



146-178 Kingston Road, Slacks Creek

Property Vegetation Management Plan

Job Number 7801-87

Prepared for Greyhounds Queensland

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Document Control

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146-178 Kingston Road, Slacks Creek Property Vegetation Management Plan

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1 Introduction

This Property Vegetation Management Plan (PVMP) has been prepared by Cardno (QLD) Pty Ltd on behalf of Greyhounds Queensland (the "Proponents") in support of a Material Change of Use (MCU) application to be submitted over Lot 658 on SL12298 (the "site") in order to establish greyhound racing facilities and associated infrastructure. The locality of the site is illustrated in Figure 1. The works proposed as part of the establishment of the proposed greyhound racing facility will require the removal of 'assessable vegetation'¹ pursuant to the *Vegetation Management Act 1999* ("VM Act"). As such, the proposed vegetation clearance must be assessed against the relevant provisions of the Department of Environment and Resource Management's ("DERM") *Concurrence Agency Policy for Material Change of Use – Version 2 (21 October 2009)* (the "MCU Policy").

This PVMP provides:

- in Section 2.0, a description of the site and the vegetation communities which occur within;
- in Section 3.0, a detailed description of the purpose and extent of the proposed clearance of assessable vegetation; and
- in Section 4.0, an assessment of the proposed application against the relevant provisions of the DERM's *MCU Policy*, and subsequently, the 'Performance Criteria' of the relevant 'Part' of DERM's *Regional Vegetation Management Code for Southeast Queensland – Version 2 (6 November 2009)*.

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¹ *Concurrence Agency Policy for Material Change of Use – version 2, 21 October 2009 - Dictionary*
Assessable vegetation - For the purpose of this policy is vegetation as shown in Table 1 below.

Table 1: Assessable vegetation

Land Tenure	Assessable Vegetation
Trust Land	<ul style="list-style-type: none">• All vegetation shown as remnant vegetation on a regional ecosystems or remnant map unless Category X on a PMAV• Category A, B or C area on a PMAV• If the clearing will be undertaken by someone other than the trustee – vegetation that is not remnant vegetation shown on a regional ecosystem or remnant map.

2 Site Description

The site consists of a 10.24 hectare parcel of land located at the intersection of Kingston Road and Compton Road within the Logan City Council (“LCC”) jurisdiction. The site is identified as having ‘Non-urban and Conservation Locality – Public Open Space’ land use designation pursuant to *Zone Map - LZ Map 4* of the Logan Planning Scheme 2006. The site is currently State owned land in trust to LCC. The Proponents are in the process of purchasing the site from the state which will eventually modify the tenure of the land to freehold. However the MCU application will be submitted while the site remains State owned trust land. Owing to the past land use of the site (i.e. LCC landfill), the majority of the site now consists of cleared and mown grassland which is maintained by LCC over the remediated landfill (refer Figure 2). In addition, the site supports woody vegetation consisting of the following.

1. Vegetation Community A – A band of Tallowwood (*Eucalyptus microcorys*) dominated woodland approximately 50 metres in width located in the westernmost extent of the site. This band of woodland is identified as constituting RE 12.9-10.4 on the DERM’s Vegetation Management Act Regional Ecosystem and Remnant Map – Version 6 (“RE Map”), which is briefly described as *Eucalyptus racemosa woodland on sedimentary rocks*. A copy of the RE Map for the site locality is provided herewith in Appendix A. The location and extent of this band of RE 12.9-10.4 is illustrated as an overlay on 2007 aerial photography in Figure 2. This band of RE 12.9-10.4 supports:
 - a. a canopy dominated by large old Tallowwood trees approximately 18 to 27 metres in height with other associated species including, White mahogany (*Eucalyptus acmenoides*), Grey gum (*E. major*), Scribbly gum (*E. racemosa*), Narrow-leaved red gum (*E. seeana*), Pink Bloodwood (*Corybmia intermedia*), Smooth-barked apple (*Angophora leiocarpa*), and Brush box (*Lophostemon confertus*);
 - b. a sparse to nonexistent midstorey approximately 5 to 14 metres in height comprising scattered trees of the following species Brush box, Smooth-barked apple, Narrow-leaved red gum, Swamp box (*Lophostemon suaveolens*), Smudgee apple (*Angophora woodsiana*), Flooded gum (*Eucalyptus grandis*), Grey gum, Black wattle (*Acacia leiocalyx*), Red ash (*Alphitonia excelsa*) and Black she-oak (*Allocasuarina littoralis*); and
 - c. a groundstorey consisting of slashed Guinea grass (*Megathyrsus maximus*), *Paspalum* sp., and Green couch (*Cynodon dactylon*) with a few scattered Flax lily (*Dianella* sp.).
2. Vegetation Community B – Approximately 12 large trees consisting of the species described above that have been retained within the section of the site adjoining the above described band of RE 12.9-10.4 (refer Figure 2).
3. Vegetation Community C – A discontinuous, and in some place scattered, approximately 4 to 8 metre wide band of regrowth vegetation containing Black wattle, Red ash, Black she-oak, Broad-leaved paperbark (*Melaleuca quinquenervia*), Flooded gum and Tallowwood, located a drainage channel that has been constructed along the southern and eastern boundaries of the site (refer Figure 2). A number of large retained trees of the above listed Eucalypt and allied species have been retained in scattered locations along the southern and eastern boundaries of the site. In addition, one large Small-leaved fig (*Ficus obliqua*) is located against the southern boundary of the site.

This band of regrowth vegetation also contains significant infestations of woody and herbaceous *Land Protection (Pest and Stock Route Management) Act 2002* Declared Pest Plants and other environmental weeds.

Plates 1 to 4 below are representative photographs of Vegetation Communities A, B and C.



Plate 1 – Vegetation Community A



Plate 2 – Vegetation Community A – Section to be cleared to construct entrance driveway.



Plate 3 – Vegetation Community B



Plate 4 – Vegetation Community C

3 Extent and Purpose of Proposed Vegetation Clearance

3.1 Extent of Proposed Assessable Vegetation Clearance

As illustrated in Figure 3, the construction of the proposed development will require the clearance of 'assessable vegetation' consisting of, and limited to, the following.

1. A section of the band of RE 12.9-10.4 (Vegetation Community A) approximately 1721m² in area, to construct the entrance driveway to the proposed facility and the carpark. As illustrated on Figure 3, this area includes an additional 5 metre wide buffer to these areas within which vegetation clearance (groundstorey and potentially some canopy) may be required to carry out earthworks and construct batters etc. The clearance of canopy vegetation within this 5 metre wide buffer will be avoided to the extent practicable. The proposed clearance within Vegetation Community A will require removal of approximately 20 canopy/midstorey trees.
2. Approximately 6 large eucalypt and allied species trees that have been retained within the section of the site adjoining the above described band of RE 12.9-10.4 (Vegetation Community B). The area covered by the drip line of these trees is approximately 1121m². These trees will be removed in order to construct the entrance driveway to the proposed facility and the carpark.

The proposed plan of development for the site will not require any disturbance of the vegetation associated with the constructed drainage channel located along the southern and eastern boundaries of the site (i.e. Vegetation Community C).

3.2 Purpose and Compliance Assessment of Proposed Vegetation Clearance

It is proposed to clear native woody vegetation in order to develop the site for the purposes of establishing a greyhound racing track and associated infrastructure. A copy of the preliminary *Site Plan Drawing No: GREY0001 SK-001-E* prepared by ML Design and dated 30th of November 2009 is provided herewith as Appendix B. Figure 3 provides the proposed plan of development as illustrated on this drawing on a 2007 aerial photograph.

Pursuant to the DERM's *MCU Policy*, an MCU application for a 'relevant purpose'² as defined under Section 22A of the *VM Act* (in this case for constructing necessary built infrastructure) must be assessed under the relevant 'Criteria Table' identified in Assessment Table 1 of the *MCU Policy*.

As identified in Assessment Table 1, MCU applications on trust land where 'Clearing as a result of the MCU'³ involves clearing of least concern regional ecosystems or other 'assessable vegetation' are to be assessed against the 'Assessment Criteria' of 'Criteria Table F-2' of the *MCU Policy*. As

² Pursuant to Section 22A of the *VM Act* -

...(2) A vegetation clearing application is for a relevant purpose under this section if the applicant satisfies the chief executive that the development applied for is-

(d) for establishing a necessary fence, firebreak, road or vehicular track, or for constructing necessary built infrastructure, and the clearing for the relevant infrastructure can not reasonably be avoided or minimised.

³ Pursuant to Item 2 of the *MCU Policy* -

...Clearing as a result of the MCU includes:

(a) clearing of assessable vegetation that will result from the change in use; and

(b) clearing of assessable vegetation that will become exempt if the development application is approved.

illustrated in Figure 3, the proposed plan of development for the site will involve clearing of *least concern* regional ecosystems and other 'assessable vegetation' by the Proponents who are not the trustee and, as such, the proposed plan of development must achieve compliance with 'Performance Requirement F1' and 'Performance Requirement F2' of 'Criteria Table F-2' which are as follows.

PR F1 – To regulate the clearing of vegetation in a way that ensures the conservation of regional ecosystems, clearing as a result of the MCU only occurs where the applicant has demonstrated that the development has first avoided and minimised the impacts of the development.

With regard to PR F1, it should be noted that the proposed development layout has been designed in a manner which avoids and minimises the clearance of assessable vegetation via:

- reducing and condensing the development footprint in order to provide for the retention of the majority of the band of RE 12.9-10.4;
- locating the entrance driveway from Kingston Road roughly in the same position as the existing entrance driveway, thereby minimising the required clearance of trees;
- locating the car park in a manner which minimises intrusion into the band of RE 12.9-10.4; and
- locating the proposed development outside of the drip line of the trees associated with the constructed drainage channel running along the southern and eastern boundaries of the site.

It should also be noted that location and dimensions of the entrance driveways and car parks has been determined with respect to traffic considerations in addition to minimising vegetation clearance.

PR F2 – Clearing as a result of the MCU assessed under this Table may occur only where the MCU meets Performance Requirements 2 to 10 of the relevant code, Part P for all other purposes.

In accordance with PR F2, the proposed plan of development must be assessed against Performance Requirements 2 to 10 of Part P of the *Regional Vegetation Management Code for South East Queensland Bioregion – Version 2* (6 November 2009) (the "RVM Code").

With regard to the above, it should be noted that the Proponents are in the process of purchasing the site at which time the resulting tenure of the site will be freehold. It should therefore be recognised that if the Proponents were to delay the MCU application until post purchase of the site, all vegetation within the site would be 'non-assessable vegetation' under the 'routine management'⁴

⁴ Pursuant to Part 2 of Schedule 24 of the *SPR* -

Clearing is non-assessable on freehold land where the clearing is-

- (i) *necessary for routine management in an area of the land and the vegetation is regulated regrowth vegetation, or a least concern regional ecosystem-*
 - (i) *shown on a PMAV for the area as a category B area; or*
 - (ii) *if there is no PMAV for the area - shown on the regional ecosystem map or remnant map as remnant vegetation.*

Pursuant to Schedule 26 (Dictionary) of the *SPR*-

Routine management for clearing native vegetation on land, means the clearing of native vegetation-

- (b) *to construct necessary built infrastructure, including core airport infrastructure, other than contour banks, fences, roads, or vehicular tracks, if -*
 - (i) *the clearing is not to source construction timber; and*
 - (ii) *the total extent of clearing is less than 2ha; and*
 - (iii) *the total extent of the infrastructure is on less than 2ha.*

Exemption set out in Schedule 24 of the *Sustainable Planning Regulation 2009* ("SPR") and the above described requirement to assess the proposed plan of development against the provisions of the *MCU Policy* would not apply.

Notwithstanding the above, the Proponents wish to progress the MCU application prior to the purchase of the property and, in this regard, an assessment of the proposed plan of development against Performance Requirements of Part P of the Code is provided in Table 1 herein.

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4 Regional Vegetation Management Code Assessment

The purpose of the *Regional Vegetation Management Code for Southeast Queensland - Version 2 (6 November 2009)* is to provide performance criteria and, where appropriate, acceptable solutions that achieve the purpose of the *VM Act*. In this respect, it is relevant to note that the RVM Code is used to assess development applications for clearing native vegetation under the *Sustainable Planning Act 2009* ("SPA"). The RVM Code is prepared in accordance with provisions set out in the *VM Act* and it applies in the circumstances where the *VM Act* allows that an application for assessable clearing be accepted.

A vegetation clearing application will be assessed under the RVM Code if the applicant has satisfied the Chief Executive that the development applied for is a relevant purpose listed in Section 22A of the *VM Act*.

The relevant purposes are:

- a project declared to be a significant project under the *State Development and Public Works Organisation Act 1971*, section 26; or
- necessary to control non-native plants or declared pests; or
- to ensure public safety; or
- for establishing a necessary fence, firebreak, road or vehicle track, or for constructing necessary built infrastructure, and the clearing for the relevant infrastructure can not reasonably be avoided or minimised; or
- a natural and ordinary consequence of other assessable development for which a development approval as defined under the *Integrated Planning Act 1997* was given, or a development application was made under that Act, before 16 May 2003; or;
- for fodder harvesting; or
- for thinning; or
- for clearing of encroachment; or
- for an extractive industry; or
- for clearing regrowth vegetation on freehold land, indigenous land or leases issues under the *Land Act 1994* for agriculture or grazing purposes, in an area shown as a registered area of agriculture on a registered area of agriculture map in a wild river high preservation area.

The proposed plan of development constitutes a 'relevant purpose' pursuant to Section 22A of the *VM Act*, given the following.

1. The establishment of the proposed Greyhound Racing Facility constitutes establishing 'necessary built infrastructure'.
2. The clearing required for the establishment of the proposed Greyhound Racing Facility 'can not reasonably be avoided or minimised' further than to the extent that is proposed. This extent of vegetation clearance has been minimised to the extent practicable whilst ensuring that access/egress and car parking requirements are suitably catered for.

As such, the plan of development satisfies the 'relevant purpose' requirements of Section 22A of the *VM Act*.

The RVM Code is comprised of 8 parts, E, F, P, S, T, W, Xa and Xb. *Part P – Requirements for clearing for public safety and infrastructure* of the RVM Code contains 'Performance Requirements' and 'Acceptable Solutions' for applications pertaining to '*establishing a necessary fence, firebreak,*

road or vehicular track, or for constructing necessary built infrastructure, if there is no suitable alternative site for the fence, firebreak, road, track or infrastructure'.

Assessment of the proposed clearance of assessable vegetation within the site against the 'Performance Requirements' of Part P of the RVM Code is provided in Table 1.

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Table 1 Regional Vegetation Management Code (Part P) Assessment

Performance Requirement	Compliance Assessment Comments
<p>PR P.1: Limits to clearing for public safety and infrastructure To regulate the clearing of vegetation in a way that conserves remnant vegetation that are regional ecosystems, does not cause land degradation, prevents the loss of biodiversity and maintains ecological processes – subject to the limitations required to meet PR P.2 to PR P.10 – clearing is limited to the extent that is necessary–</p> <ul style="list-style-type: none"> a) for establishing a necessary fence, firebreak, road or vehicular track, or for constructing necessary built infrastructure, if there is no suitable alternative site for the fence, firebreak, road track or infrastructure; or b) as a natural and ordinary consequence of other assessable development for which a development approval as defined under the IPA was given, or a development application as defined under IPA was made before 16 May 2003; or c) to ensure public safety. 	<p>The clearance of assessable vegetation within the site proposed in order to establish the proposed Greyhound Racing Facility and associated infrastructure will be limited to the following.</p> <ol style="list-style-type: none"> 1. A section of the band of RE 12.9-10.4 approximately 1721m² in area, required to be cleared in order to construct the entrance driveway to the proposed facility and the car park. This clearance will require the removal of approximately 20 canopy/midstorey trees. 2. Approximately 6 of the large eucalypt and allied species trees that have been retained within the section of the site adjoining the above described clump of RE 12.9-10-4. These trees will require removal in order to construct the entrance driveway and the car park. <p>This extent of vegetation clearance has been minimised to the extent practicable whilst ensuring that access/egress and car parking requirements are suitably catered for. It is relevant to note that the proposed access/egress driveway linking the facility to Kingston Road will be located in roughly the same position as the exiting access road (refer Figure 3). In this regard, the actual clearance of vegetation required to construct the entrance driveway within the band of RE 12.9-10.4 located in the western section of the site will be minimal (i.e. approximately 8 trees).</p> <p>Given the above, the proposal achieves compliance with PR P.1 in that the proposed layout of the 'necessary built infrastructure' has been designed in a manner that has limited the required clearance of vegetation to the extent practicable.</p>

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Performance Requirement	Acceptable Solution	Compliance Assessment Comments
<p>PR P.2: Wetlands</p> <p>To regulate the clearing of vegetation in a way that prevents the loss of biodiversity and maintains ecological processes – assessable vegetation associated with any natural significant wetland and/or natural wetland is protected to maintain–</p> <ul style="list-style-type: none"> a) water quality by filtering sediments, nutrients and other pollutants; and b) aquatic habitat; and c) terrestrial habitat. 	<p>AS P.2</p> <p>P.2.1</p> <p>Clearing does not occur–</p> <ul style="list-style-type: none"> a) in any natural wetland; and b) within 100 metres from any natural wetland; and c) in any natural significant wetland; and d) within 200 metres from any natural significant wetland. <p>AND</p> <p>P.2.2</p> <p>Where clearing is for a significant community project, maintain the current extent of assessable vegetation associated with any natural significant wetland and/or natural wetland to provide–</p> <ul style="list-style-type: none"> a) water quality by filtering sediments, nutrients and other pollutants; and b) aquatic habitat; and c) terrestrial habitat. 	<p>The proposed works <u>will not</u> involve the clearance of any assessable vegetation in or within 100 metres of any natural wetland, given that the site does not include any vegetation that supports or is associated with plants that are adapted to and dependent on living in wet conditions for at least part of their lifecycle, <u>and</u> that is-</p> <ul style="list-style-type: none"> a) a regional ecosystem that is listed in Table 12; or b) represented as a swamp, lake, marsh, waterhole, wetland, billabong, pool, spring or the like on any topographic map; or c) listed as an active spring in the Queensland Springs Database. <p>The proposal therefore satisfies PR P.2 through achieving compliance with AS P.2.1.</p>
<p>PR P.3: Watercourses</p> <p>To regulate the clearing of vegetation in a way that does not cause land degradation, prevents the loss of biodiversity and maintains ecological processes – assessable vegetation associated with any watercourse is protected to maintain –</p> <ul style="list-style-type: none"> a) bank stability by protecting against bank erosion; and b) water quality by filtering sediments, nutrients and other pollutants; c) aquatic habitat; and d) terrestrial habitat. 	<p>AS P.3</p> <p>P.3.1</p> <p>Clearing does not occur–</p> <ul style="list-style-type: none"> a) in any watercourse; and b) within 50 metres from each high bank of each watercourse with a stream order of 5 or greater; and c) within 25 metres from each high bank of each watercourse with a stream order 3 or 4; and d) within 10 metres from each high bank of each watercourse with a stream order 1 or 2. <p>AND</p> <p>P.3.2</p> <p>Where clearing is for a significant community project, maintain the current extent of assessable vegetation associated with any watercourse to provide–</p> <ul style="list-style-type: none"> a) bank stability by protecting against bank erosion; and b) water quality by filtering sediments, nutrients and other pollutants; and c) aquatic habitat; and d) terrestrial habitat. 	<p>It is noted that a 'stream order 1' watercourse is identified as extending into the western section of the site on the 1:100,000 Vegetation Management Watercourse Map. However an inspection of this area during the site survey concluded that no such feature occurs within the subject section of the site and the subject section of the site supports flat, mown grass occurring over the remediated landfill. Nevertheless, no assessable vegetation occurs within 10 metres of this mapped 'stream order 1' watercourse, and therefore the proposed development will not require the clearance of assessable vegetation with 10 metres of the mapped watercourse.</p> <p>The proposal therefore satisfies PR P.3 through achieving compliance with AS P.3.1.</p>

Performance Requirement	Acceptable Solution	Compliance Assessment Comments
<p>PR P.4: Connectivity</p> <p>To regulate the clearing of vegetation in a way that prevents the loss of biodiversity and maintains ecological processes – areas of mapped remnant vegetation are retained that are–</p> <ul style="list-style-type: none"> a) of sufficient size and configured in a way to maintain ecosystem functioning; and b) of sufficient size and configured in a way to remain in the landscape in spite of any threatening processes; and c) located on the lot(s) that are the subject of the application to maintain connectivity to remnant vegetation on adjacent properties. 	<p>AS P.4</p> <p>P.4.1</p> <p>Where clearing is less than–</p> <ul style="list-style-type: none"> a) 10 metres wide; or b) 2 hectares; <p>Clearing does not–</p> <ul style="list-style-type: none"> i. reduce the width of remnant vegetation to less than 100 metres; and ii. occur where the width of remnant vegetation is less than 100 metres; <p>AND</p> <p>P.4.2</p> <p>Clearing does not-</p> <ul style="list-style-type: none"> a) reduce areas of contiguous remnant vegetation to less than 10 hectares; and b) occur in areas of contiguous remnant vegetation that are less than 10 hectares; and c) reduce the width of remnant vegetation to less than 100 metres; and d) occur where the width of remnant vegetation is less than 100 metres; and e) reduce the total extent of remnant vegetation to less than 30%; and f) occur where the total extent of remnant vegetation is less than 30%. <p>AND</p> <p>P.4.3</p> <p>Where clearing is for a significant community project, maintain the current extent or mapped remnant vegetation where the vegetation is –</p> <ul style="list-style-type: none"> a) of sufficient size and configured in a way to maintain ecosystem functioning; and b) of sufficient size and configured in a way to remain in the landscape in spite of any threatening processes; and c) located on the lot(s) that are the subject of the application to maintain connectivity to mapped remnant vegetation on adjacent properties. 	<p>While the proposed clearing of vegetation within the band of RE 12.9-10.4 located in the western extent of the site will less than a) 10 metres wide and b) less than 2 hectares, it is noted that this clearing will occur where the width of remnant vegetation is less than 100 metres. As such, the proposal does not achieve compliance with AS P.4.1. However the proposed plan of development is complaint with PR P.4, given the following.</p> <ol style="list-style-type: none"> 1. The site is located within a heavily developed locality, bordered on all sides by industrial/commercial development and roadways. 2. The band of RE 12.9-10.4 located within the western extent of the site represents the only area of remnant vegetation mapped as such on the RE Map within close proximity of the site. The nearest offsite area of remnant vegetation to the site consists of a similarly isolated small clump of remnant vegetation located approximately 250 metres to the north of the site. 3. The location of busy roadways including Kingston Road and Compton Road means that very limited habitat linkage or fauna movement opportunities exist between the site and any other vegetation within the wider locality. The only fauna species that would be likely to utilise the habitat provided by the vegetation within the site would be highly mobile species (such as common cosmopolitan birds) and native species that have adapted to, and indeed often benefit from, intensive anthropological presence (i.e. Common brushtail possum (<i>Trichosurus vulpecula</i>) and Common ringtail possum (<i>Pseudocheirus peregrinus</i>). In this regard, it can be considered that the habitat value of the vegetation within the site is limited to that of a 'stepping-stone' nature for the above described fauna. 4. As described in Section 2 herein, past land management of the site has resulted in the vegetation within the band of RE 12.9-10.4 being comprised almost solely of old canopy trees. The band of remnant vegetation supports very few midstorey trees and lacks any native species recruitment within the understorey and groundstorey. 5. The clearance of vegetation within the mapped band of RE 12.9-10.4 will be minor in extent (refer comments for PR P.1 above) and therefore, will neither significantly alter the size or configuration of this band of remnant vegetation nor the limited 'ecosystem functioning' therein. 6. The minor sections of the mapped band of RE 12.9-10.4 that are proposed for clearance support only those common tree species which are the dominant or sub-dominant components of the canopy throughout the band of remnant vegetation. As such, the proposed clearance of these trees will not result in a loss of biodiversity within the site or surrounding locality. 7. The minor clearance of vegetation within the band of RE 12.9-10.4 proposed under the proposed plan of development will not result in the intensification of any threatening process. <p>Given the above, it is considered that the proposed plan of development is complaint with PR P.4 in that it will not result in the loss of the limited biodiversity values of the site and it will maintain the limited ecological processes that occur within the site.</p>

Performance Requirement	Acceptable Solution	Compliance Assessment Comments
<p>PR P.5: Soil erosion</p> <p>To regulate the clearing of vegetation in a way that does not cause land degradation and maintains ecological processes – the effect of clearing does not result in–</p> <p>a) mass movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion or scalding; and</p> <p>b) any associated loss of chemical, physical or biological fertility—including, but not limited to water holding capacity, soil structure, organic matter, soil biology and nutrients, within and/or outside the lot(s) that are the subject of the application.</p>	<p>AS P.5</p> <p>P.5.1</p> <p>Mechanical clearing only occurs on–</p> <p>a) stable soils on a slope less than 30%; and</p> <p>b) unstable soils on a slope less than 10%; and</p> <p>c) very unstable soils on a slope less than 1%.</p>	<p>The topography of the site as recorded during the field survey is generally flat with a slight decline from west to east across the site. This assessment is consistent with the surveyed contours for the site as illustrated on the preliminary <i>Site Plan Drawing No: GREY0001 SK-001-E</i> prepared by ML Design and dated 30th of November 2009 (refer Appendix B).</p> <p>The soil types within the site are likely to be of varied composition owing to the substantial excavation and movement of soils that has occurred within the site during the operation and remediation of the landfill. In this respect, it is reasonable to deem that as the underlying geology and corresponding soil types with the site were of a suitable composition for LCC to establish a landfill within the site, such soils must be of a reasonably stable composition.</p> <p>In any case, given the flat nature of the section of the site that will be disturbed during construction of the proposed development, it is not envisaged that mechanical clearing will occur on soils which slope at greater than 5%.</p> <p>The proposal therefore satisfies PR P.5 through achieving compliance with AS P.4.1.</p> <p>Notwithstanding the above, the mechanical clearing and excavation works associated with the proposed plan of development will be conducted in accordance with a Construction Environmental Management Plan (CEMP) that will be prepared prior to Operational Works to guide the construction of the proposed development.</p>
<p>PR P.6: Salinity</p> <p>To regulate the clearing of vegetation in a way that does not cause land degradation and maintains ecological processes – clearing does not contribute to–</p> <p>a) waterlogging; or</p> <p>b) the salinisation of groundwater, surface water or soil.</p>	<p>AS P.6</p> <p>P.6.1</p> <p>Where clearing is less than–</p> <p>a) 2 hectares; or</p> <p>b) 10 metres wide;</p> <p>Clearing does not occur in any discharge area.</p> <p>AND</p> <p>P.6.2</p> <p>Where clearing is less than –</p> <p>a) 5 hectares; or</p> <p>b) 50 metres wide-</p> <p>Clearing does not occur-</p> <p>i) in a discharge area; and</p> <p>ii) within 200 metres of any discharge area.</p> <p>AND</p> <p>P.6.2</p> <p>Clearing does not occur in areas greater than 5 hectares.</p>	<p>The clearance of assessable vegetation in order to construct the proposed works will be less than 2 hectares (i.e. maximum of approximately 0.28ha). As such, AS P.6.1 is of relevance to this application.</p> <p>With reference to The <i>Salinity Management Handbook</i>, Queensland's Department of Natural Resources, 1997('the Handbook'), discharge areas are defined as '<i>areas where the net movement of water is out of the groundwater. They generally occur where there is some hydrologic restriction to downslope water transmission causing water to flow toward the soil surface where it discharges from the groundwater.</i>'</p> <p>The Handbook identifies the following geomorphological features as being typical discharge areas:</p> <ul style="list-style-type: none"> • toeslopes; • permanent streams; • permanent waterholes, lakes and swamps; • playa lakes; and • areas of poorly incised drainage. <p>The proposal will not require the clearance of assessable vegetation within any area that supports such geomorphological features.</p> <p>The proposal therefore satisfies PR P.6 through achieving compliance with AS P.6.1.</p>

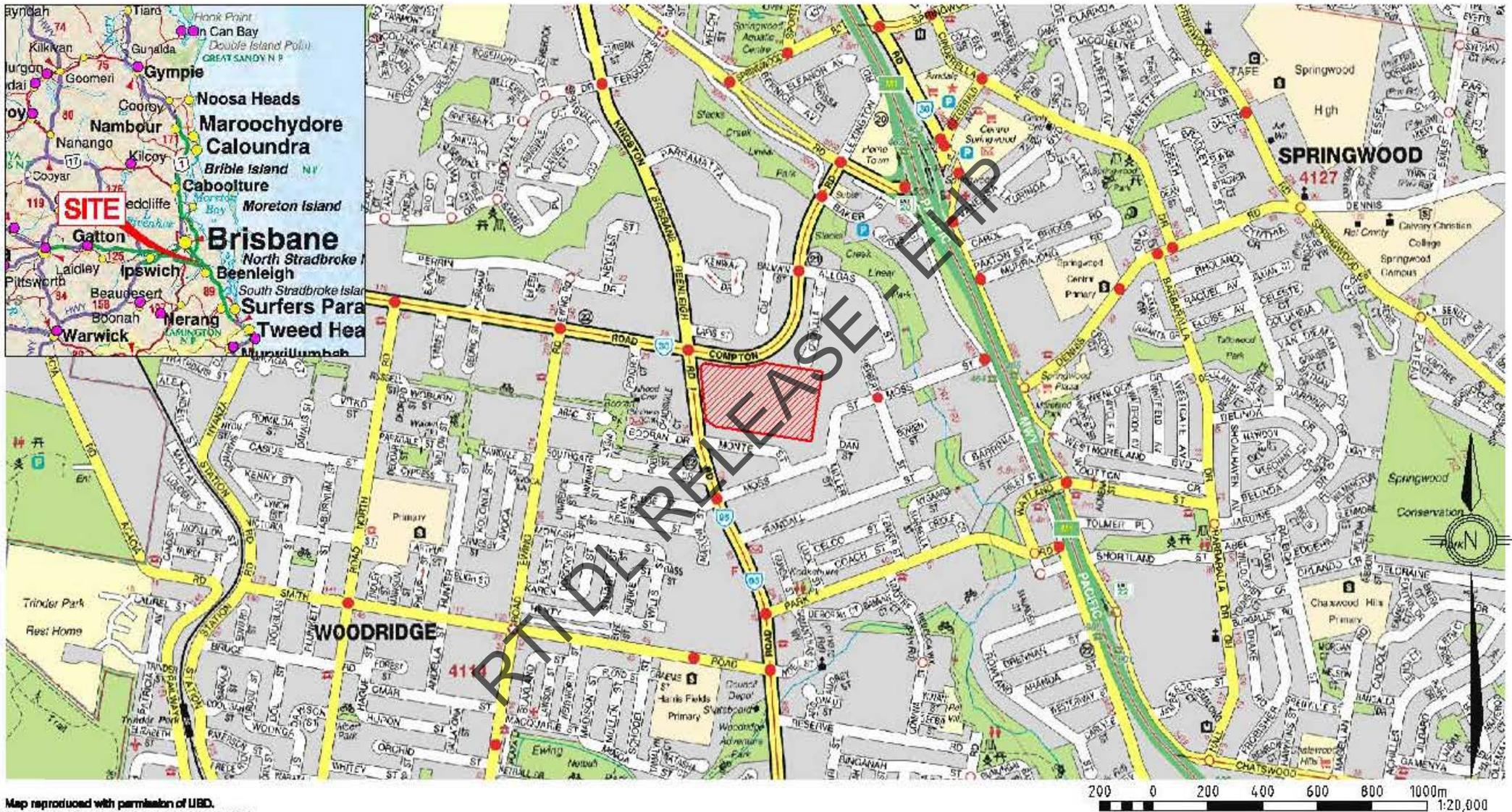
Performance Requirement	Acceptable Solution	Compliance Assessment Comments
<p>PR P.7: Conserving remnant <i>endangered</i> regional ecosystems and of <i>concern</i> regional ecosystems</p> <p>To regulate the clearing of vegetation in a way that conserves remnant <i>endangered</i> regional ecosystems and remnant of <i>concern</i> regional ecosystems –maintain¹ the current extent of endangered regional ecosystems and of concern regional ecosystems.</p>	<p>AS P.7</p> <p>P.7.1</p> <p>Clearing-</p> <p>a) does not occur in an endangered regional ecosystem or an of concern regional ecosystem that is listed in Table 1: and</p> <p>b) in an endangered regional ecosystem or an of concern regional ecosystem that is not listed in Table 1 only occurs where the clearing is less that 10 metres wide or 0.5 hectares.</p>	<p>The proposal will not necessitate the clearance of any vegetation identified as supporting <i>Endangered</i> or <i>Of Concern</i> REs on the current RE Map (refer Figure 2, and Appendix A). The proposal therefore achieves compliance with PR P.7.</p>
<p>P.8: Essential habitat</p> <p>To regulate the clearing of vegetation in a way that prevents the loss of biodiversity – maintain the current extent of essential habitat.</p>	<p>AS P.8</p> <p>P.8.1</p> <p>Clearing does not occur in an area shown as essential habitat on the essential habitat map.</p>	<p>The band of RE 12.9-10.4 within the western extent of the site is identified as essential habitat for the Koala (<i>Phascolarctos cinereus</i>) on the Essential Habitat Map (refer Appendix A).</p> <p>With reference to the identification of the band of remnant vegetation as essential habitat for the Koala, the following must be noted.</p> <ol style="list-style-type: none"> 1. The vegetation within the site is separated from the small isolated clump of remnant vegetation to the north of the site (also identified as essential habitat for the Koala) by approximately 250 metres of industrial/commercial development. 2. The vegetation within the site is separated from the closest expansive and known areas of Koala habitat by 1.85km in the case of Karawatha State Forest and 3.4km in the case of Daisy Hill Reserve. The land between the site and these Koala habitat areas supports dense industrial/commercial and residential development. No habitat linkage or fauna movement corridors have been retained or created between the site and areas of suitable Koala habitat. 3. The site and the majority of the surrounding properties are bordered by 1.8 metre high fencing which has made no provision for Koala movement through the locality. 4. An extensive search for evidence of Koala habitation of the site (i.e. visual sightings, scats, characteristic scratches etc.) did not locate any such evidence. In addition, anecdotal accounts provided by neighbouring business people advised that no Koala have been observed within the site in recent years. 5. Kingston Road and Compton Road which border the western and northern boundaries of the site are State controlled roads with high volumes of traffic and speed limits of 60 and 70 km/h. Such roads do not provide for the safe crossing of Koalas and attempts by Koalas (or other fauna) to cross these roads would be likely to result in injury or mortality. 6. The site is not mapped as a 'Koala Conservation Area', 'Koala Sustainability Area' or 'Urban Koala Area' on the <i>Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016</i> mapping. 7. The site is not mapped as 'Interim Koala Habitat Protection Area' or 'Koala Bushland Habitat Area' on the <i>Draft South East Queensland Koala State Planning Regulatory Provisions 2009</i> mapping.

Performance Requirement	Acceptable Solution	Compliance Assessment Comments
		<p>With respect to the above, it can be determined that the band of RE 12.9-10.4 within the western extent of the site has been identified as essential habitat for the Koala relying upon vegetation species composition alone (i.e. canopy of Eucalypt and allied species which are known Koala food trees). The inability of any Koala population to access, and therefore utilise the vegetation within the site would preclude the site from constituting actual and functional habitat for the Koala.</p> <p>In this regard, it should be noted that the DERM's definition of 'Essential Habitat' for protected wildlife is—</p> <p><i>...an area of vegetation shown on the regional ecosystem map or remnant map as remnant vegetation-</i></p> <p><i>(a) that has at least 3 essential habitat factors for the protected wildlife that must include any mandatory essential habitat factors; or</i></p> <p><i>(b) in which the protected wildlife, at any stage of its life cycle is located.</i></p> <p>As discussed above, the Koala does not occur within the site due to the inability of Koalas to access the site. Whilst the site supports RE 12.9-10.4 (essential habitat criteria 1) and occurs between sea level and 1000 metres AHD (essential habitat criteria 2), as discussed herein, the band of remnant vegetation does not contain 'multiple strata layers' (required for essential habitat criteria 3). The band of RE 12.9-10.4 therefore does not have at least 3 of the nominated essential habitat factors.</p> <p>It is therefore considered that the proposal achieves compliance with PR P. 8.</p>
<p>PR P.9: Conserving status thresholds</p> <p>To regulate the clearing of vegetation in a way that conserves remnant regional ecosystems and prevents the loss of biodiversity – maintain the current extent of regional ecosystems listed in Table 2.</p>	<p>AS P.9</p> <p>P.9.1</p> <p>Clearing in a regional ecosystem listed in Table 2, does not occur unless the clearing is less than—</p> <ul style="list-style-type: none"> • 10 metres wide; or • 2 hectares. 	<p>The proposal will not necessitate the clearance of any Regional Ecosystems identified in Table 2 of the RVM Code.</p> <p>The proposal therefore achieves compliance with PR P. 9 through achieving compliance with AS P.9.1.</p>
<p>PR P. 10: Acid sulfate soils</p> <p>To regulate the clearing of vegetation in a way that does not cause land degradation and maintains ecological processes – clearing activities do not result in disturbance of acid sulfate soils or changes to the hydrology of the location that will either—</p> <p>a) aerate horizons containing iron sulfides; or</p> <p>b) mobilise acid and/or metals.</p>	<p>AS P.10.1</p> <p>Clearing in land zone 1, land zone 2 or land zone 3 in areas below 5 metres Australian Height Datum—</p> <p>a) is carried out in accordance with an acid sulfate soils environmental management plan as outlined in the <i>State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils</i>; and</p> <p>b) follows management principles in accordance with the Soil Management Guidelines in the <i>Queensland Acid Sulfate Soil Technical Manual</i>.</p>	<p>No section of the proposed development will occur on land that is located below 5m AHD and it is therefore unlikely that construction of the proposed development will result in the disturbance of Acid Sulfate Soils.</p> <p>With regard to the above the proposal achieves compliance with AS P.10.1 and therefore satisfies PR P.10.</p>

FIGURES

- Figure 1 Locality Plan
- Figure 2 Vegetation Communities and Regional Ecosystems Mapping on 2007 Aerial Photography
- Figure 3 Proposed Plan of Development and Locations and Extents of Assessable Vegetation Clearance

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Rev. Orig. Date: 25 February 2010

ML Design 3-054
CAD FILE: \\17801-87\Acad\PM\146-178\Figure 1- Locality plan.dwg
XREF: DC08-

LEGEND

Site boundary

Scale 1:20,000(A4)

**FIGURE 1
LOCALITY PLAN**

Project No.: 7801/87



- LEGEND**
- Site boundary
 - Regional Ecosystems**
 - Least concern, Vegetation Community A
 - Other Vegetation Communities**
 - Vegetation Community B
 - Vegetation Community C

Aerial image sourced from Google Earth, 2010

Map disclaimer: Vegetation Management Act Regional Ecosystem and Bioregion Map Version 8, Data: 09-09-10. Regional ecosystem framework reproduced at scale greater than 1:100,000, except in designated areas, should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100,000 is +/-100 metres. Regional ecosystem mapping reproduced with permission of Environmental Protection Agency (2010).

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Rev: Orig. Date: 25 February 2010

ML Design
CAD FILE: 13-054
13-054-Cad1PVMP-Figure 2 - Vegetation communities and regional ecosystems mapping on 2007 aerial photography.dwg
USER: D.COB



Scale 1:1,500 (A3)

FIGURE 2

VEGETATION COMMUNITIES AND REGIONAL ECOSYSTEMS MAPPING ON 2007 AERIAL PHOTOGRAPHY

Project No.: 7801/87

PRINT DATE: 26 February, 2010 - 13:07w

Page 21 of 27



- LEGEND**
- Site boundary
 - Vegetation Clearance**
 - Extent of proposed development and 5m wide buffer area
 - Regional Ecosystems**
 - Least concern, Vegetation Community A
Maximum vegetation clearance = 1721m²
 - Other Vegetation Communities**
 - Vegetation Community B
Maximum vegetation clearance = 1121m²
 - Vegetation Community C
Maximum vegetation clearance = 0m²

Aerial image sourced from Google Earth, 2010

Map disclaimer: Vegetation Management Act Regional Ecosystem and Biome Map Version 8, Data: 09-09-10. Regional ecosystem framework reproduced at scale greater than 1:100,000, except in designated areas, should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100,000 is +/-100 metres. Regional ecosystem mapping reproduced with permission of Environmental Protection Agency (2010).

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Scale 1:1,500 (A3)

PROPOSED PLAN OF DEVELOPMENT AND LOCATIONS AND EXTENTS OF ASSESSABLE VEGETATION CLEARANCE

FIGURE 3

Rev: Orig. Date: 25 February 2010

ML Design
CAD FILE: 13-054
KREF: 0-00-1001101_Layout_Sk001-issuE_v2

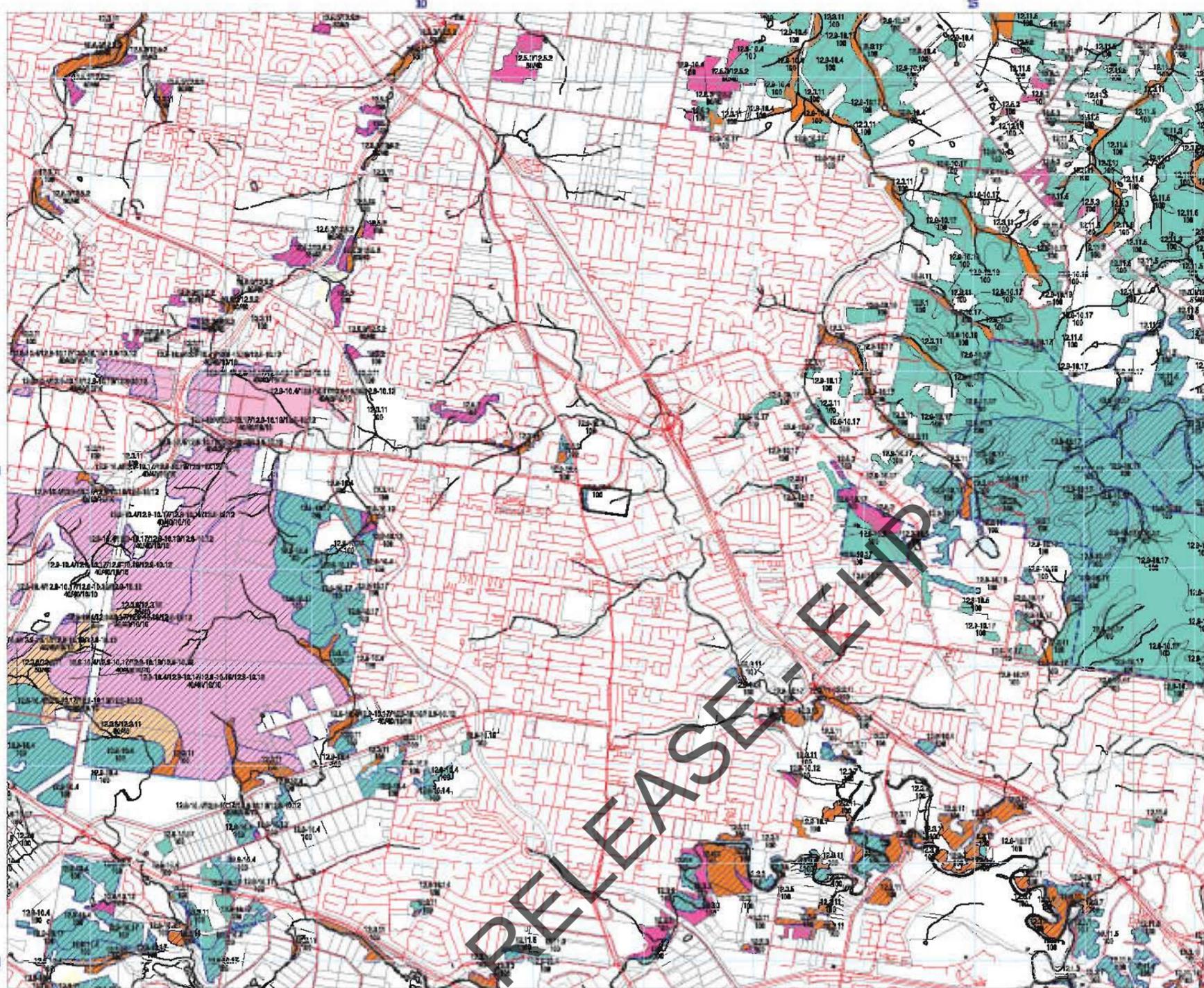
Project No.: 7801/87

PRINT DATE: 26 February, 2010 - 13:30w

APPENDIX A

Copy of Vegetation Management Act Regional Ecosystem and Remnant Map – Version 6 and Essential Habitat Map

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Vegetation Management Act Regional Ecosystem and Remnant Map-Version 6

Remnant vegetation containing endangered regional ecosystems

Based on 2006 Landsat TM imagery

Dominant

Requested By: ANDREW.GAFFNEY@MLDESIGN.COM.AU

Sub-dominant

Date: 03 Feb 10 Time: 12.28.30

Remnant vegetation containing of concern regional ecosystems

Centered on Lot on Plan:
658 SL12298

Dominant

Bioregion: Southeast Queensland

Sub-dominant

Remnant vegetation that is a least concern regional ecosystem

Remnant vegetation under Section 20AH of the VMA

Non-remnant

Plantation Forest

Dam or Reservoir

Remnant Vegetation

PMAV Category X area

Great Barrier Reef Wetlands

Vegetation Management Act Essential Habitat
For further information on VMA Essential Habitat,
please see the attached VMA Essential Habitat map.

Subject Lot

Watercourse (Stream order shown as black
number against stream where available)

Bioregion boundary

Roads © MapInfo Australia Pty Ltd 2009

National Park, Conservation Area State Forest
and other reserves

Cadastral line

The maximum spatial error of parcels extracted for this
map from the Digital Cadastral Data Base(DCDB) range
from: 14m to 251m at a 95% confidence level. Property
boundaries shown are provided as a locational aid only.

Towns



Queensland
Government



Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94)

A remnant map covers areas not covered by a regional ecosystem map.

Defined map areas are labelled with the regional ecosystem (RE) code
along with the percentage breakdown if more than one RE occurs within
the area. Detailed definitions of regional ecosystems are available
from www.derm.qld.gov.au/REDD. Defined map areas smaller than 5ha
may not be labelled.

Regional ecosystem linework has been compiled at a scale of 1:100 000,
except in designated areas where a compilation scale of 1:50 000 is
available. Linework should be used as a guide only. The positional
accuracy of RE data mapped at a scale of 1:100 000 is +/-100 metres.
The extent of remnant regional ecosystems as of 2006, depicted on this
map is based on rectified 2006 Landsat TM imagery (supplied by
the Statewide Landcover and Trees Study (SLATS), Department of
Environment and Resource Management (DERM)).

Some watercourse lines are derived from GeoScience Australia 1:250 000
mapping.

Disclaimer:

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damages (including indirect or consequential damage) and costs which
you might incur as a result of the product being inaccurate or
incomplete in any way and for any reason.

All datasets are updated as they become available to provide the
most current information as of the date shown on this map.

Additional information is required for the purposes of land clearing or
assessment of a regional ecosystem map or PMAV applications. For
further information go to the web site: www.derm.qld.gov.au/vegetation
or contact the Department of Environment and Resource Management.

Digital regional ecosystem data is available in shapefile format, for Lot
on Plans from www.derm.qld.gov.au/REDATA or from DERM for larger
areas.

153°05'E

153°10'E

27°35'

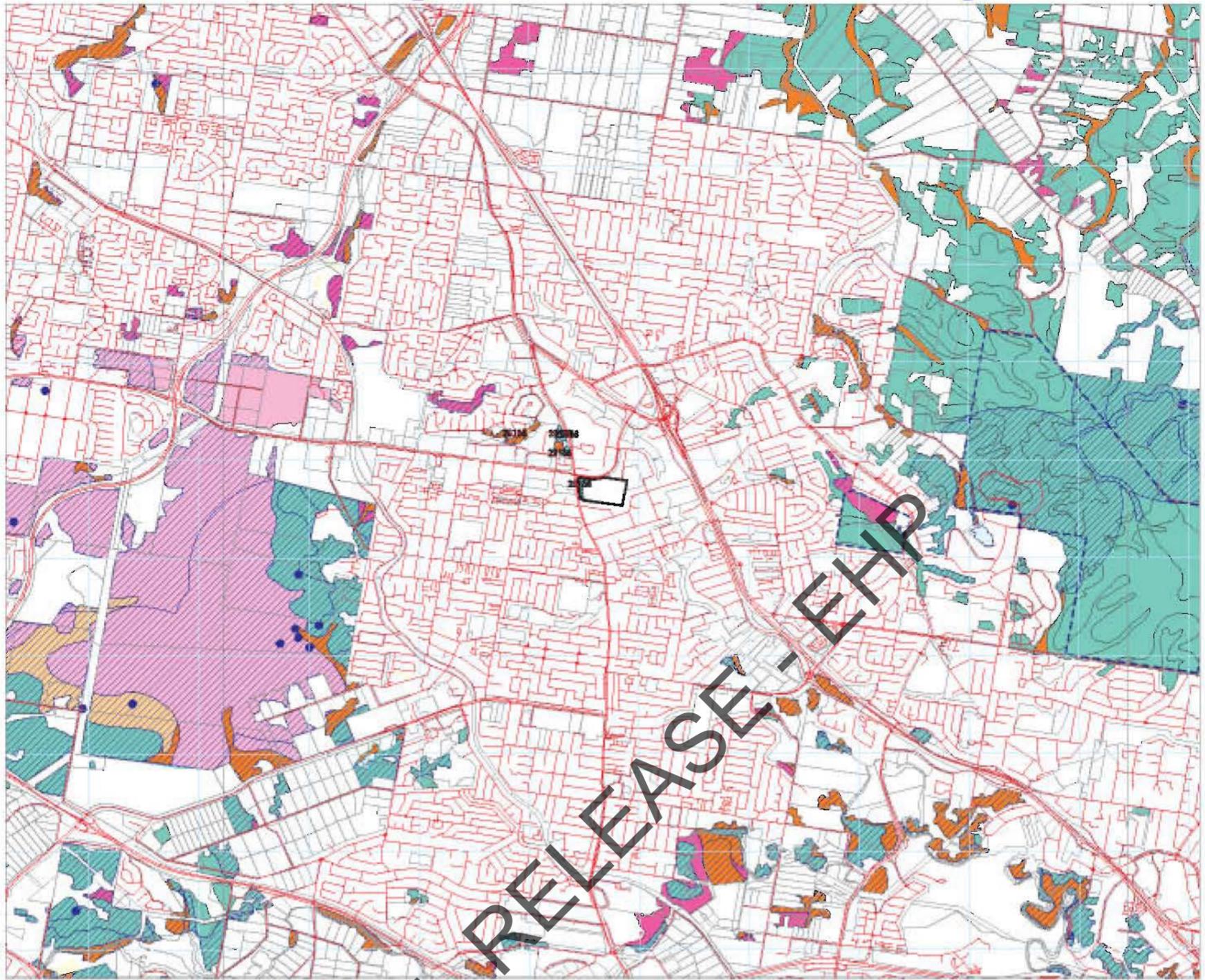
27°35'S

27°40'

27°40'S

153°05'

153°10'



Vegetation Management Act Essential Habitat Map Version 3.0

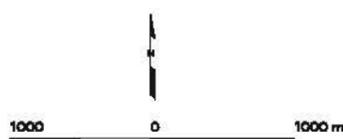
- Remnant vegetation containing endangered regional ecosystems
 - Dominant
 - Sub-dominant
- Remnant vegetation containing of concern regional ecosystems
 - Dominant
 - Sub-dominant
- Remnant vegetation that is a least concern regional ecosystem
 -
- Remnant vegetation under Section 20AH of the VMA
 -
- Non-remnant
 - Plantation Forest
 - Dam or Reservoir
 - Remnant Vegetation
 - PMAV Category X area
 - Vegetation Management Act Essential Habitat
- Vegetation Management Act Essential Habitat Species Records
- Subject Lot
- Roads © MapInfo Australia Pty Ltd 2009
- National Park, Conservation Area State Forest and other reserves
- Cadastral line
The maximum spatial error of parcels extracted for this map from the Digital Cadastral Data Base(DCDB) range from: 14m to 251m at a 95% confidence level. Property boundaries shown are provided as a locational aid only.
- Towns

Requested By: ANDREW.GAFFNEY@MLDESIGN.COM.AU
Date: 03 Feb 10 Time: 12.28.36

Centered on Lot on Plan:
658 SL12298



Queensland Government



Labels for the Vegetation Management Act Essential Habitat are centred on the subject lot (1.1km surrounding and including a Lot on Plan). Labels correlate to the label field in the attached essential habitat database.

Regional ecosystem linework has been compiled at a scale of 1:100 000, except in designated areas where a compilation scale of 1:50 000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100 000 is +/-100 metres. The extent of remnant regional ecosystems as of 2006, depicted on this map is based on rectified 2006 Landsat TM imagery (supplied by SLATS, Department of Environment and Resource Management).

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All datasets are updated as they become available to provide the most current information as of the date shown on this map.

Additional information is required for the purposes of land clearing or assessment of a regional ecosystem map or PMAV applications. For further information go to the web site: www.derm.qld.gov.au/vegetation or contact the Department of Environment and Resource Management.

Digital regional ecosystem data is available in shapefile format, for Lot on Plans from www.derm.qld.gov.au/REDATA or from DERM for larger areas.

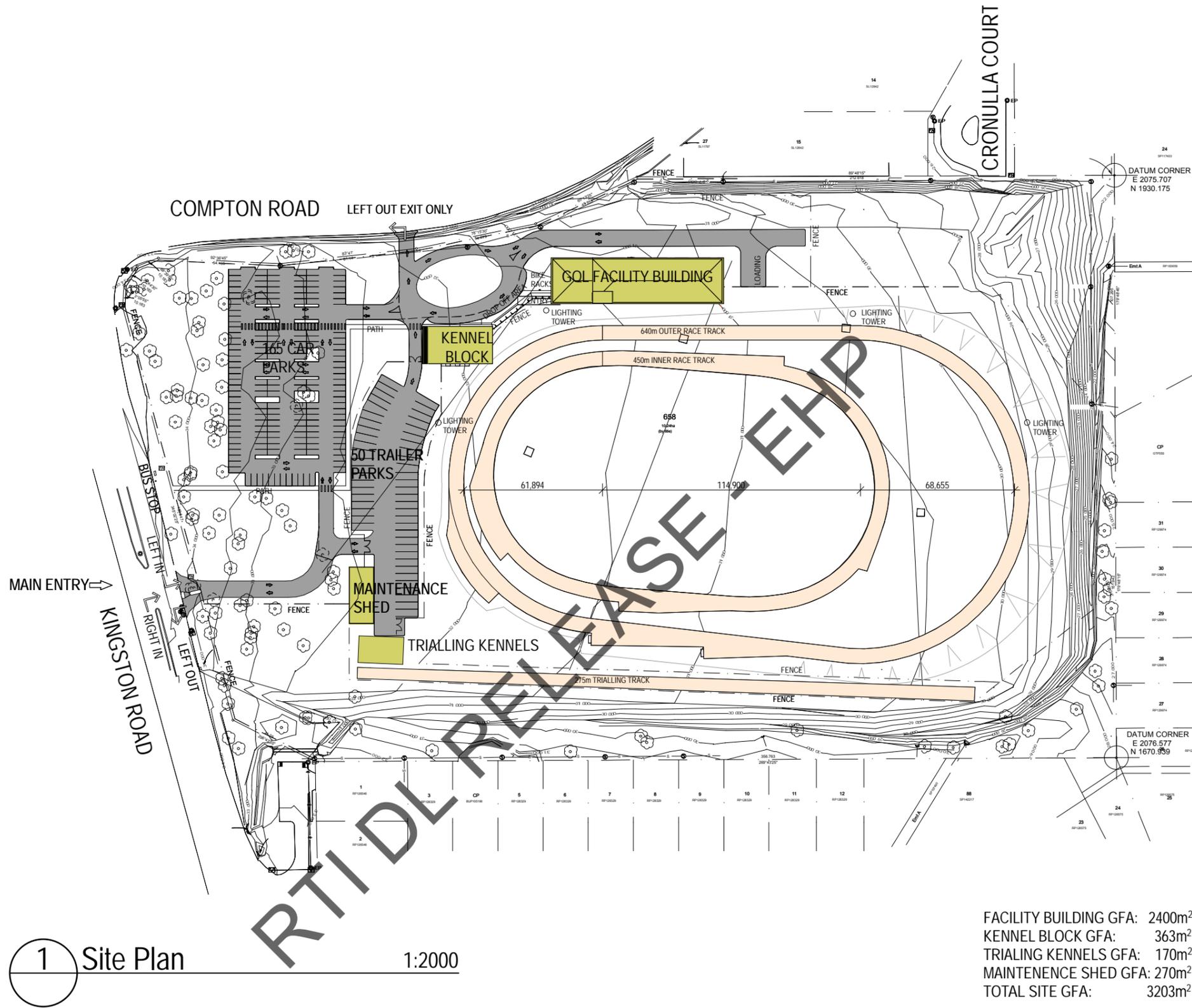
Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94)

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APPENDIX B

Site Plan Drawing No: GREY0001 SK-001-E

RTI DL RELEASE - EHP



1 Site Plan 1:2000

FACILITY BUILDING GFA: 2400m²
 KENNEL BLOCK GFA: 363m²
 TRIALLING KENNELS GFA: 170m²
 MAINTENANCE SHED GFA: 270m²
 TOTAL SITE GFA: 3203m²

PRELIMINARY
NOT FOR CONSTRUCTION

SITE PLAN -



LOGAN GREYHOUND FACILITY
GREYHOUNDS QUEENSLAND