual significant impact on an MNES is expected to occur from the Proposed Development. This policy provides guidance on the role of offsets and when a proposed offset is considered suitable.</p>

## 4. ASSESSMENT METHODOLOGY

### 4.1 OVERVIEW

This section outlines the desktop review and field assessment methods used to identify the ecological values relevant to MNES within the Project Area.

### 4.2 DESKTOP REVIEW

A desktop assessment was undertaken to identify and understand the ecological values that have the potential to be present within the Project Area and a 10 km buffer. The desktop assessment included a review of Commonwealth, State, and public information sources as outlined in Table 4-1

**TABLE 4-1 DATA SOURCES FOR DESKTOP ANALYSIS**

Information Source	Name	Data Description
DCCEEW	PMST	The PMST provides predictive results of matters of national environmental significance based on mapping of known and potential species distribution, habitat, ecological communities and wetlands. The outputs are based on modelling results and do not necessarily reflect known records of species or communities. The features highlighted by the search are considered further through a likelihood of occurrence assessment. The PMST results is available in Appendix A.  <b>Search area:</b> Project Area shapefile (with a 10 km buffer) <b>Search Date:</b> 20 August 2024.
DCCEEW	SPRAT	The SPRAT profiles and conservation advice documents provide detailed, peer reviewed, information on species the ecology, distribution, and core habitat of species.
Department of Resources (DoR)	Regional Ecosystem (RE) Version 13 mapping	This product maps remnant and regrowth vegetation communities across Queensland and identifies communities listed as Endangered, Of Concern or Least Concern status as defined by the <i>Vegetation Management Act 1999</i> (VM Act).
DoR	Queensland Globe	This is a Google Earth based product that allows viewing of spatial data and imagery covering Queensland.
Department of Environment, Tourism, Science and Innovation (DETSI)	BioMaps	BioMaps is a mapping and data online interactive tool to access biodiversity related spatial layers and generate environmental reports for selected areas. BioMaps is built on an ArcGIS platform. The BioMaps results is available in Appendix B.  <b>Search area:</b> Project Area shapefile (with a 10 km buffer) <b>Search Date:</b> 21 August 2024.
DETSI	WildNet records – through the Environmental Reports	A database that contains records of wildlife sightings including threatened flora and fauna species (protected under the <i>Nature Conservation Act 1992</i> that have been provided to the agency by Government departments and external organisations.

Information Source	Name	Data Description
Ala.org.au	ALA	Australia national biodiversity database (supported by the National Collaborative Research Infrastructure Strategy, CSIRO). Database contains records accessed through an interactive spatial portal. Threatened species are searched to identify known records in proximity to the Project Area.

### 4.3 FIELD SURVEYS

One field survey has been undertaken within the Project Area in November 2024, focusing on ground-truthing the ecological values in the Project Area, specifically relating to MNES with a known, likely or potential occurrence. The field survey was undertaken by two experienced ecologists over four days, with a total 80 person hours conducted.

A detailed description of the field survey guidelines, techniques, and effort undertaken, as well as the survey conditions and adequacy, is provided in the subsections below.

#### 4.3.1 SURVEY GUIDELINES

The field survey was conducted in accordance with Commonwealth survey guidelines as listed in Table 4-2. Relevant state survey guidelines were referenced as appropriate.

**TABLE 4-2 SURVEY GUIDELINES RELEVANT TO THE FIELD SURVEY**

Source	Description
<b>MNES Documents</b>	
Department of Sustainability, Environment, water, Population and Communities (DSEWPC)	<u>Survey Guidelines for Australia's Threatened Mammals</u> (DSEWPC, 2011a) The 'Survey Guidelines for Australia's Threatened Mammals' assist in determining the likelihood of a mammalian species presence or absence within a survey area, using species-specific survey methods. These guidelines are not mandatory; however, they have been prepared by expert sources and are helpful in determining the presence or absence of a species.
Department of the Environment, Water, Heritage and the Arts (DEWHA)	<u>Survey Guidelines for Australia's Threatened Birds</u> (DEWHA, 2010) The 'Survey Guidelines for Australia's Threatened Birds' assist in determining the likelihood of a bird species presence or absence within a survey area, using species-specific survey methods. These guidelines are not mandatory; however, they have been prepared by expert sources and are helpful in determining the presence or absence of a species.
DSEWPC	<u>Survey Guidelines for Australia's Threatened Reptiles</u> (DSEWPC, 2011b) The 'Survey Guidelines for Australia's Threatened Reptiles' assist in determining the likelihood of a reptilian species presence or absence within a survey area, using species-specific survey methods. These guidelines are not mandatory; however, they have been prepared by expert sources and are helpful in determining the presence or absence of a species.
Department of Environment and Energy	<u>Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species</u> (DoE, 2015a) The 'Industry guidelines for avoiding, assessing, and mitigating impacts on EPBC Act listed migratory shorebird species' applies to 37 migratory shorebirds that regularly visit Australia yearly and are listed as Migratory under the EPBC Act.

Source	Description
	The purpose of this policy statement is to assist proponents in avoiding, assessing, and mitigating significant impacts on migratory shorebirds listed under the EPBC Act. These guidelines detail survey timing, effort, coverage and minimum requirements.
Birdlife Australia	<a href="#">Birdlife Australia Survey Techniques</a> (Birdlife Australia, 2023) Details bird survey techniques and suitability of each technique to the intended outcome.

#### 4.3.2 SURVEY TECHNIQUES AND EFFORT

A summary of the survey techniques and effort conducted during the field survey is provided in Table 4-3 and presented on Figure 4-1, with a detailed description of each survey methodology provided in the following subsections.

**TABLE 4-3 FIELD SURVEY EFFORT & TECHNIQUES**

Dates	Target	Techniques	Survey Effort
4-8 November 2024	Quaternary vegetation assessments	<ul style="list-style-type: none"> <li>Review of vegetation community mapping and assessment of habitat distribution; and</li> <li>Representation sampling for RE verification using quaternary assessments in accordance with (Neldner, 2022).</li> </ul>	<ul style="list-style-type: none"> <li>13 x quaternary level vegetation assessments.</li> </ul>
	Habitat quality assessments	<ul style="list-style-type: none"> <li>Surveying habitat features such as sheltering and roosting microhabitats, proximity to water, aquatic habitat, connectivity, degree of disturbance etc; and</li> <li>Also includes searches for signs of threatened fauna (i.e. koala scats).</li> </ul>	<ul style="list-style-type: none"> <li>13 x habitat quality assessments.</li> </ul>
	BioCondition and modified habitat quality assessments (MHQA)	<ul style="list-style-type: none"> <li>BioCondition assessments in line with the <i>BioCondition A Condition Assessment Framework for Terrestrial Biodiversity in Queensland Assessment Manual</i> (Queensland Herbarium, 2015); and</li> <li>MHQA assessments specific to each targeted species as per the <i>Guide to determining terrestrial habitat quality</i> (DES, 2020).</li> </ul>	<ul style="list-style-type: none"> <li>7 x BioCondition with MHQA plots.</li> </ul>
	Point bird surveys	<ul style="list-style-type: none"> <li>20-minute bird survey in all habitat types; and</li> <li>Roaming bird surveys between survey areas.</li> </ul>	<ul style="list-style-type: none"> <li>13 x point bird surveys.</li> </ul>
	Targeted fauna surveys	<ul style="list-style-type: none"> <li>Meandering surveys during other survey types for targeted species identified in likelihood of occurrence;</li> <li>Scat searches at every habitat assessment point for fauna (particularly koala);</li> </ul>	<ul style="list-style-type: none"> <li>13 x habitat assessment points including targeted searches for fauna;</li> <li>One spotlighting transect over one night by two ecologists (totaling two person hours);</li> </ul>

Dates	Target	Techniques	Survey Effort
		<ul style="list-style-type: none"><li>• Spotlighting transects to target nocturnal and arboreal species such as koala and greater glider; and</li><li>• Koala Spot Assessment Technique (SAT) for signs of koala (i.e. scats, scratches).</li></ul>	<ul style="list-style-type: none"><li>• 13 x koala SATs; and</li><li>• 50 x general observations.</li></ul>