

## **APPENDIX Q – TECHNICAL ECOLOGICAL REPORT**

*Saunders Havill Group*



# Technical Ecological Report

Toowoomba Region Sports Precinct, Charlton  
Prepared for Toowoomba Regional Council  
28 April 2022

Job 10766 E

# Document Control

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# Acronyms and Abbreviations

DAF	Department of Agriculture and Fisheries
DBH	Diameter at Breast Height
TER	Technical Ecological Report
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
ha	hectares
KHA	Koala Habitat Area
KPA	Koala Priority Area
km	kilometres
m	metres
MCU	Material Change of Use
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance
NCA	<i>Nature Conservation Act 1992</i>
PMR	Protected Matters Report
PMST	Protected Matters Search Tool
PR	<i>Planning Regulation 2017</i> (Qld)
RE	Regional Ecosystem
SEQ	South East Queensland
SHG	Saunders Havill Group
SPP	<i>State Planning Policy 2017</i> (Qld)
SRZ	Structural Root Zone
TEC	Threatened Ecological Community
TPZ	Tree Protection Zone
TRC	Toowoomba Regional Council
VMA	<i>Vegetation Management Act 1999</i> (Qld)

# 1. Introduction

Saunders Havill Group (SHG) was engaged by Toowoomba Regional Council to prepare a Technical Ecological Report (TER) for a sports precinct located in Charlton, intended to support the requirements of a development application to Toowoomba Regional Council (TRC). This TER provides an assessment of ecological values in accordance with Commonwealth, State and Local legislation within land located along the Toowoomba Connection Road and Toowoomba Bypass in Charlton.

Contextually, the site is approximately 126.9 hectares (ha) in size and is located approximately 9 kilometres (km) north-west of Toowoomba town centre (refer **Figure 1**). The site is bound by Toowoomba Bypass to the west and north, Toowoomba Connection Road to the south and open paddock areas to the east (refer **Figure 2**). The site consists of 12 rural lots with Toowoomba Clay Target Club at the southern extent. The majority of the site is utilised for cattle grazing and is zoned for Sport and Recreation purposes. Surrounding land uses include predominantly rural and community facilities. Remnant vegetation and waterways exist on-site (refer **Table 1**).

The proposed development is for a major sport facility consisting of indoor and outdoor facilities and associated infrastructure. The development is intended to proceed through a Local Government Infrastructure Designation (LGID) in accordance with Chapter 2 Part 5 of the Planning Act 2016 (PA 2016). The Local Government Infrastructure Designation will enable the use of the facility as '*Sporting facilities*' as defined under Schedule 5 of the Planning Regulation 2017.

The proposed Toowoomba Region Sports Precinct is intended across 12 rural lots. However, due to access limitations, the southern seven lots had been assessed on-ground in September 2021 and presented in a prior report. As such, this TER is intended to present the outcomes of ecological field results for the northern five lots only, refer **Figure 1** and **Figure 2** for extent. A brief summary of ecological field results for the southern extent of the site has been reiterated in Section 4 defined as 'Summary Assessment of Southern Extent'.

## 1.1. Property summary

Key details of the northern site are provided in **Table 1**.

**Table 1: Property summary**

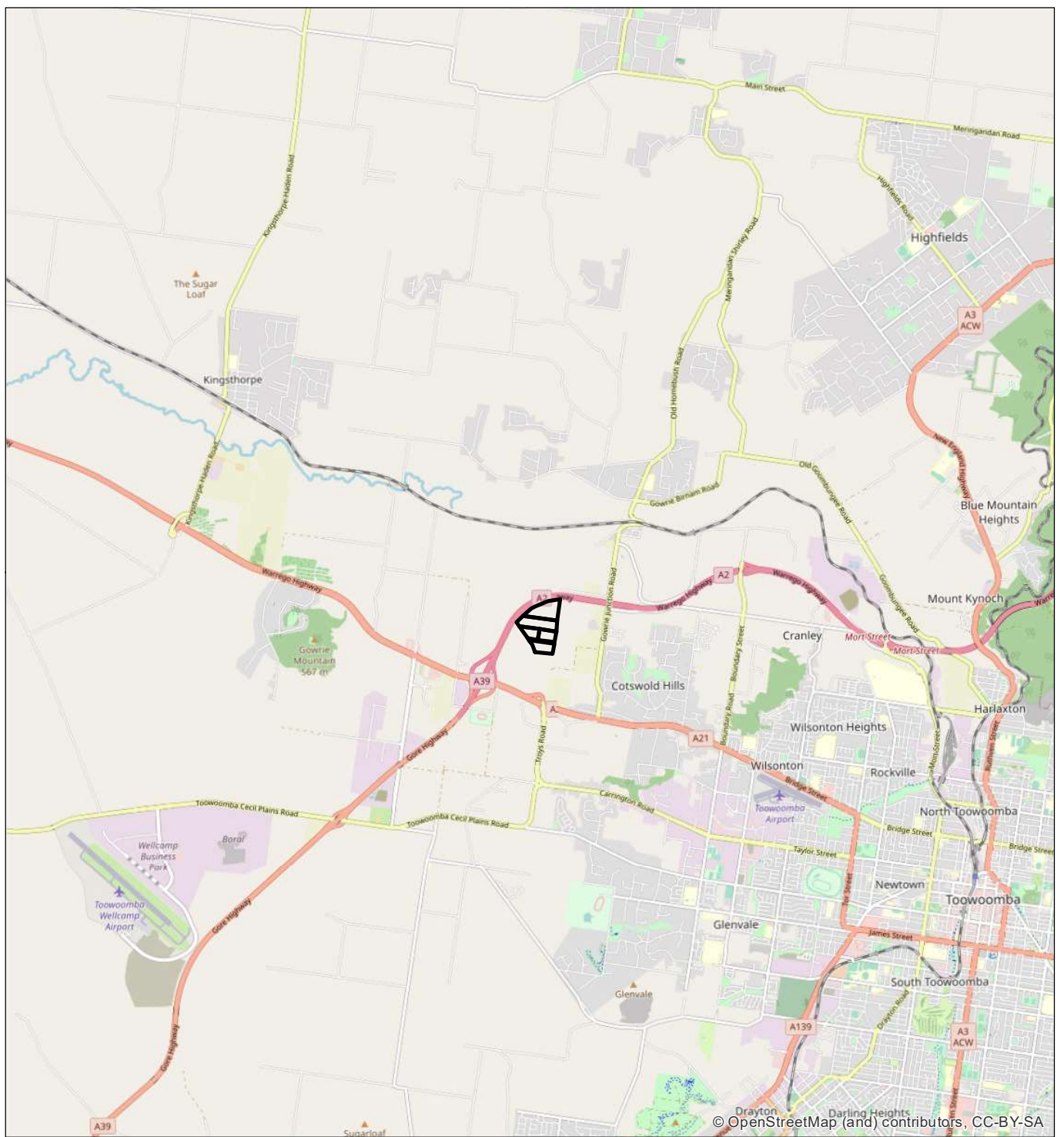
<b>Address</b>	Charlton
<b>Lot/plan</b>	Lot 115 on A345 Lot 116 on A345 Lot 117 on A345 Lot 118 on SP203198 Lot 119 on SP203198
<b>Area</b>	49.547 ha
<b>NCA Protected Plants</b>	Lot 118 & 119 on SP203198 - partially within high-risk area for protected plants



<b>Vegetation Management Act 1999 (VMA)</b>	Category X (non-remnant) Category B (Least Concern) - RE11.8.5
<b>Fisheries Act 1994</b>	<i>Low risk waterway for waterway barrier works (WWBW) (small part of the northeastern corner)</i>
<b>Local Government Area (LGA)</b>	Toowoomba Regional Council
<b>Planning scheme</b>	Toowoomba Regional Planning Scheme 2019 (Version 26.0)
<b>Zoning</b>	Sport and Recreation
<b>Environmental overlays</b>	Environmental significance (Areas of Ecological Significance and Areas of Ecological Significance Buffer) and Waterways and Wetlands
<b>Existing land use</b>	Vacant/grazing land/ sporting facilities
<b>Proposed land use</b>	Sport Facility

## 1.2. Purpose of the Report

The purpose of this TER is to present the outcomes of field surveys, identify environmental site constraints, assess the potential of the project to impact on ecological features and respond to relevant Toowoomba Regional Council Planning Scheme Policies and Codes. This report was prepared in accordance with the requirements of Planning Scheme Policy 1 – Development Application Requirements.



#### Legend

 Site DCDB

**Figure 1**  
Site Context

Toowoomba  
Regional Council

**File ref.** 10766 E Figure 1 Site Context A  
**Date** 25/03/2022  
**Project** Toowoomba Region Sports Precinct, Charlton

0 1 2 3 4 km

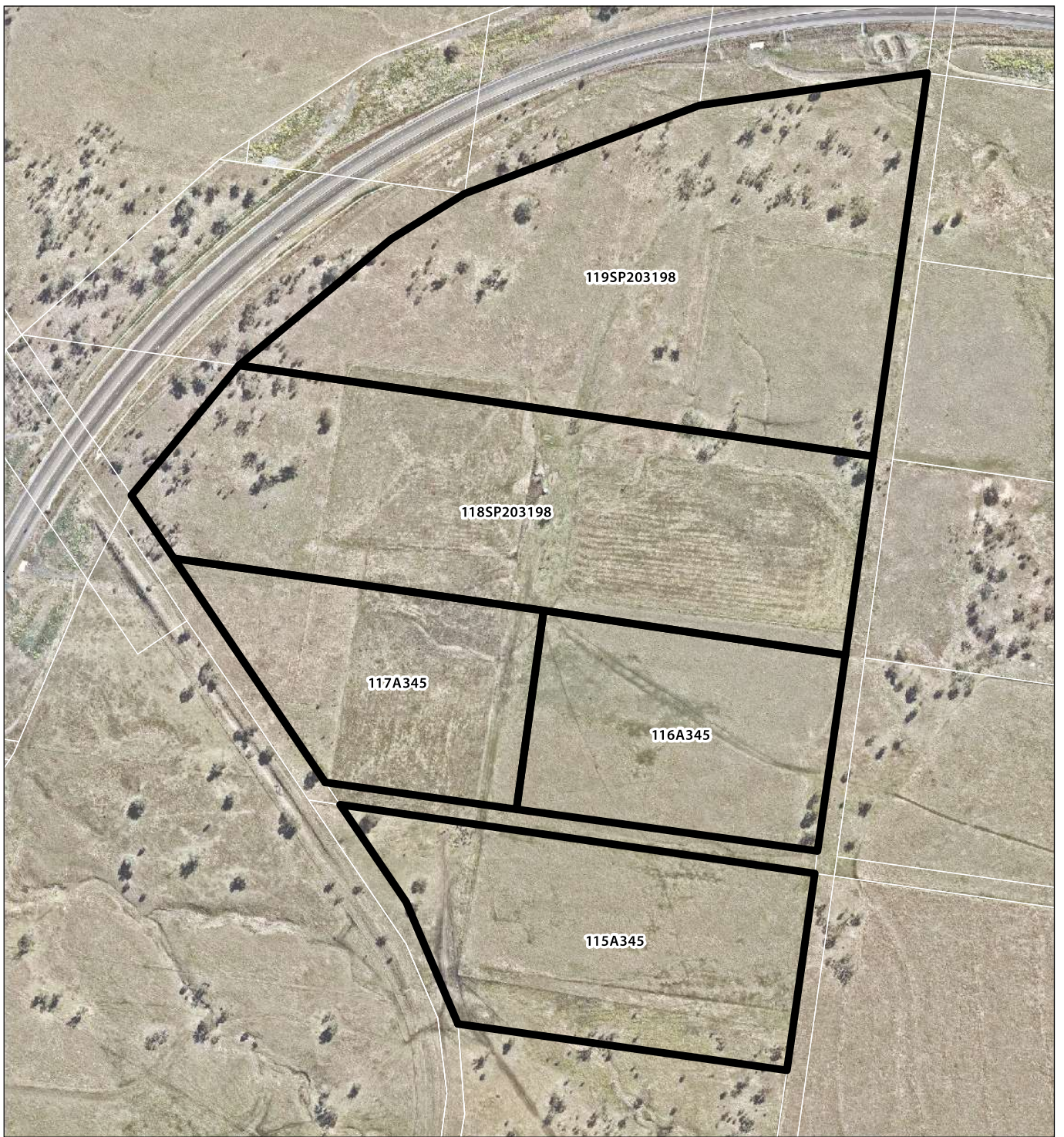
Scale (A4): 1:100,000 [GDA 2020 MGA Z56]



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#### Legend

- Site DCDB
- Qld DCDB

## Figure 2

Site Aerial

Toowoomba  
Regional Council

**File ref.** 10766 E Figure 2 Site Aerial A  
**Date** 25/03/2022  
**Project** Toowoomba Region Sports Precinct, Charlton

0 40 80 120 160 m

Scale (A4): 1:5,500 [GDA 2020 MGA Z56]



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## 2. Ecological assessment methodology and process

The following steps were undertaken in the preparation of this ecological assessment:

1. desktop analysis;
2. legislation and policy review;
3. field survey;
4. impact assessment and development analysis; and
5. conclusion and recommendations.

Details of the desktop analysis and field survey methodologies is provided in **Sections 2.1** and **2.2**, respectively.

### 2.1. Desktop analysis methodology

Prior to the commencement of field surveys, a desktop analysis of Commonwealth, State and Local environmental databases and overlay mapping was completed. This analysis captured the following:

- Commonwealth Matters of National Environmental Significance (MNES) protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on and around the site using the Protected Matters Search Tool (PMST);
- *Nature Conservation Act 1992* (NCA) listed threatened species on and around the site using the Wildlife Online database;
- Publicly available information from environmental databases including Atlas of Living Australia;
- State Government environmental overlay mapping, including:
  - Koala Habitat Areas and values under the *Planning Regulation 2017* (PR);
  - Regulated Vegetation Maps under the *Vegetation Management Act 1999* (VMA);
  - Flora Survey Trigger Areas under the NCA;
  - Fish habitat under the *Fisheries Act 1994*;
  - Watercourses under the *Water Act 2000*;
  - Weeds under the *Biosecurity Act 2014*; and
  - Matters of State Environmental Significance (MSES) under the *State Planning Policy 2017* (SPP) (*i.e.*, wetland protection areas, koala habitat, etc.); and
- Toowoomba Regional Planning Scheme documents and maps.



## 2.2. Field survey methodology

Ecological field surveys were conducted on the development site to ascertain the presence and absence of any potential matters of ecological significance. The methods utilised are described in the following sections.

### 2.2.1 Observational survey for significant flora and fauna, habitat trees and biodiversity values

The development site was walked (where accessible) to observe and record all flora and fauna species. Particular attention was paid to species of conservation significance or suitable habitat for these species with potential to occur within or proximal to the site. This survey included observations for vertebrate fauna present within or proximal to the study area, faunal lists and significant species under the Commonwealth's EPBC Act and Queensland's NCA.

The observational survey included identification of ecological features and values such as broad vegetation communities, fauna habitats, and ecological corridors. Recording fauna habitat features within the project area included habitat trees bearing features such as hollows, arboreal termitaria, nests and scratches. Specific attention was paid to EPBC listed significant flora and fauna species.

### 2.2.2 GPS tree plot

A tree plot survey was conducted across areas of the development site to locate and describe vegetation values. Specific attention was paid to native mature tree specimens providing potential habitat features (i.e., hollows, nests). A handheld GPS device (Trimble) was used to record locations (accuracy  $\pm 1$  m), and the following parameters of tree specimens located were recorded:

- tree species, via a combination of observations of the gum nuts, buds, leaves, bark and growth form;
- diameter of the trunk of the tree measured using the standard method of Diameter at Breast Height (DBH);
- height of the tree measured using a laser rangefinder with three-point measurement capability (inclinometer);
- canopy spread;
- health assessment (canopy, trunk); and
- habitat values (for example, presence and/or number of hollows, nests, termites, scratches and scats).

The Tree Protection Zone (TPZ) of the tree was calculated using the formula outlined in *Australian Standard AS4970-2009 – Protection of Trees on Development Sites* ( $TPZ = DBH \times 12$ ). A TPZ should not be less than 2 metres (m) and no greater than 15 m (except where crown protection is required). Additionally, the Structural Root Zone (SRZ) was calculated for each plotted specimen using the measured DBH and the following formula:

$$SRZ \text{ radius} = (DBH \times 50)^{0.42} \times 0.64.$$

### 2.2.3 Flora Survey Methodology

Portions of Lot 118 & 119 on SP203198 are mapped by Protected Plants Flora Survey Trigger mapping as High Risk. These areas were surveyed, and all plant species recorded as per *Flora Survey Guidelines – Protected Plants*

*Nature Conservation Act 1992 and the Nature Conservation (Wildlife Management) Regulation 2006 Protected Plants Assessment Guidelines.*

The survey was conducted by a suitably qualified person as required by Section 4 of the flora survey guidelines. Refer to **Appendix C** for the suitably qualified person self-assessment curriculum vitae of the Senior Ecologist who performed the assessment. Surveys were carried out as follows:

1. The Clearing Impact Area and amended buffer extent was traversed by foot by project Ecologists;
2. The start and finish times of each meander were recorded;
3. The track log of the project Ecologists' transects were recorded using a GPS unit accurate to <1m;
4. Site was traversed in a random manner so as to maximise the coverage of habitat and the encounter rate of different species;
5. The identity of all plant species encountered during each meander was recorded;
6. Time was recorded every two to five minutes; and

The site and surrounds were photographed, and any relevant observations recorded. (Refer **NCA Survey report**)

#### 2.2.4 Diurnal bird surveys

This technique is non-invasive providing an estimate of diurnal bird species occurrence via visual or audio detection. Inclement weather greatly reduces the detection of bird species, thus was avoided where possible. Only birds seen or heard within the site were recorded. Bird species hunting, feeding or searching directly over the site were included, and birds flying overhead were recorded as 'off-site' and included with incidental records for survey area.

#### 2.2.5 Ground-truthing of vegetation communities

Vegetation was ground-truthed and assessed against current VMA regional ecosystem (RE) mapping and pre-clear mapping. This included reviewing the accuracy and extent of mapped RE types in addition to general condition. field survey also focussed on identifying presence or potential presence of threatened ecological communities (TECs) identified as having the potential to occur on or proximal to the site.

#### 2.2.6 Motion sensor camera trap

Camera trapping involves setting up a fixed digital camera to capture images or video of animals that pass in front of a camera with an infrared trigger. It is a non-invasive technique designed to detect medium to large sized animals as they pass, although it is possible to detect smaller animals depending on the set-up. This method identifies fauna activity beyond the scope of direct observational studies and with the absence of potential observer impacts.

Infrared sensing cameras with an infrared flash that use motion to trigger were deployed. Two (2) cameras were installed across the investigation area. Cameras were attached 30-100 cm from the ground on a tree or post and directed towards a bait station. The cameras were left to record for two (2) day, installed on the 14 March and removed on 17 March 2022.



## 2.2.7 Waterway Assessment

Waterway surveys were completed with the following information collected:

- general description;
- channel shape and modifications;
- in-stream habitat;
- vegetation quality and cover (embankments, channel and overall corridor);
- bed, bank and bar conditions (erosion, scouring, sediment); and
- weed cover.

### 3. Legislation, policy and planning instruments

#### 3.1. Environment Protection and Biodiversity Conservation Act 1999

The Australian Government's key piece of environmental legislation is the EPBC Act. The EPBC Act aims to protect and manage Matters of National Environmental Significance (MNES) which include nationally and internationally important flora, fauna, ecological communities and heritage places.

An EPBC Act Protected Matters Report (PMR) was obtained using the Commonwealth's PMST. The search provides a list of wetlands of international significance, Threatened Ecological Communities (TECs), threatened species and other MNES which have the potential to be temporarily or permanently located within a 5 km search radius from the central point of the development site. **Table 2** lists a summary of these results relevant to the site. The complete PMR is included in **Appendix A**.

**Table 2: EPBC Act PMST PMR summary**

<b>Wetlands of international importance</b>		
Banrock Station Wetland Complex – 1300-1400km		
Narran Lake Nature Reserve – 400-500km upstream		
Riverland – 1200-1300km		
The Coorong, and Lakes Alexandrina and Albert Wetland – 1400-1500km		
<b>Threatened ecological communities</b>		
<b>Coolibah-Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions</b> – Endangered (Community may occur within area)		
<b>Natural Grasslands on basalt and fine-textured alluvial plains on northern New South Wales and southern Queensland</b> – Critically Endangered (Community likely to occur within area)		
<b>Poplar Box Grassy Woodland on Alluvial Plains</b> – Endangered (Community may occur within area)		
<b>Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions</b> – Endangered (Community likely to occur within area)		
<b>Weeping Myall Woodlands</b> – Endangered (Community may occur within area)		
<b>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</b> – Critically Endangered (Community likely to occur within area)		
<b>Threatened species</b>		
Scientific name	Common name	Status
<b>Birds</b>		
<i>Anthochaera Phrygia</i>	Regent Honeyeater	Critically Endangered
<i>Botaurus poiciloptilus</i>	Australasian Bittern	Endangered
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically Endangered

Threatened species		
Scientific name	Common name	Status
<i>Erythroriorchis radiatus</i> *	Red Goshawk	Vulnerable
<i>Falco hypoleucos</i> *	Grey Falcon	Vulnerable
<i>Geophaps scripta scripta</i>	Squatter Pigeon (southern)	Vulnerable
<i>Grantiella picta</i> *	Painted Honeyeater	Vulnerable
<i>Hirundapus caudacutus</i> *	White-throated Needle-tail	Vulnerable
<i>Lathamus discolor</i>	Swift Parrot	Critically Endangered
<i>Rostratula australis</i>	Australian Painted Snipe	Endangered
<i>Turnix melanogaster</i> *	Black-breasted Button-quail	Vulnerable
Mammals		
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat, Large Pied Bat	Vulnerable
<i>Dasyurus hallucatus</i>	Northern Quoll	Endangered
<i>Dasyurus maculatus maculatus</i>	Spot-tailed Quoll	Endangered
<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat	Vulnerable
<i>Petauroides volans</i>	Greater Glider	Vulnerable
<i>Petaurus australis</i>	Yellow-bellied Glider (south-eastern)	Vulnerable
<i>Petrogale penicillata</i>	Brush-tailed Rock-Wallaby	Vulnerable
<i>Phascolarctos cinereus</i> *	Koala	Endangered
<i>Pseudomys novaehollandiae</i>	New Holland Mouse	Vulnerable
<i>Pteropus poliocephalus</i>	Grey-headed Flying-Fox	Vulnerable
Plants		
<i>Arthraxon hispidus</i>	Hairy-joint Grass	Vulnerable
<i>Bothriochloa bunyensis</i>	Satin-top Grass	Vulnerable
<i>Cadellia pentastylis</i>	Ooline	Vulnerable
<i>Clematis fawcettii</i>	Stream Clematis	Vulnerable
<i>Dichanthium queenslandicum</i>	King Blue-grass	Endangered
<i>Dichanthium setosum</i>	Bluegrass	Vulnerable
<i>Lepidium peregrinum</i>	Wandering Pepper-cress	Endangered
<i>Rhaponticum australe</i>	Austral Cornflower	Vulnerable
<i>Sarcocylus weinthalii</i>	Blotched Sarcocylus	Vulnerable
<i>Sophora fraseri</i> *	Brush Sophora	Vulnerable
<i>Thesium australe</i>	Austral Toadflax	Vulnerable
Reptiles		

Threatened species		
Scientific name	Common name	Status
<i>Anomalopus mackayi</i> *	Five-clawed Worm-skink	Vulnerable
<i>Delma torquata</i>	Adorned Delma	Vulnerable
<i>Egernia rugosa</i>	Yakka Skink	Vulnerable
<i>Furina dunmalli</i>	Dunmall's Snake	Vulnerable
<i>Tympanocryptis condaminensis</i>	Condamine Earless Dragon	Endangered

\* Identifies where species or species habitat is known to occur within the area.

### 3.2. Nature Conservation Act 1992

The NCA classifies and protects significant areas (protected areas) and protects threatened plant and animal species. The *Nature Conservation (Animals) Regulation 2020* (the Animals Regulation) and the *Nature Conservation (Plants) Regulation 2020* (the Plants Regulation) (previously combined as the *Nature Conservation (Wildlife) Regulation 2006*) lists animal and plant species, respectively, presumed extinct, critically endangered, endangered, vulnerable, near threatened, least concern, international or prohibited. The schedules of this regulation were considered in this assessment using a wildlife online database extract with a 5 km radius from the central point of the subject site. The list of threatened species under the Animals Regulation and the Plants Regulation with the potential to occur on or near the project are presented in **Table 3** (refer to **Appendix B** for complete Wildlife Online search results).

**Table 3: NCA wildlife online search results**

Scientific name	Common name	Status
<b>Birds</b>		
<i>Calyptorhynchus lathami</i>	Glossy Black-Cockatoo	Vulnerable
<i>Falco hypoleucos</i>	Grey Falcon	Vulnerable
<i>Turnix melanogaster</i>	Black-breasted Button Quail	Vulnerable
<b>Mammals</b>		
<i>Phascolarctos cinereus</i>	Koala	Endangered
<b>Plants</b>		
<i>Picris evae</i>	Hawkweed	Vulnerable
<i>Rhaponticum australe</i>	Austral Cornflower	Vulnerable
<i>Cyperus clarus</i>	-	Vulnerable
<i>Sophora fraseri</i>	Brush Sophora	Vulnerable
<i>Digitaria porrecta</i>	Finger Panic Grass	Near Threatened

The protected plants regulatory framework under the NCA commenced on 31 March 2014, establishing survey and approval triggers, and processes for clearing protected plants. The protected plant definition includes all

presumed extinct, critically endangered, endangered, vulnerable and/or near threatened plant species listed by name in the Plants Regulation and least concern wildlife, not listed by name but identified as a plant indigenous to Australia. Furthermore, the plant must be considered *in the wild* in order to be a protected plant.

The NCA identifies *in the wild* as 'in an independent state of natural liberty'. Several factors influence whether a protected plant is *in the wild*:

- the process by which the plant has become established, *i.e.*, either initiated through human intervention or naturally occurring;
- the natural range of the plant species; and/or
- the ecological situation in which the plant is found.

Typically, planted specimens are not considered *in the wild* and an authority or permission is not necessary for the taking of such specimens. The *Operational Policy Wildlife Management*<sup>1</sup> provides further information on this definition.

If a specimen is confirmed as *in the wild*, the plant must not be 'taken'—which includes being cleared—unless the taking is under:

- a conservation plan applicable to the plant;
- a license, permit or other authority under a regulation; or
- an exemption under a regulation.

A search of the protected plants flora survey trigger map identified that the investigation area is outside a 'high risk' area for protected plants. Consequently, a flora survey and liaison with the administering authority in accordance with the protected plants guidelines is not required prior to the clearing of vegetation. If *in the wild* protected plants are present on-site that will be cleared, the person / entity completing the clearing will need a clearing permit unless an exemption applies. Notably, no protected plants were recorded within the investigation area during the field survey.

### 3.3. Vegetation Management Act 1999

The Vegetation Management Act (VMA) is the key mechanism by which the Queensland Government protects the state's environmental resources pertaining to vegetation. Under the VMA, a series of maps delineate vegetation features across the landscape and features are assigned a conservation value directly related to the extent remaining in the landscape. The VMA also protects other natural resource elements associated with the protected vegetation such as essential habitat (where listed threatened species have been known to occur), wetlands and watercourses.

The Regulated Vegetation Management Map (RVMM) shows vegetation categories used to determine clearing requirements. While areas shown on the map as *Category X* are not regulated under the VMA, those

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<sup>1</sup> Department of Environment and Heritage Protection 2015. *When a protected plant in Queensland is considered to be 'in the wild' Operational policy.*

shown as *Category A, B, C or R* are subject to clearing requirements. The latter vegetation categories can only be cleared in accordance with an exemption, self-assessable vegetation clearing code, area management plan or development approval. A Supporting Map defining REs, wetlands, watercourses and essential habitat, accompanies the Regulated Vegetation Management Map. Approval to clear native vegetation that is identified as *Category A, B, C or R* is required under the *Planning Act 2016* unless an exemption applies.

A watercourse is mapped within the very northern tip of Lot 119 on SP203198 and the south-western corner of Lot 115 on A345. Where watercourses occur within VMA-regulated vegetation (*Category B, C, R or A*), clearing within certain distances (stream order-dependent) of the defining bank of the waterway, triggers a response to State Code 16: Native Vegetation Clearing and a referral to SARA, when state assessment processes are in place. As this watercourse occurs within *Category X*, which is typically not regulated by the VMA for this purpose, in addition to the development proceeding through the LGID process, this is not triggered within the northern section.

A property search of the Regulated Vegetation Management Map identified the investigation area is mapped predominantly as non-regulated *Category X* vegetation, with a polygon of remnant *Category B* vegetation the centre of the site (**Figure 3**). Clearing of *Category X* (*non-remnant*) vegetation is exempt from assessment under the *Planning Act 2016*. The Supporting Vegetation Management Map shows the mapped *Category B* vegetation is Least Concern RE11.8.5 (**Figure 4**). **Table 4** provides vegetation descriptions of the mapped regional ecosystems on-site.

**Table 4: Regional ecosystem descriptions**

Status	Code	Description
Least Concern	11.8.5	<i>Eucalyptus orgadophila</i> open woodland. <i>Eucalyptus orgadophila</i> predominates and forms a distinct but discontinuous canopy sometimes with other sub-dominant species such as <i>Corymbia erythrophloia</i> , <i>E. melanophloia</i> and occasionally <i>E. crebra</i> . Shrubs are usually scarce and scattered although a well-defined shrubby layer does develop in some areas. On the lower slopes at better sites, softwood scrub species may form tall and low shrub layers under the canopy of <i>Eucalyptus orgadophila</i> . The ground layer is moderately dense to dense, and dominated by species that include the grasses <i>Aristida lazardis</i> , <i>A. ramosa</i> , <i>Bothriochloa ewartiana</i> , <i>Dichanthium sericeum</i> , <i>Chrysopogon fallax</i> , <i>Heteropogon contortus</i> , <i>Enneapogon gracilis</i> , <i>Themeda triandra</i> and <i>Tragus australianus</i> and the herbs <i>Brunoniella australis</i> , <i>Evolvulus alsinoides</i> , <i>Galactia tenuiflora</i> and <i>Indigofera linnaei</i> . Occurs on undulating plains, rises, low hills or sometimes flat tablelands on top of mountains, formed from basalt. Generally soils are shallow to moderately shallow, often rocky or stony clays. (BVG1M: 11a)

### 3.4. Biosecurity Act 2014

The *Biosecurity Act 2014* commenced on 1 July 2016 and established a framework to regulate and control invasive plants and animals. Under the *Biosecurity Act 2014*, landowners are responsible for taking all reasonable and practical steps to minimise the risks associated with invasive plants and animals under their control. This obligation is known as the general biosecurity obligation.



The *Biosecurity Act 2014* categorises restricted matters (restricted plants and animals) into the following:

- Category 1: must be reported to an inspector within 24 hours (includes Red Imported Fire Ants, amongst others).
- Category 2: must be reported within 24 hours to Biosecurity Queensland on 13 25 23.
- Category 3: must not be distributed either by sale or gift or released into the environment.
- Category 4: must not be moved.
- Category 5: must not be kept.
- Category 6: must not be fed (animals).
- Category 7: must be euthanised (animals).

Restricted matters observed on-site are listed in **Section 4**.

### 3.5. Fisheries Act 1994

The *Fisheries Act 1994* deals with the use, conservation and improvement of Queensland's fisheries resources and fish habitats. The legislation deals with the impact from coastal development on marine fish habitat, including protected marine plants, and declared fish habitat areas. Development proposals that modify or have a temporary or permanent loss of fish habitat are assessed by the Department of Agriculture and Fisheries (DAF).

The investigation area is mapped with one low-risk waterway for WWBW in the northern corner of Lot 119 on SP203198 (**Figure 6**). Should any operational work be undertaken within the mapped waterway that does not meet Accepted Development Requirements, a referral and response to SDAP State Code 18: Waterway Barrier Works is generally required. As this development is intended to proceed under the LGID process, any works within mapped WWBW do not require assessment against SDAP State Code 18: Waterway Barrier Works. However, it is recommended this assessment is still carried out and consultation with DAF to discuss their support of the proposed works occurs prior to detailed design.

### 3.6. Water Act 2000

The *Water Act 2000* provides a framework for sustainable management of Queensland's water resources and quarry material. Under the *Water Act 2000*, a riverine protection permit is required to be obtained if works within a waterway result in filling or excavation unless these works meet an exemption.

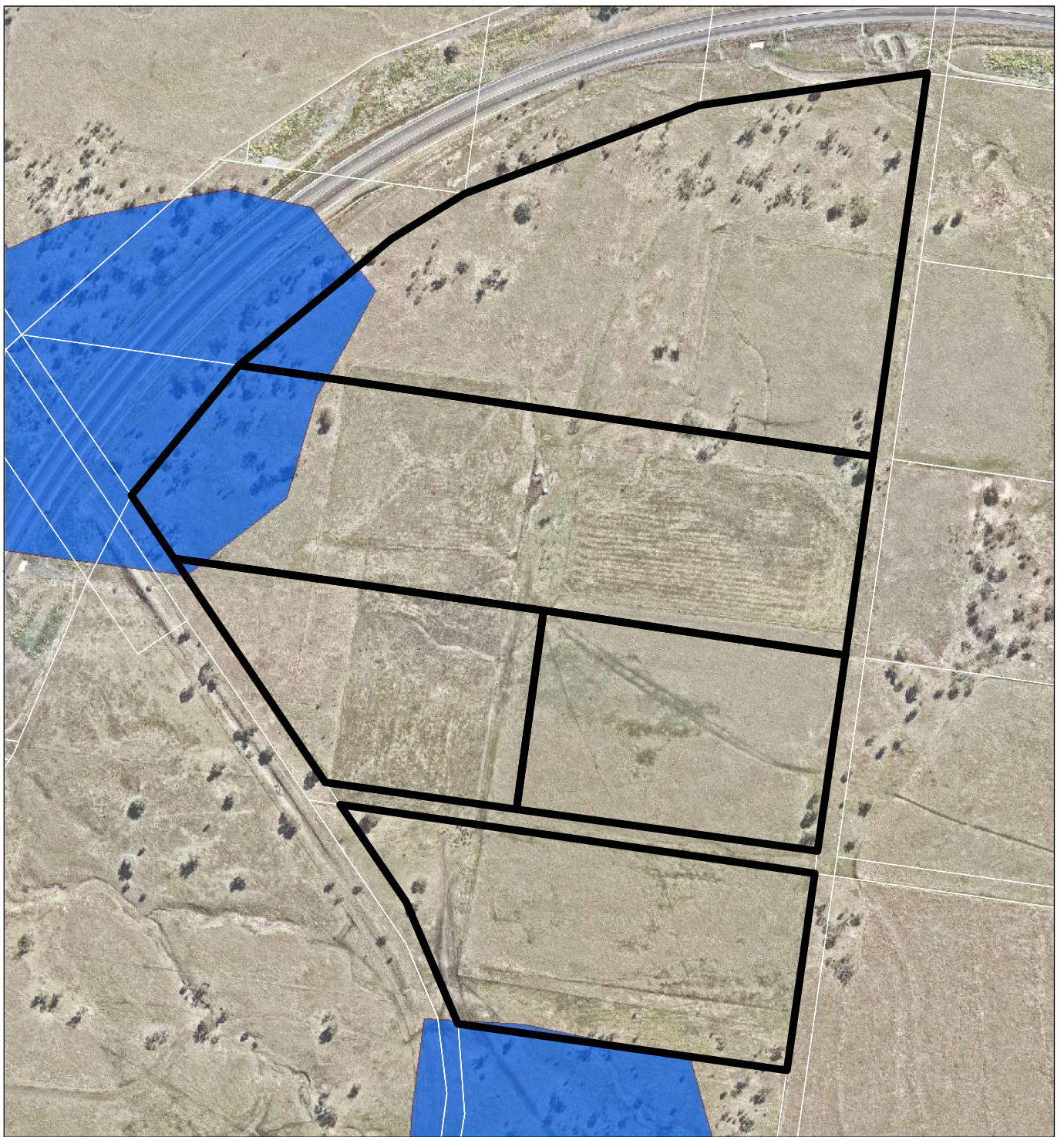
A review of Queensland Globe indicates that mapped waterway in the northern corner of the site has not been defined under the *Water Act 2000*. A request for a watercourse determination should be made to Water Services South, who will make a decision regarding the status of water features onsite, to determine requirements for completing work within the water features onsite. Operational work within a watercourse as defined under the *Water Act 2000* may trigger the requirement for a riverine protection permit if exemption requirements cannot be met.

### 3.7. Koala habitat assessment










Southeast Queensland koala habitat protection mechanisms are incorporated into the PR. Schedule 11 of the PR details specific assessment benchmarks where development is proposed within mapped Koala habitat and/or Koala Priority Areas (KPA). It regulates the clearing of mapped Koala habitat, stipulating clearing mandates (e.g., staging, presence of a Koala spotter, etc.) when a development approval is sought for a material change of use, operational work, or reconfiguring a lot to create an additional lot. Schedule 10, Part 10, Division 2 of the PR outlines what is and is not prohibited development interfering with a Koala Habitat Area (KHA) within and outside of a KPA. This legislation was enforced in February 2020.

The KPA and KHA map administered by DES identifies the investigation area as occurring outside a Koala Priority Area (KPA) with no Koala Habitat Areas existing within site boundaries. As no Koala habitat is mapped on-site, no response to assessable development provisions is required (i.e. SDAP Code 25).

The investigation area is mapped within Koala District A on the Koala Conservation Plan Map, under the Nature Conservation (Koala) Conservation Plan (2017) (Koala Conservation Plan). This affords requirements regarding sequential clearing under Division 3, Part 3, s10 of the Koala Conservation Plan to any vegetation clearing onsite.



### Legend

	Site DCDB		Category C area - High value regrowth vegetation
	Old DCDB		Category R area - Reef regrowth watercourse vegetation
<b>Regulated Vegetation</b>			Category X area - Vegetation not regulated under the VMA
	Category A area - Vegetation Offset/Compliance notices/VDecs		Water
	Category B area - Remnant vegetation		Area not categorised

### Figure 3

#### Regulated Vegetation Management Map

**File ref.** 10766 E Figure 3 RVMM A  
**Date** 25/03/2022  
**Project** Toowoomba Region Sports Precinct, Charlton

0 40 80 120 160 m

Scale (A4): 1:5,500 [GDA 2020 MGA Z56]

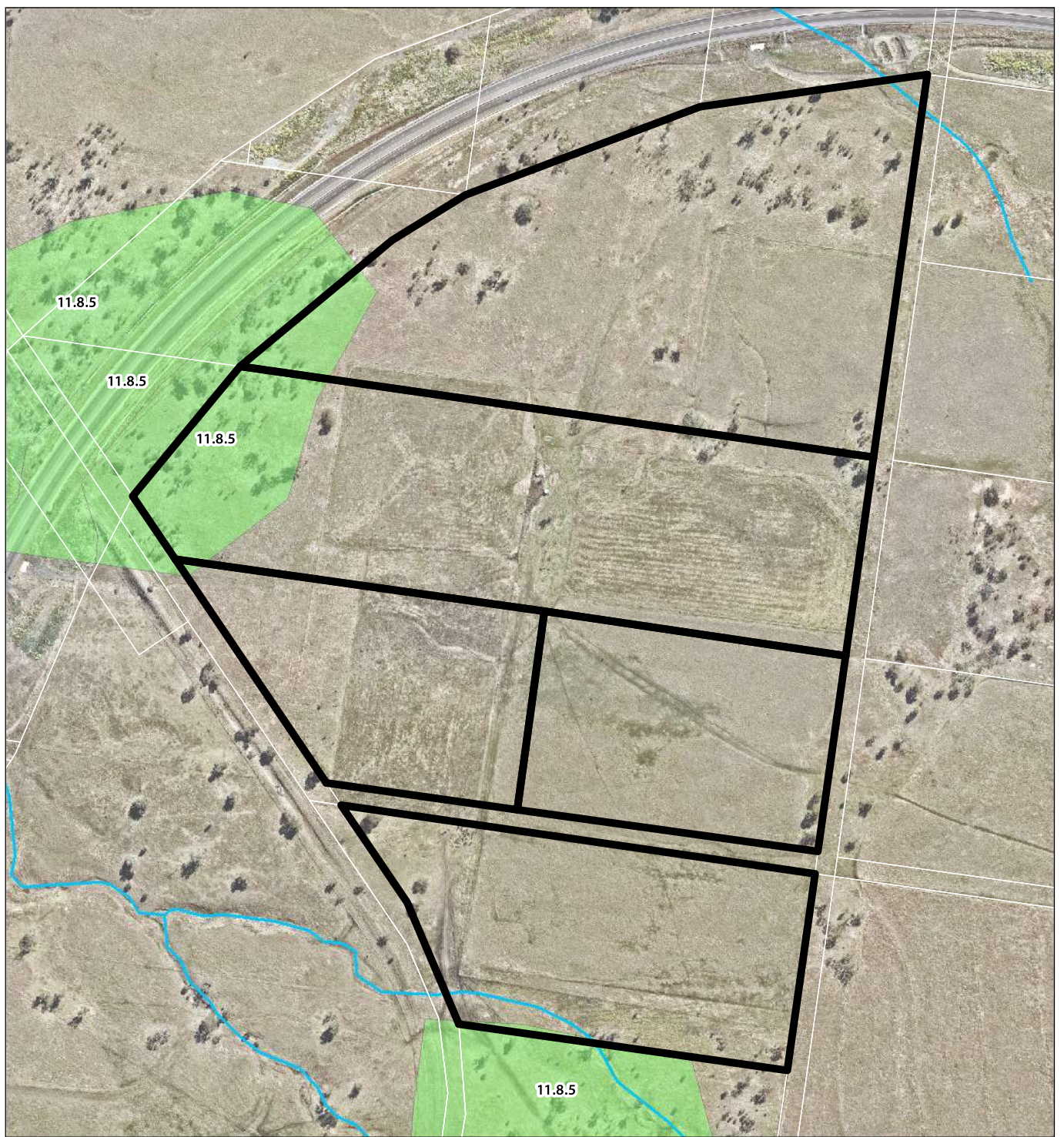


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#### Legend

Site DCDB

Old DCDB

VM Watercourses

VM Essential Habitat

VM Wetland

#### Regional Ecosystems mapping

Category A or B area containing endangered regional ecosystems

Category A or B area containing of concern regional ecosystems

Category A or B area that is a least concern regional ecosystem

Category C area containing endangered regional ecosystems

Category C area containing of concern regional ecosystems

Category C area that is a least concern regional ecosystem

## Figure 4

### Regulated Vegetation Supporting Map

**File ref.** 10766 E Figure 4 RVSM A

**Date** 25/03/2022

**Project** Toowoomba Region Sports Precinct, Charlton

0 40 80 120 160 m

Scale (A4): 1:5,500 [GDA 2020 MGA Z56]

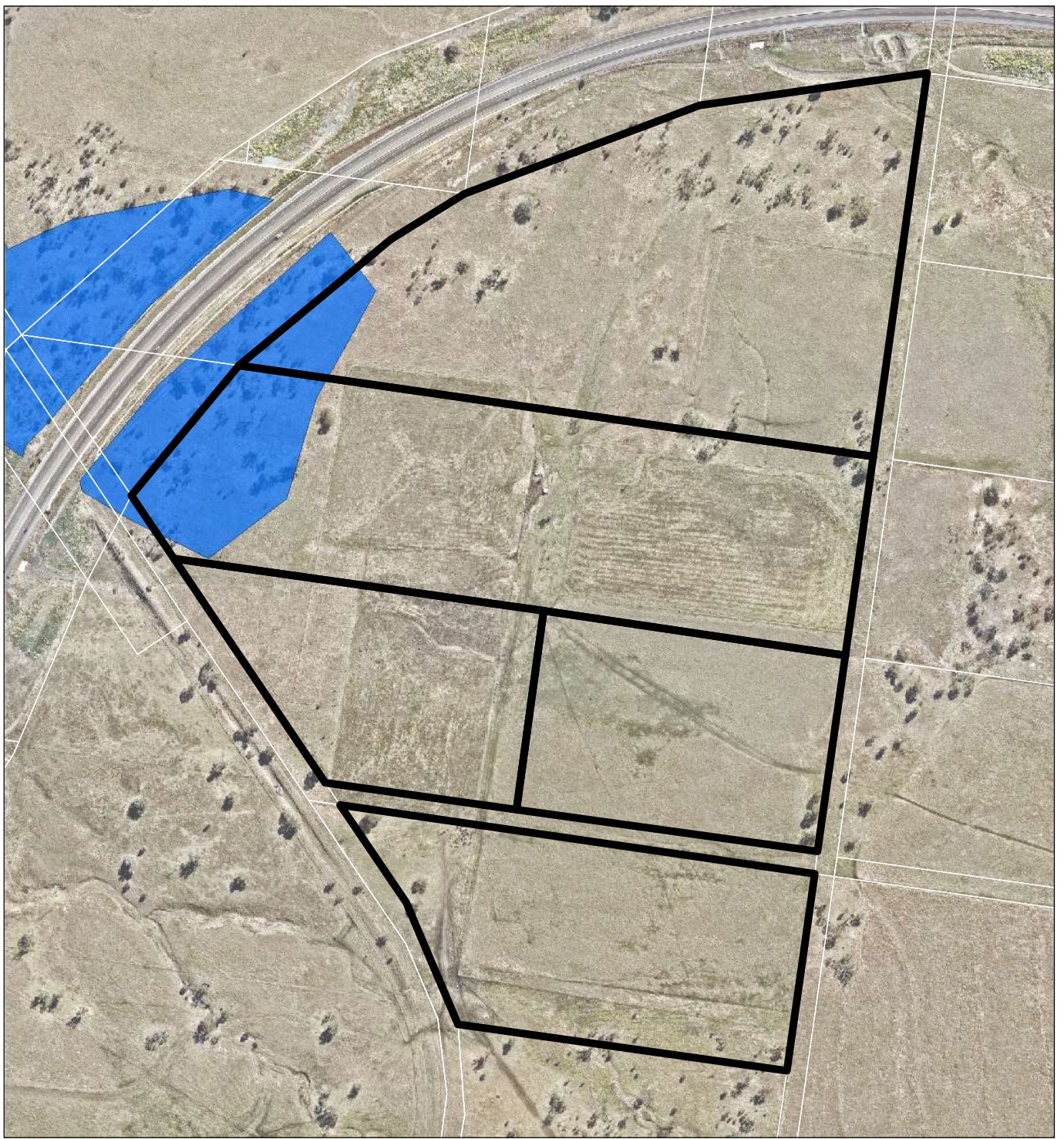


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#### Legend

-  Site DCDB
-  Qld DCDB
-  High risk area - flora survey trigger

## Figure 5

NCA - Protected Plants  
Flora Survey Trigger

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Regional Council

**File ref.** 10766 E Figure 5 NCA A  
**Date** 25/03/2022  
**Project** Toowoomba Region Sports Precinct, Charlton

0 40 80 120 160 m

Scale (A4): 1:5,500 [GDA 2020 MGA Z56]



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### Legend

- Site DCDB
- Qld DCDB
- Fish habitat area

### Waterways

Risk of Impact

- 1 - Low
- 2 - Moderate
- 3 - High
- 4 - Major
- Tidal waterway

## Figure 6

Fisheries - Waterways for  
Waterway Barrier Works

**File ref.** 10766 E Figure 6 Fisheries A

**Date** 25/03/2022

**Project** Toowoomba Region Sports Precinct, Charlton

0 40 80 120 160 m

Scale (A4): 1:5,500 [GDA 2020 MGA Z56]



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### 3.8. Other Queensland environmental legislation

Other Queensland environmental legislation has been reviewed in the context of the proposed development. **Table 5** lists other relevant Queensland legislation that is not triggered by the proposed development, the purpose of the legislation, and its relevance to the proposed development site.

**Table 5: Site relevant to other Queensland environmental legislation**

Legislation	Purpose	Relevance to Development Site
<b>Coastal Protection and Management Act 1995</b>	Seeks to protect the coastal resources of the coastal zone.	The site does not contain any coastal areas. Therefore, a response to State Code 8 is not required.
<b>State Planning Policy 2017</b>	The SPP provides interim development assessment requirements which ensures that state interests are considered by local government when assessing development applications where the local government planning scheme does not yet integrate the State interests in the planning scheme. MSES are categorised under Biodiversity, Coastal Environment or Water Quality.	The site is mapped as containing MSES – Regulated Vegetation Intersecting a Watercourse. Compliance with the SPP is addressed through the provisions of the planning scheme.

### 3.9. Town planning instruments

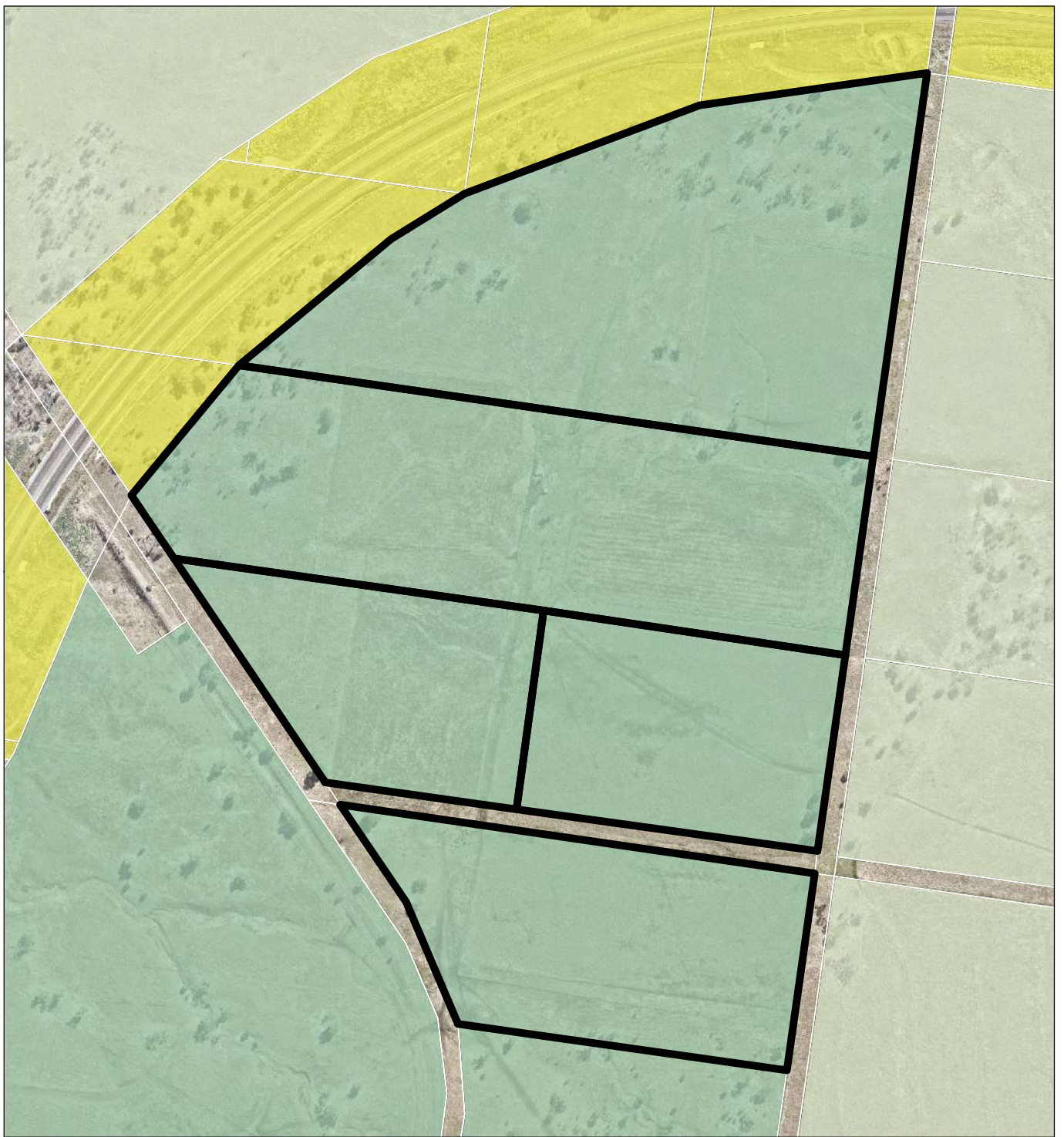
The site is located within the jurisdiction of Toowoomba Regional Council and is subject to the provisions of the TRC planning scheme.

#### 3.9.1 Toowoomba Regional Planning Scheme

Under the Toowoomba Regional Planning Scheme, the application area is zoned as sport and recreation (**Figure 7**).

- Environmental significance overlay: The site is mapped as containing areas of ecological significance including an associated buffer area and waterways and wetlands buffer area (**Figure 8**).

A response to the Environmental Significance Overlay Code is located in **Appendix C**.



#### Legend

- Site DCDB
- Qld DCDB

#### Land Use Zones

- Community Facilities
- Rural
- Sport and Recreation

## Figure 7

Toowoomba Regional Council  
Planning Scheme - Zoning

Toowoomba  
Regional Council

**File ref.** 10766 E Figure 7TRC Zoning A  
**Date** 25/03/2022  
**Project** Toowoomba Region Sports Precinct, Charlton

0 40 80 120 160 m

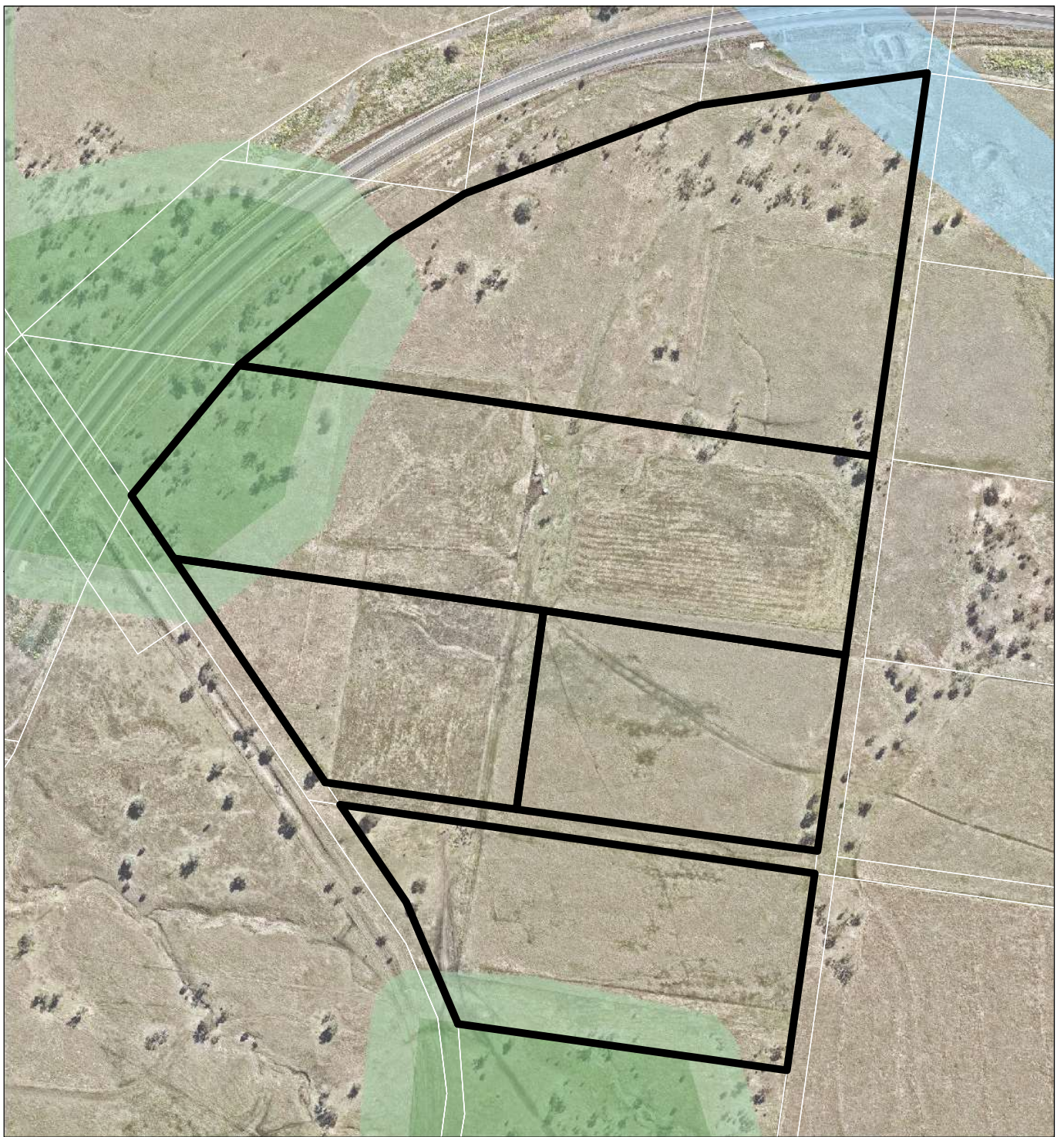
Scale (A4): 1:5,500 [GDA 2020 MGA Z56]



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## Legend

- Site DCDB
- Qld DCDB

### TRC Environmental Areas

- MLES - Matters of Local Environmental Significance
- MSES - Matters of State Environmental Significance
- MLES - Wetlands
- MSES - Koala Offsets
- MLES - Wetland Buffer
- MLES Waterway Buffer

## Figure 8

Toowoomba Regional Council  
Planning Scheme -  
Environmental Significance

**File ref.** 10766 E Figure 8 TRC Env Significance A  
**Date** 25/03/2022  
**Project** Toowoomba Region Sports Precinct, Charlton

0 40 80 120 160 m

Scale (A4): 1:5,500 [GDA 2020 MGA Z56]



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## 4. Summary Assessment of Southern Extent

An ecological assessment of the southern extent of the site was carried out via field surveys and a previous TER in September 2021. **Table 6** provides a brief summary of the TER assessment for the southern extent of the site. Refer **TER southern section report- Section 3** for details of relevant environmental legislation and requirements.

**Table 6: Outcomes of TER assessment for the southern extent of the site.**

Legislation	Relevance to development site (southern extent)
<b>Federal</b>	
<i>Environment Protection and Biodiversity Conservation (1999)</i>	An EPBC Act Protected Matters Report (PMR) was obtained using the Commonwealth's PMST. The search provides a list of wetlands of international significance, TECs, threatened species and other MNES which have the potential to be temporarily or permanently located within a 5 km search radius from the central point of the development site. <b>Table 2</b> lists a summary of these results relevant to the site. The complete PMR is included in <b>Appendix A</b> in both TER reports.
<b>State</b>	
<i>Vegetation Management Act (1999)</i>	A property search of the Regulated Vegetation Management Map identified this area as mapped predominantly as non-regulated <i>Category X</i> vegetation, with a polygon of remnant <i>Category B</i> vegetation traversing across lots 113A345, 114A345 and partially across 24SP214746. Clearing of <i>Category X</i> (non-remnant) vegetation is exempt from assessment under the <i>Planning Act 2016</i> . The Supporting Vegetation Management Map shows the mapped <i>Category B</i> vegetation is Least Concern RE11.8.5 ( <b>Figure 4</b> )
<i>Fisheries Act 1994</i>	This area is mapped with two low-risk waterways for WWBW traversing the site from west to east, occurring within Lots 24 on SP214746, 113 on A345 and 276 on SP268921.

*Water Act 2000*

A review of Queensland Globe indicates that mapped waterways traversing the investigation area reflect the flow paths to be defined as drainage features under the Water Act.

*Koala habitat assessment*

The Koala Priority and Koala Habitat Area map administered by DES does not identify this area as inside a Koala Priority Area (KPA). No Koala Habitat is mapped therefore no response to assessable development provisions is required (i.e. SDAP Code 25). Sequential clearing requirements under the Koala Conservation Plan will apply to vegetation clearing onsite.

*Coastal Protection and Management Act 1995*

This area does not contain any coastal areas. Therefore, a response to State Code 8 is not required.

*State Planning Policy 2017*

This area is mapped as containing MSES –Regulated Vegetation Intersecting a Watercourse. Compliance with the SPP is addressed through the provisions of the planning scheme.

**Local**

*Toowoomba Regional Planning Scheme*

Under the Toowoomba Regional Planning Scheme, the application area is zoned as sport and recreation.

Overlays

Environmental significance overlay: The site is mapped as containing areas of ecological significance including an associated buffer area.



#### 4.1. Summary of findings

- The southern part of the application area is largely cleared of vegetation values, where the majority of the site is open paddock with weed species present at varying levels of infestation. Large scattered native trees are present across the site.
- No TECs listed under the EPBC Act were recorded on-site. No flora or fauna species listed as threatened under the EPBC Act or NCA were recorded during the field survey effort.
- Category B (remnant) vegetation is mapped in the centre of the investigation area as Least concern RE11.8.5. Field surveys identified species present to be indicative of this RE. However, the extent of mapped Category B (remnant) was ground-truthed and observed as being of a lesser extent than the mapped area.
- The majority of fauna species recorded across the site are considered likely to utilise the application area as part of a much broader home range. These species are considered common to the area and are typically encountered throughout the Toowoomba LGA. Note, no evidence of Koala in the form of scats, scratches nor physical observations were recorded on-site.
- Seventy-two (72) flora species were recorded on-site inclusive of 45 native and 32 exotic, 5 of which are considered restricted under the Biosecurity Act.
- Under the Toowoomba Regional Planning Scheme, the site is mapped as containing areas of ecological significance associated with Category B (remnant) vegetation. As previously stated, a large portion of this area within the investigation area was void of canopy trees only consisting of ground covers associated with rural land-uses.
- Field surveys identified the highest ecological value on-site being large native hollow-bearing trees in both Category B (remnant) vegetation and Category X (non-remnant) vegetation. As part of the proposed development, significant habitat trees will look to be retained where possible e.g. within recreation/park areas.
- Two mapped waterways for water way barrier works are mapped across the investigation area. The northern waterway was identified as containing a discontinuous channel with limited waterway features and minimal adjacent vegetation. This waterway is to be incorporated into the proposed development however the flow path will be altered to suit the development design. The southern waterway was not observed on-site and will not be incorporated into the proposed development.