



Birkdale Community Precinct

Commonwealth Referral

EPBC Act Business Portal Application Pro-forma

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Proposed Action for Issue

Name	Position	Date	Revision
Mitchell Taylor	Managing Director	30 January 2026	1
Christopher Huff	Principal Environmental Consultant	13 March 2026	2
Christopher Huff	Principal Environmental Consultant	20 March 2026	3

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1. About the Project

1.1 Project Details

1.1.1 Project Title

Birkdale Community Precinct and Redland Whitewater Centre

1.1.2 Project Industry Type

Tourism and Recreation

1.1.3 Project Industry Sub Type

-

1.1.4 Estimated Start Date and End Date

01/01/2027, 01/01/2029

1.2 Proposed Action Details

1.2.1 Provide an overview of the proposed action, including all proposed activities

NOTE: Where DCCEEW EPBC Act Online Portal does not accommodate full character limit of the response, refer (Att-1_Portal Proforma) containing equivalent Online Portal questionnaire.

Setting

Redland City Council (**RCC**) ('the **Applicant**') proposes to construct a Master Planned community precinct, to be located in the suburb of Birkdale (referred to as the Birkdale Community Precinct (**BCP**)) within the RCC Local Government Area (**LGA**). The BCP will also include the Redland Whitewater Centre (**RWC**) whilst in use for the Brisbane 2032 Olympic and Paralympic Games (the **Games**). The RWC will be delivered and operated by the Games Independent Infrastructure and Coordination Authority (**GIICA**) up until such time the Games have concluded and legacy use is transferred to RCC. The Proposed Action is to be situated adjacent Old Cleveland Road East, Birkdale, Queensland, 4159 and comprises the following land parcels (referred herein as 'the **Project Area**')

- Lot 1 on RP14143,
- Lot 2 on RP14144,
- Lot 2 on SP146445, and
- Lot 2 on RP211270.

The Proposed Action location and extent is described in (**Att-2_MNES EAR, Section 1, Pg 1-4**) and can be seen in (**Att-2_MNES EAR, Appendix A**).

Context

Contextually, the suburb is located approximately 19 km east of the Brisbane central business district and is bound by Tingalpa Creek to the west, Moreton Bay to the north, Wellington Point to the east and Capalaba to the south. This region is of mixed land use, predominantly facilitating low to medium residential with scattered conservation,

environmental management, community facilities, and recreation/open space areas throughout the region. The region also features the Tingalpa Reservoir and serves as a thoroughfare to Cleveland which is a common access point to Moreton Bay and Stradbroke Island. See also **Att-2_MNES EAR, Section 1.4, Pg 2-4.**

Locality

Locally, the Project Area is situated within the western extend of Birkdale and is bound by Tingalpa Creek along the southwest boundary, Howeston Golf Course to the northwest, Old Cleveland Road East to the east and a Commonwealth owned aviation facility to the north. Old Cleveland Road East is State operated sub-arterial road traversing north-south and forming intersections at two arterial roads of Moreton Bay Road and Quarry Road. The Birkdale train station is located approximately 2 km north providing public access to the Cleveland Line. Resultantly, the Project Area is situated in a readily accessible area of the suburb via public and private transport. East of Old Cleveland Road East, the landscape is dominated by residential allotments and developments. West of Old Cleveland Road East, a sizable portion of land, including the Project Area, is vegetated with a mix of woodland vegetation, tidal vegetation and cleared/maintained lawns. Tingalpa Creek is predominantly vegetation, ranging from woodland vegetation and transitioning into tidal vegetation as the creek approaches the bay. The Howeston Golf Course is predominantly cleared with strands of native vegetation throughout. The Commonwealth owned aviation facility to the north contains a significant amount of both forested woodlands and cleared paddock for the operation of the line-of-sight radar.

Internally to the Project Area, vegetative conditions exist in two defined states. Central to the Project Area, cleared and maintained pasture exists, cleared historically from the Project Area's former use as a World War Two (**WWII**) radio communications station. Footings from former radio towers can still be observed on the Project Area within the northwest and the eastern extents. Centrally, a small radio receiving station has been preserved. Around this cleared area, the balance of Project Area is well vegetated with numerous vegetation communities present. See also **Att-2_MNES EAR, Section 1.4, Pg 2-4.**

Background (Land acquisition)

The Project Area (excluding Lot 2 on RP211270) was purchased by RCC from the Commonwealth in 2019. As part of the conditions of sale, RCC entered into a Conservation Area Agreement with the Commonwealth for the land described as Lot 1 on RP14143, Lot 2 on RP14144 and Lot 2 on SP146445 which is in the final stages of execution. Refer extents identified in (**Att-3_Conservation Plan**)

The Conservation Area Agreement specifies clauses requiring the protection and conservation of species and threatened ecological communities (**TEC**) listed under the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**) within the Conservation Area.

The objectives of the Conservation Area Agreement are for the long-term protection and conservation of protected matters found on the land, including:

1. Koala and Koala habitat present in the Conservation Area, to improve and maintain the viability of the Koala in the local area and promote and enhance the survival and conservation status of the species;
2. To improve and maintain the viability of the Subtropical and Temperate Coastal Saltmarsh TEC in the Conservation Area; and
3. Other ecological values within the Conservation Area, including ecological communities or habitat for other EPBC Act listed species as identified and may be identified in the future.

Whilst the Conservation Area Agreement is in the final stages of execution, it is anticipated that the overarching objectives of the Conservation Area Agreement will not greatly differ to that of the above, nor will the spatial extent differ significantly. Subsequently, as it is conditioned to maintain the integrity of the Conservation Area, no impact can occur within this area, nor is an impact proposed. Resultantly, this Referral is focused on potential impacts to MNES within the Disturbance Footprint of the Project Area. As the Conservation Area adjoins the Disturbance Footprint, consideration of indirect impacts to the Conservation Area is still necessary, and this Referral gives assessment toward potential impacts to ensure appropriate avoidance and mitigation. Further, as the Proposed Action aims to make a Nature Positive influence, details of the restoration effort within the Conservation Area are also outlined. See also **Att-2_MNES EAR, Section 1.3, Pg 2** and **Att-2_MNES EAR, Section 3.1, Pg 10-12.**

Proposed Action Details

Given the Conservation Area is conditioned to be protected, the impact associated with the Proposed Action represents a subset of the total Project Area. The total Project Area is comprised of Lot 1 on RP14143, Lot 2 on RP14144, Lot 2 on SP146445 and Lot 2 on RP211270, totalling 62.466 ha. The total Project Area is distributed accordingly as follows.

- Disturbance Footprint = 19.754 ha
- Avoidance Area = 3.763 ha
- Retention Area (Conservation Area) = 38.949 ha

The Proposed Action is comprised of two distinct components, both entirely situated within the Disturbance Footprint. Notably, the Proposed Action includes the proposed Redlands Whitewater Centre (**RWC**) which will be a host venue for the Games. The RWC is intended to host canoe slalom events during the Games and includes a warm-up/training zone alongside the competition course. The RWC will be designed to accommodate up to 8,000 spectators with temporary seating during the Games. The RWC is located in the western half of the Disturbance Footprint and is estimated to occupy an approximate 8 ha area. See **Att-2_MNES EAR, Figure 1** and **Att-4_BCP CMP, BCPCMP002**.

Simultaneously, the balance of the Disturbance Footprint will be utilised for the construction of a community precinct that will provide a central community hub for the RCC LGA. The Draft Birkdale Community Precinct Master Plan (Redland City Council, 2022) states that, *"its collective wealth is measured by its dedicated conservation and celebration habitat, culture and heritage, by its enhancement of today's social values, and the strong legacy outcomes of it being a home for active and passive recreation, education and technology diversity."*

The BCP will be a mixed-use public precinct that will result in the creation of several 'hubs' or themes within the Disturbance Footprint, including a cultural hub; the Willards Farm (food) hub; an Innovation hub; an Entertainment hub; a Communications hub; and a Conservation hub. The BCP will have notable key features separable to the RWC such as an amphitheatre/stage, a recreational lagoon/water play, historical integration (Willard's Farm, the WWII Radio Receiving Station), nature conservation and rehabilitation initiatives, and publicly accessible parklands.

Collectively, both the RWC and BCP form the Proposed Action. RCC is undertaking the Referral to the Commonwealth and resultantly, the Referral is being made on behalf of GIICA for the RWC. RCC will be responsible for the delivery and management of the BCP, including the Retention Area (Conservation Area) and Avoidance Area. GIICA will be responsible for the delivery and management of the RWC up until such time the Games conclude. Thereafter, the management and operation of the RWC will be dealt to RCC to provide legacy and community benefit where the RWC will serve as a high-performance, community and emergency services facility after the Games. At this point in time, RCC will be responsible for the ongoing management and operation of the entire Project Area. Refer **Att-2_MNES EAR, Section 2, Pg 5-6**.

Given the Proposed Action has an Olympic purpose, the Proposed Action will comprise of two phases. The Pre-2032 Master Plan which is limited to the outlined Disturbance Footprint; and the Post-2032 Master Plan which is located within the same Disturbance Footprint and repurposes Olympic infrastructure following the conclusion of the 2032 Olympic and Paralympic Games. Infrastructure proposed in the Post-2032 Master Plan predominantly repurposes infrastructure proposed as part of the Pre-2032 Master Plan and is limited to the existing Development Footprint. The Post-2032 Master Plan also includes a swimming pool precinct within the Disturbance Footprint. See **Att-2_MNES EAR, Section 2.2, Pg 6** and **Att-2_MNES EAR, Section 3.3, Pg 13-14**.

The Proposed Action involves the establishment of:

- Civil Infrastructure – Road entrances, intersections, internal roads, and carparks;
- Built Infrastructure – Information centre, cultural centre, amenities, equipment hire, swimming lagoon/water play, whitewater facility, and training facilities;
- Low Impact Uses – Garden experiences, bush tucker garden, memorial area, and spectator grassed banks;

- Nature Positive Contributions – Natural area revegetation, creation of an artificial wetland/water treatment feature, and fauna movement infrastructure.

See also **Att-2_MNES EAR, Section 2, Pg 5-9**.

An advanced conceptual level design has been developed by Aecom Australia outlining details of the Proposed Action (**Att-5_BCP MP**). The design represents a significant level of detail and technical consideration that establishes the framework for the final detailed design as the project progresses. The establishment of the built infrastructure is causation of the predominant impact. The design requires advancement to detailed design but represents a significant level of detail and design consideration that will inform the final design as the project progresses. The advanced conceptual level design is the result of seven (7) iterations of design that has been ongoing since April 2023, to the production of the current design developed as of July 2025. Over this time, various modifications have been made to contribute to the Nature Positive design philosophy of the Proposed Action, centred around increasing fauna movement potential and permeability of the Project Area, vegetation retention, habitat creation and revegetation opportunities. A summary of the various design iterations can be found in **Att-6_IDS**.

The primary construction activities required to facilitate the Proposed Action involves civil earthworks using mobile earthmoving plant to establish appropriate levels, final landform and linear infrastructure. As a result of the civil works, the Proposed Action will require:

- Removal of decommissioned WWII radio infrastructure remnants, comprising predominantly of radio tower footings
- Selective clearing of vegetation within the Disturbance Footprint
- Earthworks including Excavation and filling
- Temporary Noise and light production during the construction period.

See **Att-2_MNES EAR, Section 2.3, Table 1, Pg 6-7**.

As a result of the investigations undertaken to support this referral and the consequential design response, the Proposed Action:

- Confines all development to a 19.754 ha Disturbance Footprint, the previously cleared and historically modified portion of the 62.466 ha site, avoiding any direct or indirect impact on the 38.949 ha Retention (Conservation) Area.
- Incorporates a Nature Positive design approach that delivers measurable environmental improvements including 10,000 native plantings, fox eradication, comprehensive weed management, and fauna connectivity infrastructure.
- Enhances existing nature strip and verge plantings along identified fauna movement corridors within the Disturbance Footprint, using koala food tree species to create connected canopy pathways where GPS tracking data has confirmed regular crossing between the Conservation Area and the surrounding landscape.
- Minimises vegetation requiring removal and maximises retention and conservation within the Project Area. Of the vegetation surveyed within the Project Area (including vegetation represented by the Conservation Area), 97.43% of vegetation is retained. Vegetation anticipated to be removed represents 1.93% of the vegetation surveyed across the Disturbance Area and captured by the Conservation Area. An additional 0.64% of vegetation is assigned the 'Tree to be Retained Subject to Arborist Assessment' status. As a result, at this conceptual stage, no more than 2.57% of vegetation surveyed is expected for removal (**Att-4_BCP CMP, BCPCMP003**).
- Within the Disturbance Footprint, the Proposed Action is expected to retain approximately 73% of the 896 native trees surveyed, with habitat hollows replaced at a minimum 3:1 ratio where removal is required.
- Protects all identified Threatened Ecological Communities, which are located entirely within the Conservation Area.

Direct impacts are associated primarily with civil earthworks. A suite of mitigation measures will be employed to minimise these impacts where practical, including arborist assessments, fauna spotter catchers, Construction Environmental Management Plans, and Erosion and Sediment Control Plans. The management plans will also address indirect impacts such as dust, noise, and light emissions produced during construction. A Conceptual Management Plan has been prepared to establish management commitments and imbed the design intentions of the Project Area as the Proposed Action. See Birkdale Community Precinct Conceptual Management Plan for further detail (**Att-4_BCP CMP**).

Consequential impacts are largely avoided as access roads already exist and the Proposed Action is wholly contained to the Disturbance Footprint of the Project Area. The Conservation Area will be appropriately protected throughout the construction period.

Of the total 62.466 ha Project Area, 38.949 ha (62%) is designated as Conservation Area and protected under a binding agreement with the Commonwealth. The Proposed Action will result in a permanent change in land use within the 19.754 ha Disturbance Footprint, largely through the establishment of built infrastructure. The infrastructure is sited in areas that are predominantly already cleared within the Disturbance Footprint that are predominantly cleared.

Selective clearing of scattered vegetation within the core of the Disturbance Footprint is required in select areas for internal roads, buildings, infrastructure and auxiliary facilities including peripheral car parking. Tree surveying efforts identified 896 native trees within this internal extent. An assessment of impacts (based on the design above) indicates approximately 73% of these trees can be retained, with 19% requiring removal, and 8% subject to detailed design and arborist assessment (**Att-4_BCP CMP**). Where habitat features (such as hollows) require removal, these features will be replaced by nestboxes throughout the Conservation Area at a 3:1 ratio.

The Proposed Action may result in indirect impacts (though risk will only arise for a temporary period) to fauna, as follows:

- Disturbance during the construction period due to noise and vibration from construction vehicles, plant and machinery.
- Increased potential for road strike following commissioning of internal roads are operational.
- Increased potential for anthropogenic encounters.

To address these impacts and deliver a net improvement in ecological outcomes, the Proposed Action incorporates a substantial Nature Positive program comprising:

- The planting of at least 10,000 native tube stock and semi-mature trees along the periphery of and within the Disturbance Footprint to enhance vegetative cover and compensate for vegetation removal
- Improved fauna habitat availability by replacement of hollows with nest boxes.
- Active weed management and rehabilitation of the Conservation Area.
- Eradication of pest fauna species present on Project Area, including the European red fox (*Vulpes vulpes*).
- Establishment of tree canopy key fauna movement pinch points to improve connectivity across the Project Area.
- Installation of fauna movement infrastructure, including rope bridges, increasing fauna connectivity across the Project Area.

Collectively, the Proposed Action represents a significant Nature Positive component of the action which is targeted toward benefitting MNES of key consideration.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

No. The Proposed Action as described represents the entirety of the Action.

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant?

Commonwealth

The *Environment Protection and Biodiversity Conservation Act 1999* provides the legal framework to protect and manage nationally and internationally important matters to the Commonwealth. There are nine (9) matters protected under the EPBC Act which are defined as 'Matters of National Environmental Significance' (**MNES**), which includes threatened species and ecological communities; migratory species (protected under international agreements); wetlands of international importance; and national heritage places. Under the EPBC Act, a referral to the DCCEEW is required if the Proposed Development is likely to cause a Significant Impact on MNES. The referral will be assessed to determine whether the Proposed Action is considered a controlled action requiring approval from the Minister under the EPBC Act.

The EPBC Act has been amended by the *Environment Protection Reform Act 2025* with the amendments commencing in stages. The advice provided within this Referral is current as of the date of lodgement, though the ratification of any environmental reforms may alter these findings.

State

Potential impacts to Matters of State Environmental Significance are regulated under the State planning framework, and affiliated environmental legislation and instruments. This includes:

- the *Brisbane Olympic and Paralympic Games Arrangements Act 2021* (**BOPGA Act**) establish the legal framework for planning, organising and delivering the 2032 Brisbane Olympic and Paralympic Games. The BOPGA Act establishes the Games Independent Infrastructure and Coordination Authority (**GIICA**), tasked with coordinating and delivering major Games infrastructure projects, as well as the Brisbane Organising Committee for the 2032 Olympic and Paralympic Games, responsible for overall delivery and compliance with the Host Contract. The BOPGA Act is intended to expediate delivery of infrastructure and maximise legacy outcomes. Resultantly, the BOPGA Act alters the typical planning approvals process and provides exemptions to various planning, environmental, heritage and local government legislation for designated Olympic venues and villages. Nevertheless, GIICA still undertake a planning assurance process as evidence that environmental impacts will be assessed and managed by GIICA at a State level despite the BOPGA Act exemptions.
- the *Planning Act 2016* (**Planning Act**)- The Planning Act is Queensland's overarching planning legislation, and establishes the typical planning approval framework. For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the Planning Act.
- the *State Planning Policy 2017* (**SPP**) - The SPP is a statutory instrument made by the State under the Planning Act. It sets out overarching policies regarding a broad range of matters of interest to the State, including ecological matters.
- the *South East Queensland Regional Plan*, known as "ShapingSEQ" - ShapingSEQ is a further statutory instrument made by the State under the Planning Act, setting out more targeted policies for the South-east Queensland region.
- the *Vegetation Management Act 1999* (**VM Act**) - The VMA operates in tandem with the Planning Act, by establishing a system for identifying and classifying protected categories of vegetation. The VMA is primarily given effect through the Planning Act, which identifies circumstances in which clearing of vegetation protected by the VMA is prohibited, requires approval, or may occur "as of right". For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the VM Act.
- the *Nature Conservation Act 1992* (**NC Act**) - The NC Act establishes a specific framework, including standalone approval processes, for the protection of particular areas, flora and fauna. For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the NC Act.

- the *Fisheries Act 1994 (Fisheries Act)* - The Planning Act includes particular approval requirements for certain works in fish habitat areas, subject to exemptions set out under the Fisheries Act. Of relevance, the Project Area is bound by the tidally influenced Tingalpa Creek to the southwest. For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the Fisheries Act.
- the *Coastal Protection and Management Act 1995 (Coastal Act)* - The Coastal Act is aimed at safeguarding the development of Queensland's coastal areas through comprehensive management strategies and integration with the Planning Act. The Coastal Act establishes a framework for the sustainable use and development of coastal resources, including provisions for planning, development assessment and conservation measures. It outlines guidelines for coastal zone management plans, public participation and coordination among government agencies to address issues such as erosion, biodiversity conservation, and coastal hazards. For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the Coastal Act.
- the *Environmental Protection Act 1994 (EP Act)* – The EP Act is a legislative framework designed to protect and manage the environment and natural resources within the State. The EP Act establishes regulations for the prevention and control of pollution, waste management, and environmental harm. It outlines responsibilities for government agencies, industry, and individuals to ensure sustainable development and conservation of Queensland's ecosystems and environments. The EP Act also incorporates provisions for environmental impact assessments, enforcement measures, and penalties for non-compliance, aiming to safeguard the environment for current and future generations. For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the EP Act.
- the *Biosecurity Act 2014* – The *Biosecurity Act 2014* is a legislative framework aimed at preventing, managing, and controlling biosecurity risks to protect the State's economy, environment, and public health. It establishes measures to prevent the entry and spread of pests, diseases, and invasive species that could harm agriculture, natural ecosystems, and human health. The *Biosecurity Act 2014* outlines responsibilities for government agencies, industry stakeholders, and individuals in detecting, reporting, and managing biosecurity threats. It also includes provisions for emergency responses, biosecurity planning, and enforcement actions to mitigate risks and safeguard Queensland's biosecurity status. The *Biosecurity Act 2014* introduces specific management provisions such as Biosecurity Instrument Permits and General Biosecurity Obligations (**GBO**).
- the *Environmental Offsets Act 2015 (Offsets Act)* - The Offsets Act establishes a uniform State-wide framework for the imposition of conditions requiring environmental offsets. To the extent that the development approval for the proposed action requires such offsets in relation to Matters of State Environmental Significance, or Matters of Local Environmental Significance, those offsets will be given effect through conditions imposed in accordance with the Offsets Act. For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the Offsets Act.
- the *Local Government Act 2009 (LG Act)* is to establish a system of democratic, accountable and sustainable local government in Queensland that is capable of making and implementing decisions in the best interests of local communities. For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the LG Act.
- the *Queensland Heritage Act 1992 (Heritage Act)* is aimed at identifying, protecting and conserving Queensland's cultural heritage for present and future generations. The Heritage Act adds provisions to conserve places of cultural heritage significance, including buildings, structures, archaeological sites and landscapes. This is furthered by the establishment of the Queensland Heritage Register. For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the Heritage Act.
- the *Aboriginal Cultural Heritage Act 2003 (ACH Act)* recognises, protects and conserves Aboriginal cultural heritage in Queensland, while allowing for sustainable development that avoids or minimises harm to that heritage. The ACH Act protects artefacts, places, areas and cultural landscapes of significance and establishes a cultural heritage duty of care.
- the *Torres Strait Islander Cultural Heritage Act 2003 (TSICH Act)* recognises, protects and conserves Torres Strait Islander cultural heritage in Queensland, while allowing for sustainable development that avoids or

minimises harm to that heritage. The TSICH Act protects places, objects, areas and cultural landscapes of significance and establishes a cultural heritage duty of care.

Local

The Project Area is located within the Redland City Council (**RCC**) Local Government Area, within an alluvial plain zoned as 'Community Facilities' and 'Conservation' under RCC's *Redland City Plan 2018*, Version 14 (**City Plan**). At the Local level, the planning intent of the Project Area is administered by the Planning Scheme, and RCC have jurisdictional authority to manage development in the LGA. Through the Planning Scheme, RCC will subsequently be able to integrate their input and assessment.

Part 2 of the current RCC Planning Scheme identifies that the current SPP has been appropriately integrated, except in relation to Strategic Ports, in which this State interest is not of relevance to RCC.

For the purposes of Olympic games infrastructure, the development, use or activity is taken to be lawful despite the LG Act and subsequently the Planning Scheme.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant

RCC undertook an extensive and multi-stage community consultation process for the BCP from 2021 to 2023, engaging thousands of residents through surveys, open days, workshops, pop-ups, and statutory submissions. Across all phases, RCC have exceeded statutory requirements to ensure transparency, inclusivity, and responsiveness. Community feedback directly informed the BCP's vision, design refinements, and implementation strategies, resulting in a master plan that reflects the community's aspirations, balances environmental and heritage values, and confirms the BCP as a place designed for the community and wider audience (**Att-7_CCS, Section 2.3, Pg 2-6**).

In addition, a Senate Inquiry with regard to 'Australia's preparedness to host Commonwealth, Olympic and Paralympic Games' was undertaken which includes discussion of key developments, such as the Queensland Government's "100-Day Review" and the "2032 Delivery Plan" (**Att-7_CCS, Section 2.1, Pg 1-2**).

Additionally, the State and local government endorsement of the Proposed Action is being pursued through the Local Government Infrastructure Designation (**LGID**) process. The LGID process is guided by the Minister's Guidelines and Rules Under the *Planning Act 2016* (DSDLGP, 2023). Chapter 7 of the Minister's Guidelines and Rules prescribes the consultation requirements for making a LGID. This requires that consultation with stakeholders be conducted in accordance with a consultation strategy that is to be endorsed by the Planning Minister (**Att-7_CCS, Section 2.2, Pg 2**).

Independently of RCC's community engagement initiatives, GIICA conducted a community sentiment study to assess awareness, support, and concerns for Games and legacy venues, inclusive of the RWC at Birkdale (**Att-7_CCS, Section 2.4, Pg 6**).

Aboriginal Cultural Heritage Act 2003 and the *Torres Strait Islander Cultural Heritage Act 2003* background searches and assessment against the *Aboriginal Cultural Heritage Duty of Care Guidelines 2024* has been performed. A publicly available Cultural Heritage Study report is available for the Project Area produced by Everick Heritage Consultants, commissioned by Quandamooka Yoolooburrabee Aboriginal Corporation (**QYAC**) and published in 2018 (**Att-7_CCS, Section 2.5, Pg 6**).

This CCS Report details this extensive effort and supports this Referral to the DCCEEW. Consultation will be ongoing into the future (**Att-7_CCS, Section 3, Pg 7**). The MNES EAR provides details around the Nature Positive sustainability and community approach integrated into the BCP. Refer **Att-2_MNES EAR, Section 3, Pg 10-14**.

1.3 Identity: Referring Party

1.3.1.1 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action

RCC

RCC has a strong track-record of responsible environment management and site stewardship. RCC are committed to working with DCCEEW to ensure MNES are appropriately assessed under the EPBC Act.

There are no current or previous proceedings under Commonwealth or Queensland legislation against RCC in relation to the environment or the conservation and sustainable use of natural resources.

RCC's Natural Environment Policy (**Att-8_RCC Env Policy**) objective outlines that their "...corporate decisions protect, enhance and restore the health and viability of the City's natural terrestrial and aquatic values both on public and private lands and aquatic environments, for their inherent value and the benefit, use and lifestyle of current and future generations of our community." RCC is committed to providing services that deliver their community's shared vision and collective aspirations of a *Naturally wonderful lifestyle; Connected communities; and Embracing opportunities*. RCC is a values led organisation and the organisational values encapsulate what RCC focus on, influence how RCC operates and support their mission of "*Make a difference, make it count*".

GIICA

GIICA has an exemplary record of environmental management taking account of its extensive project operations throughout Queensland. GIICA has not been subject to proceedings under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* or any other Commonwealth, State or local laws.

2. Location

2.1 Project Footprint

Total = 62.466 ha, Disturbance Footprint = 19.754 ha, Avoidance Area = 3.763 ha, Retention Area (Conservation Area) = 38.949.

2.2 Footprint Details

2.2.1 What is the address of the proposed action?

Lot 1 on RP14143 – 362-388 Old Cleveland Road East, Birkdale QLD 4159

Lot 2 on RP14144 – 362-388 Old Cleveland Road East, Birkdale QLD 4159

Lot 2 on SP146445 – 362-388 Old Cleveland Road East, Birkdale QLD 4159

Lot 2 on RP211270 – 302 Old Cleveland Road East, Birkdale QLD 4159

2.2.2 Where is the primary jurisdiction of the proposed action?

Queensland.

2.2.3 Is there a secondary jurisdiction for this proposed action?

No.

2.2.5 What is the tenure of the action area relevant to the project area?

All parcels held in freehold tenure, no easements present.

3. Existing Environment

3.1 Physical Description

3.1.1 Describe the current condition of the project area's environment

The Proposed Action is located on a 62.466 ha Project Area in which the Disturbance Footprint is strategically sited on 23.517 ha of predominantly cleared lands (split between the 19.754 Disturbance Footprint and 3.763 ha Avoidance Area) that have historically been used for agricultural pursuits and later Military uses. Historically, the Project Area has been cleared close to its entirety. Imagery from 1946 reveals the extent of disturbance the Project Area has historically been subjected to (**Att-2_MNES EAR, Section 1.4, Pg 3-4**). The Project Area contains only scattered vegetation around the boundaries, mostly in the west of Project Area. Numerous cropping fields are present, and the year coincides with when the US Army would have been present on Project Area as indicated by the built signal station central to Project Area. Land uses remained largely unchanged with vegetation regenerating until by 1946 a large clearing had occurred in the western extent of Project Area. In 1977 and 1987 photography, the continuation of vegetation regrowth can be noted to the point in which the cleared strip has been regenerated albeit for some access paths. By 1994, a large radio transmission tower and supporting footings has been constructed in the western portion of the Project Area. In 2002, the Project Area remains largely unchanged with vegetation regeneration continuing.

In 2019, Project Area (excluding Lot 2 on RP211270) was purchased by RCC from the Commonwealth and RCC had entered into a Conservation Area Agreement with the Commonwealth for the land to conserve the periphery of the Project Area in which the regrowth vegetation is associated with. Resultantly, present day imagery does not differ significantly as a conservation mechanism is conditioned upon the land not to impact what is known as the Conservation Area. Presently, the land is maintained as open space that is not openly accessible by the public. No cattle, grazing or agricultural pursuits are performed on the Project Area beyond regular slashing for ground maintenance. The previous radio transmission towers are no longer present, but their previous placement remains evident across the Project Area in the form of access trails, relatively level land, and some leftover footings. The WWII signal station structure remains present and preserved in the centre of the Project Area.

With regard to the Proposed Action, being that the Disturbance Footprint is located within the predominantly cleared interior of the Project Area, the majority of the Disturbance Footprint (18.955 ha) is mapped as Category X (Non-remnant) vegetation under the Queensland *Vegetation Management Act 1999*, representing 96% of the Disturbance Footprint. Elements of Category B (Remnant) vegetation and Category C (High Value Regrowth) are present associated with the vegetation encroaching beyond the Conservation Area into the Disturbance Footprint; however, vegetation within the Conservation Area will not be impacted. Vegetation within the Conservation Area predominantly Category C (High Value Regrowth) with Category B (Remnant) vegetation present along the boundary of Tingalpa Creek and in the far western extent of the Project Area. Only Category C (High Value Regrowth) vegetation extends into the Disturbance Footprint. The resultant disturbance to Category C (High Value Regrowth) vegetation is 0.799 ha representing 4% of the Disturbance Footprint.

Regulated vegetation that is mapped within the Disturbance Footprint is categorised into hybrid Regional Ecosystem (**RE**) 12.3.11/12.3.6 (80%/20%) and hybrid RE 12.5.2/12.5.3/12.3.6 (60%/20%/20%). These RE's are listed below in order of compositional dominance (highest to lowest) and individually, these RE's are described as:

- RE 12.3.11 – Of Concern *Eucalyptus tereticornis* +/- *Eucalyptus siderophloia*, *Corymbia intermedia* open forest on alluvial plains usually near coast
- RE 12.5.2 – Endangered *Corymbia intermedia*, *Eucalyptus tereticornis* open forest on remnant Tertiary surfaces, usually near coast and on deep red soils
- RE 12.3.6 – Least Concern *Melaleuca quinquenervia* +/- *Eucalyptus tereticornis*, *Lophostemon suaveolens*, *Corymbia intermedia* open forest on coastal alluvial plains
- RE 12.5.3 – Endangered *Eucalyptus racemosa* subsp. *racemosa* woodland on remnant Tertiary surfaces

The planning intent of the Project Area is administered by the RCC City Plan of which the Project Area is zoned for Community Facilities and Conservation. Under the SEQ Regional Plan, the Project Area is designated as Regional Landscape and Rural Production Area land use category and is immediately abutting the Urban Footprint.

The Proposed Action is situated in a peri-urban landscape dominated by historically cleared agricultural land and rural residential uses, and fringes contemporary residential developments, industrial areas, and public transport infrastructure. Broadly, this area boasts a diverse mix of historical and contemporary residential developments, interspersed with commercial facilities, industry, patches of vegetation, park reserves, schools, the Cleveland Rail Line, and numerous bus routes along sub-arterial roads.

Strategically, as the Project Area is surrounded by developing and intensifying land uses, the presence of readily accessible community infrastructure is of high value and increases with the growth of the area. The Proposed Action represents significant benefit to the community in this sense. Additionally, the RWC associated with the Proposed Action will contribute to the growth and strategic use of the Project Area, which in conjunction with the Brisbane 2032 Olympic and Paralympic Games, will benefit the socio-economic standing of the region.

3.1.2 Describe any existing or proposed uses for the project area

As previously described, the Project Area has been historically cleared close to its entirety for previous agricultural pursuits and later Military uses. Over this time, peripheral vegetation has been allowed to regenerate and the Project Area has been maintained by RCC since the acquisition from the Commonwealth in 2019. As such, the resultant land use is a reflection of historical uses and events, and recent events. Resultantly, the Project Area currently contains two distinct land uses.

Specifically, the preserved Conservation Area which is well vegetated and predominantly around the boundaries of the Project Area with broader coverage in the western and northeastern extents. The Conservation Area is a reflection of the Project Area's history and the condition around the sale of the land in which RCC entered into a Conservation Area Agreement with the Commonwealth for this defined area. Resultantly, the existing land use for this portion of the Project Area is natural, allowing typical ecological processes to occur. As part of the Proposed Action, this area will be subject to ongoing maintenance and care through rehabilitation, inclusive of weed management and infill planting. Portions of the Conservation Area have been identified as reflective of the Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales South East Queensland TEC, Subtropical Eucalypt Forest on the floodplains TEC; and Subtropical and Temperate Coastal Saltmarsh TEC. Surveys identified that a 0.94 ha portion of vegetation within the Conservation Area is indicative of, but does not presently meet the condition thresholds for the Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland TEC. The strategic rehabilitation of the Project Area and Nature Positive intent of the Proposed Action sees this community rehabilitated to the point of meeting the condition thresholds.

The second distinct land use is located central to the Project Area and is the setting for the Disturbance Footprint associated with the Proposed Action. This portion of the Project Area is also reflective of the Project Area's history, initially cleared by the operators of Willard's Farm and then used by the US Army Signal Corps as a radio telecommunications receiving station. As such, evidence of former uses is present in the form of radio tower footings, pads, and the operation station building. Currently, RCC owns and operates the Project Area, which is not yet publicly accessible. The cleared areas are maintained by slashing and historic elements of the Project Area such as Willard's Farm and the Receiving Station are being preserved and refurbished. The Receiving Station building is currently in use as a temporary office by the RCC team overseeing the Proposed Action.

The proposed uses associated with the Proposed Action include two phases that are dictated by the timing of the Brisbane 2032 Olympic and Paralympic Games. A Pre-2032 phase is proposed in which the key elements of the Proposed Action are to be completed in time for the Brisbane 2032 Olympic and Paralympic Games. This infrastructure will provide the foundation for many of the corresponding experiences including the Redland Resilience Training and Whitewater Centre, public lagoon/water play, temporary structures for services and centres, open space with shelters and amenities, dedicated areas for entertainment and events, and a performance area to cater for a diversity of outdoor performances.

The Post-2032 phase will see some spaces with temporary built form becoming permanent structures, including the information and environmental visitor centre, cultural centre and equipment hire facility. New permanent educational spaces will also be provided, including a specific area for exhibiting future food production, and a wildlife and landcare centre. Adventure play will be further extended by way of an indoor recreation building with the potential for extreme indoor sports.

The Birkdale Community Precinct Master Plan outlines in greater detail the proposed land uses associated with the Proposed Action. Refer **Att-5_BCP MP**. An overview of the RWC can be found at: <https://gjica.au/venues/redland-whitewater-centre>

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area

The area of the Project Area in which the Disturbance Footprint of the Proposed Action is sited is largely devoid of natural features, given the historical agricultural practices that have been conducted on the Project Area. Remnant and regrowth vegetation occurs as scattered patches across the Project Area or as sparse isolated individuals that form disjunct and discontinuous habitat for fauna. The dominant feature in this area is the broad maintained pasture.

Conversely, the Conservation Area represents more contiguous habitat with greater likelihood of supporting potential MNES in the area. The Conservation Area itself has been surveyed to contain portions of the Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales South East Queensland TEC, Subtropical Eucalypt Forest on the floodplains TEC; and Subtropical and Temperate Coastal Saltmarsh TEC. Additionally, habitat to support MNES fauna such as the koala (*Phascolarctos cinereus*) is present in this area. Notably however, the Conservation Area Agreement sets conditions for the long-term protection and conservation of protected matters found on the land, including:

1. Koala and Koala habitat present in the Conservation Area, to improve and maintain the viability of the Koala in the local area and promote and enhance the survival and conservation status of the species;
2. To improve and maintain the viability of the Subtropical and Temperate Coastal Saltmarsh TEC in the Conservation Area; and
3. Other ecological values within the Conservation Area, including ecological communities or habitat for other EPBC Act listed species as identified and may be identified in the future.

Resultantly, not only is the Proposed Action located outside of the Conservation Area, but it is also a significant component of the Proposed Action to rehabilitate and protect the Conservation Area to ensure the persistence of its values.

Other notable natural features in the area include the Moreton Bay Ramsar wetland approximately 3 km north of the Project Area, with a smaller element of the Ramsar listed wetland associated with Sunnybay Drive Park, mapped approximately 1.6 km northeast of the Project Area.

Tingalpa Creek is mapped to contain significant extents of RE 12.1.3 which is described as mangrove shrubland to low closed forest on marine clay plains and estuaries. Mangrove systems serve an important ecological role and contribute to the filtration of water before discharging into Moreton Bay.

Tingalpa Creek Conservation Park is located downstream of Tingalpa Creek, approximately 1.3 km northwest of the Project Area and is a State protected area under the NC Act.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area

The Project Area falls toward a central point that narrows into a natural drainage feature to Tingalpa Creek. As such, the eastern half of the Project Area falls generally from the east toward the west. At a maximum from 22 m AHD to 2 m AHD across 700 m range. The western half of the Project Area falls toward the east/southeast across a gentler grade, no greater than 12 m AHD to 2 m AHD across 300 m. A notable feature from this perspective is the location of the pad of the former WWII radio tower in the northwestern most extent of the Disturbance Footprint which is fairly level at 10 m AHD.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable

A significant amount of assessment has been undertaken to identify the MNES, flora and fauna across the Project Area. Seven years' worth of continuous and progressive environmental and ecological assessments have been occurring over the Project Area as the design intent matures, hence a significant body of work underpins this Referral (**Att-2_MNES EAR, Section 2.5, Pg 8-9**). These assessments span desktop analyses, multi-season field surveys, species-specific targeted studies, and an ongoing koala monitoring program conducted by the University of the Sunshine Coast since 2021. The scope and duration of this assessment program is commensurate with the significance of the environmental values present.

Of specific note, this also includes the ongoing monitoring and tracking by the University of the Sunshine Coast of koala presence across the Project Area in which a variety of monitoring methods have been employed (including detection dogs, thermal imaging, and GPS collar tracking). This program has operated continuously since 2021 across multiple seasons, tracking individual koalas via GPS collars and identifying habitat use patterns that directly inform the project design. This program has benefitted over 10 koalas by tracking their movements, identifying a 70% chlamydia prevalence, and resultantly implemented disease treatment. The Koala Survey Report outlines the intent and approach for the monitoring (**Att-10_Koala Study**) and full suite of monitoring reporting is included (**Att-11_Koala Monitoring**).

Supporting species specific advice has also been obtained. Koala expert Dr. William (Bill) Ellis has reviewed the Proposed Action, relevant ecological reporting, and University of the Sunshine Coast monitoring reporting, as well as having performed regular monitoring of koalas in the surrounding areas. Dr. Ellis has prepared a Technical Memorandum outlining his findings (**Att-9_Koala Tech Memo**).

Similarly, a report focused on assessing the greater glider has been produced to assess the likelihood of species occurrence, suitability of on-site habitat, and assessment of field findings (**Att-12_GG Report**). The Greater Glider Report assesses specifically the potential for impact to the greater glider. Despite extensive survey effort which has included spotlighting over multiple nights, targeted stag-watching of hollow-bearing trees, and thermal drone assessment, the greater glider has not been detected on the Project Area. The 38.949 ha Conservation Area, which contains all potential greater glider habitat, is permanently protected under the Conservation Area Agreement and is not affected by the Proposed Action.

Most contemporarily, an updated MNES EAR to support this Referral has been produced (**Att-2_MNES EAR**). The methodologies informing the MNES EAR include a desktop review of reports and databases (**Att-2_MNES EAR, Section 4.1.1, Pg 15**), a likelihood of occurrence assessment (**Att-2_MNES EAR, Section 4.1.2, Pg 15-16; Att-2_MNES EAR, Appendix F**), and contemporary field assessments for general assessment and specific targeted MNES assessment (**Att-2_MNES EAR, Section 4.2, Pg 16-33**). The results and findings of the MNES EAR are outlined in Section 5 of the MNES EAR (**Att-2_MNES EAR, Section 5, Pg 34-54**) and identify the following MNES as warranting further specific assessment against the Significant Impact Assessment (**SIA**) criteria:

- Fauna:

- The Endangered Koala - combined populations of Queensland, New South Wales and the Australian Capital Territory (*Phascolarctos cinereus*).
 - The Endangered Greater glider - southern and central (*Petauroides volans*).
 - The Vulnerable South-eastern glossy black cockatoo (*Calyptorhynchus lathami lathami*).
 - The Vulnerable Grey-headed flying-fox (*Pteropus poliocephalus*).
- **TECs:**
- The Endangered Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland TEC.
 - The Endangered Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland Bioregion TEC.

More generally, surveys have identified a total of 91 fauna species when considering survey efforts in 2020, 2022, and 2025, predominantly represented by bird species (**Att-2_MNES EAR, Section 5.2.1.1, Pg 46-49; Att-2_MNES EAR, Appendix K**). The contemporary surveys identified a total of 77 fauna species represented by 52 birds, 14 mammals, 4 amphibians and 7 reptile species. A single declared pest fauna species *Vulpes vulpes* (European red fox) was detected within the Disturbance Footprint as evidenced through camera trap data. The presence of this introduced predator is a recognised threat to koala populations; accordingly, a targeted fox eradication program forms part of the project's environmental management commitments and represents a direct improvement to the Project Area's ecological conditions for native fauna.

A fauna habitat assessment was undertaken that identified 39 habitat features within the Disturbance Footprint and vehicle access roads, including three hollow-bearing trees, 14 arboreal termitaria, one burrow, one hollow log (fallen), one nest, and one stag (**Att-2_MNES EAR, Section 5.2.1.2, Pg 49-50**). All habitat features requiring removal will be replaced at enhanced ratios as part of the Proposed Action's fauna connectivity and habitat augmentation program, including nest boxes, salvaged hollows, and purpose-built fauna infrastructure such as rope bridges and canopy links at identified pinch points.

The flora assessment conducted within the Disturbance Footprint identified 104 flora species, including 28 exotic species (**Att-2_MNES EAR, Section 5.2.1.3, Pg 50-51; Att-2_MNES EAR, Appendix J**). No threatened flora species listed under the *Nature Conservation Act 1992* or subordinate *Nature Conservation (Plants) Regulation 2020* were identified during ecological surveys conducted in 2020, 2022 or the present study. The contemporary weed survey mapped 37 occurrences of weeds including eight restricted weed species listed under the *Biosecurity Act 2014* (**Att-1_EAR, Section 5.2.1.3, Pg 49-50**). The Proposed Action includes a targeted weed management program addressing all restricted species identified, representing a material improvement over the Project Area's current unmanaged baseline.

The Regional Ecosystem Review undertaken by Cardno in 2021 provided a refined regional ecosystem map that included the boundaries of ground-truthed remnant and regrowth REs within the Project Area (**Att-2_MNES EAR, Appendix E**). The current study relied on the information provided in the Regional Ecosystem Review (Cardno, 2021) and refined this mapping to include a patch of regrowth RE12.3.20 located adjacent to the Disturbance Footprint and within the Retention Area (Conservation Area), where it is protected from disturbance (**Att-2_MNES EAR, Section 5.2.2, Pg 51-52; Att-2_MNES EAR, Figure 10**). The Disturbance Footprint is predominantly characterised by cleared and maintained open space with scattered native trees, reflecting the Project Area's historical use as a WWII radio communications station. Remnant and regrowth vegetation is concentrated within the Conservation Area. No wetlands or waterways are mapped within the Disturbance Footprint (**Att-2_MNES EAR, Section 5.2.4, Pg 53**).

A summary of survey efforts can be found throughout the MNES EAR Section 4.2 as follows:

- Koala – **Att-2_MNES EAR, Section 4.2.1, Table 3, Pg 18-21**
- Grey headed flying fox – **Att-2_MNES EAR, Section 4.2.2, Table 4, Pg 22-23**
- Greater glider – **Att-2_MNES EAR, Section 4.2.3, Table 5, Pg 23-25**
- South-eastern glossy black cockatoo – **Att-2_MNES EAR, Section 4.2.4, Table 6, Pg 25-26**

- General survey methodologies – **Att-2_MNES EAR, Section 4.2.6, Table 7, Pg 27-32.**

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area

Vegetation

The flora assessment conducted within the Disturbance Footprint identified 104 flora species, including 28 exotic species (**Att-2_MNES EAR, Section 5.2.1.3, Pg 50-51; Att-2_MNES EAR, Appendix J**). None of the species recorded are listed as threatened flora species listed under the *Nature Conservation Act 1992* and subordinate *Nature Conservation (Plants) Regulation 2020* were identified during the ecological surveys conducted in 2020 and 2022 (Cardno, 2020 and the present study). The contemporary weed survey mapped 37 occurrences of weeds including eight restricted weed species listed under the *Biosecurity Act 2014* (**Att-2_MNES EAR, Section 5.2.1.4, Pg 51**). The weed presence reflects the Project Area's historical management regime; the Proposed Action includes a comprehensive weed management program that will actively reduce invasive species prevalence across both the Disturbance Footprint and the Conservation Area.

The Regional Ecosystem Review undertaken by Cardno in 2021 provided a refined regional ecosystem map that included the boundaries of ground-truthed remnant and regrowth REs within the Project Area (**Att-2_MNES EAR, Appendix E**). The current study relied on the information provided in the Regional Ecosystem Review (Cardno, 2021) and refined this mapping to include a patch of regrowth RE12.3.20 located adjacent to the Disturbance Footprint (**Att-2_MNES EAR, Section 5.2.2, Pg 51-52; Att-2_MNES EAR, Figure 10**). No wetlands or waterways are mapped within the Disturbance Footprint (**Att-2_MNES EAR, Section 5.2.4, Pg 53**).

A tree survey was completed for tree in the Disturbance Footprint for native vegetation over 100mm Diameter Breast Height (**DBH**). For species identified as a State recognised Non-Juvenile Koala Habitat Tree (**NJKHT**), **DBH** thresholds recorded specimens down to 40mm **DBH** where over 4m in height. Tree locations were spatially validated with survey level accuracy. A total of 896 trees were recorded. It is important to note that the **BCPCMP** and subsequent Tree Retention Plan (**Att-4_BCPCMP, BCPCMP016-BCPCMP021**) is conceptual in nature and is intended to provide regulator assessment confidence and high-level design and management strategies, based off current 2D design models. Ultimate retention determination is subject to further detailed design updates as the detailed design of the **BCP** progresses. Additionally, this **BCPCMP** will be subject to future specialist reporting becoming available. Hence, tree retention status cannot be locked in at this stage. However, based on existing contemporary design detail, it is anticipated that approximately 73% of surveyed trees (approximately 654) can be retained. A further 8% (74 trees) require arborist assessment to determine context-specific retention potential during detailed design. Approximately 19% (168 trees) are anticipated to require removal. The overarching intent is to align with these proportions throughout the balance of the design and implementation of the Proposed Action.

Of the 896 trees surveyed throughout the Disturbance Footprint, 760 **NJKHTs** were identified in a scattered nature. A species breakdown of these **NJKHTs** is presented in **Att-2_MNES EAR, Section 5.1.1.1, Table 10, Pg 37-40**. Six species considered Locally important koala trees (**LIKTs**) as per the Australian National University (Youngentob, et al., 2021) were present, representing a total of 583 **LIKTs** and an additional 251 trees aligning with the Ancillary tree definition within the same study. With regard to the grey-headed flying fox, the tree survey identified a total of 586 individual trees across six species that are species known to be winter and spring flowering species within the Disturbance Footprint. 77 black she-oak (*Allocasuarina littoralis*) were located that provide food resources to the southeastern glossy black cockatoo. A subsequent breakdown of retention statuses for these species is present below.

- Koala
 - State defined species
 - Total **NJKHTs** 760; Retain, 562; Arborist Assessment, 72; Remove, 126.
 - Youngentob, et al., 2021 defined species
 - Total **LIKTs** 583; Retain, 428; Arborist Assessment, 55; Remove, 100.
 - Total Ancillary 251; Retain, 179; Arborist Assessment, 17; Remove, 55.
- Grey headed flying fox
 - Total Winter Flowering 586; Retain, 439; Arborist Assessment, 57; Remove, 90.

- South-eastern glossy black cockatoo
 - Total *Allocasuarina* 77; Retain, 47; Arborist Assessment, 0; Remove, 30.

Overarchingly, impacts are minimised to these focal resource species, with the majorities of each being retained. Where impacts are required, on-site revegetation will be implemented in excess of removed trees. It is currently estimated that 10,000 native trees will be replanted throughout the Disturbance Footprint. Habitat hollows identified for removal will be replaced at a minimum 3:1 ratio through the installation of nest boxes and retention of salvaged hollows. The revegetation program will prioritise koala food tree species, including *Eucalyptus tereticornis* and *E. moluccana*, to enhance habitat connectivity between the Conservation Area and surrounding landscape. These measures are consistent with the project's Nature Positive design approach, which aims to achieve a measurable net improvement in on-site ecological values compared to existing conditions.

Soils

The Project Area consists extensively of Quaternary aged alluvial deposits associated with Tingalpa Creek catchment and watercourse. The majority of the Project Area is underlain by the Petrie Formation which is noted for its deep weathering profile of basalt (**Att-13_GAR, Section 3, Page 4**). Figure 3 of the GAR identifies the local geology over the Project Area from the Queensland Geotechnical Database (**Att-13_GAR, Section 3, Figure 3**).

The Disturbance Footprint is predominantly associated with the underlying Qpa geology, representative of Pleistocene deposits of clay, silt, sand and gravel. The soil materials which are of significance with respect to shallow groundwater are the clays and sands of the Quaternary deposits within which water bearing strata generally exist. Surface soils over the entire Project Area are Tenosol. Tenosol are typically categorised as soils with low fertility and low water holding capacity, and generally display weakly developed soil profiles with depth. Tenosol soils generally have less than 15% clay constituency. Pacific Geotech, in a general geotechnical site investigation over the site in 2020, found significant surface duricrust deposits. Duricrust is a general term for a hard layer formed at the surface of a soil profile by a process of chemical weathering. Resultantly, potential near-surface aquifers are likely to be found in the underlying native soil material rather than at the surface. Investigations of the Project Area confirmed this to be the case (**Att-13_GAR, Section 3, Page 4**).

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area

The Project Area contains the former US Army Signal Corps Receiving Station which is directly associated with the US intervention in World War II under the command of General Douglas MacArthur. The purpose of the receiving station was to listen to enemy broadcasts and maintain direct contact with Washington. It is understood that all messages from the Pacific were relayed through the receiving site directly by teletype link to General Douglas MacArthur's General Headquarters in the AMP building in Queen Street, Brisbane. The Project Area provides an example of US requisitioning Australian property in the war effort. In this case, 250 acres were requisitioned from an existing farm property that had been taken up by James Willard, known better today as Willard's Farm. The receiving station is believed to be the first point of land in Australia to receive news of the Japanese surrender on 15th August 1945, thus contributing to the historical significance of the station.

Resultantly, the following recognised heritage values are present on the Project Area:

- Birkdale Monitoring Station – Australian Heritage Database – ID 106320
- US Army Radio Receiving Station (former) – Queensland Heritage Register (**QHR**) – QHR 650249
- Willard's Farm (former) – QHR – QHR 650011

The abovementioned heritage values are not formally recognised at a Local level within the RCC Planning Scheme. However, RCC recognise the higher level listings and are actively preserving and restoring the recognised values on Project Area. The values are to be made available to the public for education purposes as part of the Proposed

Action. Of note, the PMST does not identify any Commonwealth Heritage Places, on Project Area, however, the DCCEE Australian Heritage Database website contains the abovementioned listing.

3.3.2 Describe any Indigenous heritage values that apply to the project area

A publicly available Cultural Heritage Study report is available for the Project Area produced by Everick Heritage Consultants, commissioned by Quandamooka Yoolooburrabee Aboriginal Corporation (**QYAC**) and published in 2018 (see **Att-7_CCS_Attachment 6**). See also **Att-7_CCS_Section 2.5, Pg 6** for a summary of Aboriginal Cultural Heritage engagement and **Att-7_CCS_Attachment 5** for the Aboriginal Cultural Heritage Search.

The Cultural Heritage Study identified three zones across the Project Area in relation to heritage significance. A low-risk zone, high-risk zone, and known heritage areas. In the context of the Proposed Action, the Disturbance Footprint is contained entirely within the low-risk zone. The low-risk zone has been deemed as such due to the significant historical disturbance associated with the farmland clearing and subsequent long term use of the land by the US Army. Recommendations for works in this area include implementation of a 'finds procedure' and a basic understanding of Aboriginal site identification. The contact details and potential discussions with the QYAC Cultural Heritage Officer should be undertaken.

While outside the Disturbance Footprint, the southern periphery of the Project Area, predominantly associated with the Conservation Area, is recognised as a high-risk area as QYAC considers there to be a high likelihood that archaeological or other places of cultural heritage significance, such as sub-surface artefact deposits, camp sites, stone artefacts, burials or other; or cultural heritage values of high significance such as shell middens. The Cultural Heritage Study recommends avoiding this area and minor impacts should be referred to QYAC for consideration.

Within the high-risk area, five locations were identified to contain known cultural heritage values including a scar tree and artefact scatters. These findings of the investigation are all associated with the boundary of Tingalpa Creek. These areas are avoided by the Proposed Action.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable

Hydrology

Tingalpa Creek forms the southern to western boundary of the Project Area and is a tidally influenced waterway that outlets into Moreton Bay approximately 4 km north of the Project Area. Redland City Council's interactive City Plan mapping identifies waterway corridors, flood-prone areas, and modelled storm tide inundation zones (2016 and 2100 scenarios). The Project Area experiences marginal storm tide encroachment along the Tingalpa Creek boundary and contains a small central area affected during flood events.

Topographically, the Project Area drains toward a central depression that narrows into a natural drainage feature discharging to Tingalpa Creek. The eastern half of the Project Area falls from east to west, from approximately 22 m AHD down to 2 m AHD over 700 m, while the western portion slopes east/southeast from 12 m AHD to 2 m AHD over 300 m. The former WWII radio tower pad at the northwestern extent of the Disturbance Footprint is relatively level at around 10 m AHD.

Groundwater and Hydrological Characteristics

A detailed Groundwater Assessment Report was prepared by SLR Consulting (September 2025) for the whitewater facility located within the western lobe of the Birkdale Community Precinct (**Att-13_GAR**). The key findings are summarised below:

- Groundwater Regime and Quality

- The Project Area is underlain primarily by Quaternary alluvial deposits (clays, silts, sands, and gravels) associated with Tingalpa Creek. Petrie Formation underlies the majority of the Project Area.
- Groundwater occurs at shallow depths (approximately 2.4 m to 5.7 m AHD) within the western extent, trending north to south-west toward Tingalpa Creek.
- The groundwater is fresh to slightly brackish, with low seepage rates and poor yield, meaning it is not suitable for anthropogenic extraction.
- Analytical testing revealed elevated nutrient concentrations (Total Nitrogen and Total Phosphorus) and high E. coli counts, indicating organic contamination likely from historic agricultural or grazing activities. These elevated concentrations reflect pre-existing land use impacts predating Council ownership and are not attributable to current site management. The Proposed Action's WSUD measures will actively reduce these contaminant levels, resulting in improved groundwater quality compared to existing baseline conditions.
- Electrical conductivity values ranged between 239–1,528 $\mu\text{S}/\text{cm}$, and groundwater pH values were neutral to alkaline (6.5–8.0), confirming no evidence of acid sulfate soil oxidation in groundwater.
- Groundwater–Surface Water Interaction
 - The shallow aquifer contributes insignificantly to Tingalpa Creek flows, with discharge expected only during major rainfall events.
 - Implementation of the Site-Based Stormwater Management Plan (**SBSMP**) will improve groundwater quality by reducing pollutant loads and nutrient concentrations through Water Sensitive Urban Design (WSUD) elements such as bioretention basins, vegetated swales, and a constructed wetland.
 - Treated stormwater will infiltrate to groundwater, promoting slight water table increases balanced by outflows to Tingalpa Creek, resulting in overall neutral to positive hydrological outcomes.
- Construction and Operational Impacts
 - Excavations for the whitewater facility will extend up to 7 m below ground level, intersecting the water table locally. All RWC channels and basins will be impermeably lined, ensuring complete physical separation between the RWC and the underlying groundwater system. This design requirement eliminates the potential for mixing between facility water and groundwater at all stages of operation.
 - Temporary dewatering may occur during construction, but groundwater levels will rapidly recover post-construction.
 - No measurable long-term change in groundwater level or quality is anticipated.
 - The existing deep bore RN 205152 (70 m depth), tapping a confined basalt aquifer, will provide make-up water for the facility. This aquifer is hydraulically isolated from the shallow system and will not influence surface or near-surface groundwater conditions.
- Acid Sulfate Soils and Groundwater Dependent Ecosystems (**GDEs**)
 - Testing confirmed acid sulfate soils (**ASS**) are limited to areas adjacent to Tingalpa Creek and concluded potential acid sulfate soils (**PASS**) materials are not present within the whitewater facility footprint.
 - Groundwater remains alkaline (pH > 7.0), further supporting the absence of acidification risk.
 - Although regional-scale Queensland Government mapping identifies moderate potential for GDEs in this area, detailed site-specific ecological assessment confirmed no groundwater-dependent ecosystems are present within the Disturbance Footprint, the Retention Area (Conservation Area), or the Avoidance Area. The site-specific assessment supersedes the regional-scale mapping for the purposes of impact evaluation..
 - Consequently, the project is unlikely to cause adverse effects on vegetation, groundwater ecology, or downstream Ramsar-listed wetlands.

Overall, the Birkdale Community Precinct is characterised by shallow, low-yield groundwater in Quaternary alluvium draining westward to Tingalpa Creek. The hydrological regime is primarily rainfall-driven, with limited connectivity between surface and deep groundwater systems. SLR's assessment concluded that:

- The construction and operation of the proposed Whitewater Centre will not adversely affect groundwater quality, levels, or dependent ecosystems.
- The SBSMP and WSUD measures will likely improve existing groundwater quality by reducing nutrient contamination and enhancing natural infiltration.
- There will be no measurable hydrological impacts on Tingalpa Creek, GDE's (none confirmed within Project Area), or the Moreton Bay Ramsar wetlands. While Ramsar-designated wetlands are located in Moreton Bay in relatively close proximity to the mouth of Tingalpa Creek, the creek itself is excluded from the Ramsar area. The Ramsar designation begins in Moreton Bay immediately beyond the creek mouth, approximately 4 km downstream of the Project Area. SLR's assessment confirmed that the limited connectivity between the Project Area's shallow groundwater system and Tingalpa Creek, combined with the WSUD treatment train, means there is no pathway by which the Proposed Action could adversely affect the Ramsar-listed values of Moreton Bay.
- Any dewatering or displacement effects during construction will be temporary and localised.

SLR's assessment also contributed to addressing relevant concerns raised by the public, as detailed in **Att-13_GAR, Section 9, Pg 19**.

During community consultation, residents expressed concern about hydrological and groundwater impacts, particularly potential effects on the underlying water table and downstream Ramsar-listed Moreton Bay wetlands. These concerns were reviewed internally by RCC hydrology staff and independently assessed by SLR Consulting Australia (Trevor Johnson, 2025). SLR's findings, summarised above, confirm that the Proposed Action will not adversely affect groundwater quality, levels, or dependent ecosystems, and that there is no measurable hydrological pathway by which the project could impact Tingalpa Creek or the Moreton Bay Ramsar wetlands (See **Att-11_GAR**).

Overall, the Proposed Action's hydrological design incorporating impermeable lining of all whitewater infrastructure, WSUD treatment measures, and a site-based stormwater management plan results in a neutral to positive outcome for the Project Area's water systems compared to existing conditions. The reduction in nutrient contamination, enhancement of natural infiltration, and elimination of unmanaged overland flows represent measurable improvements to the Project Area's hydrological function.

4. Impacts and mitigation

4.1 Impact Details

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	No	Yes
S20	Migratory Species	No	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes

S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

4.1.1.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No.

4.1.1.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

There are no World Heritage properties proximal to the Project Area (**Att-2_MNES EAR, Appendix D [PMST]**).

4.1.2 National Heritage

4.1.2.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No.

4.1.2.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

There are no National Heritage properties proximal to the Project Area (**Att-2_MNES EAR, Appendix D [PMST]**).

4.1.3 Ramsar Wetland

4.1.3.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No

4.1.3.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

The Moreton Bay Ramsar wetland is located directly north from the Project Area, approximately 3 km in a direct line from the closest point of the Project Area (**Att-2_MNES EAR, Appendix D [PMST]**).

The Proposed Action does not involve bulk discharge of wastewater, nor does it propose a use which would see a substantially greater increase of runoff beyond that which already occurs. Additionally, stormwater interception and passive treatment, including capture of gross pollutants, will be incorporated into the detailed design for the development. An artificial wetland/biobasin forms part of the Proposed Action design and will facilitate the treatment of water and contribute toward the passive regulation of runoff flow.

A detailed Groundwater Assessment Report was prepared by SLR Consulting (September 2025) for the Whitewater Facility located within the western extent of the Birkdale Community Precinct (Refer **Att-13_GAR**). The Groundwater Assessment Report identified that the Proposed Action will not impact the downstream Ramsar-listed Moreton Bay wetlands due to the Project Area's limited hydrological connectivity and mitigation measures including water management planning. The local groundwater system is shallow, low-yield, and largely isolated from surface flows to Tingalpa Creek. As such, no significant discharge reaches the wetlands under typical conditions. Stormwater from the Project Area will be captured and treated through bioretention basins, vegetated swales, and constructed wetlands as part of overarching water management planning. Resultantly, water being released from Project Area is anticipated to see water quality improvements relative to current conditions. Additionally, the whitewater channels will be fully lined, preventing groundwater interaction, and no acid sulfate soils or groundwater-

dependent ecosystems have been identified within the Disturbance Footprint. Collectively, these measures ensure no measurable hydrological, water quality, or ecological impact to the downstream Ramsar wetland.

Given this, the Proposed Action is not expected to result in:

- Destruction or substantial modification of the Ramsar wetland;
- Substantial or measurable change in the hydrological regime of the Ramsar wetland;
- Impact to the habitat or lifecycle of native species that occupy the Ramsar wetland;
- Substantial and measurable change in the water quality of the Ramsar wetland
- Invasive species that is harmful to the ecological character of the Ramsar wetland.

Consequently, the Proposed Action is not expected to result in a significant impact to the Moreton Bay Ramsar wetland, per the Significant impact guidelines 1.1 (DoE, 2013).

4.1.4 Threatened Species and Ecological Communities

4.1.4.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No

4.1.4.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

The Proposed Action is unlikely to have a direct or indirect significant impact on MNES in the Project Area. The Disturbance Footprint is strategically sited on 19.754 ha of predominantly cleared lands that have historically been used for agricultural pursuits and later Military uses. Historically, the Project Area has been cleared close to its entirety. Imagery from 1946 reveals the extent of disturbance the Project Area has historically been subjected to (**Att-2_MNES EAR, Section 1.4, Pg 3-4**). As a result, the impacts associated with the Proposed Action are spatially separated from the areas of the Project Area that contain environmental value and are instead located in the degraded portions of the Project Area. In addition, the design of the BCP is intended to be highly permeable and non-disruptive to ground-dwelling MNES known to the Project Area as reflected by the BCPCMP revegetation intent (**Att-4_BCP CMP, BCPCMP005; Att-4_BCP CMP, BCPCMP003**) and integrated Avoidance Areas through the eastern portion of the Project Area (**Att-4_BCP CMP, BCPCMP002**).

An extensive program of ecological assessment spanning seven years (2018–2025) and involving multiple independent specialists has been undertaken to identify MNES that are considered possible, likely, or known to occur within the Project Area, hence a significant body of work underpins this Referral (**Att-2_MNES EAR, Section 2.5, Pg 8-9**). Of specific note, this also includes the ongoing monitoring and tracking by the University of the Sunshine Coast of koala presence across the Project Area in which a variety of monitoring methods have been employed (including detection dogs, thermal imaging, and GPS collar tracking). The Koala Survey Report outlines the intent and approach for the monitoring (**Att-10_Koala Study**) and full suite of monitoring reporting is included (**Att-11_Koala Monitoring**). This background body of work has resulted in an assessment process identifying the following MNES as warranting further specific assessment against the Significant Impact Assessment (SIA) criteria:

- Fauna:
 - The Endangered Koala - combined populations of Queensland, New South Wales and the Australian Capital Territory (*Phascolarctos cinereus*).
 - The Endangered Greater glider - southern and central (*Petauroides volans*).
 - The Vulnerable South-eastern glossy black cockatoo (*Calyptorhynchus lathami lathami*).
 - The Vulnerable Grey-headed flying-fox (*Pteropus poliocephalus*).
- TECs:

- The Endangered Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland TEC.
- The Endangered Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland Bioregion TEC.

Of note, whilst the SIA selects for species that were identified in the Likelihood of Occurrence Table as 'known' or 'likely' to occur, some species identified as unlikely (Greater glider) or possible (South-eastern glossy black cockatoo) were progressed to an SIA assessment owing to their conservation significance, high community interest, and to ensure the robustness and transparency of the assessment. See also **Att-2_MNES EAR, Section 5.1.1 [Precautionary Species Inclusion], Pg 35-36**.

Assessment of each MNES against the SIA criteria has resulted in each MNES being considered unlikely to be impacted (**Att-2_MNES EAR, Section 6, Pg 55-61; Att-2_MNES EAR, Appendix B; Att-2_MNES EAR, Appendix C; Att-2_MNES EAR, Appendix J**). Mitigation measures aimed at further reducing risk of potential impact are outlined in **Att-2_MNES EAR, Section 7, Pg 62-70; Att-2_MNES EAR, Appendix J**.

Supporting species specific advice has also been obtained. Koala expert Dr. William (Bill) Ellis has reviewed the Proposed Action, relevant ecological reporting, and University of the Sunshine Coast monitoring reporting, as well as having performed regular monitoring of koalas in the surrounding areas. Dr. Ellis has prepared a Technical Memorandum outlining his findings (**Att-9_Koala Tech Memo**) and has also performed a SIA and concludes that an impact to the koala is unlikely (**Att-9_Koala Tech Memo, Appendix 1, Pg 25-36**).

Similarly, a report focused on assessing the greater glider has been produced to assess the likelihood of species occurrence, suitability of on-site habitat, and assessment of field findings (**Att-12_GG Report**). The Greater Glider Report also concludes that an impact to the greater glider is unlikely (**Att-12_GG Report**).

Regarding the Coastal Swamp Oak Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland TEC, this TEC was determined to be present within the Retention Area (Conservation Area) in isolated patches along Tingalpa Creek. Survey has been conducted to verify the occurrence of the TEC within Retention Area (Conservation Area), though did not perform additional assessment beyond the Project Area (i.e. opposite Tingalpa Creek), hence, potential exists that the isolated patches are part of one discontinuous small patch. As a precautionary measure, the assessment adopted a conservative scenario in which this TEC exceeds minimum patch condition thresholds, and an SIA was performed to further assess potential direct or indirect impacts. Given how spatially removed this TEC is from the Disturbance Footprint, the likelihood of impact is considered unlikely. Additionally, mitigation measures outlined in **Att-2_MNES EAR, Section 7, Pg 62-70** further reduce the potential for direct and indirect impact which has resulted in an SIA determination that significant impacts are unlikely to occur. See also **Att-2_MNES EAR, Appendix B; Att-2_MNES EAR, Appendix C; Att-2_MNES EAR, Appendix F; Att-2_MNES EAR, Appendix G; and Att-2_MNES EAR, Appendix J**.

The Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland Bioregion TEC is also present within the Retention Area (Conservation Area). Spatially, this TEC is recorded in areas closer to the Disturbance Footprint and in portions abuts the edge of the Retention Area (Conservation Area) interface with the Disturbance Footprint. Nevertheless, as this TEC is entirely captured by the Conservation Area Agreement, direct or indirect impacts will not be permitted under the terms of the Conservation Area Agreement. As a result, further mitigative design choices have been made to sufficiently buffer and avoid impacts to the TEC. In addition to the Conservation Area Agreement, the majority of the interface between the TEC and the Disturbance Footprint will be buffered by rehabilitation measures. When including the bioretention basin, the TEC is almost entirely buffered by vegetation. This has the additional benefit of deterring public ingress as the densely planted vegetation will provide a soft barrier that aids to exclude the public from the Conservation Area. Further, a drainage swale has been designed to be implemented in front of the rehabilitation buffer which aids to transport excess water flows and direct overland flows to the bioretention basin. The intent of the swale is to maintain a status-quo hydraulic nature and also serves to capture and redirect potential contaminants to the bioretention basin. Finally, a number of construction impact mitigation measures will be implemented to prevent any direct and indirect impacts including Construction Environmental Management Plan, Erosion Sediment Control Plan, Stormwater Management Plan, and more, as outlined in **Att-2_MNES EAR, Section 7, Pg 62-70**.

In summary, the Proposed Action has been assessed against each category of MNES protected under the EPBC Act. No significant impact, direct or indirect, has been identified for any protected matter.

The Proposed Action is confined entirely to a 19.754 ha Disturbance Footprint comprising predominantly cleared land with a history of agricultural and military use dating to the 1940s. The Disturbance Footprint is spatially separated from the areas of the Project Area that contain the highest ecological values. A 38.949 ha Conservation Area representing 62% of the total 62.466 ha Project Area is subject to a Conservation Area Agreement between RCC and the Commonwealth Government. The Agreement requires the protection and conservation of species and TECs listed under the EPBC Act within the Conservation Area.

The assessment supporting this Referral has been informed by ecological investigations undertaken across five phases between 2018 and 2025, involving multiple independent specialists including ongoing koala population monitoring by the University of the Sunshine Coast and an independent SIA by koala expert Dr. William Ellis. Significant Impact Assessments were completed for all MNES identified as known or likely to occur. Applying a precautionary approach, SIAs were also completed for the Greater Glider, to substantiate the unlikely occurrence conclusion through multiple lines of evidence; and the South-eastern Glossy Black Cockatoo to evaluate potential impacts on scattered foraging resources. In every instance, the assessment concluded that significant impacts are unlikely to occur.

The Proposed Action incorporates Nature Positive design measures committed to under the Birkdale Community Precinct Conceptual Management Plan (**Att-4_BCP CMP**) and the Koala Management Plan (**Att-14_KMP**). These include the planting of at least 10,000 native trees, habitat feature replacement at a 3:1 ratio, active weed management and rehabilitation across the Conservation Area, eradication of invasive pest fauna including the European Red Fox, and the establishment of fauna movement infrastructure to enhance ecological connectivity across the Project Area. Construction and operational impacts will be managed through dedicated environmental management plans prepared in accordance with DCCEE guidelines.

On the basis of the above, it is considered that the Proposed Action is unlikely to result in a significant impact on any Matter of National Environmental Significance, per the Significant Impact Guidelines 1.1 (DoE, 2013).

4.1.5 Migratory Species

4.1.5.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No

4.1.5.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

The Proposed Action is unlikely to have a direct or indirect significant impact on migratory MNES in the Project Area (**Att-2_MNES EAR, Section 5.1, Pg 34-45**). The Proposed Action is limited to the Disturbance Footprint which capitalises on the predominantly cleared lands that have historically been used for agricultural pursuits and later Military uses. The MNES EAR identifies the Disturbance Footprint as having unsuitable habitat to support migratory species. The Likelihood of Occurrence assessment lists each migratory species that was identified as having verified occurrence records within 3km of the Project Area according to the Queensland Wildnet online database and are considered 'known' to occur within 3km of the Project Area according to the EPBC Act PMST (**Att-2_MNES EAR, Section 4.1.2, Pg 15-16; Att-2_MNES EAR, Appendix F**). The habitat requirements for each species was reviewed and compared against the habitat types present within the Disturbance Footprint to determine a likelihood of occurrence status between 'unlikely', 'possible', 'likely', or 'known'. Exception to this approach was made for species which habitat requirements clearly do not exist on the Project Area, and hence, will not be impacted by the Proposed Action. This refers to marine environments and includes migratory marine mammals (whales, dolphins), migratory reptiles (turtles), and migratory sharks (see **Att-2_MNES EAR, Section 5.1.1 [Excluded Species], Pg 36**).

Each migratory species assessed in the Likelihood of Occurrence was deemed unlikely to occur and unlikely to contain suitable habitat, with the exception of the white-throated needletail (*Hirundapus caudacutus*) which was listed as 'possible'. This species was not progressed to SIA however, as the species is considered almost

exclusively aerial and the impact associated with the Proposed Action would be highly unlikely to impact habitat or resources associated with this species.

Consequently, the Proposed Action is not expected to result in a significant impact to Migratory Species, per the Significant impact guidelines 1.1 (DoE, 2013).

4.1.6 Nuclear

4.1.6.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No.

4.1.6.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

The Proposed Action does not involve nuclear activities.

4.1.7 Commonwealth Marine Area

4.1.7.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No.

4.1.7.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

There are no Commonwealth Marine Areas proximal to the Project Area. The nearest Commonwealth Marine Area begins approximately 6 km east from the easternmost point of North Stradbroke Island as waters within Moreton Bay are predominantly State managed (**Att-2_MNES EAR, Appendix D [PMST]**).

4.1.8 Great Barrier Reef

4.1.8.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No.

4.1.8.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

The Great Barrier Reef is not proximal to the Project Area (**Att-2_MNES EAR, Appendix D [PMST]**).

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No.

4.1.9.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

The Proposed Action will not impact a water resource, nor is it a large coal mining development or coal seam gas project.

4.1.10 Commonwealth Land

4.1.10.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No

4.1.10.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

The Project Area (excluding Lot 2 on RP211270) was purchased by RCC from the Commonwealth in 2019 and as such, is held in ownership by RCC. However, as part of the conditions of sale, RCC entered into a Conservation Area Agreement with the Commonwealth for the land described as Lot 1 on RP14143, Lot 2 on RP14144 and Lot 2 on SP146445 which is in the final stages of execution. Further, the neighbouring lot to the north of the Project Area (Lot 1 on RP101870) has Commonwealth interest in that an aviation satellite ground station is present, aiding to guide aircraft avionics equipment to the Brisbane Airport.

Of relevance, the Conservation Area Agreement specifies clauses requiring the protection and conservation of species and TEC's listed under the EPBC Act within the Conservation Area.

The Proposed Action will be limited to the Disturbance Footprint of the Project Area and will maintain values of the Conservation Area in line with the Conservation Area Agreement. Numerous technical assessments and studies outlined within this Referral have outlined the potential for direct and indirect impacts to the Conservation Area and have concluded that direct and indirect impacts are unlikely. It is anticipated that rehabilitation efforts associated with the Proposed Action will lead to long term nature positive outcomes. No infrastructure will result that will interfere with the aviation satellite ground station and no direct impact will be had to the operation of this facility.

Overarchingly, the Proposed Action is not anticipated to impact either directly or indirectly on Commonwealth land or Commonwealth interests imparted on the land.

4.1.11 Commonwealth Heritage Places Overseas

4.1.11.1 *Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters?*

No.

4.1.11.2 *Briefly describe why your action is unlikely to have a direct and/or indirect impact*

The Proposed Action is not located overseas.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 *Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency?*

No.

4.2 Impact Summary

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4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral?

No

4.3.2 Describe why alternatives for your proposed action were not possible

The Proposed Action consists largely of two elements – The BCP and the RWC.

With regard to the RWC, a Senate Inquiry was held with regard to 'Australia's preparedness to host the Commonwealth, Olympic and Paralympic Games'. In its First Interim Report (September 2023), the Committee had made seven recommendations, including Recommendation Seven, which urged the Queensland Government

to re-examine whether the Penrith Whitewater Centre in New South Wales could be refurbished and used instead of constructing a new facility at Birkdale. For this element of the Proposed Action, an alternative was identified. However, the 100-Day Review, completed in early 2024, diverged from that recommendation and endorsed proceeding with the Whitewater Facility at Birkdale “as scoped”. The Queensland Government accepted this recommendation as the 100-Day Review determined the Whitewater Facility to be value for money, while noting the need to manage environmental approvals, water supply, transport connectivity, and long-term operating cost risks (**Att-7_CCS**). The RWC at Birkdale is now a confirmed component of the Games’ delivery strategy.

With regard to the balance area of the Proposed Action, this is occupied by the BCP. Given limited land availability within the RCC LGA of the same/similar magnitude and context, no other foreseeable alternate location is possible. The intent of the BCP is to also serve the community of Birkdale and surrounding suburbs, particularly in the RCC LGA. Resultantly, the land must be available within this LGA. The Project Area available represents the most ideal location for the BCP given it’s location, size, and lack of existing infrastructure. The Proposed Action maximises the use of previously disturbed areas with low habitat value, and being designed complimentary to the Conservation Area’s higher ecological values, these higher values are able to be maintained and improved upon.