

Appendix C

Likelihood of occurrence assessment

Accessibility Statement

We are committed to making our information accessible to all individuals, including those with disabilities. This commitment is in line with our dedication to inclusive community values and equal access to published information.

Please note there may be content within appendices to this report that are not fully accessible to individuals using assistive technology. This may be due to the technical nature of these documents, which can contain complex tables, graphics, and legal language that are not compatible with certain accessibility tools.

If you require them in an alternative format, please email info@tmr.qld.gov.au or telephone 13 74 68.

Please provide your name, contact information, and a detailed description of the issue you encounter or the format you require.

Appendix C Likelihood of Occurrence Assessment

The following likelihood of occurrence assessment in Table 1, Table 2 and Table 3, for conservation significant species and communities¹ has utilised best available information related to species and community distribution, life history and ecological factors according to the following resources:

- Approved Conservation Advice for the Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions (Department of Climate Change Energy the Environment and Water, 2022)
- Atlas of Living Australia (ALA). (2024). *Spatial Portal*. Retrieved from Atlas of Living Australia. Retrieved from: <https://spatial.ala.org.au/>
- *Austromyrtus gonoclada* Recovery Team (2001) Recovery plan for the angle-stemmed myrtle *Austromyrtus gonoclada* 2001-2005.
- Birdlife Australia. (2024). *Birdlife Data Zone*. Retrieved from: <http://datazone.birdlife.org/country/australia>
- Commonwealth of Australia (2021) National Recovery Plan for the Grey-headed Flying-fox (*Pteropus poliocephalus*).
- Department of Agriculture, Water and the Environment (2022) Conservation Advice for *Petaurus australis australis* (yellow-bellied glider (south-eastern)). Canberra.
- Department of Agriculture, Water and the Environment (2022) Conservation Advice for *Phascolarctos cinereus* (koala) combined populations of Queensland, New South Wales and the Australian Capital Territory. Canberra: Australian Government. Available at: <https://www.environment.gov.au/biodiversity/threatened/species/pubs/85104-conservation-advice-12022022.pdf>.
- Department of Climate Change, Energy, the Environment and Water (2023) *Macadamia integrifolia* - Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak, Species Profile and Threats Database.
- Department of Climate Change, Energy, the Environment and Water (2022) Approved Conservation Advice for the Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions.
- Department of Climate Change, Energy, the Environment and Water (2022) Conservation Advice for *Calyptrorhynchus lathamii lathamii* (South-eastern Glossy Black Cockatoo).
- Department of Climate Change, Energy, the Environment and Water (2022) Conservation Advice for *Petauroides volans* (greater glider (southern and central)). Available at: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/254-conservation-advice-05072022.pdf>.
- Department of Climate Change, Energy, the Environment and Water (2024) Conservation Advice for *Gallinago hardwickii* (Latham's snipe).

¹ Threatened Ecological Communities, threatened species and migratory species listed under the EPBC Act.

- Department of Climate Change, Energy, the Environment and Water. (2024). *Species Profile and Threats Database (SPRAT Database)*. Retrieved from: <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>
- Department of Science and Innovation, (2024), *WildNet Species profile search*, Retrieved from: <https://apps.des.qld.gov.au/species-search/>
- Department of the Environment (2013) Significant Impact Guidelines 1.1: Matters of National Environmental Significance. Canberra.
- Department of the Environment (2015) Conservation Advice - *Anthochaera phrygia* (regent honeyeater), Species Profile and Threats Database. Available at: <http://www.environment.gov.au/sprat>.
- Department of the Environment (2016) National Recovery Plan for the Regent Honeyeater (*Anthochaera phrygia*). Canberra: Commonwealth of Australia.
- Department of the Environment. (2015). *Referral guideline for 14 birds listed as migratory species under the EPBC Act*. Retrieved from: <https://www.dcceew.gov.au/sites/default/files/documents/migratory-birds-draft-referral-guideline.pdf>
- eBird Australia. (2024). *eBird*. Retrieved from The Cornell Lab of Ornithology. Retrieved from: <https://ebird.org/home>
- Eby, P. (1998) An analysis of diet specialization in frugivore *Pteropus poliocephalus* in Australian subtropical rainforest, Australian Journal of Ecology., 23, pp. 443–456.
- Eby, P.& D.L. (2002) Managing the Grey-headed Flying-fox as a threatened species in NSW., Proceedings of the Royal Zoological Society of New South Wales. Mosman, Sydney: Royal Zoological Society of New South Wales.
- Department of the Environment and Energy, (2017) EPBC Act Policy Statement 3.21: Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species
- Department of the Environment, (2015) EPBC Act referral guideline for management actions in Grey-headed and Spectacled flying fox camps
- EPBC Act referral guideline for the endangered koala (Department of Climate Change Energy the Environment and Water, 2023)
- Garnett, S.T. and Crowley, G.M. (2000) The Action Plan for Australian Birds 2000. Canberra.
- Kavanagh, R.P. and Wheeler, R.J. (2004) Home-range of the Greater glider *Petauroides volans* in all montane forest of southeastern New South Wales, and changes following logging, in R.L. Goldingay and S.M. Jackson (eds) The Biology of Australian Possums and Gliders. Chipping Norton: Surrey Beatty & Sons, pp. 413–425.
- Marshall, A., et al. (2022). *Oceanic Manta Ray - Mobula birostris (amended version of 2020 assessment)*. The IUCN Red List of Threatened Species 2022: E.T198921A214397182. <https://doi.org/https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T198921A214397182.en>
- Marshall, A., et al. (2022). *Reef Manta Ray - Mobula alfredi (amended version of 2019 assessment)*. The IUCN Red List of Threatened Species 2022: E.T195459A214395983. <https://doi.org/https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T195459A214395983.en>

- Department of Agriculture Water and the Environment, (2022) National Recovery Plan for the Koala (*Phascolarctos cinereus*) (combined populations of Queensland, New South Wales and the Australian Capital Territory)
- Department of the Environment, (2016) National Recovery Plan for the Regent Honeyeater (*Anthochaera phrygia*)
- NOAA Fisheries. (2023). *Giant Manta Ray*. NOAA Fisheries. <https://www.fisheries.noaa.gov/species/giant-manta-ray/overview>
- Department of the Environment, (2015) Referral guideline for 14 birds listed as migratory species under the EPBC Act
- Department of Climate Change, Energy, the Environment and Water (2024). National Recovery Plan for the Swift Parrot (*Lathamus discolor*)
- Threat abatement plan for predation by feral cats (The Commonwealth of Australia, 2015)
- Threat abatement plan for predation by the European red fox (Department of the Environment Water Heritage and the Arts, 2008)
- Threatened Species Scientific Committee (2016) Conservation Advice *Gossia gonoclada* angle-stemmed myrtle.
- Threatened Species Scientific Committee (2016) Conservation Advice *Lathamus discolor* swift parrot.
- Tidemann, C.& M.V. (1997) Pests, pestilence, pollen and pot-roasts: the need for community-based management of flying foxes in Australia, *Australian Biologist.*, 10(1), pp. 77–83.
- Tidemann, C.R. (1998) Grey-headed Flying-fox, *Pteropus poliocephalus*, Temminck, 1824In: Strahan, R., ed. *The Mammals of Australia*. Frenchs Forest: New Holland Publishers Pty Ltd.
- Tyndale-Biscoe, C.H. and Smith, R.F. (1969) Studies on the Marsupial Glider, *Schoinobates volans* (Kerr): III. Response to Habitat Destruction, *Journal of Animal Ecology*, 38(3), pp. 651–659.
- Youngentob, Marsh and Skewes (2021), A review of koala habitat and assessment criteria and methods

The likelihood of occurrence for Threatened Ecological Communities in Table 1 below was assessed according to the following categories:

- **Known:** Vegetation meets key diagnostic characteristics and condition thresholds according to each TEC's Conservation Advice or Listing Advice, and indicator REs are present.
- **Not present:** Vegetation does not meet key diagnostic characteristics or condition thresholds according to each TEC's Conservation Advice or Listing Advice, and indicator REs are not present.

The likelihood of occurrence for conservation significant flora and fauna species in Table 2 and Table 3 below was assessed according to the following categories:

- **Known:** Species was positively identified and recorded in the Impact area during the field surveys; or previous, reliable records occur within the Impact area
- **Likely:** Species was not recorded during the field surveys or previously, however there are known records within the nearby surrounding area and suitable habitat exists in the Impact area
- **Potential:** Species was not recorded during the field surveys or previously, however known records occur in the surrounding area and habitat in the Impact area is marginal or degraded
- **Unlikely:** Habitat in the Impact area might be suitable or marginal; however, species was not recorded during the field surveys, and no known records of the species exist within the surrounding area

Table 1 TEC - Likelihood of occurrence assessments

TEC	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Grey box-grey gum wet forest of subtropical eastern Australia	Endangered	<p>The ecological community is limited to the New South Wales north coast and south eastern Queensland IBRA Bioregions from near Coffs Harbour in NSW to the southern areas of southeast Queensland. Within these areas it occurs in the Moreton Basin, Scenic Rim, Woodenbong, Cataract, Rocky River Gorge, Washpool, Dalmorton, Clarence Sandstones and Chaelundi IBRA subregions.</p> <p>The ecological community typically occurs on escarpment slopes and foothills, on inland hills and ranges between 100 m and 600 m altitude. It is mainly associated with areas where mean annual rainfall exceeds approximately 1000 mm. The Grey box-grey gum wet forest at maturity typically has a tall to very tall open canopy dominated by its characteristic <i>Eucalyptus</i> species with or without hoop pine (<i>Araucaria cunninghamii</i>). It can have a simple to structurally complex understorey (consisting of all vegetation below the canopy, including juvenile trees and the ground layer). The understorey typically includes flora with drier vine-forest (rainforest) affiliations, with vines often prominent.</p> <p>REs in the South East Queensland Bioregion that correspond to this TEC include: 12.9-10.3, 12.8.14a, 12.8.8a.</p>	<p>Not present</p> <p>Not recorded within the Impact area, and no indicator REs present within or immediately adjacent to Impact area.</p>
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	<p>The Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions occurs in the New South Wales North Coast and South Eastern Queensland IBRA bioregions and on Curtis Island in the Brigalow Belt North IBRA Bioregion.</p> <p>The ecological community is found on alluvial landforms, including floodplains, the riparian zones of parent rivers and other order tributaries, alluvial flats, floodplain/alluvial terraces and periodically flooded depressions. It generally occurs below 50 m above sea-level (ASL), although it can occur up to 250 m ASL. The ecological community generally occurs on alluvial soils, with more limited occurrences on in-situ soils within localised depressions, that may be at least occasionally saturated, water-logged, or inundated.</p>	<p>Known</p> <p>Two locations of ground truthed RE 12.3.3 and/or 12.3.3d that meet TEC's key diagnostic characteristics and condition thresholds within or adjacent (within 500 m) of the Impact area at:</p> <ol style="list-style-type: none"> 1. Gould Adams Park/Battle Park 2. Hugh Muntz Gardens

TEC	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		REs in the South East Queensland Bioregion that correspond to this TEC include: 12.3.3, 12.3.3a, 13.3.3d, 12.3.19, 12.3.20, 12.3.10 and 12.3.18.	
Swamp Tea-tree (<i>Melaleuca irbyana</i>) Forest of South-east Queensland	Critically Endangered	<p>The Swamp Tea-tree (<i>Melaleuca irbyana</i>) Forest of South-east Queensland occurs primarily to the south of Ipswich City, within the local government areas of Beaudesert, Boonah, Esk, Ipswich, Laidley and Logan.</p> <p>The Swamp Tea-tree (<i>Melaleuca irbyana</i>) Forest of South-east Queensland is a low open forest dominated by a dense thicket of <i>Melaleuca irbyana</i> with or without an emergent tree layer of eucalypts. <i>Melaleuca irbyana</i> forms a canopy 8-12 m high. Common tree species that penetrate above the canopy of <i>M. irbyana</i> are <i>Eucalyptus crebra</i>, <i>Eucalyptus melanophloia</i>, <i>Eucalyptus moluccana</i> and <i>Eucalyptus tereticornis</i>.</p> <p>REs in the South East Queensland Bioregion that correspond to this TEC include: 12.9–10.11 and 12.3.3c.</p>	<p>Not present</p> <p>Not recorded within the Impact area, and no indicator REs present within or immediately adjacent to Impact area.</p>
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	<p>The White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland broadly distributed in an arc along the western slopes and tablelands of the Great Dividing Range from Southern Queensland through NSW and ACT, to Victoria.</p> <p>The ecological community is known to occur on hilly to undulating landscapes in areas with soils of moderate fertility derived from a range of lithologies, including alkaline and acid volcanics, granites, sediments, serpentinites and metamorphic. It generally occurs in areas where average rainfall is between 400 and 900 mm per annum. The structure of the ecological community varies with location and site conditions but typically it was formerly (prior to European settlement) an open grassy woodland with medium height trees.</p> <p>REs in the South East Queensland Bioregion that correspond to this TEC include: 11.3.23, 11.3.26, 11.5.20, 11.8.2, 11.8.2a, 11.8.8, 11.9.9a, 11.9.13, 12.8.16, 13.3.1, 13.3.4, 13.9.2, 13.11.2, 13.11.3, 13.11.4, 13.11.8, 13.11.8a, 13.12.8, 13.12.9.</p>	<p>Not present</p> <p>Not recorded within the Impact area, and no indicator REs present within or immediately adjacent to Impact area.</p>

TEC	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	<p>The Coastal Swamp Sclerophyll Forest ecological community occurs on the mainland and islands near to the coast (within 20 km) from South East Queensland down to the south east corner of NSW.</p> <p>This ecological community typically occurs in low-lying coastal alluvial areas with minimal relief, such as swamps, floodplain pockets, depressions, alluvial flats, back-barrier flats, fans, terraces, and behind fore-dunes. The structure of the Coastal Swamp Sclerophyll Forest ecological community varies from open woodland to closed forest with a crown cover of at least 10% and typically no more than 70%, with a canopy and/or sub-canopy dominated by <i>Melaleuca</i> spp. and/or <i>Eucalyptus robusta</i>. Other eucalypts may emerge from the canopy with the mix of species present varying depending on the location.</p> <p>REs in the South East Queensland Bioregion that correspond to this TEC include: 12.2.7, 12.3.4, 12.3.4a, 12.3.5, 12.3.6, 12.3.20 (only parts not dominated by <i>Casuarina glauca</i>).</p>	<p>Not present</p> <p>Indicator RE 12.3.6 ground-truthed within Impact area, however patches do not meet TEC's key diagnostic characteristics and conditions thresholds.</p>
Lowland Rainforest of Subtropical Australia	Critically Endangered	<p>This TEC primarily occurs from Maryborough in Queensland to the Clarence River (near Grafton) in New South Wales.</p> <p>The ecological community occurs on basalt and alluvial soils, including sand and old/elevated alluvial soils as well as floodplain alluvia. Lowland Rainforest mostly occurs in areas <300 m above sea level. This ecological community is generally a moderately tall (≥20 m) to tall (≥30 m) closed forest (canopy cover ≥70%). Tree species with compound leaves are common and leaves are relatively large (notophyll to mesophyll). Typically, there is a relatively low abundance of species from the genera <i>Eucalyptus</i>, <i>Melaleuca</i> and <i>Casuarina</i>. Buttresses are common as is an abundance and diversity of vines.</p> <p>REs in the South East Queensland Bioregion that correspond to this TEC include: 12.3.1, 12.5.13, 12.8.3, 12.8.4, 12.8.13, 12.11.1, 12.11.10, 12.12.1, 12.12.16.</p>	<p>Not present</p> <p>Not recorded within the Impact area, and no indicator REs present within or immediately adjacent to Impact area.</p>

TEC	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	<p>This ecological community occurs within a relatively narrow margin of the Australian coastline, within the subtropical and temperate climatic zones south of the South-east Queensland bioregion boundary at 23° 37' latitude along the east coast and south of (and including) Shark Bay at 26° on the west coast.</p> <p>The Coastal Saltmarsh ecological community consists mainly of salt-tolerant vegetation (halophytes) including: grasses, herbs, sedges, rushes, and shrubs. Succulent herbs, shrubs and grasses generally dominate, and vegetation is generally of less than 0.5 m height (with the exception of some reeds and sedges). Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms, and cyanobacterial mats.</p> <p>REs in the South East Queensland Bioregion that correspond to this TEC include: 12.1.2.</p>	<p>Not present</p> <p>Not recorded within the Impact area, and no indicator REs present within or immediately adjacent to Impact area.</p>
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	<p>The Poplar Box Grassy Woodland on Alluvial Plains ecological community is typically a grassy woodland with a canopy dominated by <i>Eucalyptus populnea</i> and understorey mostly of grasses and other herbs.</p> <p>The ecological community mostly occurs in gently undulating to flat landscapes and occasionally on gentle slopes on a wide range of soil types of alluvial and depositional origin. The ecological community occurs within the Brigalow Belt North, Brigalow Belt South, Southeast Queensland, Cobar Peneplain, Darling Riverine Plains, NSW South Western Slopes and Riverina IBRA bioregions. The woodland is mainly associated with depositional plains and flats including back plains, higher terraces, levees along rivers (particularly in Queensland) and stagnant alluvial plain landscapes (particularly in NSW). The Poplar Box Grassy Woodland is sometimes found in close proximity to ephemeral watercourses and depressions.</p> <p>REs in the South East Queensland Bioregion that correspond to this TEC include: 11.3.2, 11.3.17, 11.4.7, 11.4.12, 12.3.10.</p>	<p>Not present</p> <p>Not recorded within the Impact area, and no indicator REs present within or immediately adjacent to Impact area.</p>

TEC	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales and South East Queensland ecological community	Endangered	<p>This TEC occurs in sub-tropical, sub-humid and temperate climatic zones from Curtis Island, north of Gladstone, in Queensland to Bermagui in southern New South Wales.</p> <p>The ecological community occurs in coastal catchments, mostly at elevations of less than 20 m above sea-level (ASL) that are typically found within 30 km of the coast. The canopy layer is dominated by <i>Casuarina glauca</i> (swamp oak, swamp she-oak). This often occurs as a relatively uniform upper layer of swamp oak, with height and density dependent on the local environmental conditions.</p> <p>REs in the South East Queensland Bioregion that correspond to this TEC include: 12.1.1 and 12.3.20.</p>	<p>Not present</p> <p>Indicator RE 12.3.20 ground-truthed within Impact area, however patches do not meet TEC's key diagnostic characteristics and conditions thresholds.</p>

Table 2 Likelihood of occurrence assessment – threatened flora species

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
<i>Acacia attenuata</i>	Vulnerable	<p><i>Acacia attenuata</i> is found in wet heathland and open eucalypt forest communities in low-lying coastal habitats where soils are sandy/peaty and subject to seasonal waterlogging. It is also found in open woodland and open forest communities, usually with a heath understorey. <i>Acacia attenuata</i> flowers from April to August. Seed pod development may commence around July and pods reach maturity in mid-spring (October-November) to early summer.</p> <p><i>Acacia attenuata</i> is endemic to southeast Queensland. It is found from just north of Bundaberg to Burleigh Heads on the Gold Coast and never more than 30 km inland from the sea. The species is located within the Burleigh Knoll Conservation Park, Great Sandy National Park, Littabella National Park, Mooloolah River National Park, Noosa National Park, Poona National Park, Tewantin National Park, Toolara State Forest and Tuan State Forest (Department of Environment Science and Innovation, 2024).</p>	<p>Unlikely to occur</p> <p>Whilst open eucalypt forest occurs on low-lying coastal area habitat is largely unsuitable due to degradation from weed incursion and a modified environment.</p> <p>No ALA or WildNet records occur within 5 km of the Impact area. The most recent ALA record dated 2021 occurs in residential Gold Coast, located approximately 46 km southeast of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
<i>Acronychia littoralis</i> Scented Acronychia	Endangered	<p>Scented Acronychia occurs in coastal areas (<2 km from the sea) in sub-littoral rainforest, usually in transitional zones between littoral rainforest and swamp sclerophyll forest, littoral and coastal cypress pine communities or on the margin of littoral forest and cleared land. Scented Acronychia flowers have been recorded in January and February. Ripe fruits can be found from May to August.</p> <p>Scented Acronychia has a narrow coastal distribution in eastern Australia between Fraser Island in Queensland and Port Macquarie on the north coast of NSW. In Queensland there are two, small, genetically isolated populations that consist of two trees at a single site on the Gold Coast and some trees in and near the Cooloola Section of Great Sandy National Park. Scented Acronychia flowers have been recorded in January and February. Ripe fruits can be found from May to August.</p>	<p>Unlikely to occur</p> <p>The Impact area is not located in a coastal environment. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The ALA record closest to the Impact area dated 1991 occurs approximately 28 km northwest of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Arthraxon hispidus</i> Hairy-joint Grass	Vulnerable	<p>In NSW and Queensland, Hairy-joint Grass is found in or on the edges of rainforest and in wet eucalypt forest, often near creeks or swamps, as well as woodland. In south-east Queensland, Hairy-joint Grass has also been recorded growing around freshwater springs on coastal foreshore dunes, in shaded small gullies, on creek banks, and on sandy alluvium in creek beds in open forests and also with bog mosses in mound springs. The species flowers during summer- autumn.</p> <p>In Australia, the species has been recorded from scattered locations throughout Queensland and on the northern tablelands and north coast of NSW. In Queensland it occurs north to Port Douglas, and west to disjunct occurrences around mound springs in Carnarvon National Park (NP); however, most occurrences are from Noosa southwards.</p>	<p>Unlikely to occur</p> <p>Marginal habitat of swamps occurs within the Impact area. However, no ALA or WildNet records occur within 5 km of the Impact area. The ALA record closest to the Impact area dated 1993 occurs approximately 34 km northwest of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Baloghia marmorata</i> Marbled Baloghia	Vulnerable	<p>Marbled Baloghia is found in subtropical rainforest/notophyll vine forest and wet sclerophyll forest (brush box woodland) with rainforest understorey between 150 and 550 m above sea level. Small white flowers are borne in clusters at the tips of side shoots, and occur in autumn and spring. Fruits are fawn capsules about 2</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The ALA record closest to the Impact area dated 2023 occurs approximately 15km south of the Impact area. No individuals</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		<p>cm in diameter, containing two to four dark-red and cream spotted seeds</p> <p>Marbled Balogia has a geographically disjunct distribution confined to the Lismore district, in north-east NSW, and the Tamborine Mountains and Springbrook, in south-east Queensland.</p>	were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Bosistoa transversa</i> Three-leaved Bosistoa	Vulnerable	<p>Three-leaved Bosistoa grows in lowland subtropical rainforest up to 300 m above sea level. The species appears to occur only in areas that have experienced minimal disturbance.</p> <p>Three-leaved Bosistoa is found from the Nightcap Range north of Lismore in north-east NSW to Mount Larcom (near Gladstone) in south-east Queensland. The species is described in herbarium collection records as locally abundant at Natural Bridge-Springbrook NP and Coalstoun Lakes NP in Queensland.</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The ALA record closest to the Impact area dated 1992 occurs approximately 22.5 km south of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Brachychiton</i> sp. Ormeau Ormeau Bottle Tree	Critically Endangered	<p>The Ormeau bottle tree is a distinctive canopy tree that grows in riparian rainforest. It occurs near small streams in rocky gorges comprised of metasedimentary rocks among microphyll vine forest; and on quaternary alluvium near larger streams in notophyll vine forest communities. It seems to favour undisturbed rainforest, with few weeds, for reproduction.</p> <p>The Ormeau Bottle-tree is restricted to the Ormeau area of south-east Queensland. It occurs only in the northern Darlington Range of south-east Queensland.</p>	<p>Unlikely to occur</p> <p>There are no ALA records or WildNet of the species within 5 km of the Impact area. The closest record was made 7.8 km South of the Impact area. Species has range of less than 1 square kilometre (outside of Impact area) with only 161 individual trees known. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Bulbophyllum globuliforme</i> Miniature Moss-orchid	Vulnerable	<p>The species grows only on Hoop Pines (<i>Araucaria cunninghamii</i>), colonising the upper branches of mature trees in upland rainforest. It is conserved in Noosa National Park, Lamington National Park and Bunya Mountains National Park, Queensland, and Border Ranges National Park, NSW. The species flowers from September to November and May to August.</p> <p>Miniature Moss-orchid occurs in the McPherson Range of north-east NSW and south-east Queensland; in the Maleny and Noosa areas of the Wide Bay district of Queensland; and in the Calliope</p>	<p>Unlikely to occur</p> <p>No ALA or WildNet records occur within 5 km of the Impact area. The ALA record closest to the Impact area dated 1997 occurs approximately 153.2 km southwest of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		Range inland from Gladstone, Queensland. The species was also collected in 2005 near Hidden Valley, south of Ingham in north Queensland. This species occurs within the Northern Rivers (NSW), Burnett Mary, Fitzroy, Burdekin and South East Queensland Natural Resource Management Regions.	
<i>Clematis fawcettii</i> Stream Clematis	Vulnerable	<p>Stream Clematis prefers canopy gaps on loam soils derived from basalt and mixed volcanic rocks usually near streams. Associated vegetation communities include dry rainforest, complex notophyll vine forest (warm and cool subtropical rainforest), on the margins of semi-evergreen vine thickets and, at one site, in eucalypt open forest with scattered vine forest species. The species flowers from October-December and fruits in January, June and December.</p> <p>Stream Clematis occurs from the Richmond River in north-east NSW to the Bunya Mountains in south-east Queensland. This species is conserved within the Richmond Range National Park (NP), Toonumbar NP, Lamington NP, Main Range NP and Mt Barney NP. This species occurs over a range of 65 000 km² and herbaria collections have been made from about 35 locations. This species occurs within the Northern Rivers (NSW), Condamine (Queensland) and South East Queensland Natural Resource Management Regions.</p>	<p>Unlikely to occur</p> <p>There are no ALA or WildNet records for the occurrence of the species within 5 km of the Impact area. The Impact area does not have vegetation and soils to support the growth of the species. The ALA record closest to the Impact area dated 1990 occurs approximately 26.5 km west of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Coleus habrophyllus</i> (syn. <i>Plectranthus habrophyllus</i>) Coleus	Endangered; Endangered	<p>The species has been recorded growing on chert or sandstone outcrops, in open woodlands often in shaded situations and near vine forest. Flowers have been recorded in February, August and December.</p> <p>The species is restricted to south east Queensland, near Ipswich and near Ormeau, south of Beenleigh; has a distributional range of approximately 40 km (Queensland Herbarium undated) and is known from the following six locations in south-east Queensland:</p> <ul style="list-style-type: none"> • Oxley Creek, Greenbank • Opposum Creek, Springfield 	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. One ALA record dated 2019 occurs within 5 km of the Impact area. Most recent WildNet record dated 2019, species found within 5km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in key habitat types, during optimal seasonal conditions and with Suitably Qualified Person (as per Queensland <i>Nature Conservation Act 1992</i>). Species is not cryptic, is a perennial woody herb and has key diagnostic features which assist identification. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		<ul style="list-style-type: none"> • Woogaroo Creek, Goodna • three populations within White Rock Conservation Park, incorporating Six Mile Creek Conservation Park • near Ormeau (south of Beenleigh). 	
<i>Corchorus cunninghamii</i> Native Jute	Endangered	<p>The Native Jute occurs in the ecotone of wet sclerophyll forest and dry to dry-subtropical rainforest (e.g. araucarian microphyll vine forest), and in Hoop Pine (<i>Araucaria cunninghamii</i>) plantations. It often occurs on hill crests, exposed slopes, ridges or upper slopes of hilly terrain on south or south-east aspect. It also occurs on sheltered slopes, gullies and on lower slopes, depending on the topographic position of the sclerophyll-rainforest margin. In Queensland, the Native Jute has a total population of approximately 6000 individuals, with the largest population in Wilkie Scrub (Wongawallan area). The species flowers through the year however the peak flowering period is between November and May (fruiting capsules appear on the plant).</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The ALA record closest to the Impact area dated 2005 occurs approximately 6.8 km east of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Croton mamillatus</i> Bahrs Scrub Croton	Critically Endangered	<p>Species grows as an understorey shrub in remnants of dry microphyll or notophyll vine forest on red rocky soils derived from chert, often on hillsides near rainforest margins. Flowering and fruiting occurs all year and peaks in the spring and summer months.</p> <p>The species is restricted and disjunct distribution in the Caboolture, Beenleigh and Boonah localities, near Brisbane in the South Eastern Queensland bioregion.</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. 2 records occur within 5 km of the Impact area. The ALA record closest to the Impact area dated 2020 occurs approximately 4.1 km southwest of the Impact area. Most recent WildNet record dated 2020 found within 5km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Cryptocarya foetida</i> Stinking Cryptocarya	Vulnerable	<p>The Stinking Cryptocarya is restricted to coastal sands, or if not, then close to the coast, occurring in littoral rainforest on old sand dunes and subtropical rainforests over slate and occasionally on basalt to an altitude of 150 m. The Stinking Cryptocarya's main flowering and fruiting period is in February, however it has also been recorded flowering from December to February and in May.</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		<p>Ripe fruits have been collected in January and from June to August.</p> <p>The Stinking Cryptocarya has been recorded from near Iluka, on the north coast of New South Wales, to Fraser Island in Queensland.</p>	
<i>Cryptostylis hunteriana</i> Leafless Tongue-orchid	Vulnerable	<p>The Leafless Tongue-orchid has been reported to occur in a wide variety of habitats including heathlands, heathy woodlands, sedgeland, <i>Xanthorrhoea</i> spp. plains, dry sclerophyll forests, forested wetlands, freshwater wetlands, grasslands, grassy woodlands, rainforests and wet sclerophyll forests (grassy sub-formation). Soils are generally considered to be moist and sandy, however, this species is also known to grow in dry or peaty soils. The flowering period for the Leafless Tongue-orchid is generally from August to February with flowering taking place earlier in Queensland than in NSW and Victoria.</p> <p>The distribution of the Leafless Tongue-orchid extends from Orbost in East Gippsland in Victoria through coastal NSW and up into the Tin Can Bay area of southern Queensland.</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The ALA record closest to the Impact area dated 1997 occurs approximately 68.5 km northwest of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Cupaniopsis shirleyana</i> Wedge-leaf Tuckeroo	Vulnerable	<p><i>Cupaniopsis shirleyana</i> occurs at 20 to 550 m elevation. Recorded in a variety of rainforest types including vine thicket and dry rainforest. Occurs on hillsides, mountain tops, lower slopes of valleys, stream beds and along riverbanks. Grows in a variety of soil types. Flowering mainly occurs in May to July, occasionally January or March. Fruiting has been recorded from July to December.</p> <p><i>Cupaniopsis shirleyana</i> is restricted to south east Queensland, from Brisbane, north to Bundaberg. <i>Cupaniopsis shirleyana</i> is known from Pine Mountain Reserve, Mt Gravatt, Cold Creek State Forest and Miva State Forest (Department of Environment Science and Innovation, 2024).</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
<i>Cupaniopsis tomentella</i> Boonah Tuckeroo	Vulnerable	Boonah Tuckeroo grows in vine thickets predominantly on fertile clay soils. All known records are from outside of conservation reserves. Flowering occurs from May to June and fruiting occurs in the spring when an orange-yellow fruit is produced. The species is known only from an area between Boonah and Ipswich in south-eastern Queensland. It occurs within the South East Queensland Natural Resource Management Region.	Unlikely to occur The species has not been recorded in Logan City, it mainly occurs between Boonah and Ipswich. No ALA or WildNet records occur within 5km of the Impact area. The closest ALA record occurs 25.3 km West of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Dichanthium setosum</i> Bluegrass	Vulnerable	An erect perennial grass found in heavy soils (predominantly cracking clays or alluvium, often in gilgai) in woodland or open woodland usually dominated by <i>Acacia</i> (brigalow) and/or <i>Eucalyptus</i> species. The climate is tropical to subtropical and markedly seasonal with the habitat drying out for part of the year. Flowering occurs in Jan-June and November-December. In Queensland it has been reported from the Leichhardt, Morton, North Kennedy and Port Curtis regions. This species occurs in the Mistake Range, in Main Range National Park, and possibly in Glen Rock Regional Park, adjacent to the Main Range National Park (Department of Environment Science and Innovation, 2024).	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The most recent record is dated 2000. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Diploglottis campbellii</i> Small-leaved Tamarind	Endangered	The Small-leaved Tamarind occurs in forest types varying from luxuriant lowland subtropical rainforest to drier subtropical rainforest with a <i>Lophostemon confertus</i> (Brush Box) open overstorey. The preferred habitat type is well-watered but well-drained sites on basalt-derived soils or alluvium at low altitude, as this habitat type supports the best developed individuals and populations. In Queensland most of the wild populations occur in degraded lowland tropical rainforest, with deep brown loamy soils (pH 5-6) on level to slightly inclined alluvial terraces and levees at altitudes of 5-60 m asl. The species have been observed to flower as early as October or from November to March in New South Wales. Ripe fruits are generally present from January/February to March/early April. The Small-leaved Tamarind is endemic to eastern Australia where it is restricted to the warm subtropical rainforest from the coastal	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record occurs 64.9km northwest of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		lowlands between Richmond River on the far north of New South Wales and Mudgeeraba Creek on the Gold Coast hinterland, Queensland.	
<i>Endiandra floydii</i> Floyd's Walnut	Endangered	The Floyd's walnut occurs in subtropical (including littoral) rainforest or wet sclerophyll forest, often with <i>Lophostemon confertus</i> (Brush Box) in the canopy and occasionally with <i>Araucaria cunninghamii</i> (Hoop Pine) emergents. Disturbed and regrowth sites may include <i>Cinnamomum camphora</i> (Camphor Laurel) and <i>Lantana camara</i> (Lantana) as weed components. Floyd's walnut is known from Pimpama, just north of the Queensland Gold Coast, south to Byron Hills, 6 km south of Cape Byron, NSW	Unlikely to occur Marginal Brush box and Camphor Laurel habitat occurs within the Impact area. However, no ALA or WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Endiandra hayesii</i> Rusty Rose Walnut	Vulnerable	The Rusty Rose Walnut is a rainforest tree, occurring in cool, moist sheltered valleys and gullies; mostly lowland riverine notophyll to complex notophyll vine forest on sedimentary soils and alluvium. Flowers have been recorded on the Rusty Rose Walnut in spring and in March, October and November, with fruits recorded in March and May. The Rusty Rose Walnut is endemic to Australia, occurring in a restricted area north from Maclean, on the lower Clarence River, NSW to Burleigh Heads, Queensland. In Queensland it occurs in Springbrook National Park (NP), Burleigh Heads and Tallebudgera.	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Fontainea venosa</i> Southern Blushwood	Vulnerable	<i>Fontainea venosa</i> occurs in notophyll vine forest and vine thicket with a mean annual rainfall of 1000-1100 mm on soils derived from and containing abundant andesitic rocks, often on rocky outcrops or along creeks. Associated species include <i>Backhousia citriodora</i> , <i>Actephila lindleyi</i> , <i>Bosistoia medicinalis</i> , <i>Diospyros fasciculosa</i> , <i>Barkly syringifolia</i> , <i>Araucaria cunninghamii</i> , <i>Owenia venosa</i> , <i>Aphananthe philippinensis</i> , <i>Argyrodendron trifoliolatum</i> , <i>Croton acronychioides</i> , <i>Pentaceras australe</i> and <i>Planchonella myrsinoides</i> . Flowering of <i>Fontainea venosa</i> has been recorded in January,	Unlikely to occur No suitable habitat occurs within the Impact area. ALA records occur within 5 km of the Impact area. Records are clustered around Bahrs Hill Park. Of this, the closest record dated 2021 is located approximately 4 km west of the Impact area. 12 WildNet records occur with the most recent dated 2020. The Project is not expected to impact these locations. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		February, April, May, June, August and October. Fruiting in January-April, June-October and December. <i>Fontainea venosa</i> occurs south west of Beenleigh near Brisbane, along the Koolkooroon Creek in the Boyne Valley, and near Littlemore, in Queensland (Department of Environment Science and Innovation, 2024).	
<i>Gossia gonoclada</i> (syn. <i>Austromyrtus gonoclada</i>) Angle-stemmed Myrtle	Endangered	<i>Gossia gonoclada</i> is found in lowland riparian rainforest and notophyll vine forest, along permanent watercourses subject to tidal influence. It usually grows below the peak flood level, on steep slopes and at low elevations of 5-50m. It occurs on moderately well drained clay soils, sandy loams and alluvial soils. The species flowers in October through to December, fruiting in January through to early April. The fruits remain viable for only a short period. <i>Gossia gonoclada</i> is currently known from sites along the lower reaches of the Brisbane and Logan Rivers and their tributaries. Specimens from the 1860s were also collected from Moggill, southeast Queensland (Department of Environment Science and Innovation, 2024).	Likely to occur Species observed within 15 m of Impact area at Holmview Road, Edens Landing. ALA records occur within 5 km of the Impact area. The closest record dated 1995 occurs approximately 1 km east of the Impact area within Alexander Clark Park. 22 WildNet records were returned with the most recent dated 2019. No other individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Leichhardtia longiloba</i> (syn. <i>Marsdenia longiloba</i>) Clear Milkvine	Vulnerable	Clear Milkvine grows in open eucalypt forest, or margins of subtropical and warm temperate rainforest, and in areas of rocky outcrops. Associated species include <i>Eucalyptus crebra</i> , <i>E. microcorys</i> , <i>E. acmenoides</i> , <i>E. saligna</i> , <i>E. propinqua</i> , <i>Corymbia intermedia</i> and <i>Lophostemon confertus</i> . Flowering occurs in January, February, November and December. Clear Milkvine is known from scattered sites on the NSW north coast from Hastings River northwards to Mount Nebo in Queensland. It is conserved within the Lamington National Park (NP), Main Range NP, Mt Barney NP, and Toonumbar NP. This species occurs within the Hunter–Central Rivers, Northern Rivers (NSW) and South East Queensland Natural Resource Management Regions.	Unlikely to occur The species occurs within 5 km of the Impact area and there are recent records of the species. The closest record of the species occurred 2021 and was located 4.5 km from the Impact area. The most recent WildNet record dated 1993 occurs within 5km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
<i>Lepidium peregrinum</i> Wandering Pepper-cress	Endangered	At Clifton, this species grows in riparian open forest dominated by <i>Eucalyptus camaldulensis</i> and <i>Casuarina cunninghamiana</i> with a variably dense shrubby understorey of <i>Hymenanthera dentata</i> , <i>Bursaria spinosa</i> , <i>Acacia fimbriata</i> , <i>A. floribunda</i> , <i>Callistemon viminalis</i> and <i>Leptospermum brachyandrum</i> . This species was most abundant in the tussock grassland fringe of the riparian open forest. It also occurred in shade under shrubs close to the creek bank. Flowering occurs from January to April. <i>Lepidium peregrinum</i> occurs from the Bunya Mountains, south-east Queensland, to near Tenterfield, in northern New South Wales.	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest record of the species occurred 2004 and was located 41.5 km from the Impact area. The Project is not expected to impact these locations. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Macadamia integrifolia</i> Macadamia Nut	Vulnerable	The Macadamia Nut grows in remnant rainforest, preferring partially open areas such as rainforest edges. However, this habitat is not continuously fit for the species. This species produces cream or creamy-white flowers that have been recorded in January, March and June to November. This species is known from Mt Bauple, north of Gympie, to Currumbin Valley in the Gold Coast hinterland.	Known to occur Two individuals observed within Impact area at Heather St, Logan Central and Federation Drive, Bethania. Multiple scattered ALA records occur within 5 km of the Impact area. The closest record dated 2019 occurs approximately 2 km west of the Impact area near Overland Drive. 12 WildNet records occur with the most recent dated 2020.
<i>Macadamia ternifolia</i> Gympie Nut	Vulnerable	Gympie Nut has a specialised habitat requirement, and the species generally occurs in fertile, basalt-derived soils on steep southern slopes. Brush-like pinkish to cream flowers in clusters from August to September. Fruits mature March to April and fall to the ground when ripe. Inside the husk, the nut shell is smooth. Gympie Nut is endemic to Queensland. Historically, this species occurred from near Gympie to Brisbane, however, the species is now restricted to an area between Mt Pinbarren south to Mary Cairncross Park, near Maleny. This species occurs within the Burnett Mary and South East Queensland Natural Resource Management Regions.	Unlikely to occur The habitat present is unsuitable for the growth of the species. No ALA or WildNet records occur within 5km of the Impact area. The closest ALA record of the species is 14.4 km from the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Macadamia tetraphylla</i>	Vulnerable	Rough-shelled Bush Nut is a rare species that generally occurs in subtropical rainforest and complex notophyll vine forest, at the margins of these forests and in mixed sclerophyll forest. The	Unlikely to occur No suitable habitat occurs within the Impact area. No WildNet records occur within 5km of the Impact area 4 ALA records occur within 5 km of the Impact area. The closest record dated 2022

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Rough-shelled Bush Nut		species grows at altitudes from 10 to 460 m asl. Flowering period is August to September with fruit maturing and falling from March. <i>Macadamia tetraphylla</i> occurs from north-east New South Wales to south east Queensland. Rough-shelled Bush Nut occurs from northern NSW (mainly the Richmond and Tweed River areas) to south-east Queensland (from the Gold Coast hinterland north to Mt Wongawallan).	occurs approximately 556 m east of the Impact area within Alexander Clark Park. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Notelaea ipsviciensis</i> Cooneana Olive	Critically Endangered	The Cooneana Olive survives as an understorey plant in degraded, eucalypt dominated dry sclerophyll vegetation communities. This species prefers open woodland communities with open canopies. The known population is adjacent to subdivided, modified and developed land. Records suggest that the Cooneana Olive flowers in July and fruits in October, however, recent studies suggest that flowering can occur at other times of the year. Fruiting may be sporadic which may be the result of environmental stress or the result of poor environmental conditions in which the species grows. The Cooneana Olive is known from three closely clustered sub-populations in the Ipswich area (Dinmore) of southern Queensland. The three locations are Murphy's Gully, a site adjacent to Cunningham Highway and Bergin's Hill.	Unlikely to occur Eucalypt communities occur within the Impact area. However, the Impact area is not located within the 3 known sub-populations and is situated on the eastern range of the species distribution. No ALA or WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Notelaea lloydii</i> Lloyd's Olive	Vulnerable	The species occurs on undulating to hilly terrain either in moist gullies or on gentle to steep dry slopes but is rarely found on rocky outcrops. Soil types are mostly shallow, well drained, and stony to very rocky in texture. Lloyd's Olive is found in the ecotone between eucalypt open forests and vine thickets at 80-480 m above sea level (asl). Flowering occurs between May and July and fruiting occurs between November and March. Lloyd's Olive is found at five locations within south-east Queensland: Mt Crosby area, the Boonah district, Moggill State Forest, State Forest 637, and Moogerah Peaks National Park.	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Owenia cepiodora</i>	Vulnerable	Onionwood grows in complex notophyll vine forest, dry Araucarian vine forest and wet sclerophyll or subtropical rainforest at altitudes	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Onionwood		<p>ranging from 30 to 420 m. White flowers form on panicles in the months of November to December. Fruit matures from January to March. Regeneration is unreliable; however, it occurs around November to January.</p> <p>Onionwood occurs in the border region of north-east New South Wales and south-east Queensland, within both the Northern Rivers (NSW) and South East Queensland Natural Resource Management Regions.</p>	WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Persicaria elatior</i> Knotweed	Vulnerable	<p>Knotweed normally grows in damp places, including coastal with swampy areas, along watercourses, streams and lakes, swamp forest and disturbed areas. Flowering takes place between July and October.</p> <p>Knotweed is known from the North Coast, Central Coast and South Coast Botanical Subdivisions in New South Wales and Moreton Pastoral District in south-east Queensland. There is a single disjunct record from the Barron River, Mareeba in north-east Queensland, though this record possibly represents a misidentification.</p>	<p>Unlikely to occur</p> <p>Marginal habitat of swamp forest occurs within the Impact area, however, is highly disturbed. ALA records occur within 5 km of the Impact area. The closest record dated 2021 occurs 3.35 km east of the Impact area within Watercress Park. The most recent WildNet record dated 2021 occurs within 5km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Phaius australis</i> Lesser Swamp-orchid	Endangered	<p>The Lesser Swamp-orchid is commonly associated with coastal wet heath/sedgeland wetlands, swampy grassland, or swampy forest and often where Broad-leaved Paperbark or Swamp Mahogany are found. Flowering occurs between late August and October.</p> <p>The Lesser Swamp-orchid is endemic to Australia and occurs in southern Queensland and northern NSW.</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest record dated 2023 occurs 10 km east of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Planchonella eerwah</i> Shiny-leaved Condoo	Endangered	<p>Preferred environments include coastal and forest tundra, near small lakes, swampland and marshes with shallow ditches, and scrubby grasslands with patchy vegetation cover. Flowers and fruits occur throughout the year with peak flowering from August to January.</p> <p>Shiny-leaved Condoo is restricted to three areas of south-east Queensland: the Ipswich– Beaudesert area south-west of Brisbane;</p>	<p>Unlikely to occur</p> <p>Eight ALA records occur within 5 km of the Impact area. Majority of the records are historically dated with the most recent (2010) occurring in Bahrs Hill Park approximately 4 km west of the Impact area. 3 WildNet records occur with the most recent dated 2012. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		the Beenleigh–Ormeau–Pimpama area, south-east of Brisbane; and the Nambour–Maleny district on the Sunshine coast.	
<i>Plectranthus nitidus</i> (syn. <i>Coleus nitidus</i>) Silver Plectranthus	Endangered	It forms small clumps in gullies and on boulders in rainforest or open forest on the margins of rainforest. Flowering occurs in February. <i>Plectranthus nitidus</i> is restricted to south-east Queensland and north-east NSW, where it occurs from Nightcap Range north to the McPherson Range, over approximately 60 km. It is recorded from Springbrook National Park, though it is not common at this site. It has been recorded from Numinbah State Forest in roadside vegetation. This species occurs within the South East Queensland and Northern Rivers (NSW) Natural Resource Management Regions.	Unlikely to occur The species generally occurs in specific locations, exclusive of Logan City. No ALA or WildNet records occur within 5km of the Impact area. The closest ALA record occurs 40.5 km from the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.
<i>Plectranthus omissus</i> (syn. <i>Coleus omissus</i>) A shrub	Endangered	<i>Plectranthus omissus</i> has been recorded on steep rocky outcrops approximately 300-400 m above sea level on the margin of vine forest or sclerophyll forests. Flowering occurs in September, October and November. <i>Plectranthus omissus</i> is known from only five sites between the Conondale Ranges and Gayndah, Queensland. The population at one site is estimated to be only 30 to 40 plants. The species occurs within Conondale National Park, Wratten Resource Reserve, Grongah National Park, Miva State Forest and Mudlo National Park (Department of Environment Science and Innovation, 2024).	Unlikely to occur The species generally occurs in specific locations, exclusive of Logan City. No ALA or WildNet records occur within 5km of the Impact area. The closest ALA record occurs 194 km from the Impact area. No individuals were observed during targeted flora surveys.
<i>Randia moorei</i> Spiny Gardenia	Endangered	Spiny Gardenia grows in subtropical, riverine, littoral and dry stunted rainforests along moist scrubby water courses at altitudes up to 360 m asl, with most records made from below 100 m asl. Spiny Gardenia occurs on soils derived from basalt, shales, slate or alluvium. Spiny Gardenia is endemic to eastern Australia where it is known from Lismore, north-east NSW, and northwards to the Logan River in the Moreton District of south-east Queensland.	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record occurs 9.8 km from the Impact area. No individuals were observed during targeted flora surveys.

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
<i>Rhodamnia rubescens</i> Scrub Turpentine	Critically Endangered	<p><i>Rhodamnia rubescens</i> commonly occurs in all rain forest subforms except cool temperate rainforest. The species occupies a range of volcanically derived and sedimentary soils and is a common pioneer species in eucalypt forests. Populations and individuals of <i>R. rubescens</i> are often found in wet sclerophyll associations in rainforest transition zones (including open forest of <i>Eucalyptus tereticornis</i> and <i>E. bosistoana</i> in the Sydney region) and creekside riparian associations. <i>R. rubescens</i> flowers from late winter through spring, with a peak in October and fruits appear in December in the Sydney region.</p> <p>Populations of <i>R. rubescens</i> typically occur in coastal regions and occasionally extend inland onto escarpments up to 600 m a.s.l. in areas with rainfall of 1,000- 1,600 mm. <i>Rhodamnia rubescens</i> is known to occur from coastal districts of NSW north from Batemans Bay to Bundaberg in Queensland.</p>	<p>Known to occur</p> <p>Marginal sclerophyll habitat occurs within the Impact area. 7 ALA records occur within the Study area, the most recent from 2021 is approximately 2.6 km east of the Impact area in Murrays Environmental Reserve. 2 WildNet records occur within 5 km of the Impact area with the most recent dated 2021. One (1) individual was recorded by GHD (2022) in Lot 2 on RP897149 outside of the proposed Impact area. The individual recorded was juvenile within a tree guard and in very poor health with only a few leaves remaining. Based on this, the species is unlikely to become part of a self-sustaining 'relatively natural ecological community'.</p>
<i>Rhodomyrtus psidioides</i> Native Guava	Critically Endangered	<p>Native Guava is a pioneer species found in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest often near creeks and drainage lines. Populations are typically restricted to coastal and sub-coastal areas of low elevation.</p> <p>Occurs from Broken Bay, approximately 90 km north of Sydney, New South Wales, to Maryborough in Queensland. Flowering occurs in November and December whilst fruiting occurs in Feb, Mar, Apr, May.</p>	<p>Unlikely to occur</p> <p>Marginal sclerophyll habitat occurs within the Impact area. 7 ALA records occur within the Impact area, the closest record dated 2022 occurs 3 km east of the Impact area within Leslie Parade Nature Refuge. WildNet search records returned with the most recent dated 1993. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Samadera bidwillii</i> Quassia	Vulnerable	<p><i>Samadera bidwillii</i> commonly occurs in lowland rainforest often with <i>Araucaria cunninghamii</i> or on rainforest margins, but it can also be found in other forest types, such as open forest and woodland, it is commonly found in areas adjacent to both temporary and permanent watercourses up to 510 m altitude. <i>Samadera bidwillii</i> flowers from December to March and fruits from February to May.</p> <p><i>Samadera bidwillii</i> has been collected from Scawfell Island, east of Mackay, to as far south as Bauple and west to Biloela (Department of Environment Science and Innovation, 2024).</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
<i>Sophora fraseri</i> A shrub	Vulnerable	<p><i>Sophora fraseri</i> is a subtropical shrub, that normally grows in wet sclerophyll forest and a range of rainforest types. It has been reported growing in hilly terrain on hillslopes at altitudes at altitudes from 60 to 660m, mostly shallow stony to shaly soils, of loam to clay texture derived from sandstone or basalt rocks. Flowering of <i>Sophora fraseri</i> has been recorded in April and from late August to mid November. Fruiting has been recorded in January, April, July-August and November</p> <p><i>Sophora fraseri</i> is restricted to south-eastern Queensland and north-eastern New South Wales where it occurs from the Casino area north to near Miriam Vale. Most collections are from the Conondale, D'Aguilar and Taylor Ranges, and the Great Dividing Range south of Toowoomba in southeast Queensland (Department of Environment Science and Innovation, 2024).</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5km of the Impact area 1 ALA record dated 2015 occurs approximately 4 km east of the Impact area within Springwood Conservation Park. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Thesium australe</i> Austral Toadflax	Vulnerable	<p>Austral Toadflax is semi-parasitic on roots of a range of grass species, notably Kangaroo Grass (<i>Themeda triandra</i>). It occurs in subtropical, temperate and subalpine climates over a wide range of altitudes. It occurs in shrubland, grassland or woodland, often on damp sites. Flowering mostly occurs in spring and summer.</p> <p>Austral Toadflax was considered extinct in Queensland prior to the mid-1980s. Its current distribution is sporadic but widespread, occurring between the Bunya Mountains in south-east Queensland to north-east Victoria.</p>	<p>Unlikely to occur</p> <p>Marginal habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Most recent ALA record dated 1993 occurs 45.7 km west of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>
<i>Vincetoxicum woollsii</i> (syn. <i>Tylophora woollsii</i>) A vine	Endangered	<p>Recorded from wet sclerophyll/rainforest margins, Eucalypt dominated open forests and disturbed road verges. It grows on brown clay over metasediments at altitudes between 10–750 m above sea level. Associated species include <i>E. andrewsii</i> and <i>Angophora floribunda</i> in Queensland. Flowering occurs in January, February, March, April, May, December.</p> <p><i>Tylophora woollsii</i> occurs in northern NSW and the Darling Downs in south-east Queensland. The only known Queensland population was recorded from Girraween NP in 1995. This species is found in</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. It is likely the Project is outside the species distribution. No ALA or WildNet records occur within 5 km of the Impact area. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		the Northern Rivers (NSW) and Border Rivers Maranoa–Balonne (Queensland) Natural Resource Management Regions.	
<i>Zieria collina</i> A shrub	Vulnerable	<p>This species is known from 10 fragmented populations, mostly on steep slopes and in narrow gullies, where it occurs in the transition zone between wet open forest and rainforest. In the Tamborine NP - Palm Grove section it grows as a spindly shrub in heavy chocolate cracking clay soils on the margin between tall open forest and rainforest with emergent hoop pine <i>Araucaria cunninghamii</i>. Other associated species include <i>Eucalyptus grandis</i>, <i>E. major</i>, <i>Lophostemon confertus</i> and <i>Flindersia australis</i>.</p> <p><i>Zieria collina</i> is endemic to Queensland and is restricted to Mt Tamborine and the surrounding area in south-eastern Queensland.</p>	<p>Unlikely to occur.</p> <p>No ALA or WildNet records within 5 km of the Impact area. It is restricted to the environs of Tamborine Mountain in south-eastern Qld. Seedling survivorship was high with several seedlings demonstrating notable resilience, surviving severe defoliation. No individuals were observed within the Impact area during targeted flora surveys undertaken in optimal seasonal conditions.</p>

Table 3 Likelihood of occurrence assessment – threatened and migratory fauna species.

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
<i>Anthochaera phrygia</i> Regent Honeyeater	Critically Endangered	<p>The species mostly inhabits inland slopes of the Great Dividing Range, in areas of low to moderate relief with moist, fertile soils. It is most commonly associated with box-ironbark eucalypt woodland and dry sclerophyll forest, but also inhabits riparian vegetation such as sheoak (<i>Casuarina</i> spp) where it feeds on needle-leaved mistletoe and sometimes breeds. It sometimes utilises lowland coastal forest, which may act as a refuge when its usual habitat is affected by drought. It also uses a range of other habitats including remnant patches in farmland and urban areas, roadside reserves and travelling stock routes. The Regent honeyeater's diet primarily consists of nectar, but also includes invertebrates (mostly insects) and their exudates (e.g. lerps and honeydew), and occasionally fruit. Its time spent foraging for nectar ranges from 10% to 90% depending on availability. It obtains nectar chiefly from eucalypts and mistletoe, and appears reliant on select species which provide reliable nectar flows. It prefers taller and larger diameter trees for foraging, as these typically produce more nectar.</p> <p>According to the species' recovery plan found on the SPRAT database (Department of the Environment, 2015), key tree and mistletoe species for the regent honeyeater include:</p> <ul style="list-style-type: none"> • Mugga (or Red) Ironbark (<i>Eucalyptus sideroxylon</i>) • Yellow Box (<i>E. melliodora</i>) • White Box (<i>E. albens</i>) • Yellow Gum (<i>E. leucoxydon</i>) • Spotted Gum (<i>Corymbia maculata</i>) • Swamp Mahogany (<i>E. robusta</i>) • Needle-leaf Mistletoe (<i>Amyema cambagei</i>) on River Sheoak (<i>Casuarina cunninghamiana</i>) • Box Mistletoe (<i>A. miquelii</i>) 	<p>Potential to occur</p> <p>Low density of mistletoes occurs, and potential marginal woodland and riparian habitat occurs, however in a highly urbanised environment. Habitat is considered marginal, due to the low densities of mistletoe, lack of box-ironbark woodland and no woodlands dominated by key trees species as outlined within the species' Recovery Plan. Eucalypt woodlands and riparian area that do occur are generally scattered throughout the Impact area in a highly degraded and urbanised environment.</p> <p>According to the species' Conservation Advice available on the SPRAT database (Department of the Environment, 2015), it is only found regularly at a few localities in NSW and Victoria where most of the sightings have been recorded. One ALA record dated 2020 occurs within 5 km of the Impact area. The record has high spatial uncertainty (2000 m) and occurs 1 km east of the Impact area located on Overlord Place. Four WildNet records occur within 5 km of the Impact area, the most recent dated 1994. No individuals or evidence of individuals were observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		<ul style="list-style-type: none"> Long-flower Mistletoe (<i>Dendrophthoe vitellina</i>) <p>The Regent Honeyeater is endemic to mainland south-eastern Australia. It has a patchy distribution which extends from south-east Queensland, through New South Wales (NSW) and the Australian Capital Territory (ACT), to central Victoria. Records are widely distributed across its range.</p>	
<i>Arenaria interpres</i> Ruddy Turnstone	Vulnerable, Migratory	<p>In Australasia, the Ruddy Turnstone is mainly found on coastal regions with exposed rock coast lines or coral reefs. It also lives near platforms and shelves, often with shallow tidal pools and rocky, shingle or gravel beaches. It can, however, be found on sand, coral or shell beaches, shoals, cays and dry ridges of sand or coral. It has occasionally been sighted in estuaries, harbours, bays and coastal lagoons, among low saltmarsh or on exposed beds of seagrass, around sewage ponds and on mudflats. In north Australia it is known to occur in a wide variety of habitats, and may prefer wide mudflats.</p> <p>The Ruddy Turnstone is widespread within Australia during its non-breeding period of the year, including from Tasmania in the south to Darwin in the north and many coastal areas in between. It is found in most coastal regions, with occasional records of inland populations.</p>	<p>Unlikely to occur</p> <p>The species does not breed within Australia. No WildNet records occur within 5km of the Impact area. 1 ALA record occurs within 5 km of the Impact area dated 1960. Majority of ALA records show that the species occurs closer to the coast where rocky or stony shores are present. No suitable habitat occurs within the Impact area. Species not observed during targeted field surveys.</p>
<i>Botaurus poiciloptilus</i> Australasian Bittern	Endangered	<p>The Australasian Bittern inhabits shallow (less than 30cm deep), permanent freshwater and brackish swamps or lagoons that are densely vegetated (e.g. tall reeds, sedges, lignum). They also inhabit bore drains with tussocky vegetation and occasionally saltmarsh. They use temporary pools when population densities are high and deep swamps when breeding. Breeding takes place from September-January or during flood.</p> <p>The species is found throughout New South Wales, Victoria and Tasmania to southern Queensland and eastern South Australia,</p>	<p>Unlikely to occur</p> <p>Two ALA records occur within 5 km of the Impact area. Of these, one record dated 1998 occurs within wetland habitat south of the Logan River, approximately 3 km east of the Impact area. The other record (undated) is located within Eagle Drive approximately 2 km east of the Impact area. This record has high spatial uncertainty (10,000 m). Four WildNet records occur within 5 km of the Impact area with the most recent dated 2000. Unlikely to occur given the scarcity of suitable habitat and failure to detect species during targeted surveys. The amount of</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		also the south-west corner of Western Australia. It also occurs in New Zealand and New Caledonia. (Department of Environment Science and Innovation, 2024).	suitable habitat available is limited adjacent to the Impact area due to the dense infestation of Singapore daisy and weed grasses. It may however potentially occur in Typha swamps that are adjacent to the Impact area where there is suitable habitat present, however this is unlikely. Species not observed during targeted field surveys.
<i>Calidris canutus</i> Red Knot	Endangered, Migratory	<p>In Australasia the Red Knot mainly inhabit intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours; sometimes on sandy ocean beaches or shallow pools on exposed wave-cut rock platforms or coral reefs. They are occasionally seen on terrestrial saline wetlands near the coast, such as lakes, lagoons, pools and pans, and recorded on sewage ponds and saltworks, but rarely use freshwater swamps. The red knot is common in all the main suitable habitats around the coast of Australia and is occasionally recorded inland.</p> <p>In Queensland, they migrate along the coast north of 19 °S, sometimes in large numbers. It is widespread along the coast south of Townsville. In Queensland, the Red Knot migrates along the coast north of 19 °S, sometimes in large numbers; it is widespread along the coast south of Townsville.</p>	<p>Unlikely to occur</p> <p>This species does not breed in Australia. No intertidal mudflats or sandflats preferred by the species is located within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Multiple scattered ALA records occur along the coast line approximately 18 km east from the Impact area. Species not observed during targeted field surveys.</p>
<i>Calidris ferruginea</i> Curlew Sandpiper	Critically Endangered, Migratory	Curlew Sandpipers mainly occur on intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, and also around non-tidal swamps, lakes and lagoons near the coast, and ponds in saltworks and sewage farms. They are also recorded inland, though less often, including around ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters. Occasionally they are recorded around floodwaters.	<p>Unlikely to occur</p> <p>This species does not breed in Australia. There is a lack of suitable habitat present within the Impact area however there is suitable habitat adjacent and in proximity to suitable habitat. Wetland habitat associated with Scrubby Creek and Logan River including tributaries. One ALA record dated 2001 occurs approximately 3.3 km east of the Impact area in a wetland within proximity to the Logan River. Three WildNet records occur within 5 km of the buffer with the most recent record dated 2001. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		In Australia, Curlew Sandpipers occur around the coasts and are also quite widespread inland, though in smaller numbers. Records occur in all states during the non-breeding period, and also during the breeding season when many non-breeding one year old birds remain in Australia rather than migrating north. In Queensland, scattered records occur in the Gulf of Carpentaria, with widespread records along the coast south of Cairns.	
<i>Calidris subminuta</i> Long-toed Stint	Migratory	<p>In Australia, the Long-toed Stint occurs in a variety of terrestrial wetlands. They prefer shallow freshwater or brackish wetlands including lakes, swamps, river floodplains, streams, lagoons and sewage ponds. The species is also fond of areas of muddy shoreline, growths of short grass, weeds, sedges, low or floating aquatic vegetation, reeds, rushes and occasionally stunted samphire. It has also been observed at open, less vegetated shores of larger lakes and ponds and is common on muddy fringes of drying ephemeral lakes and swamps. The Long-toed Stint also frequents permanent wetlands such as reservoirs and artificial lakes. They are uncommon, but not unknown, at tidal estuaries, saline lakes, salt ponds and bore swamps.</p> <p>The Long-toed Stint is a regular summer visitor to Australia, but uncommon in the east. In Queensland the Long-toed Stint has been recorded at Mount Isa, Lytton, Cairns and Dynevor Downs.</p>	<p>Unlikely to occur</p> <p>The species does not breed in Australia. The Impact area contains wetlands and man made dams which may be utilised sporadically for foraging or utilised temporarily whilst dispersing through the landscape. However, habitat is considered sub-optimal due to dense weed infestations and steep banks and lack of muddy margins. No ALA records occur within 5 km of the Impact area, most records are confined to coastlines approximately 20 km east of the Impact area. No WildNet records occur. Species not observed during targeted field surveys.</p>
<i>Calidris tenuirostris</i> Great Knot	Critically Endangered, Migratory	<p>Great Knots feed along the water's edge of intertidal mudflats. The species typically roosts along sheltered coastal habitats such as inlets, bays, harbours, estuaries, and lagoons, and tend to be associated with nearby large intertidal mud and sandflats utilised for feeding. The species does not breed in Australia.</p> <p>Great Knots breed in north-east Siberia and winter along tropical coasts, largely in northern Australia but as far west as</p>	<p>Unlikely to occur</p> <p>The Impact area does not provide suitable foraging, roosting and breeding habitat. Although there are some water bodies present through the Impact area, they are better supported by mudflats and coastal environments. No WildNet records occur within 5km of the Impact area. 2 ALA records that occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		the Middle East. The Great Knot has been recorded around the entirety of the Australian coast, with a few scattered records inland. The species is now absent from some sites along the south coast where it used to be a regular visitor. The greatest numbers of individuals are found in northern Australia; where the species is common on the coasts of the Pilbara and Kimberley, and in the Northern Territory from Darwin to the south-east Gulf of Carpentaria. Other important sites include the Broad Sound-Shoalwater Bay area, the Mackay region, and Bay in Queensland. The species is much less common in south-west Australia, South Australia, Victoria, and Tasmania.	
<i>Calyptorhynchus lathamii</i> <i>lathamii</i> South-eastern Glossy Black Cockatoo	Vulnerable	This species prefers woodland areas dominated by she-oak <i>Allocasuarina</i> , or open sclerophyll forests and woodlands with a stratum of <i>Allocasuarina</i> beneath <i>Eucalyptus</i> , <i>Corymbia</i> or <i>Angophora</i> . Glossy Black-cockatoos have also been observed in mixed <i>Allocasuarina</i> , <i>Casuarina</i> , cypress <i>Callitris</i> and brigalow <i>Acacia harpophylla</i> woodland assemblages. In SEQ west of the Great Dividing Range, they have been observed feeding in remnant <i>Allocasuarina cristata</i> and bullock <i>Allocasuarina luehmannii</i> forests. This species is also known to utilise appropriate remnant woodlands, and individual or small pockets of <i>Allocasuarina</i> and <i>Casuarina</i> feed trees in urban areas. South-eastern glossy black cockatoos rely on nine species of sheoaks (<i>Allocasuarina</i> spp. and <i>Casuarina</i> spp.) for feeding, with species used varying depending on the region. Birds often only feed on one or two species in one region. In south-east Queensland and north-east New South Wales, they show preference for black sheoak (<i>A. littoralis</i>) and forest sheoak (<i>A. torulosa</i>), although there are also records of them feeding on stringybark sheoak (<i>A. inophloia</i>), coastal sheoak (<i>C. equisetifolia</i>), and to a lesser extent river sheoak (<i>C. cunninghamiana</i>) and swamp sheoak (<i>C. glauca</i>) during limited times of the year.	<p>Potential to occur Scattered patches of <i>Allocasuarina</i> and <i>Casuarina</i> spp occur throughout the Impact area. According to the species' Conservation Advice available on the SPRAT database (Department of Climate Change, Energy, the Environment and Water, 2022), the species demonstrates a preference for <i>Allocasuarina littoralis</i> and <i>Allocasuarina torulosa</i>, both of which were recorded within the Impact area.</p> <p>six ALA records occur within the Impact area with majority of records associated with Karawatha Forest Park. Of this, the closest record dated 1993 occurs approximately 200 m west of the Impact area, adjacent to Acacia Road. 11 WildNet records occur within 5 km of the Impact area with the most recent dated 2007. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		<i>Calyptrorhynchus lathamii lathamii</i> has a widespread distribution, ranging from Gympie to the south-east Queensland (SEQ) border, inland to Augathella and Tambo. The distribution continues south into New South Wales (NSW) spreading inland to the Central Western Plains of NSW. This subspecies also occurs in the eastern coastal Gippsland region of Victoria. The peak breeding season occurs from March to August in SEQ and north-eastern NSW.	
<i>Charadrius leschenaultii</i> Greater Sand Plover	Vulnerable, Migratory	<p>In the non-breeding grounds in Australasia, the species is almost entirely coastal, inhabiting littoral and estuarine habitats. They mainly occur on sheltered sandy, shelly or muddy beaches with large intertidal mudflats or sandbanks, as well as sandy estuarine lagoons, and inshore reefs, rock platforms, small rocky islands or sand cays on coral reefs. They are occasionally recorded on near-coastal saltworks and salt lakes, including marginal saltmarsh, and on brackish swamps. They seldom occur at shallow freshwater wetlands.</p> <p>In Australia, the Greater Sand Plover occurs in coastal areas in all states, though the greatest numbers occur in northern Australia, especially the north-west. In northern Australia, the species is especially widespread between North West Cape and Roebuck Bay in Western Australia.</p>	<p>Unlikely to occur</p> <p>The species does not breed in Australia. Marginal habitat of swamps occurs within the Impact area, however the species may occur infrequently and is unlikely to be a resident due to the lack of suitable habitat. One WildNet record dated 2004 occurs within 5 km of the Impact area. No ALA records occur within 5 km of the Impact area. The closest ALA record dated 2004 occurs 6 km east of the Project Footprint in the Koala Conservation Area. Species not observed during targeted field surveys.</p>
<i>Charadrius mongolus</i> Lesser Sand Plover	Endangered, Migratory	<p>The Lesser Sand Plover breeds in the northern hemisphere and undertakes annual migrations to and from southern feeding grounds for the austral summer. During the non-breeding season, the species is almost strictly coastal, preferring sandy beaches, mudflats of coastal bays and estuaries, sand-flats and dunes near the coast and occasionally frequenting mangrove mudflats in Australia.</p> <p>Within Australia, the lesser sand plover is widespread in coastal regions and has been recorded in all states. It mainly occurs in</p>	<p>Unlikely to occur</p> <p>No WildNet records within the Impact area. The species does not breed within Australia. There are some records of the species inland where wetlands or boggy areas are present. However, majority of ALA records are confined to the coastline. The closest record occurs 7.9 km from the Impact area, there are no occurrences within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		northern and eastern Australia, in south-eastern parts of the Gulf of Carpentaria, western Cape York Peninsula, islands in Torres Strait, and along the entire east coast. It is most numerous in Queensland and New South Wales. In the Northern Territory, lesser sand plovers have been recorded from most of the coastline with the most significant areas being the coast from Anson Bay to Murgarella Creek, the northern Arnhem coast, Blue Mud Bay and the Port McArthur area. The species has also been recorded on Lord Howe Island, Norfolk Island and Christmas Island.	
<i>Climacteris picumnus victoriae</i> Brown Treecreeper (south-eastern)	Vulnerable	Brown Treecreepers (south-eastern) occupy dry open eucalypt forests and woodlands. The subspecies mainly inhabits woodlands dominated by stringybarks or other rough-barked eucalypts, usually with an open grassy understorey, sometimes with one or more shrub species. The subspecies is not usually found in woodlands with a dense shrub layer, and it is absent from heavily degraded woodlands and steep rocky hills. Brown Treecreepers (south-eastern) are endemic to south-eastern Australia from the Grampians in western Victoria, through central New South Wales to the Bunya Mountains in Queensland.	Unlikely to occur Suitable habitat of eucalypt woodland occurs. No ALA or WildNet records occur within 5 km of the Impact area, furthermore there are no confirmed records of subspecies from the coastal SEQ. Species not observed during targeted field surveys.
<i>Cyclopsitta diophthalma coxeni</i> Coxen's Fig-parrot	Endangered	Coxen's Fig-parrot occupies habitats that occur from sea level to approximately 900 m above sea level. The species occurs in rainforest habitats including subtropical rainforest, dry rainforest, littoral and developing littoral rainforest, and vine forest. The remaining populations are now concentrated into fragmented remnants of dry rainforest and cool subtropical rainforest that are drier and more hilly than the habitats that were occupied in the past. Within these rainforest habitats, the fig-parrot is likely to favour alluvial areas that support figs and other trees with fleshy fruits, in particular, habitats that have a	Unlikely to occur No rainforest or subtropical rainforest preferred by the species occurs within the Impact area. No historical records occur within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest record dated 1900 occurs 24.5km from the Impact area. Species not observed during targeted field surveys.

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		<p>high diversity of fig species, and that have a fruiting season that is staggered across moisture and altitudinal gradients.</p> <p>The distribution of Coxen's Fig-parrot is poorly known. Based on accepted records, the core distribution extends from Gympie in south-eastern Queensland to the Richmond River in north-eastern New South Wales, and west to the Bunya Mountains, Main Range and Koreelah Range. In Queensland, the most recent reliable records of Coxen's Fig-parrot are from near Imbil, Kin Kin Creek, Upper Pinbarren Creek, Montville, the Maleny area, Mount Glorious, Main Range National Park and Lamington National Park.</p>	
<i>Dasyornis brachypterus</i> Eastern Bristlebird	Endangered	<p>The habitat of the Eastern Bristlebird is defined by a similar structure of low, dense, ground or understorey vegetation. The species occupies a broad range of vegetation types with a variety of species compositions, including grassland, sedgeland, heathland, swampland, scrubland, grassy sclerophyll forest and woodland, and rainforest. Eastern Bristlebird habitat primarily occurs as coastal, subcoastal and coastal escarpment scrubland / grassland / sedgeland and as open grassy forest on inland ranges. Birds in the northern population mainly occur in scattered areas of montane open forest where the undergrowth is dense and grassy, and contains diverse structural features. The northern population sometimes occurs in other vegetation types such as heathland with stunted shrubs, or swampland with dense ferns and sedge tussocks.</p> <p>The Eastern Bristlebird's current discontinuous geographic distribution has contracted to three disjunct regions of south-eastern Australia: southern Queensland/northern NSW, the Illawarra and Jervis Bay region (the stronghold of the species) and the NSW/Victorian border. The northern population habitat occurs in south-eastern Queensland and northeastern NSW,</p>	<p>Unlikely to occur</p> <p>Marginal habitat occurs within remnant vegetation within the Impact area. However, no historic records occur within SEQ and patchy/fragmented nature of suitable habitat. This species requires large contiguous landscapes and is not well adapted to urban environments. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 2016 occurs 76 km from the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		from Conondale Range (Sunshine Coast Qld) south to the Tweed Range (northern NSW).	
<i>Diomedea antipodensis</i> Antipodean Albatross	Vulnerable, Migratory	<p>The Antipodean Albatross is marine, pelagic and aerial. The Antipodean Albatross nests in open patchy vegetation, such as among tussock grassland or shrubs on ridges, slopes and plateaus.</p> <p>The Antipodean Albatross is endemic to New Zealand, however forages widely in open water in the south-west Pacific Ocean, Southern Ocean and the Tasman Sea, notably off the coast of NSW. The species breeds on Antipodes Island, the Auckland Islands group (Adams, Disappointment and Auckland), Campbell Island and Pitt Island in the Chatham Islands.</p>	<p>Unlikely to occur</p> <p>The species is almost entirely marine. No marine environments occur within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 2019 occurs 35 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Diomedea antipodensis gibsoni</i> Gibson's Albatross	Vulnerable, Migratory	<p>Gibson's Albatross is marine, pelagic and aerial. In the Antarctic, it occurs in open water, and rarely enters the belt of icebergs region. In late summer, it may approach the edge of the pack-ice. Gibson's Albatross flies within 15 m of the sea surface, using the updraft from wave fronts for lift. It circles over breeding islands to heights of at least 1500 m.</p> <p>In Australian territory, Gibson's Albatross has been recorded foraging between Coffs Harbour, NSW, and Wilson's Promontory, Victoria. Gibson's Albatrosses are rarely observed in the Pacific Ocean or Indian Ocean. The only Australian record of this species is from a recapture off Wollongong, NSW, in September 1997. There are no breeding colonies of Gibson's Albatross in Australian territory. This albatross visits Australian waters while foraging and during the non-breeding season.</p>	<p>Unlikely to occur</p> <p>The species is almost entirely marine. No marine environments occurs within the Impact area.. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 2019 occurs in Gold Coast coastline. Species not observed during targeted field surveys.</p>
<i>Diomedea exulans</i> Wandering Albatross	Vulnerable, Migratory	The Wandering Albatross is marine, pelagic and aerial. It occurs where water surface temperatures range from -2° to 24°C. It prefers open or patchy vegetation (tussocks, ferns or shrubs), and it requires nesting areas that are near exposed ridges or hillocks so that it can take off. In the Australasian	<p>Unlikely to occur</p> <p>The species is almost entirely marine. No marine environments occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest record dated 2005</p>

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		<p>region, it occurs inshore, offshore and in pelagic waters. It flies within 15 m of the sea surface, using the updraft from wave fronts for lift. It circles over breeding islands to heights of at least 1500 m.</p> <p>The Wandering Albatross breeds on Macquarie Island. A single breeding pair has also been recorded on Heard Island in 1991. It feeds in Australian portions of the Southern Ocean.</p>	occurs 11.4 km from the Impact area. Species not observed during targeted field surveys.
<i>Erythrotriorchis radiatus</i> Red Goshawk	Vulnerable	<p>The Red Goshawk occurs in coastal and sub-coastal areas in wooded and forested lands of tropical and warm-temperate Australia. Riverine forests are also used frequently. Such habitats typically support high bird numbers and biodiversity, especially medium to large species which the goshawk requires for prey.</p> <p>The Red Goshawk is endemic to Australia. It is very sparsely dispersed across approximately 15% of coastal and sub-coastal Australia, from western Kimberley Division to northeastern NSW, and occasionally on continental islands. The Red Goshawk rarely breeds in areas with fragmented native vegetation.</p>	<p>Unlikely to occur</p> <p>Marginal habitat occurs within remnant vegetation within the Impact area. However, no historic records occur within SEQ and habitat within the Impact area is patchy/fragmented and largely unsuitable. This species requires large contiguous landscapes and is not well adapted to urban environments. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Falco hypoleucos</i> Grey Falcon	Vulnerable	<p>The Grey Falcon occurs at low densities across inland Australia, though the ecology of the Grey Falcon is known almost entirely from anecdotal and opportunistic observations. This species frequents timbered lowland plains, particularly <i>Acacia</i> shrublands that are crossed by tree-lined water courses. It has been observed hunting in treeless areas and frequents tussock grassland and open woodland, especially in winter.</p> <p>The Grey Falcon occurs in arid and semi-arid Australia, including the Murray-Darling Basin, Eyre Basin, central Australia and Western Australia. This species is mainly found where annual rainfall is less than 500 mm, except when wet</p>	<p>Unlikely to occur</p> <p>This species is rare vagrant in south-east Queensland and occurs at low densities within its distribution. The species prefers arid habitats, which do not occur within the Impact area. No ALA records occur within 5 km of the Impact area. Most recent WildNet record dated 2001 occurs within 5km of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		years are followed by drought, when the species becomes more widespread.	
<i>Fregetta grallaria grallaria</i> White-bellied Storm-Petrel	Vulnerable	<p>The White-bellied Storm-Petrel occurs across sub-tropical and tropical waters in the Tasman Sea, Coral Sea and, possibly, the central Pacific Ocean. In the non-breeding season, it reaches and forages over near-shore waters along the continental shelf of mainland Australia. It breeds, in Australian territory, on offshore islets and rocks in the Lord Howe Island group.</p> <p>The White-bellied Storm-Petrel (Tasman Sea) breeds on small offshore islets and rocks in the Lord Howe Island group, including Roach Island and Balls Pyramid.</p>	<p>Unlikely to occur</p> <p>This species predominantly occurs within a marine environment. No ALA or WildNet records occur within 5 km of the Impact area. No historic records of this species. Only two ALA records made in Tasmania. Species not observed during targeted field surveys.</p>
<i>Geophaps scripta scripta</i> Squatter Pigeon (southern)	Vulnerable	<p>Squatter Pigeon (southern) habitat is generally defined as open-forests to sparse, open-woodlands and scrub that are mostly dominated in the overstorey by <i>Eucalyptus</i>, <i>Corymbia</i>, <i>Acacia</i> or <i>Callitris</i> species; remnant, regrowth or partly modified vegetation communities and within 3 km of water bodies or courses.</p> <p>The known distribution of the Squatter Pigeon (southern) extends south from the Burdekin-Lynd divide in the southern region of Cape York Peninsula to the Border Rivers region of northern NSW, and from the east coast to Hughenden, Longreach and Charleville, Queensland. The subspecies, which is suspected to occur as a single, contiguous breeding population, mostly inhabits grassy woodlands and open forests that are dominated by eucalypts.</p>	<p>Unlikely to occur</p> <p>The species' current distribution does not encompass the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 1985, occurs 60 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Grantiella picta</i> Painted Honeyeater	Vulnerable	The Painted Honeyeater lives in dry, open forests and woodlands (box, ironbark, yellow gum, <i>Melaleuca</i> , <i>Casuarina</i> , <i>Callitris</i> , <i>Acacia</i>). The species usually occurs in areas with flowering and fruiting mistletoe and flowering eucalypts.	<p>Unlikely to occur</p> <p>There are no contemporary records present from the greater Brisbane and Gold Coast areas which suggest the species is unlikely to occur. No individuals were observed during targeted field surveys.</p>

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		The Painted Honeyeater is sparsely distributed from south-eastern Australia to north-western Queensland and the eastern Northern Territory, being more common west of the Great Dividing Range. The Queensland population is augmented in winter by migrants from the south. (Department of Environment Science and Innovation, 2024).	
<i>Lathamus discolor</i> Swift Parrot	Critically Endangered	<p>The Swift Parrot relies on hollow-bearing eucalypt forest for nesting habitat in relatively close proximity to the main food source, flowering Tasmanian blue gum. For foraging habitat it relies on a range of eucalypt species including <i>E. delegatensis</i>, <i>E. dalrympleana</i>, <i>E. obliqua</i>, <i>E. pauciflora</i> and <i>E. viminalis</i>. For foraging and breeding habitat it relies on Blue and/or Black Gum dominated or sub-dominant forests.</p> <p>According to the species' Conservation Advice (Threatened Species Scientific Committee, 2016), it has a patchy distribution which extends from south-east Queensland, through New South Wales (NSW) and the Australian Capital Territory (ACT), to central Victoria. Records are widely distributed across its range, but it is only found regularly at a few localities in NSW and Victoria where most of the sightings have been recorded. The Swift Parrot breeds in Tasmania during the austral summer and the entire population migrates north to mainland Australia for the austral winter. The breeding range of the Swift Parrot is largely restricted to the east and south-east coast of Tasmania where it occupies an area of less than 500 km.</p>	<p>Potential to occur</p> <p>The species does not breed or nest in Queensland and has high mobility within its wide distribution, as well as large expanses of foraging habitat. Eucalypt woodland occurs within the Impact area and may provide suitable foraging habitat during flowering months. 2 ALA records dated 2014 occur within the Study area. These records are located within Gould Adams Park, situated approximately 537 m from the Impact area. One historical WildNet record occurs dated 1923. No individuals were observed during targeted field surveys.</p>
<i>Limnodromus semipalmatus</i> Asian Dowitcher	Vulnerable, Migratory	The Asian Dowitcher occurs in sheltered coastal environments, such as embayments, coastal lagoons, estuaries and tidal creeks. They are known to frequent shallow water and exposed mudflats or sandflats. The species is commonly found in the round ponds and channels of saltworks and sewage farms. It is also found at near-coastal swamps and lakes.	<p>Unlikely to occur</p> <p>No ALA or WildNet records occur within 5 km of the Impact area. Furthermore, there is a lack of suitable habitat present for the species within the Impact area and surrounds. The closest ALA record dated 1992 occurs 18 km northeast of the Impact area. Species not observed during targeted field surveys.</p>

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		In Queensland they have been recorded at Cairns, Yeppoon, Lytton, Thorneside, Morton Bay and Clontarf. Their breeding habitat is grassy wetlands in inland Siberia and Manchuria. They migrate to southeast Asia as far south as northern Australia, although both the breeding and wintering areas are poorly known. This bird is always found on coasts during migration and wintering.	
<i>Limosa lapponica baueri</i> Nunivak Bar-tailed Godwit	Vulnerable, Migratory	The Bar-tailed Godwit occurs mainly in coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It has also been recorded in coastal sewage farms and saltworks, salt lakes and brackish wetlands near coasts, sandy ocean beaches, rock platforms, and coral reef-flats. In Australia, Alaskan Bar-tailed Godwit mainly occurs along the north and east coasts. The subspecies is widespread in the Torres Strait and along the east and south-east coasts of Queensland, New South Wales, and Victoria.	Unlikely to occur This species does not breed in Australia. No ALA or WildNet records occur within 5 km of the Impact area. There is a lack of suitable habitat available within and immediately surrounding the Impact area. Scattered records occur along the east coast, with the closest ALA record dated 1991. Species not observed during targeted field surveys.
<i>Macronectes giganteus</i> Southern Giant Petrel	Endangered, Migratory	The Southern Giant-Petrel is marine bird that occurs in Antarctic to subtropical waters. This species nests in small colonies amongst open vegetation on Antarctic and subantarctic islands, including Macquarie and Heard Islands and in Australian Antarctic territory. It breeds on six subantarctic and Antarctic islands in Australian territory; Macquarie Island, Heard Island and McDonald Island in the Southern Ocean, and Giganteus Island, Hawker Island, and Frazier Island in the Australian Antarctic Territories	Unlikely to occur No WildNet records occur within the Impact area. The species is almost entirely marine. No suitable habitat occurs within the Impact area. No records occur within 5 km of the Impact area. The closest ALA record dated 1985 occurs 14.5km from the Impact area. Species not observed during targeted field surveys.
<i>Macronectes halli</i> Northern Giant Petrel	Vulnerable, Migratory	The Northern Giant-Petrel is marine and oceanic. It mainly occurs in sub-Antarctic waters, but regularly occurs in Antarctic waters of the southwestern Indian Ocean, the Drake Passage and west of the Antarctic Peninsula.	Unlikely to occur The species is almost entirely marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 1978

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		The range of the Northern Giant-Petrel extends into subtropical waters mainly between winter and spring. It frequents both oceanic and inshore waters near breeding islands and in the non-breeding range.	occurs 23.5 km from the Impact area. Species not observed during targeted field surveys.
<i>Numenius madagascariensis</i> Eastern Curlew	Critically Endangered, Migratory	During the non-breeding season in Australia, the eastern curlew is most commonly associated with sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons, with large intertidal mudflats or sandflats, often with beds of seagrass (<i>Zosteraceae</i>). Occasionally, the species occurs on ocean beaches (often near estuaries), and coral reefs, rock platforms, or rocky islets. Within Australia, the eastern curlew has a primarily coastal distribution, they are rarely recorded inland.	Unlikely to occur No WildNet records occur within the Impact area. This species does not breed in Australia. The Impact area contains next to no suitable habitat due to lack of muddy margins and mudflats. Four ALA records occur within the 5 km of the Impact area. The closest record (undated) occurs 2.5 km north of the Impact area near Yugarapul Park. Species not observed during targeted field surveys.
<i>Pachyptila turtur subantarctica</i> Fairy Prion (southern)	Vulnerable	The burrows of Fairy Prions (southern) are usually in crevices, in hollows beneath cushions of <i>Colobanthus muscoides</i> (a perennial herb that can form dense mats or cushions up to 250 mm thick and sometimes up to several metres across) or in burrows in peaty soil held together by a thick cover of <i>Cotula plumosa</i> (a short, feathery perennial herb). The species as a whole has a circumpolar distribution. It has been recorded breeding on subantarctic and cool temperate islands in the Southern Hemisphere. The southern subspecies (<i>subantarctica</i>) of the Fairy Prion primarily occurs on Macquarie Island where breeding takes place, and frequents subtropical waters during the non-breeding season.	Unlikely to occur This species has a coastal distribution. No preferred habitat is located within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Records are concentrated in Tasmania. Species not observed during targeted field surveys.
<i>Pterodroma neglecta neglecta</i> Kermadec Petrel	Vulnerable	The Kermadec Petrel (western) is a pelagic seabird that occurs in tropical, subtropical and temperate waters of the Pacific Ocean and in colder waters in temperate regions, with one bird sighted in the northern Pacific Ocean in waters of about 6°C. It	Unlikely to occur The species is predominantly marine and unlikely to occur as there is no suitable habitat present within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area and surrounds. The closest ALA records at 32.71 km South East

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		<p>breeds on islands, atolls and islets in the southern Pacific Ocean.</p> <p>In Australia, the Kermadec Petrel (western) breeds on Balls Pyramid, which lies to the south of Lord Howe Island, and on Phillip Island, in the Norfolk Island group. Its pelagic distribution is poorly known. It generally occurs in subtropical and tropical waters from about 20° S to 35° S, although it may disperse north of the equator (to 42° N) or south into temperate waters of the Tasman Sea in the non-breeding season. It occasionally reaches the eastern coast of mainland Australia.</p>	of the Impact area. Species not observed during targeted field surveys.
<i>Rostratula australis</i> Australian Painted Snipe	Endangered	<p>The Australian Painted Snipe generally inhabits shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans. They also use inundated or waterlogged grassland or saltmarsh, dams, rice crops, sewage farms and bore drains. Typical sites include those with rank emergent tussocks of grass, sedges, rushes or reeds, or samphire; often with scattered clumps of lignum Muehlenbeckia or canegrass or sometimes tea-tree (Melaleuca).</p> <p>The Australian Painted Snipe has been recorded at wetlands in all states of Australia. It is most common in eastern Australia, where it has been recorded at scattered locations throughout much of Queensland, NSW, Victoria and south-eastern South Australia.</p>	<p>Potential to occur</p> <p>Eight ALA records occur within 5 km of the Impact area. All records are associated with wetland habitat surrounding the Logan River. The closet record dated 2018 occurs approximately 3 km east of the Impact area. Most recent WildNet record dated 2001 occurs within 5km of the Impact area. Although species not during targeted field surveys, past evidence of species occurs and limited suitable habitat is present within the Impact area.</p>
<i>Stagonopleura guttata</i> Diamond Firetail	Vulnerable	<p>Diamond Firetails occur in eucalypt, <i>Acacia</i> or <i>Casuarina</i> woodlands, open forests, and other lightly timbered habitats, including farmland and grassland with scattered trees. They prefer areas with relatively low tree density, few large logs, and little litter cover but high grass cover.</p> <p>Diamond Firetails occur on the south-east mainland of Australia from south-east Queensland to Eyre Peninsula, South</p>	<p>Unlikely to occur</p> <p>Due to high densities of exotic grasses this reduces suitable foraging habitat and limits resource availability. However, remnant eucalypt forest and perennial native species were observed within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Closest ALA record dated 2000 occurs 11km from the Impact area. There are also very</p>

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		Australia, and about 300 km inland from the sea. Their range once extended to north Queensland inland from Cardwell, but they now occur only in the very south of the state.	few contemporary records of the species from the Greater Brisbane and Gold Coast areas and there are none from the Logan River Catchment which suggests the occurrence of the species is unlikely. Species not observed during targeted field surveys.
<i>Sternula nereis nereis</i> Australian Fairy Tern	Vulnerable	<p>Fairy Terns utilise a variety of habitats including offshore, estuarine or lacustrine (lake) islands, wetlands, beaches and spits. The Fairy Tern (Australian) nests on sheltered sandy beaches, spits and banks above the high tide line and below vegetation. The subspecies has been found in embayments of a variety of habitats including offshore, estuarine or lacustrine (lake) islands, wetlands and mainland coastline.</p> <p>The subspecies' extent of occurrence is approximately 380 000 km² as it occurs along the coasts of New South Wales, Victoria, Tasmania, South Australia and Western Australia. The area of occupancy is estimated to be 1150 km². The subspecies may migrate within southern Western Australia and Tasmania, where they are seen less frequently during the winter months. They are more sedentary in the north of Western Australia and in South Australia and Victoria.</p>	<p>Unlikely to occur</p> <p>The species generally occurs in subtropical and warmer subantarctic waters. The species predominantly occurs on the west coast of Australia and Tasmania. No ALA or WildNet records of the species occur within 5 km of the Impact area and the surroundings. Closest ALA record dated 2016 was recorded in Sydney. Species not observed during targeted field surveys.</p>
<i>Thalassarche carteri</i> Indian Yellow-nosed Albatross	Vulnerable, Migratory	<p>The Indian Yellow-nosed Albatross has been observed over waters of surface-temperature 10° to 23°C, but is most abundant over the warmer parts of the subtropical zone. In breeding and non-breeding seasons, the species concentrates over the productive waters of continental shelves, often at coastal upwellings and the boundaries of currents.</p> <p>The Indian Yellow-nosed Albatross forages mostly in the southern Indian Ocean where it is particularly abundant off Western Australia. The Indian Yellow-nosed Albatross occurs in the southern Indian Ocean. In terms of their habitat, The Indian</p>	<p>Unlikely to occur</p> <p>The species generally occurs in subtropical and warmer subantarctic waters. The species breeds outside of Australia. There are no ALA or WildNet records of the species from the Impact area and the surroundings, furthermore, there is no suitable habitat for the species. This suggests that the species is unlikely to occur. The closest species are recorded in North Stradbroke Island. Species not observed during targeted field surveys.</p>

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		Yellow-nosed Albatross is a marine bird, located in subtropical and warmer subantarctic waters.	
<i>Thalassarche cauta</i> Shy Albatross	Endangered, Migratory	<p>The Shy Albatross is a pelagic species that inhabits subantarctic and subtropical waters, spending majority of its time at sea. Occasionally the species occurs in continental shelf waters, in bays and harbours.</p> <p>The Shy Albatross is the only albatross species endemic to Australia. The species has breeding colonies on three small islands off Tasmania.</p>	<p>Unlikely to occur</p> <p>The species is almost entirely marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The most recent ALA record dated 2023 occurs 34.5 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Thalassarche impavida</i> Campbell Albatross	Vulnerable, Migratory	<p>The Campbell Albatross is a marine sea bird inhabiting sub-Antarctic and subtropical waters from pelagic to shelf-break water habitats. In the Antarctic, it occurs through the belt of icebergs to the edge of the consolidated pack-ice. The Campbell Albatross does not penetrate the ice-packs, perhaps because ice inhibits soaring by dampening sea swells.</p> <p>The Campbell Albatross is a non-breeding visitor to Australian waters. Non-breeding birds are most commonly seen foraging over the oceanic continental slopes off Tasmania, Victoria and New South Wales.</p>	<p>Unlikely to occur</p> <p>The species is almost entirely marine. No suitable habitat occurs within the Impact area. No records occur within 5 km of the Impact area. The closest ALA record dated 2021 occurs 347.7 km south of the Impact area. Species not observed during targeted field surveys.</p>
<i>Thalassarche melanophrys</i> Black-browed Albatross	Vulnerable, Migratory	<p>The Black-browed Albatross is a marine species that inhabits Antarctic, subantarctic and temperate waters and occasionally enters the tropics. It forages around the breaks of continental and island shelves and across nearby underwater banks, but also frequents other marine habitats, such as oceanic waters and the iceberg belt at the limit of the Antarctic pack ice. It can tolerate a broad range of sea-surface temperatures from 0–24° C.</p> <p>In the non-breeding season it follows cold water currents north to the continental shelves of Australia, South America and Africa where it can occur in coastal and inshore waters and</p>	<p>Unlikely to occur</p> <p>The species is almost entirely marine. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 2012 is located 27.9 km east of the Impact area. No suitable habitat occurs within the Impact area. Species not observed during targeted field surveys.</p>

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		sometimes enter fjords and channels. The population migrates northward towards the end of the breeding season.	
<i>Thalassarche salvini</i> Salvin's Albatross	Vulnerable, Migratory	Salvin's Albatross is a marine species occurring in subantarctic and subtropical waters, reaching the tropics in the cool Humboldt Current, off South America. Birds have been noted in shelf-waters around breeding islands and over adjacent rises. During the non-breeding season, the species occurs over continental shelves around continents. It occurs both inshore and offshore and enters harbours and bays. Salvin's Albatross is scarce in pelagic waters. Salvin's Albatross nests on level or gently sloping ledges, summits, slopes and caves of rocky islets and stacks, usually in broken terrain with little soil and vegetation. Salvin's Albatross is a non-breeding visitor to Australian waters.	Unlikely to occur The species is almost entirely marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. One ALA record occurs 24.9 km from the Impact area dated 2010. Species not observed during targeted field surveys.
<i>Thalassarche steadi</i> White-capped Albatross	Vulnerable, Migratory	The White-capped Albatross is a marine species and occurs in subantarctic and subtropical waters. It reaches tropical areas associated with the cool Humboldt Current off South America. The White-capped Albatross is probably common off the coast of south-east Australia throughout the year. It has been observed that juveniles are rare in New Zealand waters, being more common off south-east Australia and South Africa. Breeding colonies occur on islands south of New Zealand.	Unlikely to occur The species is almost entirely marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 2002 was recorded 150 km from the Impact area. Species not observed during targeted field surveys.
<i>Turnix melanogaster</i> Black-breasted Button-quail	Vulnerable	The Black-breasted Button-quail is restricted to rainforests and forests, mostly in areas with 770-1200 mm rainfall per annum. They prefer drier low closed forests, particularly semi-evergreen vine thicket, low microphyll vine forest, araucarian microphyll vine forest and araucarian notophyll vine forest. They may also be found in low, dense acacia thickets and, in littoral area, in vegetation behind sand dunes.	Unlikely to occur Due to the lack of records from the surrounding landscape, limited extent and the highly fragmented suitable habitat present within and adjacent to the Impact area, the species is unlikely to occur. No ALA or WildNet records occur within 5km of the Impact area. Most recent ALA record dated 2023 occurs 18 km from the Impact area. Species not observed during targeted field surveys.

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		The Black-breasted Button-quail is endemic to eastern Australia. It is restricted to coastal and near-coastal regions of south-eastern Queensland and north-eastern New South Wales. The main populations occur within south-east Queensland.	
<i>Actitis hypoleucos</i> Common Sandpiper	Migratory	<p>The species utilises a wide range of coastal wetlands and some inland wetlands, with varying levels of salinity, and is mostly found around muddy margins or rocky shores and rarely on mudflats. The Common Sandpiper has been recorded in estuaries and deltas of streams, as well as on banks farther upstream; around lakes, pools, billabongs, reservoirs, dams and claypans, and occasionally piers and jetties. The muddy margins utilised by the species are often narrow and may be steep.</p> <p>Found along all coastlines of Australia and in many areas inland, the Common Sandpiper is widespread in small numbers. The population when in Australia is concentrated in northern and western Australia.</p>	<p>Unlikely to occur</p> <p>The species was not observed during targeted field surveys, the habitat present is sub-optimal due to weed incursion and lack of muddy margins. No ALA records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Anous stolidus</i> Brown Noddy	Migratory	During the breeding season, the Common Noddy usually occurs on or near islands, on rocky islets and stacks with precipitous cliffs, or on shoals or cays of coral or sand. When not at the nest, individuals will remain close to the nest, foraging in the surrounding waters. Birds may nest in bushes, saltbush, or other low vegetation. They may also nest on the ground in Pigface (<i>Carpobrotus spp.</i>) or grass, on bare rock, on top of rocks protruding above vegetation, on shingle beaches, among coral rubble or in sand close to grassy areas. The species has also been recorded nesting in the forks of tall trees, at the top of Coconut Palms (<i>Cocos nucifera</i>), in holes in dead timber and on tree-stumps.	<p>Unlikely to occur</p> <p>This species predominantly occurs within open-ocean environments. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 2013 occurs 14.3 km from the Impact area. Species not observed during targeted field surveys.</p>

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		In Australia, the Common Noddy occurs mainly in ocean off the Queensland coast, but the species also occurs off the north-west and central Western Australia coast.	
<i>Apus pacificus</i> Fork-tailed Swift	Migratory	<p>In Australia, they mostly occur over inland plains but sometimes above foothills or in coastal areas. They often occur over cliffs and beaches and also over islands and sometimes well out to sea. They also occur over settled areas, including towns, urban areas and cities. They mostly occur over dry or open habitats, including riparian woodland and tea-tree swamps, low scrub, heathland or saltmarsh. They are also found at treeless grassland and sandplains covered with spinifex, open farmland and inland and coastal sand-dunes.</p> <p>The Fork-tailed Swift is a non-breeding visitor to all states and territories of Australia. They are widespread but scattered in coastal areas from 20°S, south to Brisbane and in much of the south south-eastern region. It is strongly migratory, spending the northern hemisphere's winter in Southeast Asia and Australia.</p>	<p>Likely to occur (flyover only)</p> <p>As this species is predominantly aerial and has wide-ranging behaviour/mobility, it is expected to fly above all vegetation within the Impact area to forage and disperse across the landscape. This species does not breed in Australia and is likely to roost aerially. Six ALA records occur within the Impact area, with the nearest record dated 2006, located approximately 2.6 km north of the Impact area within Horizon Place. One WildNet record dated 2006 occurs within the Impact area. Species not observed during targeted field surveys.</p>
<i>Ardenna carneipes</i> Flesh-footed Shearwater	Migratory; Special Least Concern	<p>The Flesh-footed Shearwater mainly occurs in the subtropics over continental shelves and slopes and occasionally inshore waters. Individuals also pass through the tropics and over deeper waters when on migration. Individuals have been recorded over waters of 12.9–22.9 °C in the south-western Pacific Ocean and over waters of 11–16 °C in the northern Pacific Ocean. Pairs breed on islands in burrows on sloping ground in coastal forest, scrubland, shrubland or grassland.</p> <p>The Flesh-footed Shearwater is a trans-equatorial migrant. The species is widely distributed across the southern Indian and south-western Pacific Oceans during the breeding season with colonies located on Saint Paul Island (France) in the southern Indian Ocean, on 41 islands off the coast of south-western</p>	<p>Unlikely to occur</p> <p>This species predominantly occurs in coastal environments. There are wetlands and waterways present in the Impact area however there are no ALA or WildNet records within 5 km of the Impact area. Majority of records have been made along the coast, the closest record occurs 25 km east of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		Western Australia, on Smith Island off the coast of Eyre Peninsula in South Australia, on Lord Howe Island and on approximately 20 islands around the eastern and western coasts of the North Island of New Zealand to Cook Strait. The birds depart their colonies at the completion of the breeding season.	
<i>Ardena grisea</i> Sooty Shearwater	Migratory	<p>The Sooty Shearwater forages in pelagic (open ocean) sub-tropical, sub-Antarctic and Antarctic waters. The species migrates and forages in the North Pacific and Atlantic Oceans during the non-breeding season.</p> <p>In Australia, the Sooty Shearwater breeds on islands off New South Wales (NSW) and Tasmania. The species occurs off the coast of south-east Queensland in small numbers and is a moderately common migrant and visitor to Victoria and South Australia.</p>	<p>Unlikely to occur</p> <p>This species predominantly occurs within open-ocean environments. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 2013 occurs 18.9 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Calidris acuminata</i> Sharp-tailed Sandpiper	Migratory	<p>In Australasia, the Sharp-tailed Sandpiper prefers muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, salt pans and hypersaline salt lakes inland. They also occur in saltworks and sewage farms.</p> <p>In Queensland, the Sharp-tailed Sandpiper is recorded in most regions, being widespread along much of the coast and are very sparsely scattered inland, particularly in the centre and south-west</p>	<p>Potential to occur</p> <p>When in Australia, the species has the potential to temporarily utilise foraging and dispersal habitat associated with wetland surrounding the Logan and Albert River systems. This species does not breed in Australia and has the potential to infrequently occur within the Impact area. However, the species is more likely to occur adjacent to the Impact area where there is more suitable and extensive habitat present. Multiple ALA records occur within 5 km of the Impact area. Most records are concentrated around the Logan and Albert River system. The closest record dated 2000 occurs approximately 3 km east of the Impact area near Eagleby Wetlands. 45 WildNet records occur with the most recent dated 2018. Species not observed during targeted field surveys.</p>
<i>Calidris alba</i>	Migratory	In Australia, the species is almost always found on the coast, mostly on open sandy beaches exposed to open sea-swell, and	<p>Unlikely to occur</p> <p>The Impact area does not provide suitable foraging and</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Sanderling		<p>also on exposed sandbars and spits, and shingle banks, where they forage in the wave-wash zone and amongst rotting seaweed. Sanderlings also occur on beaches that may contain wave-washed rocky outcrops. Less often the species occurs on more sheltered sandy shorelines of estuaries, inlets and harbours. Rarely, they are recorded in near-coastal wetlands or inland from sandy shores of ephemeral brackish lakes and river-pools.</p> <p>The Sanderling occurs in coastal areas around Australia. Inland records have occurred in most states of singles or small groups, birds probably on migration. In Queensland, they are occasional in the Gulf of Carpentaria and Torres Strait. Scattered records occur in mid-east and south-east Queensland from Townsville and Alva Beach, south to Fraser Island, and around Moreton Bay and Point Danger, including on offshore islands.</p>	<p>breeding habitat for the species. ALA records of the species occurrence have been predominantly near the coast. Furthermore, the species does not breed within Australia. No ALA or WildNet records occur within 5 km of the Impact area. The closest ALA record dated 2017 occurs 17 km east of the Impact area. Species not observed during targeted field surveys.</p>
<i>Calidris melanotos</i> Pectoral Sandpiper	Migratory	<p>In Australasia, the Pectoral Sandpiper prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands. The species is usually found in coastal or near coastal habitat but occasionally found further inland. It prefers wetlands that have open fringing mudflats and low, emergent or fringing vegetation, such as grass or samphire.</p> <p>In Queensland, most records for the Pectoral Sandpiper occur around Cairns. There are scattered records elsewhere, mainly from east of the Great Divide between Townsville and Yeppoon. The pectoral sandpiper is a small, migratory wader that breeds in North America and Asia, wintering in South America and Oceania.</p>	<p>Unlikely to occur</p> <p>This species does not breed in Australia. There is potential the species may infrequently occur in proximity to/adjacent the Impact area, where habitat is more suitable. However, no ALA or WildNet records occur within 5 km of the Impact area and given the lack of suitable habitat within the Impact area and paucity of records from the Logan and Gold Coast City area it is unlikely the species will occur within the Impact area. Species not observed during targeted field surveys.</p>
<i>Calidris ruficollis</i>	Migratory	In Australasia, the Red-necked Stint is mostly found in coastal areas, including in sheltered inlets, bays, lagoons and estuaries	<p>Unlikely to occur</p> <p>The species mostly inhabits estuaries and intertidal mudflats and</p>

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Red-necked Stint		<p>with intertidal mudflats, often near spits, islets and banks and, sometimes, on protected sandy or coralline shores. Occasionally they have been recorded on exposed or ocean beaches, and sometimes on stony or rocky shores, reefs or shoals.</p> <p>It is distributed along most of the Australian coastline with large densities on the Victorian and Tasmanian coasts. The Red-necked Stint has been recorded in all coastal regions and found inland in all states when conditions are suitable. Red-necked stints are strongly migratory.</p>	<p>prefers coastal areas. Due to the lack of suitable habitat present, the species is unlikely to occur in the area. 3 ALA records occur within 5 km of the Impact area. The closest record dated 2022 occurs approximately 600 m east of the Impact area within Nealdon Park. One WildNet record occurs within 5 km of the Impact area dated 1990. Species not observed during targeted field surveys.</p>
<i>Calonectris leucomelas</i> Streaked Shearwater	Migratory	<p>This marine species can be found over both pelagic and inshore waters. It feeds mainly on fish and squid which it catches by surface-seizing and shallow plunges. It often associates with other seabirds and will follow fishing boats. Breeding begins in March in colonies on offshore islands, occupying burrows on forested hills. It undergoes trans-equatorial migration.</p> <p>This species is found in the western Pacific, breeding on the coast and on offshore islands of Japan, Russia, and on islands off the coasts of China, North Korea and South Korea. It migrates south during winter, being found off the coasts of Vietnam, New Guinea, the Philippines, Australia, southern India and Sri Lanka.</p>	<p>Unlikely to occur</p> <p>This species predominantly occurs within open-ocean environments. Suitable habitat or individuals were not observed during field surveys. No ALA or WildNet records occur within 5 km of the Impact area. Scattered records occur east of the Impact area, with the most recent record dated 2020 occurring 33.6 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Charadrius bicinctus</i> Double-banded Plover	Migratory	<p>The Double-banded Plover is found on littoral, estuarine and fresh or saline terrestrial wetlands and also saltmarsh, grasslands and pasture. It occurs on muddy, sandy, shingled or sometimes rocky beaches, bays and inlets, harbours and margins of fresh or saline terrestrial wetlands such as lakes, lagoons and swamps, shallow estuaries and rivers. The species is sometimes associated with coastal lagoons, inland salt lakes and saltworks. It is also found on seagrass beds, especially</p>	<p>Unlikely to occur</p> <p>The species does not breed within Australia, the species is predominantly coastal and this is reflected in the ALA records. No WildNet records occur within 5km of the Impact area. Habitat within the Impact area is not suitable due to weed incursion and lack of dunes and mudflats. The closest ALA record occurs 7.9 km from the Impact area. Species not observed during targeted field surveys.</p>

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		<p><i>Zostera</i>, which, when exposed at low tide, remain heavily saturated or have numerous water-filled depressions.</p> <p>During the non-breeding season, it is common in eastern and southern Australia, mainly between the Tropic of Capricorn and western Eyre Peninsula, with occasional records in northern Queensland and Western Australia. The Double-banded Plover breeds only in New Zealand, where it is widespread.</p>	
<i>Charadrius veredus</i> Oriental Plover	Migratory	<p>Immediately after arriving in non-breeding grounds in northern Australia, Oriental Plovers spend a few weeks in coastal habitats such as estuarine mudflats and sandbanks, on sandy or rocky ocean beaches or nearby reefs, or in near-coastal grasslands, before dispersing further inland. Thereafter they usually inhabit flat, open, semi-arid or arid grasslands, where the grass is short and sparse, and interspersed with hard, bare ground, such as claypans, dry paddocks, playing fields, lawns and cattle camps or areas that are recently burned.</p> <p>The Oriental Plover is a non-breeding visitor to Australia, where the species occurs in both coastal and inland areas, mostly in northern Australia. Most records are along the north-western coast, between Exmouth Gulf and Derby in Western Australia, and there are records at a few scattered sites elsewhere, mainly along the northern coast, such as in the Top End, the Gulf of Carpentaria and on Cape York Peninsula.</p>	<p>Unlikely to occur</p> <p>The species does not breed within Australia. There are no ALA or WildNet records of the species within 5 km of the Impact area. The closest record occurs 7.8 km North west of the Impact area. No suitable habitat occurs within the Impact area. Species not observed during targeted field surveys.</p>
<i>Cuculus optatus</i> Oriental Cuckoo	Migratory	<p>The species uses a range of vegetated habitats such as monsoon rainforest, wet sclerophyll forest, open woodlands and appears quite often along edges of forests, or ecotones between forest types. This cuckoo feeds arboreally, foraging for invertebrates on loose bark on the trunks and branches of trees, and among the foliage, including in mistletoes.</p> <p>The Oriental Cuckoo is a regular migrant to Australia, where it spends the non-breeding season (Sept-May) in coastal regions</p>	<p>Potential to occur</p> <p>The Impact area contains a range of open woodlands and forests that may be used by the species for foraging and dispersal. The species does not breed in Australia. 3 ALA records occur within 5 km of the Impact area. The closest record dated 2022 occurs approximately 600 m east of the Impact area within Nealdon Park. 1 WildNet record occurs within 5 km of the</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		across northern and eastern Australia as well as offshore islands. In Queensland, a single record was found at Mt Isa, and scattered records occur near south east and eastern edges of Gulf of Carpentaria. It is considered widespread on the tablelands and eastern slopes of the Great Divide from near Cooktown to the NSW border.	Impact area dated 1990. Species not observed during targeted field surveys.
<i>Fregata ariel</i> Lesser Frigatebird	Migratory	<p>The Lesser Frigatebird breeds on small, remote tropical and sub-tropical islands, in mangroves or bushes, and even on bare ground.</p> <p>Major breeding populations of the Lesser Frigatebird are found in tropical waters of the Indian and Pacific Ocean (excluding the east Pacific), as well as one population in the South Atlantic (Trinidad and Tobago, Brazil). Outside the breeding season it is sedentary, with immature and non-breeding individuals dispersing throughout tropical seas, especially of the Indian and Pacific Oceans.</p>	<p>Unlikely to occur</p> <p>This species predominantly occurs within open-ocean environments. Suitable habitat or individuals were not observed during field surveys. No WildNet records occur within 5km of the Impact area. 1 ALA record occurs within 5 km of the Impact area dated 1972. Species not observed during targeted field surveys.</p>
<i>Fregata minor</i> Great Frigatebird	Migratory	<p>The Great Frigatebird is tropical seabird. It breeds on small, remote tropical and sub-tropical islands, in mangroves or bushes and occasionally on bare ground.</p> <p>Major breeding populations are found in tropical waters of the Pacific and Indian Oceans. In Australia, important breeding populations occur on Christmas Island, North Keeling Island, the islands of Ashmore Reef Marine Park, Adele Island, WA and in several Coral Sea Marine Park islands and cays.</p>	<p>Unlikely to occur</p> <p>This species predominantly occurs within open-ocean environments. Suitable habitat or individuals were not observed during field surveys. No ALA or WildNet records occur within 5 km of the Impact area. The closest record is historical, dated 1989. Species not observed during targeted field surveys.</p>
<i>Gallinago hardwickii</i> Latham's Snipe	Migratory	In Australia, Latham's Snipe occurs in permanent and ephemeral wetlands up to 2000 m above sea-level. They usually inhabit open, freshwater wetlands with low, dense vegetation (e.g. swamps, flooded grasslands or heathlands, around bogs and other water bodies). However, they can also occur in habitats with saline or brackish water, in modified or	<p>Known to occur</p> <p>Species observed within Impact area near Edens Landing. Suitable foraging and dispersal habitat is prominent immediately adjacent to the Impact area (east side of the railway line to the north of Holmview Station) and north of Logan River. This species does not breed in Australia and has the potential to infrequently occur within the Impact area. Multiple ALA records</p>

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		<p>artificial habitats, and in habitats located close to humans or human activity.</p> <p>Latham's Snipe is a non-breeding visitor to south-eastern Australia and is a passage migrant through northern Australia (i.e. it travels through northern Australia to reach non-breeding areas located further south).</p>	<p>occur within 5 km of the Impact area. Most records are concentrated around the Logan and Albert River system. The closest record dated 2023 occurs approximately 1 km east of the Impact area near Eagleby Wetlands. 52 WildNet records occur with the most recent dated 2016.</p>
<i>Gallinago megala</i> Swinhoe's Snipe	Migratory	<p>During the non-breeding season Swinhoe's Snipe occurs at the edges of wetlands, such as wet paddy fields, swamps and freshwater streams, and also in grasslands, drier cultivated areas (including crops of rapeseed and wheat) and market gardens. Habitat specific to Australia includes the dense clumps of grass and rushes round the edges of fresh and brackish wetlands. This includes swamps, billabongs, river pools, small streams and sewage ponds. They are also found in drying claypans and inundated plains pitted with crab holes.</p> <p>Swinhoe's Snipe is migratory, breeding in central Siberia and Mongolia and moving south for the boreal winter. Few definite records exist for Swinhoe's Snipe in Australia. The species has been recorded in the north between the Kimberley Divide and Cape York Peninsula.</p>	<p>Unlikely to occur</p> <p>The species has not been recorded In the East of Australia; the records show it predominantly occurs in the Northern parts of Australia. No ALA or WildNet records occur within 5 km of the Impact area Species not observed during targeted field surveys.</p>
<i>Gallinago stenura</i> Pin-tailed Snipe	Migratory	<p>During non-breeding period the Pin-tailed Snipe occurs most often in or at the edges of shallow freshwater swamps, ponds and lakes with emergent, sparse to dense cover of grass/sedge or other vegetation. The species is also found in drier, more open wetlands such as claypans in more arid parts of species' range. It is also commonly seen at sewage ponds; not normally in saline or inter-tidal wetlands.</p> <p>The species distribution within Australia is not well understood. There are confirmed records from NSW, south-west Western Australia, Pilbara and the Top End. The Pin-tailed Snipe breeds in Russia, while the non-breeding distribution occurs mostly in</p>	<p>Unlikely to occur</p> <p>The species breeds outside Australia and prefers to migrate to parts of western and northern Australia in the non-breeding season. No ALA or WildNet records occur within 5 km from the Impact area. Species not observed during targeted field surveys.</p>

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		south and south-east Asia. The species is vagrant to east Africa and rare in Japan.	
<i>Gelochelidon nilotica</i> (syn. <i>Sterna nilotica</i>) Gull-billed Tern	Migratory	<p>Gull-billed Terns are found in freshwater swamps, brackish and salt lakes, beaches and estuarine mudflats, floodwaters, sewage farms, irrigated croplands and grasslands. They are only rarely found over the ocean. Although essentially an inland species, outside breeding season it shows a distinct preference for saltmarshes and lagoons near the coast.</p> <p>The Gull-billed Tern occurs on all continents except Antarctica. The Gull-billed Tern is nomadic or migratory. Movements are not fully understood but it is common and widespread in south-eastern Australia, and only a vagrant in Tasmania. It winters mainly in the north and substantial numbers migrate to New Guinea and perhaps Indonesia.</p>	<p>Potential to occur</p> <p>The species generally prefers coastal habitat and has a wide distribution. The species does not breed in Australia. Marginal habitat occurs within the Logan River system and within freshwater swamps. The species may occur infrequently throughout the Impact area. Multiple ALA records occur within the Impact area. Records are concentrated to areas surrounding the Logan River. Most recent WildNet record dated 2018 occurs within 5km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Hirundapus caudacutus</i> White-throated Needletail	Vulnerable, Migratory	<p>In Australia, the White-throated Needletail is almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground. In Australia, White-throated Needletails almost always forage aerially, at heights up to 'cloud level', above a wide variety of habitats ranging from heavily treed forests to open habitats, such as farmland, heathland or mudflats, though they sometimes forage much closer to the ground in open habitats, once as low as about 15 cm in a coastal saltworks.</p> <p>The White-throated Needletail is widespread in eastern and south-eastern Australia. In eastern Australia, it is recorded in all coastal regions of Queensland and NSW, extending inland to the western slopes of the Great Divide and occasionally onto the adjacent inland plains. Breeds from northern Japan west to central and eastern Siberia.</p>	<p>Likely to occur</p> <p>There are numerous records from wider surrounding landscape and considering the species' mobility. The species is predominantly aerial and feeds on the wing. Movements are generally in response to foraging resources and as such all remaining areas of the Study area are considered suitable for the foraging and dispersal. Multiple scattered ALA records occur within 5 km of the Study area and there are numerous records from the wider surrounding landscape. The WildNet report also identified 45 records with the most recent dated 2016. Species not observed during targeted field surveys.</p>
<i>Hydroprogne caspia</i>	Migratory	The Caspian Tern is mostly found in sheltered coastal embayments (harbours, lagoons, inlets, bays, estuaries and	<p>Unlikely to occur</p> <p>The species generally prefers coastal habitat and has a wide</p>

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Caspian Tern		<p>river deltas) and those with sandy or muddy margins are preferred. They also occur on near-coastal or inland terrestrial wetlands that are either fresh or saline, especially lakes (including ephemeral lakes), waterholes, reservoirs, rivers and creeks. In offshore areas the species prefers sheltered situations, particularly near islands, and is rarely seen beyond reefs.</p> <p>Within Australia, the Caspian Tern has a widespread occurrence and can be found in both coastal and inland habitat. In Queensland, it is widespread in coastal regions from the southern Gulf of Carpentaria to the Torres Strait, and along the eastern coast. Recorded in the western districts, especially the Lake Eyre Drainage Basin, north-west to the Gulf Country north of Mt Isa and Cloncurry, there are also scattered records for central Queensland.</p>	<p>distribution. The species does not breed in Australia. Marginal habitat occurs within the Logan River system. However, wetland habitat is considered marginal and not suitable due steep banks and high weed invasion. No WildNet records occur within 5km of the Impact area. Multiple ALA records occur within 5 km of the Impact area. However, the species may occur in proximity to/adjacent the Impact area, where habitat more suitable and extensive. Records are concentrated to areas surrounding the Logan River. Species not observed during targeted field surveys.</p>
<i>Limicola falcinellus</i> Broad-billed Sandpiper	Migratory	<p>The Broad-billed Sandpiper occurs in sheltered parts of the coast, favouring estuarine mudflats but also occasionally occur on saltmarshes, shallow freshwater lagoons, saltworks and sewage farms, and in areas with large soft intertidal mudflats, which may have shell or sandbanks nearby. They often favour mud among, or fringed by, mangroves, particularly on the seaward side and sometimes occur in estuaries edged by saltmarsh. They are rarely recorded inland.</p> <p>In Australia, the Broad-billed Sandpiper is most common on the north and north-west coasts and occur regularly at scattered localities in southern Australia, where they are usually seen singly. In Queensland, there are scattered coastal records, including at the south and south-east Gulf of Carpentaria. They have been seen at Coen River, Eagle Island, Cairns, Innisfail, Townsville and Jerona. In the states north they have been seen at Mackay, Emu Park and Gladstone. In the mid-east they are known from North Stradbroke Island, south to Moreton Bay and</p>	<p>Unlikely to occur</p> <p>The species prefers coastal habitats and mudflats, which the Impact area does not provide. No WildNet records occur within 5km of the Impact area. The closest ALA record occurs 9.34 km from the Impact area, however the record dates to 1972. Species not observed during targeted field surveys.</p>

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		west to Clontarf and Seven-Mile Lagoon, Lowood, in south-east Queensland.	
<i>Limosa lapponica</i> Bar-tailed Godwit	Migratory	<p>The Bar-tailed Godwit is found mainly in coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It is found often around beds of seagrass and, sometimes, in nearby saltmarsh. It has been sighted in coastal sewage farms and saltworks, salt lakes and brackish wetlands near coasts, sandy ocean beaches, rock platforms, and coral reef-flats. It is rarely found on inland wetlands or in areas of short grass, such as farmland, paddocks and airstrips, although it is commonly recorded in paddocks at some locations overseas.</p> <p>The Bar-tailed Godwit has been recorded in the coastal areas of all Australian states. It is widespread in the Torres Strait and along the east and south-east coasts of Queensland, NSW and Victoria, including the offshore islands. The Bar-tailed Godwit breeds in the north of Scandinavia, Russia and north-west Alaska. Bar-tailed godwits spend the Northern Hemisphere summer in the Arctic.</p>	<p>Unlikely to occur</p> <p>This species does not breed in Australia. No ALA or WildNet records within 5 km of the Impact area likely due to the lack of suitable habitat within and immediately surrounding the Impact area. Closest ALA record dated 2018 occurs 8.6 km from the Impact area. No individuals were observed during targeted field surveys.</p>
<i>Limosa limosa</i> Black-tailed Godwit	Migratory	<p>Black-tailed Godwits are primarily a coastal species. They are usually found in sheltered bays, estuaries, and lagoons with large intertidal mudflats and/or sandflats. Further inland, the species can also be found around muddy lakes and within wetlands with water less than 10 cm deep. The species has also been recorded in wet fields and sewerage treatment works. Feeding habitat includes areas of mud or soft, wet sand within sandflats, intertidal mudflats, saltmarshes, and the beaches of oceanic coastlines, bays, and estuaries.</p> <p>During the austral summer non-breeding season, Black-tailed Godwits are found in all states and territories of Australia; however, coastal regions support the highest densities of the</p>	<p>Unlikely to occur</p> <p>The species mostly occurs in coastal environments. The Impact area does not meet the habitat requirements to support the species. No WildNet records occur within 5 km of the Impact area. Multiple ALA records occur 11.5 km from the Impact area where suitable habitat is present. Species not observed during targeted field surveys.</p>

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		species. The largest populations are found on the north coast between Darwin and Weipa.	
<i>Monarcha melanopsis</i> Black-faced Monarch	Migratory	<p>The Black-faced Monarch mainly occurs in rainforest ecosystems, including semi-deciduous vine-thickets, complex notophyll vine-forest, tropical (mesophyll) rainforest, subtropical (notophyll) rainforest, mesophyll (broadleaf) thicket/shrubland, warm temperate rainforest, dry (monsoon) rainforest and (occasionally) cool temperate rainforest.</p> <p>The Black-faced Monarch is widespread in eastern Australia. In Queensland, it is widespread from the islands of the Torres Strait and on Cape York Peninsula, south along the coasts (occasionally including offshore islands) and the eastern slopes of the Great Divide, to the New South Wales border.</p>	<p>Potential to occur (flyover only)</p> <p>No rainforest ecosystems occur within the Impact area, including vine thickets preferred by the species. This species is not commonly encountered in urban areas. Multiple ALA records within 5 km of the Impact area. The closest record dated 2006 occurs within Karawatha Forest Park approximately 284 m from the Impact area. 36 WildNet records were returned with the most recent dated 2016. The species may occur during migration. Species not observed during targeted field surveys.</p>
<i>Motacilla flava</i> Yellow Wagtail	Migratory	<p>Non-breeding visitor to Australia. Mostly occurs in well-watered open grasslands and the fringes of wetlands. Roosts in mangroves and other dense vegetation.</p> <p>As per the species' SPRAT page, this species may potentially occur over coastal and inland areas over most of the north, east and south of Australia. There more likely to occur in in northern parts of the country from northern WA, near Darwin, and eastern and western parts of Cape York. There are also pockets of species locations in the east and south-east.</p>	<p>Unlikely to occur</p> <p>Non-breeding visitor to Australia only. It is a rare vagrant in SEQ. No ALA or WildNet records within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Myiagra cyanoleuca</i> Satin Flycatcher	Migratory	<p>Satin Flycatchers inhabit heavily vegetated gullies in eucalypt-dominated forests and taller woodlands, and on migration, occur in coastal forests, woodlands, mangroves and drier woodlands and open forests.</p> <p>The Satin Flycatcher is widespread in eastern Australia and vagrant to New Zealand. In Queensland, it is widespread but scattered in the east, being recorded on passage on a few islands in the western Torres Strait. It is patchily recorded on</p>	<p>Potential to occur</p> <p>The Impact area contains open forest habitat and woodland which are likely to be suitable for foraging, breeding and dispersal. Although habitat is considered marginal, the species may occur during migration. The species has low probability of breeding in lowland coastal SEQ. Eight ALA records occur within 5 km of the Impact area. The closest record dated 2013 occurs within Karawatha Forest Park approximately 4 km west of the Impact area. WildNet reported 5 occurrences with the most</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		Cape York Peninsula, from the Cape south to a line between Aurukun and Coen. Satin Flycatchers are widespread in south-eastern Queensland, in the area from Fraser Island, west to Goombi and south to the NSW border.	recent dated 2000 Species not observed during targeted field surveys.
<i>Numenius minutus</i> Little Curlew	Migratory	<p>The Little Curlew is most often found feeding in short, dry grassland and sedgeland, including dry floodplains and blacksoil plains, which have scattered, shallow freshwater pools or areas seasonally inundated. When resting during the heat of day, the Little Curlew congregates around pools, river beds and water-filled tidal channels, and shallow water at edges of billabongs.</p> <p>Little Curlews generally spend the non-breeding season in northern Australia from Port Hedland in Western Australia to the Queensland coast. There are records of the species from inland Australia, and widespread but scattered records on the east coast. In Queensland, the Little Curlew is generally widespread in coastal regions with some inland records.</p>	<p>Unlikely to occur</p> <p>The species breeds outside Australia. No ALA or WildNet occur within 5 km of the Impact area. The closest ALA record occurs 8.5 km North west of the Impact area. Given the lack of suitable habitat and occurrence records, the species is unlikely to occur. Species not observed during targeted field surveys.</p>
<i>Numenius phaeopus</i> Whimbrel	Migratory	<p>The Whimbrel is often found on the intertidal mudflats of sheltered coasts. It is also found in harbours, lagoons, estuaries and river deltas, often those with mangroves, but also open, unvegetated mudflats. It is occasionally found on sandy or rocky beaches, on coral or rocky islets, or on intertidal reefs and platforms.</p> <p>The Whimbrel is a regular migrant to Australia and New Zealand, with a primarily coastal distribution. There are also scattered inland records of Whimbrels in all regions. It is found in all states but is more common in the north. The species does not breed in Australia.</p>	<p>Unlikely to occur</p> <p>The species does not breed in Australia and may occur infrequently throughout the Impact area. One ALA record dated 2002 occurs 4 km east of the Impact area near California Creek. Most recent WildNet record dated 2004 occurs within 5km of the Impact area There is no suitable habitat for the species within the Impact area and therefore the species is unlikely to occur. Species not observed during targeted field surveys.</p>
<i>Pandion haliaetus cristatus</i>	Migratory	Eastern Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands. They are mostly found in coastal areas but	<p>Likely to occur</p> <p>Marginal habitat occurs. The species has the potential to occur along the Logan River. Multiple ALA records occur within the</p>

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Eastern Osprey		occasionally travel inland along major rivers, particularly in northern Australia. They require extensive areas of open fresh, brackish or saline water for foraging. They frequent a variety of wetland habitats. The breeding range of the Eastern Osprey extends around the northern coast of Australia (including many offshore islands) from Albany in Western Australia to Lake Macquarie in NSW; with a second isolated breeding population on the coast of South Australia.	Impact area. Records are concentrated to areas surrounding the Logan River. The closest record dated 2021 occurs 2 km east of the Impact area near Eagleby Wetlands. 33 WildNet records occur, the most recent dated 2007. Species not observed during targeted field surveys.
<i>Phaethon lepturus</i> White-tailed Tropicbird	Migratory	At the species level, the White-tailed Tropicbird occupies marine habitats in tropical waters with sea-surface temperatures of more than 22°C. The tropicbird breeds on islands and atolls, where it nests in a variety of habitats including on bare sandy ground, in closed-canopy rainforest, on rocky cliffs and in quarries. In Australia, the White-tailed Tropicbird (Indian Ocean) nests in <i>Pisonia</i> trees amongst <i>Pisonia</i> -coconut vegetation, and on sandy ground. the White-tailed Tropicbird appears to be a moderately common visitor to the seas off northern Western Australia, to the west of the continental shelf. It is occasionally sighted close to the Western Australia mainland. Over the past few years, birds have been sighted with increased frequency on West Island and Home Island (also in the main atoll) in the Cocos-Keeling Islands.	Unlikely to occur The species is almost entirely marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Closest record dated 1995 occurs 29.6 km west from the Impact area. Species not observed during targeted field surveys.
<i>Philomachus pugnax</i> Ruff (Reeve)	Migratory	In Australia the Ruff is found on generally fresh, brackish or saline wetlands with exposed mudflats at the edges. It is found in terrestrial wetlands including lakes, swamps, pools, lagoons, tidal rivers, swampy fields and floodlands. They are occasionally seen on sheltered coasts, on wetlands surrounded by dense vegetation, and on sand spits and other sandy habitats including shingles.	Unlikely to occur No ALA or WildNet records occur within 5 km of the Impact area. The closest record of the species is 17.4 km from the Impact area. Given the lack of records and suitable habitat, the species is unlikely to occur. Species not observed during targeted field surveys.

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		The Ruff is a rare but regular visitor to Australia, being recorded in all States and Territories. In Queensland the Ruff is widely scattered at several localities. It has been recorded at Edward River, Hasties Swamp, Atherton Tableland, Townsville and Alva. In the south-east it has been recorded at Lytton, Myrtletown, Luggage Point, Nudgee and Dyer's Lagoon. There is also an unverified report of the species at Cairns.	
<i>Plegadis falcinellus</i> Glossy Ibis	Migratory	<p>The Glossy Ibis' preferred habitat for foraging and breeding are fresh water marshes at the edges of lakes and rivers, lagoons, flood-plains, wet meadows, swamps, reservoirs, sewage ponds, rice-fields and cultivated areas under irrigation. The species is occasionally found in coastal locations such as estuaries, deltas, saltmarshes and coastal lagoons.</p> <p>Within Australia, the Glossy Ibis is generally located east of the Kimberley in Western Australia and Eyre Peninsula in South Australia.</p>	<p>Known to occur</p> <p>Suitable habitat is present within the Impact area and surrounds. Multiple scattered ALA records occur within 5 km of the Impact area. The most recent WildNet record dated 2018 occurs within 5 km of the Impact area. Suitable habitat occurs within the Logan River system. The closest and most recent record (2023) occurs approximately 200 m east of the Impact area near Attunga Street. One (1) individual observed in wetland habitat within the Impact area (Lot 7 on SP145849).</p>
<i>Pluvialis fulva</i> Pacific Golden Plover	Migratory	<p>In non-breeding grounds in Australia this species usually inhabits coastal habitats, though it occasionally occurs around inland wetlands. Pacific Golden Plovers usually occur on beaches, mudflats and sandflats (sometimes in vegetation such as mangroves, low saltmarsh such as <i>Sarcocornia</i>, or beds of seagrass) in sheltered areas including harbours, estuaries and lagoons, and also in evaporation ponds in saltworks.</p> <p>Within Australia, the Pacific Golden Plover is widespread in coastal regions, though there are also a number of inland records (in all states), sometimes far inland and usually along major river systems, especially the Murray and Darling Rivers and their tributaries. Most Pacific Golden Plovers occur along the east coast, and are especially widespread along the Queensland and NSW coastlines.</p>	<p>Unlikely to occur</p> <p>The species does not breed in Australia and there is a lack of suitable habitat present within the Impact area. 6 ALA records occur within 5 km of the Impact area. The closest record dated 2014 occurs approximately 3 km east of the Impact area near Eagleby Wetlands, where habitat is more suited. 9 WildNet records occur with the most recent dated 2001. Species not observed during targeted field surveys.</p>

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<i>Pluvialis squatarola</i> Grey Plover	Migratory	<p>The bird utilises dry stony tundra with sedge, moss, lichen, or grass. The bird is also known to utilise dwarf birch, peat ridges in tundra marshes, dry exposed ridges, riverbanks, raised sand or gravel beaches, and rocky slopes.</p> <p>During the austral summer non-breeding season, the Grey Plover is a regular migrant to Australia. The species has been recorded throughout all states around Australia but is primarily found along the west and south coasts. The largest populations are found between the Coorong and western beaches of the Eyre Peninsula in South Australia, and along the coast of Western Australia between Albany and the northern Kimberley. The species is also regularly recorded in Queensland around the south-eastern Gulf of Carpentaria.</p>	<p>Unlikely to occur</p> <p>The species generally occurs around the coasts. No ALA or WildNet records occur within 5 km of the Impact area and no suitable habitat occurs. The closest record of the species is 11 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Rhipidura rufifrons</i> Rufous Fantail	Migratory	<p>In east and south-east Australia, the Rufous Fantail mainly inhabits wet sclerophyll forests, often in gullies dominated by eucalypts such as Tallow-wood (<i>Eucalyptus microcorys</i>), Mountain Grey Gum (<i>E. cypellocarpa</i>), Narrow-leaved Peppermint (<i>E. radiata</i>), Mountain Ash (<i>E. regnans</i>), Alpine Ash (<i>E. delegatensis</i>), Blackbutt (<i>E. pilularis</i>) or Red Mahogany (<i>E. resinifera</i>); usually with a dense shrubby understorey often including ferns. They also occur in subtropical and temperate rainforests.</p> <p><i>Rhipidura rufifrons rufifrons</i> has breeding populations occurring from about the South Australia-Victoria border, through south and central Victoria, on and east of the Great Divide in New South Wales (NSW), and north to about the NSW-Queensland border. <i>R. r. intermedia</i> has breeding populations occurring on and east of the Great Divide, from about the NSW-Queensland border, north to the Cairns-Atherton region, Queensland. Both subspecies winter farther north from Cape York Peninsula in Queensland to Torres Strait and southern Papua New Guinea.</p>	<p>Likely to occur</p> <p>The Impact area does not contain the preferred wet sclerophyll forest or rainforest habitat. However, dry sclerophyll forest and woodland occurs and may be used by the species for foraging and dispersal. Multiple scattered ALA records occur within 5 km of the Impact area. WildNet returned 118 occurrences with the most recent dated 2020. Species not observed during targeted field surveys.</p>

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<i>Sterna hirundo</i> Common Tern	Migratory	<p>Common Terns are marine, pelagic and coastal. In Australia, they are recorded in all marine zones, but are commonly observed in near-coastal waters, both on ocean beaches, platforms and headlands and in sheltered waters, such as bays, harbours and estuaries with muddy, sandy or rocky shores.</p> <p>The species is a non-breeding migrant to Australia, where it is widespread and common on the eastern coast south to eastern Victoria, and common on parts of the northern coast, mainly east of Darwin. This species breeds in North America and Eurasia.</p>	<p>Unlikely to occur</p> <p>There is a lack of ALA records from the Impact area and surrounds. Most recent WildNet record dated 1972 occurs within 5km of the Impact area. Furthermore, no suitable habitat occurs within the Impact area. Species not observed during targeted field surveys.</p>
<i>Sternula albifrons</i> Little Tern	Migratory	<p>In Australia, Little Terns inhabit sheltered coastal environments, including lagoons, estuaries, river mouths and deltas, lakes, bays, harbours and inlets, especially those with exposed sandbanks or sand-spits, and also on exposed ocean beaches. Little Terns are widespread on islands off the Northern Territory coast but appear to be less often on offshore continental islands or coral cays off Queensland</p> <p>The Australian breeding populations are across the north from Broome in Western Australia to the eastern Cape York Peninsula, and on the east and south-eastern coast of the mainland and on Tasmania. Non-breeding birds, of the Australian subpopulations and of extralimital populations, extend farther around the Australian coast than known breeding colonies, as well as overlapping extensively with the Australian breeding range.</p>	<p>Unlikely to occur</p> <p>The species generally prefers coastal habitat and has a wide distribution. The species does not breed in Australia. There are no ALA records within 5 km of the Impact area and no suitable habitat occurs. The most recent WildNet record dated 2000 occurs within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Symposiachrus trivirgatus</i> Spectacled Monarch	Migratory	<p>This species occupies dense vegetation, mainly in rainforest but also in moist or wet sclerophyll forest and occasionally in other densely vegetated habitats such as mangroves, drier forest, woodlands, parks and gardens. The Spectacled Monarch builds a small cup nest of fine bark, plant fibres, moss and spider web</p>	<p>Known to occur</p> <p>No rainforest or dense vegetation occurs within the Impact area however, dry forest and woodland is present. The habitat is potentially suitable for breeding (as there are no specific requirements for breeding habitat), foraging and dispersal. There is no clear differentiation in habitat utilisation by this species</p>

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		<p>in a tree fork or in hanging vines, 1 m - 6 m above the ground, often near water.</p> <p>The Spectacled Monarch is found in coastal north-eastern and eastern Australia, including coastal islands, from Cape York, Queensland to Port Stephens, New South Wales.</p>	<p>however the habitat within the Impact area can be utilised by migrating birds. 13 scattered ALA records occur within 5 km of the Impact area. The closed record dated 2015 occurs approximately 300 m west of the Impact area within Karawatha Forest Park. 15 WildNet records occur with the most recent dated 2018. One (1) individual observed within open eucalypt woodland on sandy plains approximately 13 m east of the Impact area (Lot O on SP248979).</p>
<i>Tringa brevipes</i> Grey-tailed Tattler	Migratory	<p>The Grey-tailed Tattler is often found on sheltered coasts with reefs and rock platforms or with intertidal mudflats. It can also be found at intertidal rocky, coral or stony reefs as well as platforms and islets that are exposed at low tide. It has been found around shores of rock, shingle, gravel or shells and also on intertidal mudflats in embayment's, estuaries and coastal lagoons, especially fringed with mangroves.</p> <p>The Grey-tailed Tattler is found along the entire coast, with small numbers located in the Gulf of Carpentaria. It is widespread along the east coast and the Torres Strait. There is a continuous population along the entire east coast of Cape York Peninsula with rare inland occurrences</p>	<p>Unlikely to occur</p> <p>The species generally prefers muddy and sandy coasts. The species breeds outside of Australia. No WildNet records occur within 5km of the Impact area. One record occurs within 5 km of the Impact area dated 1974. Species not observed during targeted field surveys.</p>
<i>Tringa glareola</i> Wood Sandpiper	Migratory	<p>The Wood Sandpiper uses well-vegetated, shallow, freshwater wetlands, such as swamps, billabongs, lakes, pools and waterholes. They are typically associated with emergent, aquatic plants or grass, and dominated by taller fringing vegetation and often with fallen timber. They also frequent inundated grasslands, short herbage or wooded floodplains, where floodwaters are temporary or receding, and irrigated crops. This species uses artificial wetlands, including open sewage ponds, reservoirs, large farm dams, and bore drains.</p> <p>In Queensland, there are sparsely scattered records, generally south of 17° S, but also around Cairns.</p>	<p>Unlikely to occur</p> <p>Aquatic vegetation is lacking within the waterways of the Impact area, with majority highly disturbed and weed infested. No ALA records occur within 5 km of the Impact area. One WildNet record from 1998 occurs within the Impact area. Species not observed during targeted field surveys.</p>

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<i>Tringa incana</i> Wandering Tattler	Migratory	<p>The Wandering Tattler is generally found on rocky coasts with reefs and platforms, points, spits, piers, offshore islands and shingle beaches or beds. It is occasionally seen on coral reefs or beaches and tends to avoid mudflats. Foraging habitat is among rocks or shingle, or in shallow pools at edges of reefs or beaches, mainly along the tideline. Wandering tattlers have been recorded roosting or perching on top of boulders surrounded by or close to water.</p> <p>It is a non-breeding vagrant in the East Asian-Australasian Flyway and is uncommon in Australia, although it may sometimes be overlooked. This species breeds in the extreme north-east of Siberia and from southern Alaska east to north-west British Columbia.</p>	<p>Unlikely to occur</p> <p>The species generally prefers coastlines and alpine zones, none of which are present within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Scattered on the east of the Impact area. Scattered records east of the Impact area. The closest record dated 2019 occurs 15 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Tringa nebularia</i> Common Greenshank	Migratory	<p>The Common Greenshank is found in a wide variety of inland wetlands and sheltered coastal habitats of varying salinity. It occurs in sheltered coastal habitats, typically with large mudflats and saltmarsh, mangroves or seagrass. Habitats include embayment, harbours, river estuaries, deltas and lagoons and are recorded less often in round tidal pools, rock-flats and rock platforms.</p> <p>In Queensland, this species is widespread in the Gulf country and eastern Gulf of Carpentaria. It has been recorded in most coastal regions, possibly with a gap between north Cape York Peninsula and Cooktown. Inland, there have been a few records south of a line from near Dalby to Mount Guide, and sparsely scattered records elsewhere.</p>	<p>Potential to occur</p> <p>Suitable foraging and dispersal habitat occurs associated with wetland habitat surrounding the Logan and Albert River systems. 8 ALA records occur within 5 km of the Impact area. The closest record dated 2004 occurs approximately 2 km east of the Impact area near Eagleby Wetlands. 7 WildNet records occur with the most recent dated 2004. Although there were no records of the species during the duration of the surveys, the species is still likely to use the habitat within and adjacent to the Impact area occasionally. Species not observed during targeted field surveys.</p>
<i>Tringa stagnatilis</i> Marsh Sandpiper	Migratory	<p>The Marsh Sandpiper lives in permanent or ephemeral wetlands of varying salinity, including swamps, lagoons, billabongs, salt pans, saltmarshes, estuaries, pools on inundated floodplains, and intertidal mudflats and also regularly at sewage farms and saltworks.</p>	<p>Potential to occur</p> <p>Suitable foraging and dispersal habitat occurs associated with wetland habitat surrounding the Logan and Albert River systems. This species does not breed in Australia and has the potential to infrequently occur within the Impact area. Though</p>

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		The Marsh Sandpiper is found on coastal and inland wetlands throughout Australia. The species is widespread in coastal Queensland, but few records exist north of Cooktown. The species breeds in open grassy steppe and taiga wetlands from easternmost Europe to the Russian Far East.	there were no records of the species during the surveys, there are records of the presence of the species to the near east of the Impact area which suggests that the species may utilise the habitat within or adjacent to the Impact area occasionally. Multiple ALA records occur within 5 km of the Impact area. Most records are concentrated around the Logan and Albert River system. The closest record dated 2011 occurs approximately 3 km east of the Impact area near Eagleby Wetlands. 39 WildNet records occur with the most recent dated 2018. Species not observed during targeted field surveys.
<i>Xenus cinereus</i> Terek Sandpiper	Migratory	The Terek sandpiper mostly forages in the open, on soft wet intertidal mudflats or in sheltered estuaries, embayment's, harbours or lagoons. The species has also been recorded on islets, mudbanks, sandbanks and spits, and near mangroves and occasionally in samphire (<i>Halosarcia</i> spp.). Mangroves are preferred for roosting. It is a non-breeding migrant to Australia. In Australia, this species has a primarily coastal distribution and is more widespread and common in northern and eastern Australia than southern Australia. There are twelve sites of international significance in Australia, four of which are in Queensland including south-east Gulf of Carpentaria, Shoalwater Bay and Broad Sound, the Great Sandy Strait and Moreton Bay.	Unlikely to occur The species generally prefers coastal habitat and has a wide distribution. The species does not breed in Australia. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.
<i>Epinephelus daemeli</i> Black Rock Cod	Vulnerable	Black Cod generally inhabit near-shore rocky and offshore coral reefs at depths down to 50 m. In coastal waters adult black cod are found in rock caves, rock gutters and on rock reefs. Black Cod are an aggressive, territorial species and individuals may occupy one particular cave for most of their adult life. Recently settled juvenile Black Cod (i.e. individuals that have recently completed the pelagic, drifting larval stage) are often found in coastal rock pools while slightly older juvenile Black Cod are	Unlikely to occur This species prefers deep water habitat with structural complexity. No suitable habitat was observed during field surveys. No ALA or WildNet records occur within 5 km of the Impact area, or within the surrounding Logan River system. Species not observed during targeted field surveys.

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		<p>often found in estuary systems. There is a general progression to deeper waters as black cod increase in size.</p> <p>The Black Cod's entire range includes warm temperate and subtropical waters of the southwestern Pacific, including south-eastern Australia and the North Island, Kermadec Islands and Poor Knights Islands of New Zealand. In Australia, the distribution of Black Cod ranges from southern Queensland through NSW to northern Victoria. However, records from Queensland and Victoria are rare, and the single specimen recorded from South Australian waters is considered a vagrant.</p>	
<i>Hippocampus whitei</i> White's Seahorse	Endangered	<p><i>H. whitei</i> is known to occur at depths between 1-15 metres and is found utilising a wide range of habitat types (both natural and artificial). They prefer more complex habitats, believed to provide better protection and more available food resources; however, their habitat selection can also be influenced by prey type and occurrence of predators. In Port Stephens, juveniles prefer gorgonian habitats (<i>Euplexaura</i> sp.) whilst adults had a preference for both sponges and soft coral (<i>Dendronephthya australis</i>) habitats. They were also found occurring in <i>Posidonia australis</i> seagrass and juveniles also used <i>Sargassum</i> sp. macroalgal and soft coral habitats (<i>Carijoa</i> sp. and <i>D. australis</i>).</p> <p><i>H. whitei</i> is known to occur in estuaries from St Georges Basin, NSW to Hervey Bay, QLD. However, populations of high abundance have only been found in Port Stephens and Sydney Harbour.</p>	<p>Unlikely to occur</p> <p>The species is predominantly recorded near the coastline of the East coast. No WildNet records occur within 5km of the Impact area. The Impact area does not provide suitable habitat, with the closest ALA record occurring 29.1 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Maccullochella mariensis</i> Mary River Cod	Endangered	<p>Mary River Cod occur in a variety of habitat types within the Mary River system, from high gradient, rocky, upland streams, to large, slow-flowing pools in lowland areas. Anecdotal accounts by anglers and landowners often describe the ideal cod habitat as comprising deep, shaded, slow flowing pools with plenty of snags and log-piles. Similar habitat types are</p>	<p>Potential to occur</p> <p>Whilst the species has been historically widespread including the Logan River system, populations are generally restricted to the Mary River system. The species prefers rocky flowing water, comprising of deep pools, including riparian vegetation and woody debris suitable for breeding and foraging purposes.</p>

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		<p>utilised by the closely related Murray Cod and Trout Cod in the Murray River system.</p> <p>The Mary River Cod occurs in southeast Queensland in the Mary River system. There are three areas within the Mary River system where Cod are relatively abundant. These are Tinana-Coondoo Creek upstream from Tinana Barrage, Six Mile Creek downstream from Lake Macdonald, and upper Obi Obi Creek. Cod have also been reported from Widgee, Glastonbury, Amamoor, and Yabba Creeks, and parts of the Mary River since 1990.</p>	<p>Marginal habitat observed within the Impact area includes high proportion of fines content, high embeddedness (i.e. minimal interstitial spacing) and limited macrohabitat (i.e. absence of riffles) (Hydrobiology, 2023). No individuals were observed during targeted field surveys (Hydrobiology, 2023). No records occur within 5 km of the Impact area or within the surrounding Logan River system. Species not observed during targeted field surveys.</p>
<i>Nannoperca oxleyana</i> Oxleyan Pygmy Perch	Endangered	<p>Oxleyan Pygmy Perch are generally found only in slow-flowing pools and backwaters of river channels and tributaries as well as in swampy drainages, lakes, ponds and dams. Their specific habitat requirements include fresh, acidic waters with abundant aquatic vegetation. The Oxleyan Pygmy Perch is confined primarily to dystrophic, acidic, freshwater systems draining through sandy coastal lowlands and 'wallum' heaths (<i>Banksia</i> dominated heathlands).</p> <p>The species occurs within suitable habitat between north-eastern NSW and south-eastern Queensland (including Fraser, Stradbroke and Moreton islands). They have been recorded from Coongul Creek on Fraser Island, Queensland south to Tick Gate Swamp near the township of Wooli, NSW. Even within areas of their habitat, their distribution is patchy and despite extensive searching, the species has only been found in a relatively small number of locations in NSW and Queensland.</p>	<p>Unlikely to occur</p> <p>No records occur within 5 km of the Impact area. No WildNet records occur within 5km of the Impact area. The closest ALA record occurs 35.3 km East of the Impact area. The habitat for the species is unsuitable within the Impact area. Species not observed during targeted field surveys.</p>
<i>Neoceratodus forsteri</i> Australian Lungfish	Vulnerable	<p>The Australian Lungfish inhabits freshwater streams, preferring areas of flowing stream where overhanging riparian vegetation grows along the bank, and areas where woody debris and dense macrophyte beds are found in water. The species cannot tolerate saline water and will not migrate through seawater.</p>	<p>Unlikely to occur</p> <p>There are no ALA or WildNet records of the species within 5 km of the Impact area. The closest ALA record occurs 13.2 km south west of the Impact area. The habitat for the species is unsuitable within the Impact area and no species were observed</p>

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		The Australian Lungfish is known only to occur in a few river systems in southeastern Queensland. Naturally occurring populations exist only in the Burnett and Mary River systems, which are geographically isolated from one another by a catchment divide. The species may still occur in other nearby river systems to the south, including the North Pine, Brisbane, Albert and Coomera rivers and associated tributaries, but all these populations are derived from translocated individuals. The Australian lungfish occurs within the South Eastern Queensland IBRA bioregion and the Burnett Mary and South East Queensland Natural Resource Management Regions.	during targeted field surveys. Species not observed during targeted field surveys.
<i>Seriotelella brama</i> Blue Warehou	Conservation Dependent	<p>The species shows preference for relatively warmer waters of between 10 and 15°C when compared with other trevallias. Larval Blue Warehou have been observed from the surface to depths of 100 m, with the highest abundances found in the upper 50 m. Older larvae and small juveniles are commonly found under drifting jellyfish or larger inanimate objects, with larger juveniles congregating in bays and estuaries, and once individuals have attained lengths greater than 30 cm in length, they are most abundant in the continental slope waters further offshore.</p> <p>Globally, the Blue Warehou is confined to Australian and New Zealand waters. Within the Australian Exclusive Economic Zone, the species occurs predominantly in coastal shelf, upper continental slope and seamount waters offshore from New South Wales, Tasmania, Victoria and South Australia.</p>	<p>Unlikely to occur</p> <p>The species is strictly marine. There are no ALA or WildNet records of the species within the Impact area and surrounds. No suitable habitat occurs within the Impact area. Species not observed during targeted field surveys.</p>
<i>Thunnus maccoyii</i> Southern Bluefin Tuna	Conservation Dependent	Bluefin Tuna is suggested to congregate at seamounts, lumps and reefs in the Great Australian Bight where prey species also congregate, and to move depending on water masses, such as influxes of nutrient rich sub-Antarctic waters, and sea temperatures.	<p>Unlikely to occur</p> <p>This species is strictly marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

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		The Southern Bluefin Tuna is found in the south-west and south-east Atlantic Ocean, eastern and western Indian Ocean and the south-west Pacific Ocean. Southern Bluefin Tuna are highly migratory, occurring globally in waters between 30–50°S, though the species is mainly found in the eastern Indian Ocean and in the south-west Pacific Ocean.	
<i>Carcharias taurus</i> Grey Nurse Shark (east coast population)	Critically Endangered	<p>Grey Nurse Sharks are found primarily in warm temperate (from subtropical to cool temperate) inshore waters around rocky reefs and islands, in or near deep sandy-bottomed gutters or rocky caves, and occasionally in the surf zone and shallow bays. They have been recorded at varying depths down to 230 m on the continental shelf, but are most commonly found between 15–40 m.</p> <p>The Grey Nurse Shark (east coast population) has been regularly reported from southern Queensland and around south-east Australia, although the species is uncommon in Victorian, South Australian and Tasmanian waters, and has not been found in the Great Australian Bight. The species has been recorded as far north as Cairns. However, more recently Grey Nurse Shark distribution in Australia has generally been confined to coastal waters off southern Queensland and along the entire NSW coast.</p>	<p>Unlikely to occur</p> <p>This species is strictly marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Carcharodon carcharias</i> Great White Shark	Vulnerable	Great White Sharks can be found from close inshore around rocky reefs, surf beaches and shallow coastal bays to outer continental shelf and slope areas. They also make open ocean excursions and can cross ocean basins (for instance from South Africa to the western coast of Australia and from the eastern coast of Australia to New Zealand). Great White Sharks are often found in regions with high prey density, such as pinniped colonies.	<p>Unlikely to occur</p> <p>This species is strictly marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		In Australia, Great White Sharks have been recorded from central Queensland around the south coast to north-west Western Australia, but may occur further north on both coasts. It has been sighted in all coastal areas except in the Northern Territory. The northern-most Queensland record is Mackay.	
<i>Lamna nasus</i> Porbeagle	Migratory	<p>The Porbeagle primarily inhabits oceanic waters and areas around the edge of the continental shelf. They occasionally move into coastal waters, but these movements are temporary. The Porbeagle utilises a broad vertical range of the water column and is known to dive to depths exceeding 1300 m. The Porbeagle is thought to be reasonably flexible in the types of habitat used for foraging.</p> <p>The Porbeagle is wide-ranging and inhabits temperate, subarctic and subantarctic waters of the North Atlantic and Southern Hemisphere. In Australia, the species occurs in waters from southern Queensland to south-west Australia.</p>	<p>Unlikely to occur</p> <p>This species is strictly marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Mobula alfredi</i> (syn. <i>Manta alfredi</i>) Reef Manta Ray	Migratory	<p>The Reef Manta Ray is a neritic and oceanic pelagic ray typically resident in productive near-shore environments, such as coral and rocky reefs, island groups, atolls, and continental coastlines. It often exhibits diel patterns in habitat use moving inshore during the day to clean and socialize in shallow waters, and then moving offshore at night to feed.</p> <p>The Reef Manta Ray is widely distributed in tropical and sub-tropical waters throughout much of the Indian and Pacific Oceans, from the surface down to depths of 432 m (Marshall, Barreto, Carlson, Fernando, Fordham, Francis, Herman, et al., 2022).</p>	<p>Unlikely to occur</p> <p>Species is primarily marine, however potential marginal habitat occurs within Logan River system. However, no ALA or WildNet records occur within 5 km of the Impact area and high quality and large densities of food sources for species unlikely to occur. Species not observed during targeted field surveys.</p>
<i>Mobula birostris</i> (syn. <i>Manta birostris</i>)	Migratory	The Giant Manta Ray is a neritic and oceanic pelagic ray that occurs in places with regular upwelling along coastlines, oceanic islands, and offshore pinnacles and seamounts. The Giant Manta Ray can exhibit diel patterns in habitat use, moving	<p>Unlikely to occur</p> <p>Species is primarily marine, however potential suitable habitat occurs within Logan River system. However, no ALA or WildNet records occur within 5 km of the Impact area and high quality</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Giant Manta Ray		<p>inshore during the day to clean and socialize in shallow waters, and then moving offshore at night to feed to depths of 1,000 meters.</p> <p>The Giant Manta Ray is found worldwide in tropical, subtropical, and temperate bodies of water and is commonly found offshore, in oceanic waters, and in productive coastal areas. The species has also been observed in estuarine waters, oceanic inlets, and within bays and intercoastal waterways. Major food is planktonic organisms and krill (Marshall, Barreto, Carlson, Fernando, Fordham, Francis, Derrick, et al., 2022; NOAA Fisheries, 2023).</p>	and large densities of food sources for species unlikely to occur. Species not observed during targeted field surveys.
<i>Pristis zijsron</i> Green Sawfish	Vulnerable	<p>The Green Sawfish inhabits muddy bottom habitats and enters estuaries. It has been recorded in inshore marine waters, estuaries, river mouths, embankments and along sandy and muddy beaches. Green Sawfish have been recorded in very shallow water (<1 m) to offshore trawl grounds in over 70 m of water. Smaller specimens (<2.5 m in length) are more common in foreshore and offshore coastal waters.</p> <p>In Australian waters, Green Sawfish have historically been recorded in the coastal waters off Broome, Western Australia, around northern Australia and down the east coast as far as Jervis Bay, NSW. Green sawfish are currently distributed from about the Whitsundays in Queensland across northern Australian waters to Shark Bay in Western Australia.</p>	<p>Unlikely to occur</p> <p>This species is strictly marine. No suitable habitat occurs within the Impact area. No records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Sphyrna lewini</i> Scalloped Hammerhead	Conservation Dependent	<p>Scalloped hammerhead are mobile animals that range widely over shallow coastal shelf waters, but rarely venture into or across deep ocean waters. Scalloped hammerhead pups are born in shallow intertidal habitats and they remain in shallow inshore habitats for the first few years of their lives.</p> <p>The Scalloped Hammerhead has a circum-global distribution in tropical and sub-tropical waters. Within Australian waters the</p>	<p>Unlikely to occur</p> <p>This species is strictly marine. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		scalloped hammerhead extends from New South Wales (approximately from Wollongong, where it is less abundant), around the north of the continent and then south into Western Australia to approximately Geographe Bay.	
<i>Litoria olongburensis</i> Wallum Sedge Frog	Vulnerable	<p>The Wallum Sedge Frog is found in ephemeral, seasonal and permanent wetlands with emergent reeds, ferns and/or sedges, in undisturbed coastal wallum swamps. The altitude range of the species is less than 200 m above sea level (ASL) with the highest populations in perched lakes on Fraser Island. They are typically found below 20 m ASL, and always above tidal influence. Soil conditions are mostly deep, siliceous sands or shallow sandy soils overlying clay or sandstone. The Wallum Sedge Frog is typically associated with oligotrophic (nutrient poor) and acidic (pH between 3.5 and 6.0) water.</p> <p>The Wallum Sedge Frog has been recorded in south-east Queensland and north-east NSW, from Lake Wongeel, Fraser Island south to Woolgoolga. The Wallum Sedge Frog is also known to occur on several other offshore sand islands, including Bribie, Moreton and North Stradbroke Islands.</p>	<p>Unlikely to occur</p> <p>Preferred wallum habitat with undisturbed, oligotrophic and acidic water does not occur. No records occur within 5 km of the Impact area. Closest ALA record occurs 14.8km east of the Impact area dated 2016. Species not observed during targeted field surveys.</p>
<i>Mixophyes fleayi</i> Fleay's Frog	Endangered	<p>Fleay's Frog is associated with montane rainforest and open forest communities adjoining rainforest. The species occurs along stream habitats from first to third order streams and is not found in ponds or ephemeral pools. Adults may be found in leaf litter and along watercourses in rainforest and adjoining wet sclerophyll forests. At some locations where the species has been recorded, riparian vegetation has been disturbed and replaced by weeds, however this is considered marginal habitat.</p> <p>Fleay's Frog is narrowly and disjunctly distributed in wet forests from the Conondale Range in south-east Queensland, south to Yabbara Scrub in north-east New South Wales. Fleay's Frog is</p>	<p>Unlikely to occur</p> <p>The Impact area is not located within the species range. The Impact area does not occur within areas of montane rainforest, nor areas of adjoining rainforest. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		an obligate stream breeding species relying on permanent and semi-permanent freshwater streams for breeding habitat	
<i>Mixophyes iteratus</i> Giant Barred Frog	Vulnerable	<p>The Giant Barred Frog occurs in rainforests and wet sclerophyll forests in upper to lower catchment areas. During surveys in the Cooroy to Curra area of south-east Queensland, Giant Barred Frogs were observed to prefer a closed forest canopy with a relatively light cover of vegetation at ground level. Populations of the species have been found in cleared or disturbed areas. Many sites where the Giant Barred Frog is known to occur are the lower reaches of streams which have been affected by major disturbances such as clearing, timber harvesting and urban development in their headwaters. The Giant Barred Frog is a stream breeding species. The species is currently known from mid to low altitudes below 610 m above sea level.</p> <p>The Giant Barred Frog is distributed from Doongul Creek, Wongi State Forest, near Maryborough in south-eastern Queensland, south to Warrimoo in the Blue Mountains, New South Wales.</p>	<p>Unlikely to occur</p> <p>There are no records of the species from the Impact area and the surroundings. No WildNet records occur within 5km of the Impact area. The closest ALA record of the species is 48.6 km North of the Impact area. The habitat for the species is unsuitable within the Impact area. This suggests that the species is unlikely to occur. Species not observed during targeted field surveys.</p>
<i>Argynnis hyperbius inconstans</i> Australian Fritillary	Critically Endangered	<p>The Australian fritillary usually occurs around river estuaries or open, swampy coastal regions. The Australian fritillary is restricted to areas where its larval food plant, <i>Viola betonicifolia</i>, occurs. The arrowhead violet is widespread throughout Queensland and NSW, at both high and low altitudes. However, the Australian fritillary appears to only occupy lower altitude sites (<600m).</p> <p>The Australian fritillary has been recorded in scattered locations across south-eastern Queensland and north-eastern New South Wales. The subspecies appears to have had a core distribution between Gympie in Queensland and Port Macquarie in NSW, although there are historical records which extend beyond this range. The subspecies has been recorded</p>	<p>Unlikely to occur</p> <p>The species has not been recorded in Queensland in over 25 years. Furthermore, the host plant, Arrowhead Violet (<i>Viola betonicifolia</i>) was not observed within the Impact area. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		as far north as Mt Bellenden Ker in Queensland, and as far south as the Hunter Valley in NSW.	
<i>Phyllodes imperialis smithersi</i> (syn. <i>Phyllodes imperialis</i> southern ssp. ANIC 3333) Pink Underwing Moth	Endangered	<p>The subspecies occurs below altitudes of 600 m in undisturbed subtropical rainforest in association with the vine <i>Carronia multiseppalea</i>. As a collapsed shrub <i>C. multiseppalea</i> provides food and habitat that the moth requires in order to breed. Where <i>C. multiseppalea</i> attains an upright form the association with the moth does not occur.</p> <p><i>Phyllodes imperialis</i> southern ssp. ANIC 3333 is distributed from Nambour, south-east Queensland, to Dorrigo in northern NSW. It is currently known from five locations of which Mary Cairncross Scenic Reserve near Maleny (Queensland) contains the only confirmed breeding habitat</p>	<p>Unlikely to occur</p> <p>The species generally occurs in slope waters through South-eastern Australia. There are no ALA or WildNet records of the species from the Impact area and the surroundings, furthermore, there is no suitable habitat for the species. This suggests that the species is unlikely to occur. Species not observed during targeted field surveys.</p>
<i>Chalinolobus dwyeri</i> Large-eared Pied Bat	Vulnerable	<p>Modelling of the distribution suggests that the Large-eared Pied Bat requires a combination of appropriate roosting and foraging habitat. Sandstone cliffs and fertile woodland valley habitat within close proximity of each other is habitat of importance to the Large-eared Pied Bat. Records from south-east Queensland suggest that rainforest and moist eucalypt forest habitats on other geological substrates (rhyolite, trachyte and basalt) at high elevation are of similar importance to the species.</p> <p>The Large-eared Pied Bat is patchily distributed in central-eastern New South Wales (NSW) and south-eastern and central Queensland (QLD), from the area bounded by Shoalwater Bay north of Rockhampton (QLD), south to Ulladulla, NSW. Individuals have been recorded from sea level to nearly 1500m above sea level at the top of Mt Kaputar in NSW.</p>	<p>Unlikely to occur</p> <p>No sandstone cliffs or habitat suitable for roosting/breeding occurs within the Impact area. Since no potential breeding habitat occurs, foraging and roosting habitat is also considered absent as this species generally stays within proximity of roost sites while foraging. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Dasyurus hallucatus</i>	Endangered	The Northern Quoll occupies a diversity of habitats across its range which includes rocky areas, eucalypt forest and	<p>Unlikely to occur</p> <p>The Impact area is located on the southern extent of their range.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Northern Quoll		<p>woodlands, rainforests, sandy lowlands and beaches, shrubland, grasslands and desert. Eucalypt forest or woodland habitats usually have a high structural diversity containing large diameter trees, termite mounds or hollow logs for denning purposes. Dens are made in rock crevices, tree holes or occasionally termite mounds.</p> <p>The Northern Quoll was historically common across northern Australia, occurring almost continuously from the Pilbara, Western Australia, to near Brisbane, Queensland. The Northern Quoll now occurs in five regional populations across Queensland, the Northern Territory and Western Australia both on the mainland and on offshore islands.</p>	The species is considered rare and there are no ALA or WildNet records within 5 km of the Impact area. The closest ALA record dated 1952 occurs 18 km north of the Impact area. Species not observed during targeted field surveys.
<i>Dasyurus maculatus maculatus</i> (SE mainland population) Spot-tailed Quoll	Endangered	<p>The Spotted-tailed Quoll is a mainly forest dependent species but occurs in a variety of habitats including closed forests (including temperate and sub-tropical rainforest), tall eucalypt forests, open woodlands, open forests, drier rainshadow woodlands and coastal heathlands. The highest densities of the species have been recorded from both wet and dry forest habitats. The Spotted-tailed Quoll has a preference for mature wet forest habitat, especially in areas with rainfall 600 mm/year.</p> <p>The Spotted-tailed Quoll (southeastern mainland population) occurs in eastern Australia from south-eastern Queensland to western Victoria. The Spotted-tailed Quoll occurs in south-east Queensland: coastally from Bundaberg to the border and inland to Monto and Stanthorpe. Occurrences from five broad geographic areas are known: four from coastal ranges and the Great Dividing Range from the NSW border to Gladstone. The fifth is centred on the eastern Darling Downs-Inglewood Sandstone provinces of the Brigalow Belt South Bioregion. Unconfirmed reports suggest the subspecies may occur in the Clarke and Conway Range areas, eastern Queensland.</p>	<p>Potential to occur</p> <p>The Impact area does not contain rocky areas including boulder outcrops suitable for breeding. Furthermore, as the species occupies a large home range, populations are sensitive to habitat fragmentation and degradation. No WildNet records have occurred within 5km of the Impact area. There are scattered ALA records of the species to the west of the Impact area, with the closest record dated 2004 occurring 8.93 km from the Impact area near the Greenbank Military Training Area. Species not observed during targeted field surveys.</p>

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<i>Macroderma gigas</i> Ghost Bat	Vulnerable	<p>They currently occupy habitats ranging from the arid Pilbara to tropical savanna woodlands and rainforests. During the daytime they roost in caves, rock crevices and old mines. Roost sites used permanently are generally deep natural caves or disused mines with a relatively stable temperature of 23°–28°C and a moderate to high relative humidity of 50–100 percent.</p> <p>The species' current range is discontinuous, with geographically disjunct colonies occurring in the Pilbara, Kimberley, northern Northern Territory, the Gulf of Carpentaria, coastal and near coastal eastern Queensland from Cape York to near Rockhampton, and western Queensland.</p>	<p>Unlikely to occur</p> <p>No caves or large rock crevices suitable for roosting/breeding occur within the Impact area. As no potential breeding habitat occurs, foraging habitat is also considered absent as the species stays within proximity of roost sites when foraging. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Notamacropus parma</i> Parma Wallaby	Vulnerable	<p>The optimum habitat for the Parma wallaby is wet sclerophyll forest with a thick, shrubby understorey and nearby grassy patches. The species also occurs in dry sclerophyll forest with a dense understorey and occasionally in rainforest. The Parma wallaby shelters in the thick understorey through which it moves along runways. It is mainly nocturnal and emerges from the cover of shrubs around dusk to feed on grasses and herbs at the edge of clearings. The species is no longer found in coastal forests.</p> <p>The Parma Wallaby is endemic to New South Wales. In NSW, the Parma wallaby is patchily distributed along the Great Dividing Range. It is present in suitable forests scattered throughout the escarpment up to 1000 m above sea level. Upper altitudinal sites include the Dorrigo Plateau, Gibraltar Range and Barrington Tops.</p>	<p>Unlikely to occur</p> <p>There are no ALA or WildNet records of the species from the Impact area and the surroundings. The closest ALA record of the species is 96.8 km North of the Impact area. The species is considered rare in the area. Species not observed during targeted field surveys.</p>
<i>Petauroides volans</i> (syn. <i>P. v. volans</i> , <i>P. v. minor</i>) Greater glider (southern and central)	Endangered	<p>The Greater glider (southern and central) is an arboreal nocturnal marsupial, largely restricted to eucalypt forests and woodlands. The Greater glider (southern and central) is typically found in highest abundance in taller, montane, moist eucalypt forests with relatively old trees and abundant hollows.</p>	<p>Potential to occur</p> <p>The Impact area contains large patches of eucalypt woodlands and forest suitable for foraging. Large eucalyptus trees with DBH >30cm may provide suitable breeding habitat. The majority of the habitat within the Impact area is highly disjunct from</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		<p>The Greater glider (southern and central) is restricted to eastern Australia, occurring from the Windsor Tableland in north Queensland through to central Victoria, with an elevational range from sea level to 1200 m above sea level. An isolated inland subpopulation occurs in the Gregory Range west of Townsville, and another in the Einasleigh.</p> <p>They nest in hollow spouts of tall trees, emerging at night to feed on eucalypt leaves and flower buds. The Greater glider (southern and central) is relatively silent and rarely heard calling. Distribution Eastern mainland Australia.</p>	<p>surrounding vegetation and limits the ability for dispersal and colonisation. No WildNet records occur within 5km of the Impact area. 17 ALA records occur within 5 km of the Study area. One record dated 2021 occurs within the Impact area near Holmview but has high spatial uncertainty (29704 m). The most recent records dated 2021 and 2023 occur within the Koala Bushland Conservation Area. One record dated 1995 occurs within the Karawatha Nature Reserve, located approximately 1.19 km west of the Impact area. Species not observed during targeted field surveys.</p>
<p><i>Petaurus australis australis</i></p> <p>Yellow-bellied glider (south-eastern)</p>	Vulnerable	<p>The Yellow-bellied glider (south-eastern) occurs in eucalypt-dominated woodlands and forests, including both wet and dry sclerophyll forests. The subspecies shows a preference for large patches of mature old growth forest that provide suitable trees for foraging and shelter. There is also a clear preference for forests with a high proportion of winter-flowering and smooth-barked eucalypts. Yellow-bellied glider (south-eastern) also require some level of floristic diversity to provide a year-round food supply, and they are unlikely to persist in forests dominated by only one or two tree species.</p> <p>The Yellow-bellied glider (south-eastern) is found at altitudes ranging from sea level to 1400 m above sea level and has a widespread but patchy distribution from south-eastern Queensland (QLD) to far south-eastern SA, near the SA-Vic border. Most of the QLD distribution is coastal, extending southward along the eastern seaboard from north of Mackay and continuing through the NSW-QLD border. However, isolated subpopulations are found inland in the Blackdown and Canarvon Ranges of central QLD.</p>	<p>Potential to occur</p> <p>The Impact area contains large patches of eucalypt woodlands and forest suitable for foraging. Large eucalypt trees with DBH >30cm may provide suitable breeding habitat. Majority of the habitat within the Impact area is highly disjunct from surrounding vegetation and limits the ability for dispersal and colonisation. Furthermore, there is reduced connectivity within the areas that have known/occupied habitat. No ALA or WildNet records occur within 5 km of the Impact area. The nearest record dated 1993 occurs approximately 8 km east of the Impact area and has high spatial uncertainty (3600 m). Species not observed during targeted field surveys.</p>
<i>Petrogale penicillata</i>	Vulnerable	This species prefers rocky habitats, including loose boulder-piles, rocky outcrops, steep rocky slopes, cliffs, gorges and	<p>Unlikely to occur</p> <p>No rocky habitat preferred by the species occurs within the</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
Brush-tailed Rock-wallaby		<p>isolated rock stacks. It also utilises tree limbs. While it appears that most Brush-tailed Rock-wallaby colonies are on north-facing slopes and cliff lines, colonies have been found on south-facing cliffs in Kangaroo Valley, in the Macleay River Gorge, in the Warrumbungles and at Mt Kaputar, although usually in lower densities.</p> <p>Populations of the Brush-tailed Rock-wallaby occur, or did occur, throughout the Great Dividing Range from the border with NSW to Nanango, 100 km northwest of Brisbane. Although there are no recent surveys published from Queensland, this species is considered to be declining and vulnerable. It appears that the population in Lamington National Park is now extinct.</p>	Impact area. The species is considered rare in the region. No ALA or WildNet records occur within 5 km of the Impact area. No ALA species records near the Impact area. Species not observed during targeted field surveys.
<i>Phascolarctos cinereus</i> (combined populations of Qld, NSW and the ACT) Koala	Endangered	<p>Koalas are tree-dwelling, obligate folivores (leaf eaters) with a highly specialised diet. Koala habitat includes both coastal and inland areas that are typically characterised by <i>Eucalyptus</i> forests and woodlands. The Koala's diet is defined by the availability and palatability of a limited variety of <i>Eucalyptus</i>, <i>Corymbia</i> and <i>Angophora</i> species. Koalas are reported to utilise more than 400 different species of tree for their food and habitat requirements with different tree species varying by habitat type and location across their range. Primary food species differ across habitats and may be as few as two at a particular location</p> <p>The Koala is a wide-ranging marsupial endemic to Australia. It typically occurs in eastern Australian forests and woodlands of predominantly <i>Eucalyptus</i> species. Koalas are widespread across Queensland, occurring in patchy and often low-density populations across the different bioregions. They occur as far north as the Einasleigh Uplands and Wet Tropics bioregions with records to the south and west in the Desert Uplands, Central Mackay Coast, Mitchell Grass Downs, Mulga Lands,</p>	<p>Known to occur</p> <p>The Impact area contains remnant eucalypt woodlands and forest dominated by on alluvial substrates, including high value regrowth provides suitable foraging and shelter resources. Habitat connectivity into surrounding areas also occurs which provides dispersal and emigration opportunities. Multiple historical records occur within 5 km of the Impact area including within the Impact area. Over 5000 WildNet records occur within 5 km of the Impact area, most recent dated 2022. Koala observations and indirect koala evidence observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
		Brigalow Belt North, Brigalow Belt South, and South Eastern Queensland where they are most frequently sighted.	
<i>Potorous tridactylus tridactylis</i> Long-nosed Potoroo (SE Mainland)	Vulnerable	<p>There is limited information about the Long-nosed Potoroo (SE Mainland) habitat in Queensland and NSW. There is no consistent pattern to the habitat of the Long-nosed Potoroo (SE Mainland); it can be found in wet eucalypt forests to coastal heaths and scrubs.</p> <p>The Long-nosed Potoroo (SE Mainland) is sparsely distributed along the coast and Great Dividing Range of south-east Queensland through NSW. The species has been recorded at Many Peaks Range, south-east of Gladstone, Bellthorpe near Beerwah and in the Border Ranges. It has also been seen at Bulburin, south-west of Miriam Vale and in the Lamington National Park and surrounds.</p>	<p>Unlikely to occur</p> <p>The species is unlikely to occur due to the limited extent and highly fragmented nature of the potential habitat within and surrounding the Impact area. No ALA or WildNet records occur within 5 km of the Impact area and lack of records from the coastal lowland regions in SEQ (and Logan City). Majority of records occur within large areas of intact vegetation associated with D'Aguilar, Tamborine and Lamington National Parks. Species not observed during targeted field surveys.</p>
<i>Pseudomys novaehollandiae</i> New Holland Mouse	Vulnerable	<p>The New Holland Mouse has been found from coastal areas and up to 100 km inland on sandstone country, from sea level up to around 900 m above sea level. The species prefers deeper top soils and softer substrates for digging burrows. The New Holland Mouse is known to inhabit open heathlands, woodlands and forests with a heathland understorey and vegetated sand dunes. Due to the largely granivorous diet of the species, sites where the New Holland Mouse is found are often high in floristic diversity, especially leguminous perennials.</p> <p>The New Holland Mouse has a fragmented distribution across Tasmania, Victoria, New South Wales and Queensland. Genetic evidence indicates that the New Holland Mouse once formed a single continuous population on mainland Australia and the distribution of recent subfossils further suggest that the species has undergone a large range contraction since European settlement.</p>	<p>Unlikely to occur</p> <p>No heathland or habitats with heathland understorey or vegetated sand dunes preferred by the species does not occur within the Impact area. No historical records occur. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

Scientific Name Common Name	EPBC Act Status	Distribution and Habitat	Likelihood & Justification (AECOM, 2024)
<i>Pteropus poliocephalus</i> Grey-headed Flying-fox	Vulnerable	<p>The Grey-headed Flying-fox requires foraging resources and roosting sites. It is a canopy-feeding frugivore and nectarivore, which utilises vegetation communities including rainforests, open forests, closed and open woodlands, <i>Melaleuca</i> swamps and <i>Banksia</i> woodlands. It also feeds on commercial fruit crops and on introduced tree species in urban areas. The primary food source is blossom from <i>Eucalyptus</i> and related genera but in some areas it also utilises a wide range of rainforest fruits.</p> <p>The Grey-headed Flying-fox is Australia's only endemic flying-fox and occurs in the coastal belt from Rockhampton in central Queensland to Melbourne in Victoria.</p>	<p>Known to occur</p> <p>Vegetation communities within the Impact area provide suitable foraging resources and is expected to forage and disperse in the vicinity of a roost.</p> <p>Flying fox roosts were confirmed within 3 locations within the Study area. Multiple ALA records within 5 km of the Impact area. The closest record dated 2023 occurs within Karawatha Forest Park approximately 80 m from the Impact area along Acacia Road. 179 WildNet records occur within 5 km of the Impact area with the most recent dated 2022.</p>
<i>Xeromys myoides</i> Water Mouse	Vulnerable	<p>In south-east Queensland, Water Mouse habitat includes mangrove communities and adjacent sedgeland, grasslands and freshwater wetlands. Mangrove communities in this region are typically comprised of <i>Avicenna marina</i> var. <i>australasica</i>, <i>Rhizophora stylosa</i>, <i>Bruguiera gymnorhiza</i>, <i>Aegiceras corniculatum</i> and <i>Ceriops tagal</i> var. <i>australis</i>. In central south Queensland, the Water Mouse has only been captured in the high inter-tidal zone in tall, closed fringing mangrove forest containing only <i>Ceriops tagal</i> and/or <i>Bruguiera</i> sp. Although not considered core habitat, the Water Mouse has also been captured in saline grassland adjacent to a closed forest of <i>Ceriops tagal</i> and <i>Bruguiera</i> sp. and in closed forest of <i>Avicennia marina</i>. A supralittoral bank is usually absent in this subregion.</p> <p>The Water Mouse occurs in three regions of coastal Australia: The Northern Territory, central south Queensland and south-east Queensland. The species may occur in the Kimberley region of Western Australia due to its proximity with populations in the Northern Territory and the location of suitable habitat.</p>	<p>Unlikely to occur</p> <p>Species distribution is primarily coastal. No mangroves of <i>C. tagal</i> and/or <i>Bruguiera</i> sp. occurs. No historical records occur. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

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<i>Balaenoptera musculus</i> Blue Whale	Endangered, Migratory	<p>At least two subspecies are found in the Southern Hemisphere; the Pygmy Blue Whale (<i>B. m. breviceauda</i>) and the Antarctic Blue Whale (<i>B. m. intermedia</i>), which are characterised by differences in morphology, distribution, genetics and vocal behaviour. As with other baleen whales, they generally migrate between breeding grounds at lower latitudes where both mating and calving takes place during the winter and feeding grounds at higher latitudes during the summer and have overlapping but different spatial distributions.</p> <p>Blue Whale sightings in Australian waters are widespread, and it is likely that the whales occur around the continent at various times of the year. The Antarctic Blue Whale tends to remain at higher latitudes and migrate to lower latitudes for feeding, breeding and calving during the Australian summer. Key areas of aggregation include the Perth Canyon off Western Australia, the Bonney Upwelling and adjacent waters off South Australia and Victoria.</p>	<p>Unlikely to occur</p> <p>This species is strictly marine; no suitable habitat occurs within the Impact area due to being a terrestrial environment. No ALA or WildNet recording of the species have been made within 5km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Orcaella heinsohni</i> Australian Snubfin Dolphin	Migratory	<p>Within Australia, Australian Snubfin Dolphins have been recorded almost exclusively in coastal and estuarine waters. It is doubtful that they venture very far upstream in river systems, although occasional vagrants may venture upstream. Aerial and boat-based surveys indicate that Australian Snubfin Dolphins occur mostly in protected shallow waters close to the coast, and close to river and creek mouths.</p> <p>Stranding and museum specimen records indicate that Australian Snubfin Dolphins occur only in waters off the northern half of Australia, from approximately Broome (17° 57' S) on the west coast to the Brisbane River (27° 32' S) on the east coast.</p>	<p>Unlikely to occur</p> <p>The species is strictly marine. No marine environments occur within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>
<i>Sousa sahalensis</i>	Migratory	Within their geographical range, Australian Humpback Dolphins are found primarily in coastal waters. In Queensland and in the	<p>Unlikely to occur</p> <p>The species is strictly marine. No marine habitat is present</p>

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Australian Humpback Dolphin		<p>Northern Territory, Australian Humpback Dolphins have been recorded mostly within 10 km of the coast.</p> <p>Australian Humpback Dolphins are found in tropical/subtropical waters of the Sahul Shelf from northern Australia to the southern waters of the island of New Guinea. In Australia, Humpback Dolphins are thought to be widely distributed along the northern Australian coastline from approximately the Queensland–New South Wales border to western Shark Bay, Western Australia.</p>	within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.
<i>Coeranoscincus reticulatus</i> Three-toed Snake-tooth Skink	Vulnerable	<p>The Three-toed Snake-tooth Skink has been found in loose, well mulched friable soil, in and under rotting logs, in forest litter, under fallen hoop pine bark and under decomposing cane mulch. In Queensland, the Three-toed Snake-tooth Skink has been recorded in rainforest, closed forest, wet sclerophyll forest, tall open Blackbutt (<i>Eucalyptus pilularis</i>) forest, tall layered open eucalypt forest and closed Brush Box (<i>Lophostemon confertus</i>) forest.</p> <p>The Three-toed Snake-tooth Skink occurs from Crescent Head in north-east NSW to Fraser Island in south-east Queensland. It occurs on the coast and in the ranges from the Macleay Valley in NSW to Cooloola in south-eastern Queensland.</p>	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.
<i>Delma torquata</i> Adorned Delma	Vulnerable	<p>The Collared Delma normally inhabits eucalypt-dominated woodlands and open-forests in Queensland Regional Ecosystem Land Zones 3, 9 and 10. They also occur in Regional Ecosystems 11.3.2, 11.9.10, 11.10.1 and 11.10.4.</p> <p>This species has been recorded at the following sites: the Bunya Mountains, Blackdown Tablelands National Park, Expedition National Park, Western Creek, and the Toowoomba Range.</p>	Unlikely to occur No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.

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<i>Furina dunmalli</i> Dunmall's Snake	Vulnerable	<p>Dunmall's Snake has been found in a broad range of habitats, including forests and woodlands on black alluvial cracking clay and clay loams dominated by Brigalow and various Blue Spotted Gum, Ironbark, White Cypress Pine and Bulloak open forests on sandstone derived soils.</p> <p>The distribution of Dunmall's Snake extends from near the Queensland border throughout the Brigalow Belt South and Nandewar bioregions, as far south as Ashford in New South Wales. Dunmall's Snake occurs primarily in the Brigalow Belt region in the south-eastern interior of Queensland. Records indicate sites at elevations between 200–500 m above sea level.</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records available from the coastal lowlands of SEQ, Greater Brisbane and Gold Coast areas. Species not observed during targeted field surveys.</p>
<i>Hemiaspis damelii</i> Grey Snake	Endangered	<p><i>Hemiaspis damelii</i> favours woodlands (typically brigalow <i>Acacia harpophylla</i> and <i>belah Casuarina cristata</i>), usually on heavier, cracking clay soils, particularly in association with waterbodies or in areas with small gullies and ditches (gilgais).</p> <p>This species is distributed throughout the eastern interior, from central inland New South Wales, north to coastal areas near Rockhampton in Queensland. Within Queensland, records are known from near Goondiwindi and the adjacent Darling-Riverine Plain, from the Darling Downs and from the Lockyer Valley. The core area for the grey snake in the Brigalow Belt is south of the Great Dividing Range between Dalby and Glenmorgan.</p>	<p>Unlikely to occur</p> <p>No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Lack of contemporary records from Coastal SEQ, South of Brisbane. One record, most recent, dated 1975 located west of the Impact area. Species not observed during targeted field surveys.</p>
<i>Caretta caretta</i> Loggerhead Turtle	Endangered, Migratory	<p>In Australia, Loggerhead Turtles require open, sandy beaches to nest. Sand temperatures between 25–33 °C are needed for successful incubation. Beaches free from light pollution are required to prevent disorientation, disturbance and to allow nesting females to come ashore. Hatchlings enter the open ocean and begin feeding on small animals. Small Loggerhead Turtles live at or near the surface of the ocean and move with</p>	<p>Unlikely to occur</p> <p>The Impact area is not located in a coastal environment. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Scattered records towards the east of the Impact area. The closest ALA record dated 2018 occurs 13 km north of the Impact area. Species not observed during targeted field surveys.</p>

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		<p>the ocean currents. Loggerhead Turtles choose a wide variety of tidal and sub-tidal habitat as feeding area. Loggerhead Turtles.</p> <p>The Loggerhead Turtle occurs in the waters of coral and rocky reefs, seagrass beds and muddy bays throughout eastern, northern and western Australia. Major nesting areas for the Western Australian population include Muiron Islands, Ningaloo Coast south to about Carnarvon and islands near Shark Bay, including Dirk Hartog Island.</p>	
<i>Chelonia mydas</i> Green Turtle	Vulnerable, Migratory	<p>Key nesting areas in Queensland include Capricorn and Bunker Island Groups, Raine Island, Curtis Island and Facing Island, Russel Island and Scott Reef, Wellesley Islands, Milman Islet and Boydong Islands, Mon Repos, Murray Islands, Darnley Island, Bramble Cay, Western Cape York Peninsula, Pisonia Island and North and South Bountiful Islands.</p> <p>In the northern Great Barrier Reef major breeding aggregations occur on Islands of the outer edge of the reef, including Raine Island and nearby cays. Minor rookeries for this population also occur on the mainland and inner and outer shelf islands and cays from Cape Grenville north and in Torres Strait.</p>	<p>Unlikely to occur</p> <p>The Impact area is not located in a coastal environment. No suitable habitat occurs within the Impact area. No WildNet records occur within 5km of the Impact area. One ALA record occurs within 5 km of the Impact area, dated 1973. Species not observed during targeted field surveys.</p>
<i>Dermochelys coriacea</i> Leatherback Turtle	Endangered, Migratory	<p>The Leatherback Turtles is a highly pelagic species, venturing close to shore mainly during the nesting season. It is known from waters all around Australia and can be found foraging over Australian continental shelf waters. Adults feed mainly on pelagic soft-bodied creatures such as jellyfish and tunicates, which occur in greatest concentrations at the surface in areas of upwelling or convergence. The regular appearance of Leatherback Turtles in cool temperate waters is probably due to the seasonal occurrence of large numbers of jellyfish.</p> <p>Leatherback Turtles require sandy beaches to nest, with some</p>	<p>Unlikely to occur</p> <p>The species is pelagic. No marine environments occur within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Species not observed during targeted field surveys.</p>

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		<p>evidence that coarser sand is more conducive to successful hatching than finer sand.</p> <p>The Leatherback Turtle is found in tropical, subtropical and temperate waters throughout the world. This species is regularly found in the high latitudes of all oceans including the South Pacific Ocean in the waters offshore from NSW, Victoria, Tasmania and Western Australia. It has been recorded feeding in the coastal waters of all Australian States. There are three former nesting sites in Queensland: Wreck Rock Beach, Moore Park Beach and Mon Repos beach.</p>	
<i>Eretmochelys imbricata</i> Hawksbill Turtle	Vulnerable, Migratory	<p>Hawksbill Turtles spend their first five to ten years drifting on ocean currents. During this pelagic (ocean-going) phase, they are often found in association with rafts of Sargassum (a floating marine plant that is also carried by currents). They primarily feed on sponges and algae. They have also been found, though less frequently, within seagrass habitats of coastal waters, as well as the deeper habitats of trawl fisheries.</p> <p>Major nesting of Hawksbill Turtles in Australia occurs at Varanus Island and Rosemary Island in Western Australia, and in the northern Great Barrier Reef and Torres Strait Queensland.</p>	<p>Unlikely to occur</p> <p>The Impact area is not located in a coastal environment. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. Scattered records east of the Impact area, closest record occurs 25 km from the Impact area. Species not observed during targeted field surveys.</p>
<i>Lepidochelys olivacea</i> Olive Ridley Turtle	Endangered, Migratory	<p>Female Olive Ridley Turtles lay clutches of eggs on sandy beaches, hatchlings disperse into offshore currents and have a pelagic phase of unknown length. Small juveniles through to adults reside in coastal zones along the northern coast of Australia and historical bycatch data indicates that large immature and adult-sized Olive Ridleys are present all year round over soft bottomed habits of northern Australian continental shelf waters. A substantial part of the immature and adult population forage over shallow benthic habitats from northern Western Australia to south-east Queensland though</p>	<p>Unlikely to occur</p> <p>The Impact area is not located in a coastal environment. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest record occurs 24.5km from the Impact area. Species not observed during targeted field surveys.</p>

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		<p>large juvenile and adult Olive Ridley Turtles have been recorded in both benthic and pelagic foraging habitats.</p> <p>No concentrated nesting has been found in Australia, although low density nesting occurs along the Arnhem Land coast of the Northern Territory. Scattered nesting occurs in the Gulf of Carpentaria and in Fog Bay, Northern Territory, with low density nesting in north-western Cape York Peninsula, Queensland, between Weipa and Bamaga.</p>	
<i>Natator depressus</i> Flatback Turtle	Vulnerable, Migratory	<p>Adults inhabit soft bottom habitat over the continental shelf of northern Australia, extending into Papua New Guinea and Irian Jaya although the extent of their range is not fully known. Capture locations from trawlers indicate that Flatback Turtles feed in turbid, shallow inshore waters north of latitude 25° S in depths from less than 10 m to depths of over 40 m. Nesting habitat includes sandy beaches in the tropics and subtropics with sand temperatures between 25°C and 33°C at nest depth.</p> <p>In eastern Queensland nesting occurs between Bundaberg in the south and northwards to Torres Strait. The main nesting sites occur in the southern Great Barrier Reef (GBR) at Peak, Wild Duck and Curtis Island. Minor nesting occurs at Mon Repos and the Mackay Region. Scattered aperiodic nesting occurs on mainland and inshore islands between Townsville and Torres Strait.</p>	<p>Unlikely to occur</p> <p>The Impact area is not located in a coastal environment. No suitable habitat occurs within the Impact area. No ALA or WildNet records occur within 5 km of the Impact area. The closest record dated 1993 occurs 19km north east of the Impact area. Species not observed during targeted field surveys.</p>