Geosyntec consultants | JBS&G A Geosyntec Company

Malaga Sporting Precinct NVCP Supporting Documentation

Department of Cultural Industries, Tourism and Sport

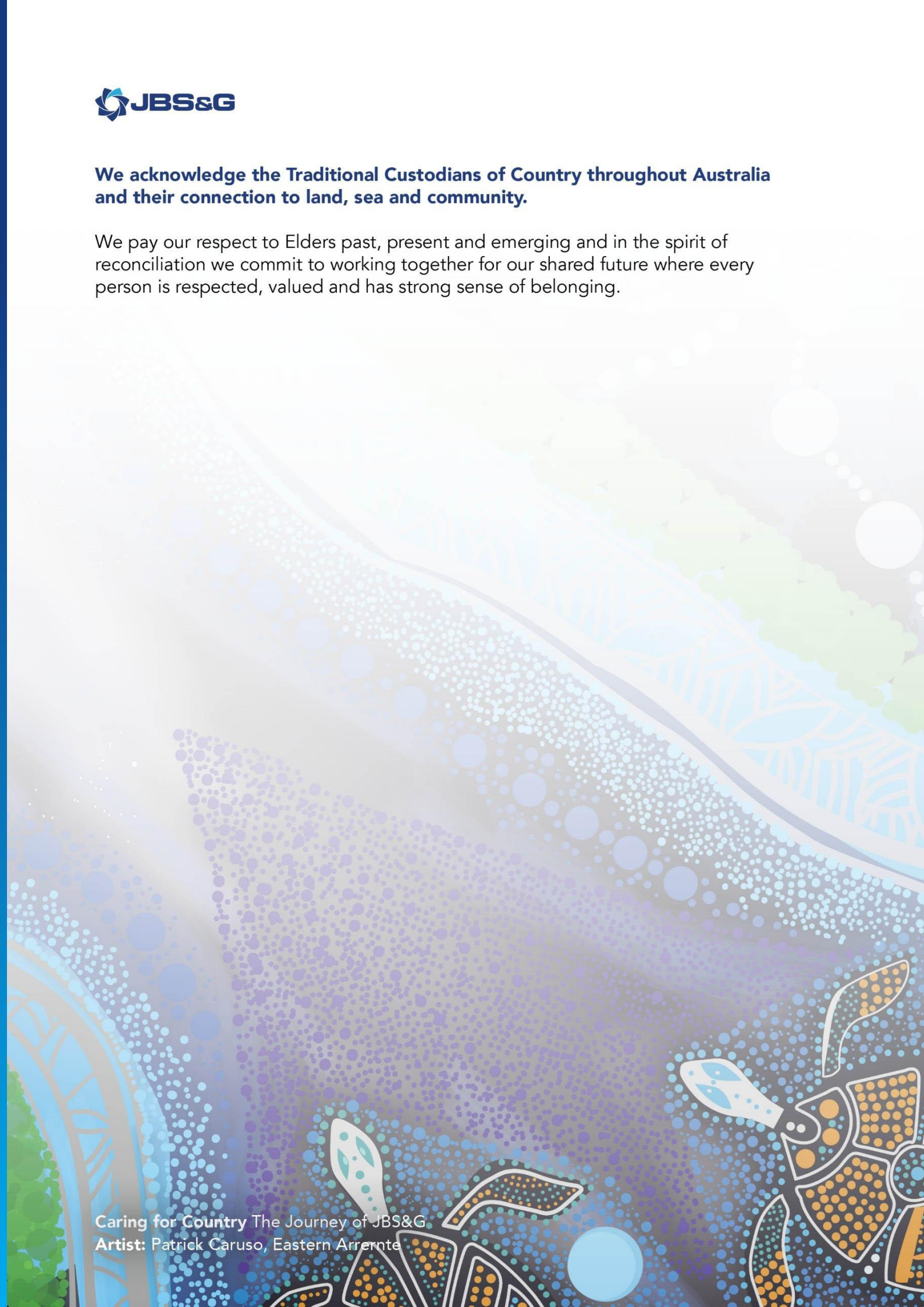
70173 | 172,041 (Rev 1)

24 June 2026



We acknowledge the Traditional Custodians of Country throughout Australia and their connection to land, sea and community.

We pay our respect to Elders past, present and emerging and in the spirit of reconciliation we commit to working together for our shared future where every person is respected, valued and has strong sense of belonging.



Caring for Country The Journey of JBS&G
Artist: Patrick Caruso, Eastern Arrernte

Executive Summary

The Department of Cultural Industries, Tourism and Sport (CITS) on behalf of the Western Australian Government are proposing to develop a high performance, multi-sport competition and training hub within the north west portion of Lot 811, 233 Drumpellier Drive, Whiteman referred to as the Malaga Sporting Precinct (MSP).

The MSP is approximately 33 ha in size and comprises a number of sporting ovals and rectangular pitches, buildings and training facilities, carparks, roads and landscaping. The site is linked by road and rail networks to allow easy access to the facilities.

The majority of the site will require fill of approximately 1m to allow for the development of fields and associated infrastructure. The proposed development across 33 ha will result in the clearing of approximately 3.82 ha of "Degraded to Completely Degraded" native vegetation of generally low lying rushes and sedges. A living stream will be created along the northern portion of the site integrated into the drainage design and landscaping to improve the wetland and watercourse values of the site.

An evaluation against the 10 Clearing Principles has been undertaken and associated management commitments provided. This report has been prepared to enable assessment of the condition of the site and, if required, to provide the necessary supporting information for the Clearing Permit application.

Table of Contents

1. Introduction 1

1.1 Project background 1

1.2 Purpose and scope 1

1.3 Location, ownership and tenure 2

2. Existing Environment 4

2.1 Land use 4

2.2 Topography, geology and soils 4

2.3 Acid Sulfate soils 7

2.4 Hydrology 7

2.4.1 Groundwater 7

2.4.2 Public drinking water source area 7

2.4.3 Surface water and wetlands 10

2.5 Bush Forever and conservation reserves 11

2.6 Environmentally sensitive areas 11

2.7 Vegetation and flora 11

2.7.1 Regional Vegetation 11

2.7.2 Surveys 11

2.7.3 Vegetation and Flora 11

2.7.4 Weeds 12

2.8 Fauna habitat 14

2.8.1 Black Cockatoo Habitat Value 14

3. Assessment against the EP Act clearing principles 15

4. Environmental Approvals and Management 19

4.1 Environmental approvals 19

4.2 Environmental mitigation and management 19

5. Conclusion 20

6. References 21

List of Tables

Table 1.1: Site identification details. 2

Table 3.1 Assessment against the ten principles of the EP Act Schedule 5 for clearing native vegetation 15

List of Figures

Figure 1.1: Site location. 3

Figure 2.1: Topography across the site. 5

Figure 2.2: Regional surface geological mapping. 6

Figure 2.3 Groundwater and acid sulfate soils (ASS).....8
Figure 2.4 Surface Water features and wetland mapping 9

List of Plates

Plate 1. Patches of *Juncus pallidus* in the west of the site. 13
Plate 2. Isolated *Melaleuca sp.* Sparsely spread across the site. 13

Appendices

Appendix A Plant Communities (Emerge, 2020)

1. Introduction

The Department of Cultural Industries, Tourism and Sport (CITS) on behalf of the Western Australian Government are proposing to develop a high performance, multi-sport competition and training hub within the north west portion of Lot 811, 233 Drumpellier Drive, Whiteman (the Malaga Sporting Precinct (MSP); Figure 1.1).

The site forms part of the broader Whiteman Park area within the City of Swan and comprises predominately cleared grassland with remnant scattered trees.

The MSP is approximately 33 ha in size and comprises a number of sporting ovals and rectangular pitches, buildings and training facilities, carparks, roads and landscaping.

1.1 Project background

Over many decades, individual sporting organisations have completed business cases and site selection studies to ensure their growth goals were supported by adequate infrastructure. The Department of Cultural Industries, Tourism and Sport (CITS) has worked extensively with these organisations in support of planning and funding for the development of infrastructure. In 2019 the State Sporting Infrastructure Plan (SSIP) was completed. The SSIP identified the need for cross-agency planning and collaboration to plan and develop sporting and cultural hubs that maximise resources and the use of infrastructure. Co-location of sporting facilities is considered more sustainable, providing opportunities to both provide the required infrastructure for growth and to enable world-class facilities to meet the needs of modern, technologically advanced sporting industries (TRCB, 2025).

In 2020, the State began to investigate a series of suitable sites and an analysis of the sporting organisations that may best be suited to becoming part of such a precinct. Development of such as facility could also provide the opportunity to perform and compete on a national and international stage for the first time for a number of sports and improving pathways to more elite sporting levels.

1.2 Purpose and scope

The site is low lying and requires fill at an average depth of approximately 1m across the majority of the site to accommodate playing fields, buildings and associated infrastructure. This will require clearing of up to 3.82 ha of “Degraded to Completely Degraded” native vegetation.

This document has been prepared to support the assessment of the need for a Native Vegetation Clearing permit application under the *Environmental Protection Act 1986* (EP Act) and includes the following information relating to clearing areas:

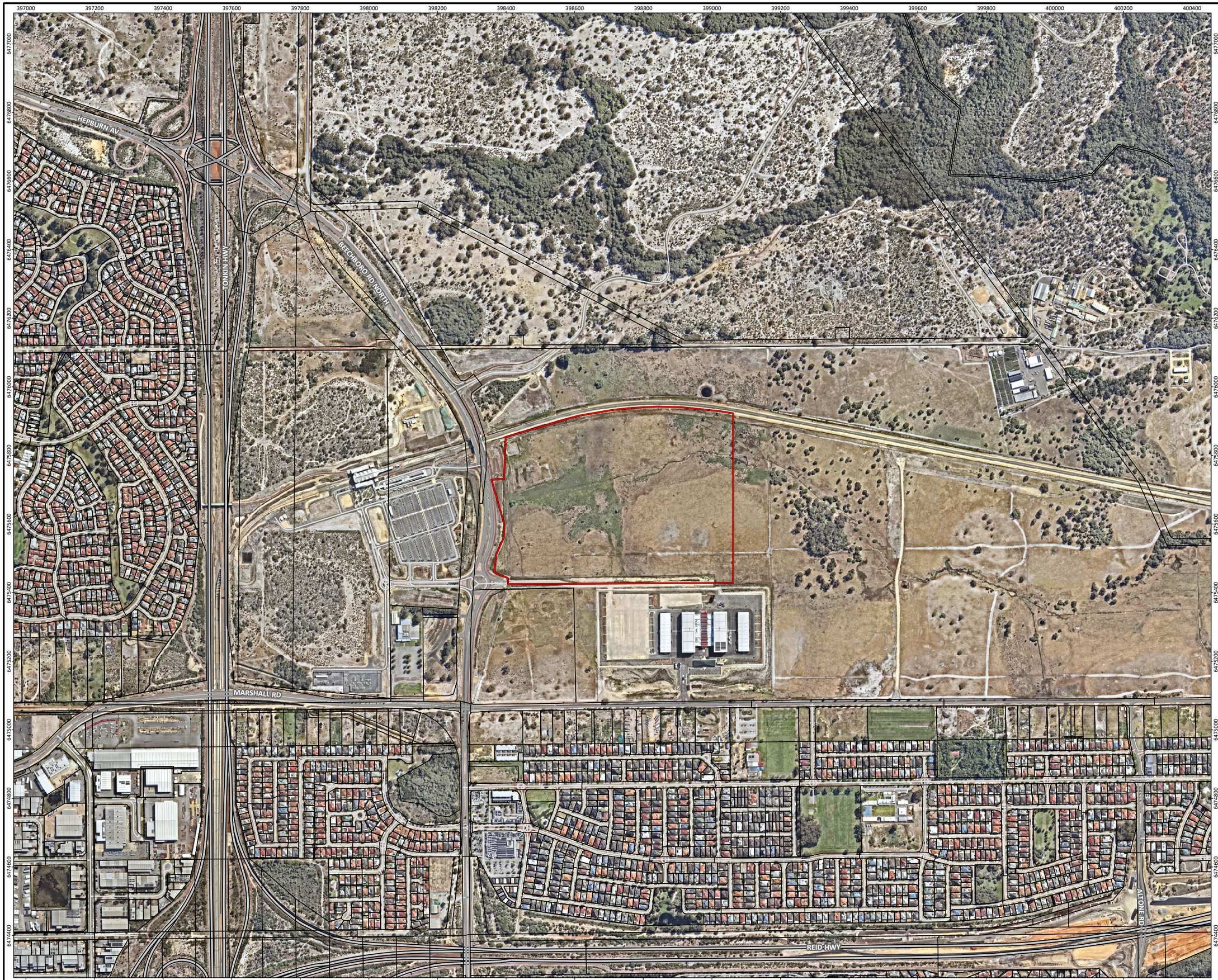
- An overview of the existing environmental conditions and values of the areas;
- An evaluation of the proposed clearing against the ‘Ten Clearing Principles’ listed under Schedule 5 of the EP Act; and
- Environmental approvals and management requirements.

1.3 Location, ownership and tenure

Site identification details for the proposed clearing area are provided in Table 1.1.

Table 1.1: Site identification details.

Subject	Detail
Lot address	Part Lot 811, 233 Drumpellier Drive, Whiteman
Common name of site	Malaga Sporting Precinct
Current site owner	WAPC
Local Government Authority	City of Swan
Current MRS Zoning	Regional Open Space (Reserve)



Legend

- Project boundary
- Cadastral boundary (LGATE-002)

Roads (LGATE-195)

- Highway
- Major road
- Minor road
- Track



JBS&G
A Geosyntec Company

Job No: 70173

Client: Armstrong Collective

Version: R04	Date: 04-Jun-2026
Drawn By: BS	Checked By: BH

Scale 1:10,000 at A3

0 200 400
metres

Coord. System: GDA2020 MGA Zone 50

Malaga Sporting Precinct, Whiteman WA

SITE LOCATION

FIGURE 1.1

File Path: C:\Users\bsunderland\JBS&G Australia\DCS - Internal - V2\Projects\Armstrong Collective\70173 Malaga Sporting Precinct\GIS\02_MapProjects\70173_NVCP_R04.aprx - Layout: 70173_A3L_01_01_SiteLocation_R04
Image Reference: www.nearmap.com© - Imagery Date: 04-04-2026

2. Existing Environment

2.1 Land use

The Malaga site forms part of the broader Whiteman Park area within the City of Swan. It is approximately 33 ha in size, comprising predominately cleared grassland with remnant scattered trees.

The earliest aerial imagery available of the site is from 1953 and shows that the site was extensively cleared for agriculture activities before this time (Landgate, 2022).

Surrounding land use to the site include:

- grasslands and native vegetated areas as part of the broader Whiteman Park to the south and east,
- Homefire Studio to the immediate south; and
- METRONET Malaga Station and Malaga to Ellenbrook Rail works to the west and north.

2.2 Topography, geology and soils

Regional topographic mapping indicates that the site is relatively flat and low, with gently declining land from the west to the east with elevation ranging from 28 m Australian Height Datum (AHD) in the west to 24 m AHD in the east (Figure 2.1). The regional topography appeared to slope gently down to the east, towards Bennett Brook situated approximately 1.8 km from the site.

The site is located within the Perth Swan Coastal Plain 2 (SWA 2) subregion of Western Australia, as defined by the Interim Biogeographic Regionalisation for Australia (Mitchell, 1994). (Beard, 1990) describes the Swan Coastal Plain as a low-lying coastal plain, often swampy, with sandhills also containing dissected country rising to the duricrust Dandaragan plateau on Mesozoic, mainly sandy, yellow soils.

The Swan Coastal Plain comprises five major geomorphologic systems that lie parallel to the coast, the Quindalup Dunes, Spearwood Dunes, Bassendean Dunes, Pinjarra Plain and Ridge Hill Shelf (Churchward & McArthur, 1980); (Gibson, et al., 1994)). Each major system is further subdivided into detailed geomorphologic units ((Churchward & McArthur, 1980); (Semeniuk & Semeniuk, 1990); (Gibson, et al., 1994)). The subject site lies within the Bassendean Dunes system, characterised by sand dunes and sand plains comprising swamps and flats on sandy alluvium over sedimentary rocks (DPIRD, 2018). The soils of this system typically have low fertility and are susceptible to leaching, consist of pale deep sand, semi-wet soil and wet soil (Safstrom and Short 2012). The site is located within the Bassendean soil and landform system and overlies the following subsystems (Figure 2.12)

- 212Bs Ya: Flat, poorly drained complex landscape; soils include shallow sand over limestone or ferruginous pan, deep leached sand, and saline soils; dense *Melaleuca* spp. along drainage lines.
- 212Bs_Ja: Jandakot low dunes, slopes <10% and generally more than 5m relief. Grey sand over pale yellow sands underlain by humic and iron podsols, *Banksia spp.* Low open woodland with a dense shrub layer.

Regional surface geological mapping (Figure 2.2) indicates the Project area contains 3 soil types described as:

- Bassendean Sands over Guildford Formation (S10): Sands as described above occur over sandy clay to clayey sand of the Guildford Formation, of eolian origin;
- Guildford Formation Pebbly Silt (Mgs1): strong brown silt with common, fine to occasionally coarse grained, sub-rounded laterite quartz heavily weather granite pebble, some fine to medium-grained quartz sand of alluvial origin; and
- Bassendean Sands (S8): white to pale grey at surface, yellow at depth, fine to medium grained, moderately sorted, subangular to subrounded, minor heavy minerals, of eolian origin.



Legend

- Project boundary
- Topographic contours in m AHD (DPIRD-072)

JBS&G
A Geosyntec Company

Job No: 70173	
Client: Armstrong Collective	
Version: R04	Date: 05-Jun-2026
Drawn By: BS	Checked By: BH
Scale 1:8,000 at A3	

0 200 400
metres

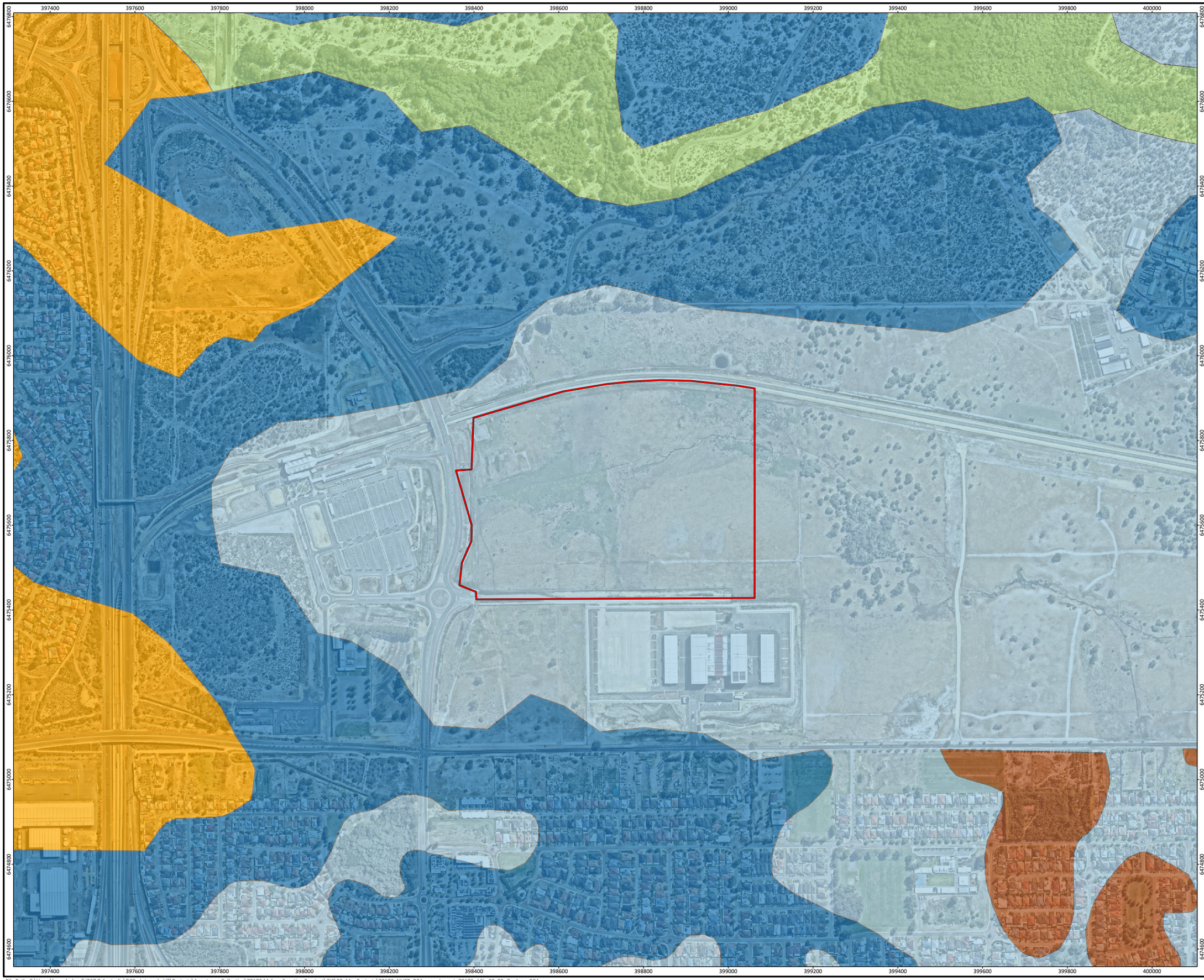
Coord. System: GDA2020 MGA Zone 50

Malaga Sporting Precinct, Whiteman WA

TOPOGRAPHY

FIGURE 2.1

File Path: C:\Users\bsunderland\JBS&G Australia\DCS - Internal - V2\Projects\Armstrong Collective\70173 Malaga Sporting Precinct\GIS\02_MapProjects\70173_NVCP_R04.aprx - Layout: 70173_A3L_02_01_Topography_R04
Image Reference: www.nearmap.com© - Imagery Date: 04-04-2026



Legend

- Project boundary

Soil landscape (DPIRD-027)

- Bassendean Yanga phase (Bassendean)
- Bassendean drainage lines phase
- Bassendean, Gavin phase
- Bassendean, Jandakot phase
- Bassendean, Joel phase

JBS&G
A Geosyntec Company

Job No: 70173	
Client: Armstrong Collective	
Version: R04	Date: 04-Jun-2026
Drawn By: BS	Checked By: BH

Scale 1:8,000 at A3

0 200 400
metres

Coord. System: GDA2020 MGA Zone 50

Malaga Sporting Precinct, Whiteman WA

REGIONAL SURFACE GEOLOGICAL MAPPING

FIGURE 2.2

File Path: C:\Users\bsunderland\JBS&G Australia\DCS - Internal - V2\Projects\Armstrong Collective\70173 Malaga Sporting Precinct\GIS\02_MapProjects\70173_NVCP_R04.aprx - Layout: 70173_A3L_02_02_Geology_R04
Image Reference: www.nearmap.com© - Imagery Date: 04-04-2026

2.3 Acid Sulfate soils

Acid Sulfate Soils (ASS) are naturally occurring, iron-sulphide rich soils, sediments, or organic substrates, formed under waterlogged conditions. If exposed to air, these sulphides can oxidise and release sulphuric acid and heavy metals. This process can occur due to drainage, dewatering or excavation.

The risk of Acid Sulfate Soils (ASS) occurring within the Project area was assessed through analysing the ASS risk mapping available from the Department of Water and Environmental Regulation (DWER 2017). According to DWER (2017) portions of the site to the north and western ends are classed as having a 'moderate to low risk' of ASS occurring within 3 m of the natural soil surface (Figure 2.3).

2.4 Hydrology

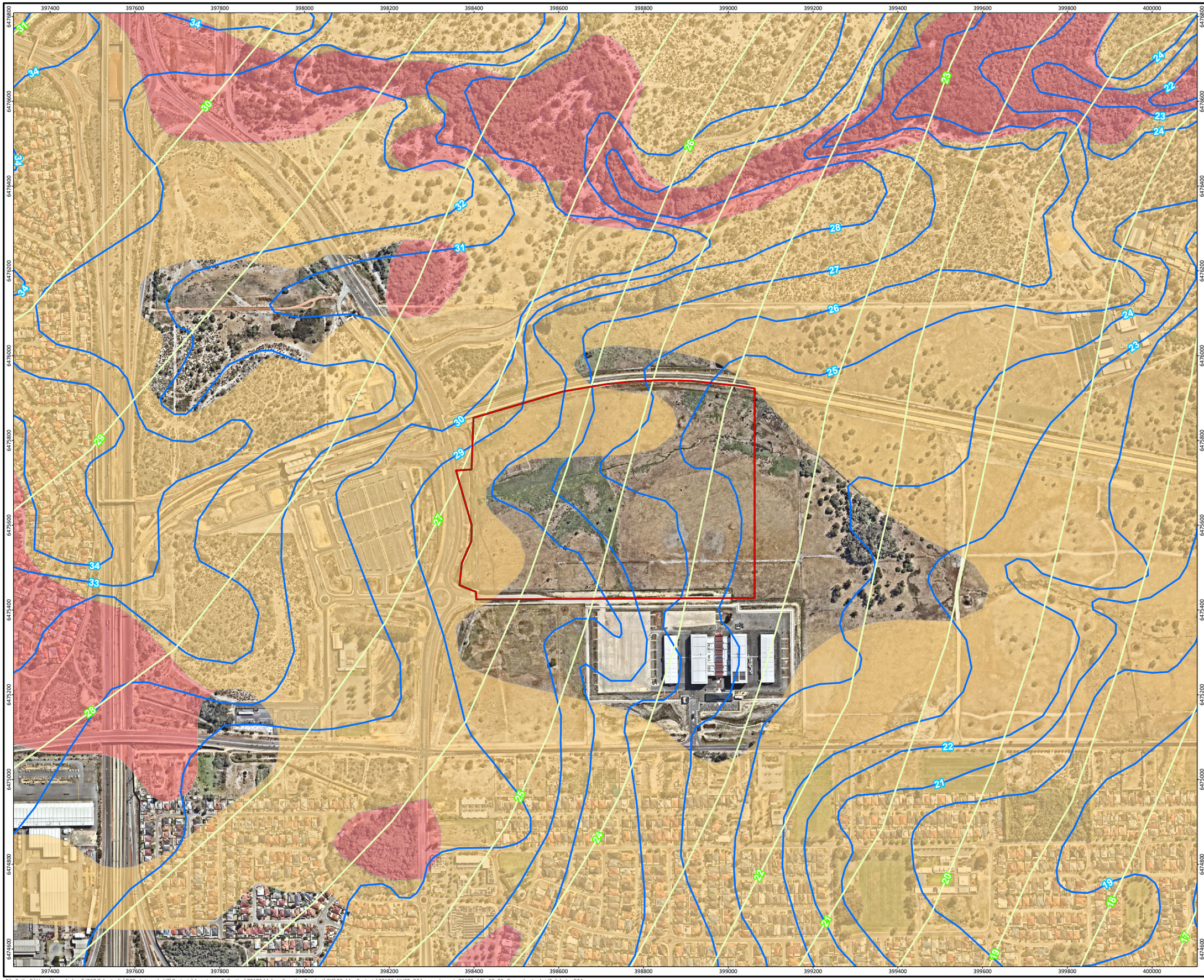
2.4.1 Groundwater

A review of regional groundwater contours across the site indicates minimum groundwater levels range between 27 m AHD in the north-west corner of the site to 24 m AHD in the southeast corner, with a general flow direction southeast. Maximum groundwater levels range from 27.5 m AHD to 25 m AHD with a general easterly flow direction (Figure 2.43).

The majority of the site comprises swamp and lacustrine deposits comprising peat, peaty sand and clay, with a drainage potential that has been identified as very poor to poor and as having a water logging risk of moderate to very high (DWER 2022).

2.4.2 Public drinking water source area

The Site does not lie within a Public Drinking Water Source Area; however, the Priority 1 Gnangara Underground Water Pollution Control Area is located approximately 130 m northwest of the site boundary.



Legend

- Project boundary

Acid sulfate soil (DWER-055)

- High to moderate risk
- Moderate to low risk
- Groundwater min contours (DWER-096)
- Groundwater max contours (DWER-096)

JBS&G
A Geosyntec Company

Job No: 70173	
Client: Armstrong Collective	
Version: R04	Date: 04-Jun-2026
Drawn By: BS	Checked By: BH

Scale 1:8,000 at A3

0 200 400
metres

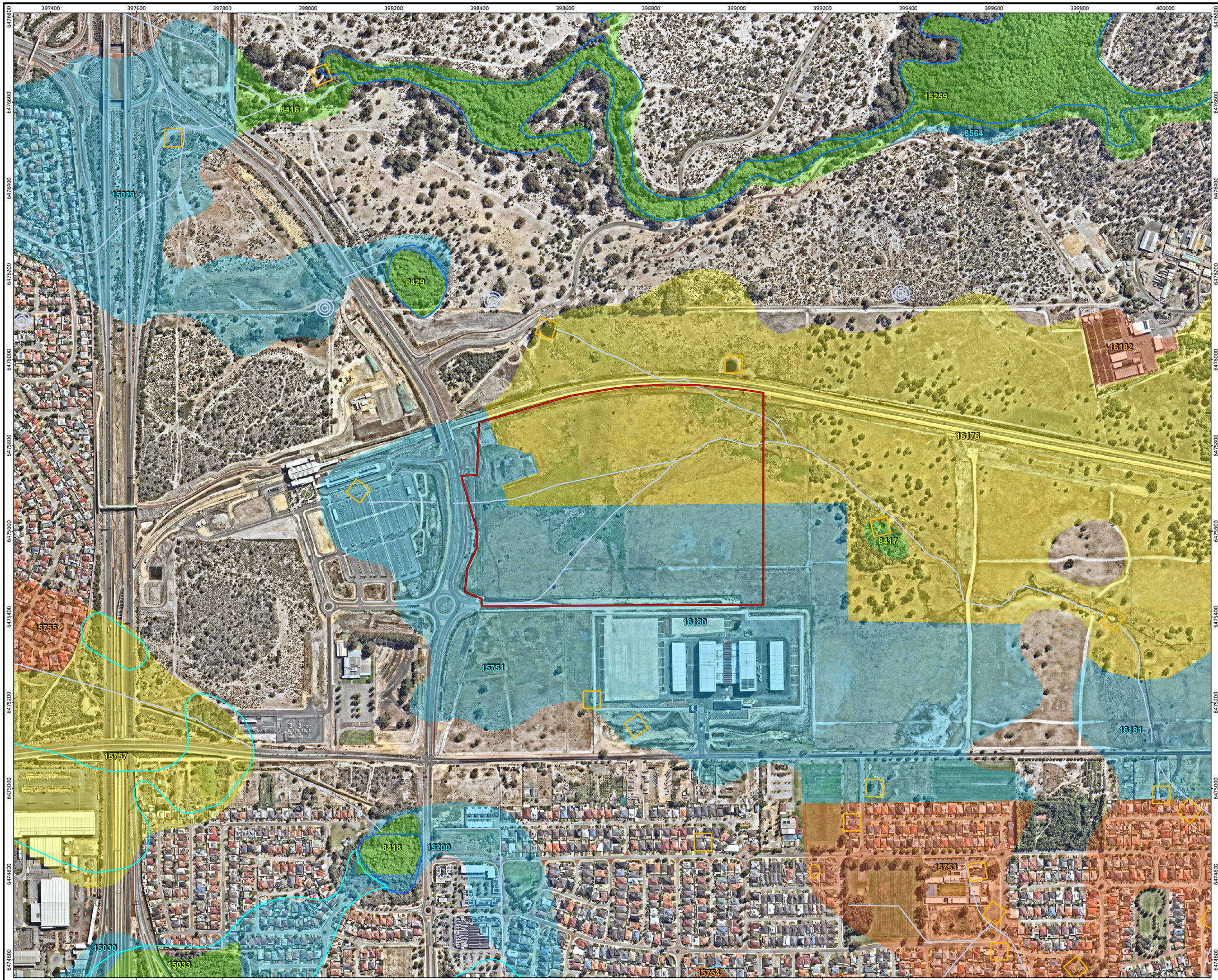
Coord. System: GDA2020 MGA Zone 50

Malaga Sporting Precinct, Whiteman WA

GROUNDWATER AND ACID SULFATE SOILS

FIGURE 2.3

File Path: C:\Users\bsunderland\JBS&G Australia\DCS - Internal - V2\Projects\Armstrong Collective\70173 Malaga Sporting Precinct\GIS\02_MapProjects\70173_NVCP_R04.aprx - Layout: 70173_A3L_02_03_GroundwaterAcidSulphate_R04
Image Reference: www.nearmap.com© - Imagery Date: 04-04-2026



Legend

- Project boundary

Geomorphic wetlands (DBCA - 019)

- Conservation
- Multiple Use
- Resource Enhancement
- Not Applicable

Hydrography (DWER - 031)

- Watercourse - minor, non-perennial
- Swamp - perennial
- Swamp - non-perennial
- Area Subject to Inundation
- Earth Dam

JBS&G
A Geosyntec Company

Job No: 70173	
Client: Armstrong Collective	
Version: R04	Date: 05-Jun-2026
Drawn By: BS	Checked By: BH

Scale 1:8,000 at A3

0 200 400
metres

Coord. System: GDA2020 MGA Zone 50

Malaga Sporting Precinct, Whiteman WA

SURFACE WATER FEATURES

FIGURE 2.4

File Path: C:\Users\bsunderland\JBS&G Australia\DCS - Internal - V2\Projects\Armstrong Collective\70173 Malaga Sporting Precinct\GIS\02_MapProjects\70173_NVCP_R04.aprx - Layout: 70173_A3L_02_04_SurfaceWater_R04
Image Reference: www.nearmap.com© - Imagery Date: 04-04-2026

2.4.3 Surface water and wetlands

2.4.3.1 Surface water

Two ephemeral drainage lines draining west to east are mapped across the site (Figure 2.4).

The site is within the Swan-Avon – Lower Swan regional catchment and the western sub-catchment cover area. The western sub-catchment features generally flat ground with undefined flow paths and some artificial drains extending to Bennett Brook.

There are no natural permanent surface water features on the site.

2.4.3.2 Wetlands

Wetlands within the Swan Coastal Plain are protected and managed by the management category assigned by Department of Biodiversity, Conservation and Attractions (DBCA), as per the existing wetland management methodologies (DBCA, 2017).

Conservation Category Wetlands (CCWs) are regarded the highest priority wetlands and are described as those that support a high level of attributes and functions. There are no wetlands classified as CCWs present on the site (DBCA, 2025).

Resource Enhancement Wetlands (REWs) are wetlands which may have been partially modified but still support substantial ecological attributes and functions. Potentially, these wetlands can be restored, improving the wetlands' function, structure, and biodiversity. Protection of REWs is recommended (EPA 2008). The northern half of the site is classified as a REW (UFI 16176) (Figure 2.4)

Multiple Use Wetlands (MUWs) are the lowest management category assigned to wetlands by the DWER, and are generally considered appropriate for development, provided the hydrological regime is not disturbed (EPA 2008). The southern half of the site is classified as a MUW (UFI 16176) (Figure 2.4).

Both wetland types are described as palusplain, seasonally waterlogged, flat wetlands typical of the duplex and sandy soils found on the Bassendean and Pinjarra Plain soil systems that are typical toward the eastern portion of the Swan Coastal Plain.

2.5 Bush Forever and conservation reserves

There is no Bush Forever located within the site. Bush Forever site 304, associated with Whiteman Park, is located to the north and east of the site. At its closest point, the Bush Forever site 304 is approximately 100 m from the northwestern corner of the site.

No DBCA or local government conservation reserves have been identified within the site. One DBCA Managed Lands and Reserves is located north of Gnangara Road the Gnangara-Moore River State Forest. The nearest regional parks, Herdsman Lake Regional Park and Yellagonga Regional Park lie approximately 5 km and 9 km respectively, to the west of the site.

2.6 Environmentally sensitive areas

A desktop assessment identified that no environmentally sensitive areas intersect with the site (DWER, 2021).

2.7 Vegetation and flora

2.7.1 Regional Vegetation

The site is located in the Perth subregion of the Swan Coastal Plain bioregion under the Interim Biogeographic Regionalisation for Australia.

The site is thought to have originally contained vegetation of the Southern River Complex (DBCA, 2018). The Southern River Complex consists of an open-woodland of marri, jarrah and *Banksia* on the elevated areas and a fringing woodland of *Eucalyptus rudis* (flooded gum) and *Melaleuca rhaphiophylla* (swamp paperbark) along the streams, with peppermint tree south of the Swan River (Webb, et al., 2016).

There are two pre-European vegetation associations described for the site (Beard, et al., 2013):

- Bassendean 1001, described as low forest, woodland or low woodland with scattered trees of jarrah (*Eucalyptus marginata*), *Banksia* species. and *Allocasuarina* species; and
- Bassendean 1018, described as a mosaic of medium jarrah-marri forest, low Banksia woodland, low *Melaleuca* woodland and low woodland of *Casuarina obesa*.

State-wide, 22% and 17% of these vegetation associations remain respectively, with 26% and 16% remaining in the City of Swan (Government of Western Australia 2018).

2.7.2 Surveys

A detailed Flora and Vegetation Assessment (RPS, 2020) has previously been undertaken to inform the Malaga to Ellenbrook METRONET works which intersects the site. This study is contemporary and applicable to the assessment area and therefore has been used to inform flora and vegetation values applicable to the site. A copy of this survey report is available via the Index of Biodiversity Surveys for Assessments (IBSA) portal (IBSA-2020-0238).

Emerge (2020) also prepared a “Technical Memorandum : Environmental Constraints and Considerations – Integrated Culture and Sports Hub, Malaga” which included a Figures showing plant communities across the site and included in Appendix A

A Senior Ecologist from JBS&G undertook a preliminary site inspection on 8 March 2022.

A Senior Ecologist from JBS&G again visited the site on 18 July 2025 to undertake a site inspection and confirm previous survey accuracy. The inspection was undertaken by traversing accessible areas of site on foot, however extensive areas of inundation limited access to some areas.

The results of the RPS (2020) survey, Emerge (2020) review and the JBS&G (2022) & (2025) surveys have been discussed below.

2.7.3 Vegetation and Flora

RPS (2020) described the vegetation units at the Malaga site as follows:

"CC./Mp.Er.Cleared – Isolated remnant *Corymbia calophylla, Melaleuca preissiana* and/or *Eucalyptus rudis* over pasture/weeds - previously cleared"

Vegetation within the Malaga site was assessed as being in a 'Completely Degraded' condition (RPS, 2020) in accordance with Keighery (1994) scale.

The Emerge (2020) report identified vegetation communities across the majority of the site as "Non-native – Heavily disturbed areas dominated by non-native grasses (season saturated wet) and herbs with occasional native trees, shrubs and herbs)" in Completely Degraded Condition. Approximately 3.1 ha in the north east and central western sections are identified as "JKp - Clumps of native rushland *Juncus pallidus* and/or *Juncus kraussii* over herbland *Centella asiatica* interspersed with non-native grassland and herbland" in Degraded to Completely Degraded Condition, refer to Appendix A.

As part of the 2017, 2018 and 2019 spring surveys conducted by RPS, targeted searches for threatened flora and Priority flora were conducted. Additionally, a *Caladenia huegelii* (Grand Spider Orchid) search was also carried out as a separate targeted survey during the species' documented flowering period. The survey consisted of a systematic search of suitable habitat within the survey area. However, no *Caladenia huegelii* individuals were recorded.

RPS (2020) did not record any Threatened Flora species listed under the BC Act or the EPBC Act at the Malaga site.

The site visit conducted by JBS&G in 2022 and 2025 confirmed the findings from the RPS (2020) survey, recording degraded patches of rushes and isolated paddock trees remaining throughout (see Plate 1 and Plate 2). The JBS&G (2022) site visit identified nine native flora taxa occurring at the site, none of which are conservation significant:

- *Centella asiatica;*
- *Corymbia calophylla;*
- *Euphorbia australis* (naturalised);
- *Juncus pallidus;*
- *Melaleuca preissiana;*
- *Melaleuca raphiophylla;*
- *Podotheca gnaphalioides;*
- *Portulaca oleracea* (naturalised); and
- *Xanthorrhoea brunonis.*

2.7.4 Weeds

JBS&G (2022) also found that most of the Malaga site was dominated by pasture weeds. Additionally, two of the weed taxa present are Declared Pest plants under the *Biosecurity and Agriculture Management Act 2007* (BAM Act). These are:

- *Solanum linnaeanum* (apple of Sodom); and
- *Moraea miniata* (two-leafed cape tulip).



Plate 1. Patches of *Juncus pallidus* in the west of the site.



Plate 2. Isolated *Melaleuca sp.* Sparsely spread across the site.

2.8 Fauna habitat

Given the highly degraded nature of the site and historical use for agricultural purposes it is considered highly unlikely that the site holds habitat values for threatened or priority fauna species.

2.8.1 Black Cockatoo Habitat Value

Given the broader area (Whiteman Park) is known to contain foraging habitat for Carnaby's Black Cockatoo and Forest Red-tailed Black Cockatoo species (collectively referred to as 'black cockatoos' herein), the site inspection included a preliminary assessment of black cockatoo habitat values.

No known native foraging species were identified on-site. No evidence of Black Cockatoo foraging, roosting or nesting was found during the survey.

3. Assessment against the EP Act clearing principles

An assessment of the proposed clearing against the ten clearing principles is provided in Table 3.1.

The ten clearing principles are defined under Schedule 5 of the EP Act and are considered prior to the decision being made to issue a clearing permit.

This assessment demonstrates that the proposed clearing of native vegetation is not at variance with any of the clearing principles. On this basis, it is anticipated that the proposed clearing at the site can be permitted to occur.

Table 3.1 Assessment against the ten principles of the EP Act Schedule 5 for clearing native vegetation

Principle	Assessment	Conclusion
(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.	The application area was subject to a flora and vegetation site assessment undertaken in 2022 by JBS&G as well as a detailed flora and vegetation assessment for the METRONET Morley to Ellenbrook region undertaken by RPS Group in 2020 and a site inspection by an ecologist from JBS&G in 2022 and 2025. The application area is located within the Bassendean 1001 and Bassendean 1018 vegetation association and Southern River complex, which have a current extent above the 10% retention target for constrained areas within the Swan Coastal Plain. The site consisted of degraded patches of rushes and isolated paddock trees. The site is in a 'Completely Degraded' condition. Based on the condition of vegetation in relation to the Keighery scale (Keighery, 1994), vegetation in 'Completely degraded' condition and has been significantly altered by disturbances, likely in relation to the historical use for agricultural purposes. Based on the poor condition of vegetation within the application area, it is considered that the native vegetation remaining is of poor biological diversity. Therefore, clearing of this vegetation is unlikely to be at variance with this principle.	Not at variance.
(b) Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	Given the highly degraded nature of the site and historical use for agricultural purposes it is considered highly unlikely that the site holds habitat values for threatened or priority fauna species. The site survey conducted by JBS&G in 2022 also included a preliminary assessment of black cockatoo habitat values given the broader area (Whiteman Park) is known to contain foraging habitat for Black Cockatoos. Given the 'Completely Degraded' condition, lack of foraging species, low densities of forage species and the presence of large patches of habitat within nearby land managed by Whiteman Park, DBCA or through Bush Forever designation the impact to Black Cockatoo foraging habitat is not considered significant. The proposed clearing area is not considered to represent habitat critical for fauna species, therefore the nature and scale of vegetation to be cleared is not considered to be	Not at variance.

	significant at a local or regional scale in regard to indigenous fauna habitat.	
(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	RPS (2020) did not record any Threatened Flora species listed under the BC Act or the EPBC Act at the Malaga site, nor did JBS&G (2022). The 'Completely Degraded' condition of the site, and the ongoing disturbance by grazing cattle means that it is highly unlikely that the site provides habitat for conservation significant flora. The JBS&G (2022) site visit identified nine native flora taxa occurring at the site, including: • *Centella asiatica;* • *Corymbia calophylla;* • *Euphorbia australis* (naturalised); • *Juncus pallidus;* • *Melaleuca preissiana;* • *Melaleuca raphiophylla;* • *Podotheca gnaphalioides;* • *Portulaca oleracea* (naturalised); and • *Xanthorrhoea brunonis.* The low number of plant genera recorded reflects the disturbed nature of the site. Based on the absence of conservation significant flora and highly degraded condition of vegetation within the site, the proposed clearing is unlikely to be at variance with this principle.	Not at variance.
(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.	The site contains no intact vegetation communities, only scattered trees with patches of rushes (RPS 2020; JBS&G 2022). Therefore there are no Threatened or Priority Ecological Communities present within the site As a result, the proposed clearing will not be at variance with this principle.	Not at variance.
(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	The site is thought to have originally contained vegetation of the Southern River Complex (DBCA 2018). The Southern River Complex consists of an open-woodland of marri, jarrah and *Banksia* on the elevated areas and a fringing woodland of *Eucalyptus rudis* (flooded gum) and *Melaleuca rhaphiophylla* (swamp paperbark) along the streams, with peppermint tree south of the Swan River (Webb et al. 2016). There are two pre-European vegetation associations described for the site (DPIRD 2019): • Bassendean 1001, described as low forest, woodland or low woodland with scattered trees of jarrah (*Eucalyptus marginata*), *Banksia* species. and *Allocasuarina* species. • Bassendean 1018, described as a mosaic of medium jarrah-marri forest, low Banksia woodland, low	Not at variance.

	Melaleuca woodland and low woodland of *Casuarina obesa*. State-wide, 22% and 17% of these vegetation associations remain respectively, with 26% and 16% remaining in the City of Swan (Government of Western Australia 2018). Based on the already extensively cleared nature and absence of remnant vegetation within the surrounding land, the proposed clearing is unlikely to be at variance with this principle.	
(f) Native vegetation should not be cleared if it is growing in or in association with a watercourse or wetland.	DBCA geomorphic wetlands database indicates that the site comprises a portion of two larger wetlands (Multiple Use UFI 16180 and Resource Enhancement UFI 16176). Multiple Use wetlands are considered to have few remaining important attributes and functions, with the use, development, and management to be considered in the context of ecologically sustainable development and best management practice catchment planning (DBCA 2017). Resource Enhancement wetlands are recognised to have been degraded or modified but can be improved by restoring wetland function, structure and biodiversity. The vegetation associated with UFI 16176 is in "Degraded to Completely Degraded" and "Completely Degraded" condition. The development of a Living Stream as part of the managed drainage system is designed to improve the function and biodiversity values of the wetland and water course associated communities on-site (refer to the *Wetland and Foreshore Management Plan* (JBS&G, 2026) and *Malaga Sports Precinct – Water Management Report* (Avant Hydro, 2026). The Degraded to Completely Degraded vegetation condition suggests the site does not represent an intact wetland community. The proposed clearing is therefore unlikely to be at variance with this principle.	Not at variance.
(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The area surrounding the application area has been heavily modified for rural land uses, the proposed clearing is not expected to increase salinity, waterlogging, nutrient export, water erosion, wind erosion, or soil acidity. There is a 'moderate to low' risk of disturbing ASS within 3m of the natural soil surface, however it is unlikely that the small scale of proposed clearing will impact soil acidity. Based on the above, the proposed clearing is unlikely to be at variance with this principle.	Not at variance.
(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental	There is no Bush Forever located within the site. Bush Forever site 304, associated with Whiteman Park, is located to the north of the site. At its closest point, the Bush Forever site 304 is approximately 90m from the north-western corner of the site.	Not at variance.

	values of any adjacent or nearby conservation area.	No DBCA or local government conservation reserves have been identified within the site. One DBCA Managed Lands and Reserves is located north of Gnangara Road the Gnangara-Moore River State Forest. The nearest regional parks, Herdsman Lake Regional Park and Yellagonga Regional Park lie approximately 12 km and 10 km respectively, to the west of the site. Given the distance between the site and nearby conservation areas, the proposed clearing is unlikely to be at variance with this principle.	
(i)	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	The clearing required is not expected to cause sediment or nutrient impacts to wetlands, soil acidity or increased salinity. Therefore, the proposed clearing is unlikely to be at variance with this principle.	Not at variance.
(j)	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the intensity of flooding.	The clearing is not expected to alter hydrological processes to the extent that it is likely to cause or exacerbate the incidence of flooding. Therefore, the proposed clearing is unlikely to be at variance with this principle.	Not at variance.

4. Environmental Approvals and Management

4.1 Environmental approvals

The key approval identified as being required and/or potentially required to support the proposed clearing include the following:

- Native vegetation clearing permit determination under Part V of the EP Act; and
- Development Application in accordance with the Metropolitan Region Scheme zoning development requirements.

Based on the known environmental values of the site and the proposed clearing areas, a referral under the *Environmental Protection and Biodiversity Conservation Act 1999* is not required.

The assessment against the 10 clearing principles concluded that the proposed clearing will not result in a significant impact to any flora or fauna species, or TECs particularly with consideration of the proposed mitigation and management measures outlined below.

4.2 Environmental mitigation and management

Given the proposed clearing areas are within a broader area of already cleared and developed land, incidental impacts to the surrounding environment are not expected. The proposed clearing will be undertaken in a manner that effectively manages dust and hygiene, and that will avoid impacts to retained vegetation and fauna populations in the surrounding area. Management actions will include:

- Staged approach to development with soil stockpiling occurring initially in south east corner of the site in an area of Non-Native Completely Degraded vegetation.
- Stabilise cleared areas with methods such as wetting, mulching or other sealing material;
- Manage the kangaroo population if necessary to a sustainable level that will not be detrimental to supporting habitat, in consultation with DBCA and the City of Swan;
- Ensure vehicles and machinery are clean of soil and vegetation on entry to the worksite; and
- Clearly marking the boundary of the site.

5. Conclusion

The project will provide for a world class co-located multi-sport precinct linked by road and rail networks to service the site.

The proposed development across 33 ha will result in the clearing of approximately 3.82 ha of “Degraded to Completely Degraded” potentially native vegetation of generally low lying rushes and sedges to allow fill to be placed across the site for the development of fields and associated infrastructure. A living stream will be created along the northern portion integrated into the drainage design and landscaping to improve the wetland and watercourse values of the site.

This report has been prepared to enable assessment of the condition of the site and, if required, to provide the necessary supporting information for the Clearing Permit application.

6. References

Avant Hydro, 2026 *Malaga Sports Precinct – Water Management Report*, for Department of Housing and Works, Perth.

Beard, J., 1990. *Plant Life of Western Australia,* Kenthurst: Kangaroo Press.

Beard, J. et al., 2013. The Vegeteation of Western Australia at 1:3,000,000 scale. *Conservation Science Western Australia 9,* pp. 1-152.

Churchward, H. & McArthur, W., 1980. Landforms and Soils of the Darling System. *Atlas of Natural Resources, Darling SAystem,* pp. 25-33.

DBCA, 2017. *https://www.dpaw.wa.gov.au/images/documents/conservationmanagement/wetlands/scp_evaluation_methodology_dec2017.pdf.* [Online]
[Accessed 2022].

DBCA, 2018. *Vegetation complexes - Swan Coastal Plain Dataset (DBCA - 046),* Perth: Government of Western Australia.

DBCA, 2025. *Geo_Wetlands_Swan_Coastal_Plain_DBCA_019,* Perth: DBCA.

DWER, 2021. *Clearing Regulations - Environmentally Sensitive Area (DWER-046),* Perth: DWER.

Emerge, 2020 *Technical Memorandum : Environmental Constraints and Considerations – Integrated Culture and Sports Hub, Malaga*, for Department of Finance - Building and Management Works, Perth.

Gibson, N. et al., 1994. *A Floristic Survey of the Southern Swan Coastal Plain,* Perth: Australian Heritage Commission by CALM and Conservation Council.

Group, R., 2020. *Detailed Flora and Vegetation Assessment METRONET Morley - Ellenbrook Line,* Perth: Metronet.

JBS&G, 2022. *UFI 15751 Wetland Assessment,* Perth: Home Fire.

JBS&G, 2025. *Malaga Sporting Precinct - Vegetation Assessment, (*In prep), Perth: Home Fire.

Keighery, B., 1994. *Bushland Plant Survey,* Perth: Wildflower Society of WA.

Landgate, 2022. *Historical Aerial Photography,* Perth: Landgate.

Mitchell, D. W. K. D. A., 1994. *A Floristic Survey of the Southern Swan Coastal Plain,* Perth: Australian Heritage Commission, prepared by CALM and the Conservation Council of WA.

RPS, 2020. *Detailed Flora and Vegetation Assessment METRONET Morley - Ellenbrook Line,* Perth: METRONET.

Safstrom, R, and Short, N. 2012. Agriculture futures: Potential rural land uses on the Palusplain. Department of Agriculture and Food, Western Australia, Perth. Report 372.

Semeniuk, C. & Semeniuk, V., 1990. The coastal landforms and periperal wetlands of the Peel-Harvey estuarine system.. *Journal of the Royal Society of Western Australia*, pp. 9-21.

TRCB, 2025. *Malaga Sports Precinct - Master Planning and Concept Development,* Perth: Department of Local Government, Sport and Cultural Industries.

Webb, A., Kinloch, J., Keighery, G. & and Pitt, G., 2016. *The extension of vegetation complex mapping to landform boundaries within the Swan Coastal Plain landform and forested region of south-west Western Australia ,* Perth: Department of Parks and Wildlife.

Appendix A Plant Communities (Emerge, 2020)



Legend

- Project boundary
- Cadastral boundary (LGATE-002)

Plant communities (Emerge, 2020)

- Jkp

Roads (LGATE-195)

- Major road
- Minor road



JBS&G
A Geosyntec Company

Job No: 70173	
Client: Armstrong Collective	
Version: R04	Date: 24-Jun-2026
Drawn By: BS	Checked By: BH
Scale 1:3,500 at A3	

0 50 100
metres

Coord. System: GDA2020 MGA Zone 50

Malaga Sporting Precinct, Whiteman WA

PLANT COMMUNITIES (EMERGE, 2020)

APPENDIX A

File Path: C:\Users\jcrute\JBS&G Australia\DCS - Internal - V2\Projects\Armstrong Collective\70173 Malaga Sporting Precinct\GIS\02_MapProjects\70173_NVCP_R04.aprx - Layout: 70173_A3L_Appx_A_Plant Communities
Image Reference: www.nearmap.com© - Imagery Date: 04-04-2026

© JBS&G
This document is and shall remain the property of JBS&G. The document may only be used for the purposes for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited

Document Distribution

Rev No.	Copies	Recipient	Date
Draft A	1	DLGSC	05/06/2026
Rev 0	1	CITS	22/06/2026
Rev 1	1	CITS	24/06/2026

Document Status

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
Draft A	Brenton Hills	Ben Hollyock	Ben Hollyock		05/06/2026
Rev 0	Brenton Hills	Ben Hollyock	Ben Hollyock		22/06/2026
Rev 1	Brenton Hills	Ben Hollyock	Ben Hollyock		24/06/2026

www.jbsg.com.au

Adelaide

Kaurna Country | 100 Hutt Street,
Adelaide, SA 5000
T: 08 8431 7113

Brisbane

Turrbal/Yuggera Country | Level 37,
123 Eagle Street, Brisbane, QLD 4000
T: 07 3211 5350

Bunbury

Wardandi Country | 177 Spencer Street,
Bunbury, WA 6230
T: 08 9792 4797

Byron Bay

Bundjalung Country | 1/64 Kingsley Street,
Byron Bay NSW 2481
T: 07 3211 5350

Gold Coast

Yugambeh Country | Level 2,
14 Edgewater Court, Robina, QLD 4226
T: 07 3329 7329

Hobart

Muwinina Country | Level 2,
137 Liverpool Street, Hobart, TAS 7000
T: 03 6208 3700

Melbourne

Wurundjeri Country | Level 19,
31 Queen Street, Melbourne, VIC 3000
T: 03 9642 0599

Perth

Whadjuk Country | Allendale Square,
Level 9, 77 St Georges Terrace, WA 6000
T: 08 9380 3100

Sydney

Gadigal Country | Level 8,
179 Elizabeth Street, Sydney, NSW 2000
T: 02 8245 0300

Wollongong

Dharawal Country | Suite 406, Level 4,
43 Burelli Street, Wollongong, NSW 2500
T: 02 4225 2647