BARCALDINE REGIONAL COUNCIL
DIGITALLY STAMPED
APPROVED DOCUMENT
Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility
referred to in and subject to the conditions in Council's Decision Notice
Approval Date: 13 November 2017
Application Number: DA421617

Appendix A

SPA IDAS Forms

- Form 1: Application Details
- Form 5: Material Change of use
- Form 8: Environmentally relevant activity
- Form 8: Attachment for an application for an environmental authority
- Form 11: Clearing native vegetation

IDAS form 1—Application details

(*Sustainable Planning Act 2009* version 4.3 effective 5 December 2016)

This form must be used for **ALL** development applications.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications, you must:

- complete this form (*IDAS form 1—Application details)*
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* (SPA) or the Sustainable Planning Regulation 2009.

This form and any other IDAS form relevant to your application must be used for development applications relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994* and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. Whenever a planning scheme is mentioned, take it to mean land use plan for the strategic port land, Brisbane core port land or airport land.

PLEASE NOTE: This form is not required to accompany requests for compliance assessment.

Mandatory requirements

Applicant details (Note: the applicant is the person responsible for making the application and need not be the owner of the land. The applicant is responsible for ensuring the information provided on all IDAS application forms is correct. Any development permit or preliminary approval that may be issued as a consequence of this application will be issued to the applicant.)

Name/s (individual or company name in full)	**Barcaldine Regional Council**
For companies, contact name	

Postal address

C/- Campbell Higginson Town Planning			
PO Box 692			
Suburb	Ashgrove		
State	Queensland	Postcode	4060
Country	Australia		

Contact phone number	(07) 3366 1700
Mobile number (non-mandatory requirement)	
Fax number (non-mandatory requirement)	

Email address (non-mandatory requirement)	chp@bigpond.com
Applicant's reference number (non-mandatory requirement)	1187_314

1. What is the nature of the development proposed and what type of approval is being sought?

Table A—Aspect 1 of the application (If there are additional aspects to the application please list in Table B—Aspect 2.)

a) What is the nature of the development? (Please only tick one box.)

☒ Material change of use ☐ Reconfiguring a lot ☐ Building work ☐ Operational work

b) What is the approval type? (Please only tick one box.)

☐ Preliminary approval under s241 of SPA ☐ Preliminary approval under s241 and s242 of SPA ☒ Development permit

c) Provide a brief description of the proposal, including use definition and number of buildings or structures where applicable (e.g. six unit apartment building defined as a *multi-unit dwelling*, 30 lot residential subdivision etc.)

"Community Oriented Activity" – "Public Utility" (Waste Management Facility)

d) What is the level of assessment? (Please only tick one box.)

☐ Impact assessment ☒ Code assessment

Table B—Aspect 2 of the application (If there are additional aspects to the application please list in Table C—Additional aspects of the application.)

a) What is the nature of development? (Please only tick one box.)

☐ Material change of use ☐ Reconfiguring a lot ☐ Building work ☐ Operational work

b) What is the approval type? (Please only tick one box.)

☐ Preliminary approval under s241 of SPA ☐ Preliminary approval under s241 and s242 of SPA ☐ Development permit

c) Provide a brief description of the proposal, including use definition and number of buildings or structures where applicable (e.g. six unit apartment building defined as a *multi-unit dwelling*, 30 lot residential subdivision etc.)

d) What is the level of assessment?

☐ Impact assessment ☐ Code assessment

Table C—Additional aspects of the application (If there are additional aspects to the application please list in a separate table on an extra page and attach to this form.)

☐ Refer attached schedule ☒ Not required

2. Location of the premises (Complete Table D and/or Table E as applicable. Identify each lot in a separate row.)

Table D—Street address and lot on plan for the premises or street address and lot on plan for the land adjoining or adjacent to the premises (Note: this table is to be used for applications involving taking or interfering with water.) (Attach a separate schedule if there is insufficient space in this table.)

☒ Street address **and** lot on plan (All lots must be listed.)

☐ Street address **and** lot on plan for the land adjoining or adjacent to the premises (Appropriate for development in water but adjoining or adjacent to land, e.g. jetty, pontoon. All lots must be listed.)

Street address					**Lot on plan description**		**Local government area** (e.g. Logan, Cairns)
Lot	Unit no.	Street no.	Street name and official suburb/ locality name	Post-code	Lot no.	Plan type and plan no.	
i)		100	Yellowjack Drive	4725	1	SP223525	Barcaldine
ii)							
iii)							

Planning scheme details (If the premises involves multiple zones, clearly identify the relevant zone/s for each lot in a separate row in the below table. Non-mandatory)

Lot	Applicable zone / precinct	Applicable local plan / precinct	Applicable overlay/s
i)			
ii)			
iii)			

Table E—Premises coordinates (Appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay.) (Attach a separate schedule if there is insufficient space in this table.)

Coordinates (Note: place each set of coordinates in a separate row)				**Zone reference**	**Datum**	**Local government area (if applicable)**
Easting	Northing	Latitude	Longitude			
		-23.586031° -23.585908° -23.586361° -23.586553°	145.277581° 145.277892° 145.278544° 145.278419°		☐ GDA94 ☒ WGS84 ☐ other	Barcaldine

3. Total area of land on which the development is proposed (indicate square metres)

Lot 1 on SP223525= 200000 m^2 (approx.)
Part of Lot 2 on SP243965= 2322 m^2 (approx.)
Total site area: 202322 m^2

4. Current use/s of the premises (e.g. vacant land, house, apartment building, cane farm etc.)

Lot 1 on SP223525 – Vacant
Part of Lot 2 on SP243965 (defined by coordinates in Question 2, Table E) – Constructed Vehicle Access

5. Are there any current approvals (e.g. a preliminary approval) associated with this application? (Non-mandatory requirement)

☒ No ☐ Yes—provide details below

List of approval reference/s	Date approved (dd/mm/yy)	Date approval lapses (dd/mm/yy)

6. Is owner's consent required for this application? (Refer to notes at the end of this form for more information.)

☐ No

☒ Yes—complete either Table F, Table G or Table H as applicable

Table F	
Name of owner/s of the land	
I/We, the above-mentioned owner/s of the land, consent to the making of this application.	
Signature of owner/s of the land	
Date	

Table G	
Name of owner/s of the land	**Barcaldine Regional Council** **Department of Natural Resources and Mines**
☒ The owner's written consent is attached or will be provided separately to the assessment manager.	

Table H	
Name of owner/s of the land	
☐ By making this application, I, the applicant, declare that the owner has given written consent to the making of the application.	

7. Identify if any of the following apply to the premises (Tick applicable box/es.)

☐ Adjacent to a water body, watercourse or aquifer (e.g. creek, river, lake, canal)—complete Table I

☐ On strategic port land under the *Transport Infrastructure Act 1994*—complete Table J

☐ In a tidal water area—complete Table K

☐ On Brisbane core port land under the *Transport Infrastructure Act 1994* (No table requires completion.)

☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008* (no table requires completion)

☐ Listed on either the Contaminated Land Register (CLR) or the Environmental Management Register (EMR) under the *Environmental Protection Act 1994* (no table requires completion)

Table I
Name of water body, watercourse or aquifer

Table J	
Lot on plan description for strategic port land	Port authority for the lot

Table K	
Name of local government for the tidal area (if applicable)	Port authority for the tidal area (if applicable)

8. Are there any existing easements on the premises? (e.g. for vehicular access, electricity, overland flow, water etc)

☒ No ☐ Yes—ensure the type, location and dimension of each easement is included in the plans submitted

9. Does the proposal include new building work or operational work on the premises? (Including any services)

☐ No ☒ Yes—ensure the nature, location and dimension of proposed works are included in plans submitted

10. Is the payment of a portable long service leave levy applicable to this application? (Refer to notes at the end of this form for more information.)

☒ No—go to question 11 ☐ Yes

10a. Has the portable long service leave levy been paid? (Refer to notes at the end of this form for more information.)

☐ No

☐ Yes—complete Table L and submit, with this application, the local government/private certifier's copy of the accepted QLeave form

Table L		
Amount paid	Date paid (dd/mm/yy)	QLeave project number (6 digit number starting with A, B, E, L, P or S)

11. Has the local government agreed to apply a superseded planning scheme to this application under section 96 of the *Sustainable Planning Act 2009*?

☒ No

☐ Yes—please provide details below

Name of local government	Date of written notice given by local government (dd/mm/yy)	Reference number of written notice given by local government (if applicable)

12. List below all of the forms and supporting information that accompany this application (Include all IDAS forms, checklists, mandatory supporting information etc. that will be submitted as part of this application)

Description of attachment or title of attachment	**Method of lodgement to assessment manager**
IDAS Forms 1, 5, 8 and 11	Email
IDAS Form 8 attachment (EM941)	Email
Owners consent	Email
Town Planning Report which includes the following supporting reports: – "*Landfill Environmental Management Plan"* – Barcaldine Regional Council Yellow Jack Drive Waste Management Facility, prepared by George Bourne and Associates, dated 22/08/2017 (Appendix J) – "*Environmental Assessment Report*" – Barcaldine Regional Council Waste Management Facility, prepared by George Bourne and Associates, dated 23/03/2017 (Appendix K) – "*Vegetation Management Plan*" – Barcaldine Regional Council Waste Management Facility, prepared by George Bourne and Associates, dated 13/04/2017 (Appendix L) – "*Hydrogeological Investigation Report"* – Barcaldine Regional Council Waste Management Facility, prepared by George Bourne and Associates, dated 03/03/2017 (Appendix M) – *"Stormwater Management Plan"*, – Barcaldine Regional Council Yellow Jack Drive Waste Management Facility, prepared by George Bourne and Associates, dated 16/08/2017 (Appendix N) – *"Groundwater Management Plan"*, – Barcaldine Regional Council Yellow Jack Drive Waste Management Facility, prepared by George Bourne and Associates, dated 18/08/2017 (Appendix O) – *"Landfill Gas Management Plan"*, – Barcaldine Regional Council Yellow Jack Drive Waste Management Facility, prepared by George Bourne and Associates, dated 21/08/2017. (Appendix P)	Email

13. Applicant's declaration

☒ By making this application, I declare that all information in this application is true and correct (Note: it is unlawful to provide false or misleading information)

Notes for completing this form

- Section 261 of the *Sustainable Planning Act 2009* prescribes when an application is a properly-made application. Note, the assessment manager has discretion to accept an application as properly made despite any non-compliance with the requirement to provide mandatory supporting information under section 260(1)(c) of the *Sustainable Planning Act 2009*

Applicant details

- Where the applicant is not a natural person, ensure the applicant entity is a real legal entity.

Question 1

- Schedule 3 of the Sustainable Planning Regulation 2009 identifies assessable development and the type of assessment. Where schedule 3 identifies assessable development as "various aspects of development" the applicant must identify each aspect of the development on Tables A, B and C respectively and as required.

Question 6

- Section 263 of the *Sustainable Planning Act 2009* sets out when the consent of the owner of the land is required for an application. Section 260(1)(e) of the *Sustainable Planning Act 2009* provides that if the owner's consent is required under section 263, then an application must contain, or be accompanied by, the written consent of the owner, or include a declaration by the applicant that the owner has given written consent to the making of the application. If a development application relates to a state resource, the application is not required to be supported by evidence of an allocation or entitlement to a state resource. However, where the state is the owner of the subject land, the written consent of the state, as landowner, may be required. Allocation or entitlement to the state resource is a separate process and will need to be obtained before development commences.

Question 7

- If the premises is listed on either the Contaminated Land Register (CLR) or the Environmental Management Register (EMR) under the *Environmental Protection Act 1994* it may be necessary to seek compliance assessment. Schedule 18 of the Sustainable Planning Regulation 2009 identifies where compliance assessment is required.

Question 10

- The *Building and Construction Industry (Portable Long Service Leave) Act 1991* prescribes when the portable long service leave levy is payable.
- The portable long service leave levy amount and other prescribed percentages and rates for calculating the levy are prescribed in the Building and Construction Industry (Portable Long Service Leave) Regulation 2013.

Question 10a

- The portable long service leave levy need not be paid when the application is made, but the *Building and Construction Industry (Portable Long Service Leave) Act 1991* requires the levy to be paid before a development permit is issued.
- Building and construction industry notification and payment forms can be completed on the QLeave website at www.qleave.qld.gov.au. For further information contact QLeave on 1800 803 481.

Privacy—The information collected in this form will be used by the Department of Infrastructure, Local Government and Planning (DILGP), assessment manager, referral agency and/or building certifier in accordance with the processing and assessment of your application. Your personal details should not be disclosed for a purpose outside of the IDAS process or the provisions about public access to planning and development information in the *Sustainable Planning Act 2009*, except where required by legislation (including the *Right to Information Act 2009*) or as required by Parliament. This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

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Date received		Reference numbers	

NOTIFICATION OF ENGAGEMENT OF A PRIVATE CERTIFIER

To [ ] Council. I have been engaged as the private certifier for the building work referred to in this application

Date of engagement	Name	BSA Certification license number	Building classification/s

QLEAVE NOTIFICATION AND PAYMENT (For completion by assessment manager or private certifier if applicable.)

Description of the work	QLeave project number	Amount paid ($)	Date paid	Date receipted form sighted by assessment	Name of officer who sighted the form

				manager	

The *Sustainable Planning Act 2009* is administered by the Department of Infrastructure, Local Government and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.

Department of State Development, Infrastructure and Planning
PO Box 15009 City East Qld 4002
tel 13 QGOV (13 74 68)
info@dsdip.qld.gov.au

www.dsdip.qld.gov.au

IDAS form 5—Material change of use assessable against a planning scheme

(*Sustainable Planning Act 2009* version 3.1 effective 3 August 2015)

This form must be used for development applications for a material change of use assessable against a planning scheme.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications, you must:

- complete *IDAS form 1—Application details*
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* (SPA) or the Sustainable Planning Regulation 2009.

This form must also be used for material change of use on strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994* and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008* that requires assessment against the land use plan for that land. Whenever a planning scheme is mentioned, take it to mean land use plan for the strategic port land, Brisbane core port land or airport land.

Mandatory requirements

1. Describe the proposed use. (Note: this is to provide additional detail to the information provided in question 1 of *IDAS form 1—Application details*. Attach a separate schedule if there is insufficient space in this table.)

General explanation of the proposed use	Planning scheme definition (include each definition in a new row) (non-mandatory)	No. of dwelling units (if applicable) or gross floor area (if applicable)	Days and hours of operation (if applicable)	No. of employees (if applicable)
Waste Management Facility	"Public Utility"	N/A	6am-6pm 7 days a week	1 (full time equivalent)

2. Are there any current approvals associated with the proposed material change of use? (e.g. a preliminary approval.)

☒ No ☐ Yes—provide details below

List of approval reference/s	Date approved (dd/mm/yy)	Date approval lapses (dd/mm/yy)

3. Does the proposed use involve the following? (Tick all applicable boxes.)

The reuse of existing buildings on the premises	☒ No	☐ Yes
New building work on the premises	☒ No	☐ Yes
The reuse of existing operational work on the premises	☒ No	☐ Yes
New operational work on the premises	☐ No	☒ Yes

Mandatory supporting information

4. Confirm that the following mandatory supporting information accompanies this application

Mandatory supporting information	Confirmation of lodgement	Method of lodgement
All applications		
A site plan drawn to an appropriate scale (1:100, 1:200 or 1:500 are **recommended** scales) which shows the following: • the location and site area of the land to which the application relates (*relevant land*) • the north point • the boundaries of the relevant land • any road frontages of the relevant land, including the name of the road • the location and use of any existing or proposed buildings or structures on the relevant land (note: where extensive demolition or new buildings are proposed, two separate plans [an existing site plan and proposed site plan] may be appropriate) • any existing or proposed easements on the relevant land and their function • the location and use of buildings on land adjoining the relevant land • all vehicle access points and any existing or proposed car parking areas on the relevant land. Car parking spaces for persons with disabilities and any service vehicle access and parking should be clearly marked • for any new building on the relevant land, the location of refuse storage • the location of any proposed retaining walls on the relevant land and their height • the location of any proposed landscaping on the relevant land • the location of any stormwater detention on the relevant land.	☒ Confirmed	
A statement about how the proposed development addresses the local government's planning scheme and any other planning instruments or documents relevant to the application.	☒ Confirmed	
A statement about the intensity and scale of the proposed use (e.g. number of visitors, number of seats, capacity of storage area etc.).	☒ Confirmed	
Information that states: • the existing or proposed floor area, site cover, maximum number of storeys and maximum height above natural ground level for existing or new buildings (e.g. information regarding existing buildings but not being reused) • the existing or proposed number of on-site car parking bays, type of vehicle cross-over (for non-residential uses) and vehicular servicing arrangement (for non-residential uses).	☒ Confirmed ☐ Not applicable	

A statement addressing the relevant part(s) of the State Development Assessment Provisions (SDAP).	☒ Confirmed ☐ Not applicable	
When the application involves the reuse of existing buildings		
Plans showing the size, location, existing floor area, existing site cover, existing maximum number of storeys and existing maximum height above natural ground level of the buildings to be reused.	☐ Confirmed ☒ Not applicable	
When the application involves new building work (including extensions)		
Floor plans drawn to an appropriate scale (1:50, 1:100 or 1:200 are **recommended** scales) which show the following: • the north point • the intended use of each area on the floor plan (for commercial, industrial or mixed use developments only) • the room layout (for residential development only) with all rooms clearly labelled • the existing and the proposed built form (for extensions only) • the gross floor area of each proposed floor area.	☐ Confirmed	
Elevations drawn to an appropriate scale (1:100, 1:200 or 1:500 are **recommended** scales) which show plans of all building elevations and facades, clearly labelled to identify orientation (e.g. north elevation)	☐ Confirmed	
Plans showing the size, location, proposed site cover, proposed maximum number of storeys, and proposed maximum height above natural ground level of the proposed new building work.	☐ Confirmed ☒ Not applicable	
When the application involves reuse of other existing work		
Plans showing the nature, location, number of on-site car parking bays, existing area of landscaping, existing type of vehicular cross-over (non-residential uses), and existing type of vehicular servicing arrangement (non-residential uses) of the work to be reused.	☐ Confirmed ☒ Not applicable	
When the application involves new operational work		
Plans showing the nature, location, number of new on-site car parking bays, proposed area of new landscaping, proposed type of new vehicle cross-over (non-residential uses), proposed maximum new vehicular servicing arrangement (non-residential uses) of the proposed new operational work.	☒ Confirmed ☐ Not applicable	

Privacy—Please refer to your assessment manager, referral agency and/or building certifier for further details on the use of information recorded in this form.

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The *Sustainable Planning Act 2009* is administered by the Department of Infrastructure, Local Government and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.

IDAS form 8—Environmentally relevant activity

(*Sustainable Planning Act 2009* version 3.1 effective 3 August 2015)

This form must be used for development applications for an environmentally relevant activity.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications, you must:

- complete *IDAS form 1—Application details*
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in either the *Sustainable Planning Act 2009* (SPA), the Sustainable Planning Regulation 2009, the *Environmental Protection Act 1994* or the Environmental Protection Regulation 2008.

Mandatory requirements

1. What is the nature of the proposed environmentally relevant activity (ERA)? (complete a new Table A for each proposed ERA—including ERAs that are not concurrence ERAs)

Table A	
ERA number and name	60 Waste Disposal
ERA threshold	1(a)
Applicable fees	$4,407.00
Proposed scale/capacity	Disposing of less than 50,000 tonnes of waste, in a year
Type of approval sought	☒ Development permit and environmental authority (see notes) ☐ Preliminary approval
Is the proposed ERA a concurrence ERA?	☐ No ☒ Yes

2. Are there any existing ERAs on or associated with the premises?

☒ No

☐ Yes—complete a new Table B for each existing ERA

Table B	
ERA number and name	
ERA threshold	
Existing scale/capacity	
Is the ERA proposed to continue on site?	☐ No ☐ Yes

3. Does the proposed activity involve any of the following? (Tick all applicable boxes.)

☐ Release of water or waste to a wetland for treatment

☐ Release of waste directly to groundwater

Mandatory supporting information

4. Confirm that the following mandatory supporting information accompanies this application

About the subject land	Confirmation of lodgement	Method of lodgement
Description of the site, including site maps showing vegetation, topography and any areas of cultural or heritage significance.	☒ Confirmed	
Details of any known acid sulphate soils within or adjoining the premises.	☐ Confirmed ☒ Not applicable	
Details about how the choice of the site, at which the activity is to be carried out, minimises serious environmental harm on areas of high conservation value and special significance and sensitive land uses at adjacent places.	☒ Confirmed	
Details about how the location for the activity on a site protects all environmental values relevant to adjacent sensitive uses.	☒ Confirmed	
Details about how the design of the facility permits the operation of the site, at which the activity is to be carried out, in accordance with best practice environmental management.	☒ Confirmed	
About the proposed ERA		
Attachment to IDAS form 8—application for an environmental authority (EM941) completed and required information provided.	☒ Confirmed	
A statement addressing the relevant part(s) of the State Development Assessment Provisions (SDAP).	☒ Confirmed ☐ Not applicable	

Notes for completing this form:

- An environmental authority is required to operate an ERA.
- A development approval is only required if at least one of the ERAs to be operated is a concurrence ERA.
- Schedule 2 of the Environmental Protection Regulation 2008 states the aggregate environmental scores, the thresholds that apply to ERAs, and which ERAs are concurrence ERAs (denoted by a 'C' in schedule 2, column 3).
- This development application is taken to be an application for an environmental authority. This application is not properly made unless it includes the Attachment to IDAS form 8—application for an environmental authority (EM941).
- There are annual fees associated with the operation of an ERA. These fees are initially payable 20 business days after the environmental authority takes effect. After this initial payment, annual fees will be payable on the anniversary of the take effect day. Chapter 8 and Schedule 10 of the Environmental Protection Regulation 2008 contain all information about the applicable fees and how they are calculated.

Privacy—Please refer to your assessment manager, referral agency and/or building certifier for further details on the use of information recorded in this form.

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Date received		Reference numbers	

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Application form

Environmental Protection Act 1994

IDAS form 8—attachment for an application for an environmental authority

This form is to be attached to the IDAS form 8 when making a development application for prescribed environmentally relevant activities (ERAs). Under section 115 of the Environmental Protection Act 1994 *(EP Act) the development approval application is taken to be an application for an environmental authority for the prescribed ERAs.*

It is recommended that applicants read the technical information requirement on what to provide with an ERA application, prior to making an application. This information is located on the business and industry website **www.business.qld.gov.au**.

All applicants must be a registered suitable operator before carrying out an ERA. If you are not already registered as, or have applied for registration as, a suitable operator, fill in the application form (ESR/2015/1771[1]) and submit it with this form and the IDAS application.

If you would like to have a pre-lodgement meeting please fill out and lodge the form Application for a Pre-Design/Pre-Lodgement Meeting (ESR/2015/1664[1]), prior to lodging this application form.

Definitions of terms used in this form

Where there is inconsistency between the definition of terms here and the terms used in the EP Act, the terms in the EP Act apply.

Environmentally relevant activity (ERA)	A resource activity or a prescribed ERA
Prescribed ERA	An environmentally relevant activity that is not a resource activity and is prescribed under section 19 of the EP Act.
Registered suitable operator	A person who, or a corporation which, under section 318I of the EP Act has been assessed as being suitable to carry out an ERA and has been listed on the suitable operator register.
Resource activity	An activity that is any of the following: (a) a geothermal activity (b) a greenhouse gas (GHG) storage activity (c) a mining activity (d) a petroleum activity.

[1] This is the publication number. The publication number can be used as a search term to find the latest version of a publication at **www.qld.gov.au**.

ABN 46 640 294 485

GUIDE

Take particular care in filling out the applicant details as these are legally required for the issuing of any environmental authority. Applicant details, including the name and the address should reflect the details of the person or registered legal entity.

If more space is required for any responses, please attach additional information as a separate page.

A sole applicant is an applicant where there is only 1 person or business applying to obtain an environmental authority.

A principal applicant is the individual or business nominated to act on behalf of joint applicants.

It is particularly important to enter the correct Australian business number (ABN); Australian company number (ACN) of the incorporated company; association number (AN) of the incorporated association; or the title and section of the legislation that gives the statutory corporation its legal status.

If there is an agent acting on behalf of the sole or principal applicant, provide details in this section. An agent could be a consultant or a contact for the environmental authority holder.

As statutory documents need to be sent to all applicants, this section can also be used when there are multiple environmental authority holders to nominate an address for statutory documentation to be sent 'care of' to.

Application details

1. Applicant details

SOLE OR PRINCIPAL APPLICANT DETAILS	
INDIVIDUAL OR BUSINESS NAME (INCLUDE TRADING NAME IF RELEVANT) BARCALDINE REGIONAL COUNCIL	
ABN/ACN/AN (IF RELEVANT) 36154302599	
RESIDENTIAL ADDRESS OR REGISTERED BUSINESS ADDRESS (NOT A POST OFFICE BOX ADDRESS) 71 Ash Street Barcaldine QLD 4725	
POSTAL ADDRESS (IF DIFFERENT FROM ABOVE) PO BOX 191 BARCALDINE QLD 4725	
CONTACT PERSON Des Howard (CEO)	
PHONE (07) 4651 5600	FACSIMILE (07) 4651 1778
EMAIL	

When there is more than 1 applicant complete Attachment 1—Appointment of principal applicant by all joint applicants.

Agent for principal applicant / address for service

The address supplied here will also be used as a service address for sending statutory documents. If blank, statutory documents will be sent to the sole or principal applicant.

INDIVIDUAL OR BUSINESS NAME (INCLUDE TRADING NAME IF RELEVANT) WILLIAM GREEN
RESIDENTIAL ADDRESS OR REGISTERED BUSINESS ADDRESS (NOT A POST OFFICE BOX ADDRESS) 67 Elm Street Barcaldine QLD 4725
POSTAL ADDRESS (IF DIFFERENT FROM ABOVE) PO BOX 169 BARCALDINE QLD 4725
CONTACT PERSON William Green

PHONE	FACSIMILE
(07) 4651 2177	
EMAIL	
WGREEN@GBASSOC.COM.AU	

All applicants, including joint applicants must include their details in this section.

Once a person or corporation has been registered as a suitable operator for the carrying out of an ERA, no further suitable operator applications need to be made as long as the applicant for the environmental authority matches the name (including ABN/ACN etc, if applicable) recorded on the suitable operator register.

A person who holds a valid registration certificate given under the former section 73F of the EP Act or a valid environmental authority given under the former chapter 5 or 5A of the EP Act is taken to be a registered suitable operator under section 705 of the EP Act.

If you have previously been approved as a registered suitable operator, you can find the suitable operator registration number on the decision notice advising you of your approved application or, if you have a valid existing registration certificate, the approval number listed on the registration certificate.

2. Registered suitable operator

Have all applicants been registered as a suitable operator? Tick the box that applies and provide any further requested detail.

APPLICANT NAME	SUITABLE OPERATOR REGISTRATION STATUS	SUITABLE OPERATOR REGISTRATION NUMBER
BARCALDINE REGIONAL COUNCIL	☒ I am a registered suitable operator. You must provide your suitable operator registration number in the adjacent column. ☐ I have lodged an application to be registered suitable operator and am waiting for it to be decided ☐ I am not an existing registered suitable operator and I have not yet lodged an application to become a registered suitable operator. You must complete the *"Application to be a registered suitable operator"* (ESR/2015/1771[2]) and submit it with the development application. The application form must be completed in full. The application form is taken to be lodged when it is received by Permit and Licence Management within the Department of Environment and Heritage Protection.	405858

[2] This is the publication number. The publication number can be used as a search term to find the latest version of a publication at **www.qld.gov.au**.

There are currently 9 matters of national environmental significance (MNES) which have been defined in the *Environmental Protection and Biodiversity Conservation Act 1999.* These are:

- world heritage properties
- national heritage places
- wetlands of international importance (listed under the Ramsar Convention)
- listed threatened species and ecological communities
- migratory species protected under international agreements
- Commonwealth marine areas
- the Great Barrier Reef Marine Park
- nuclear actions (including uranium mines)
- A water resource, in relation to coal seam gas development and large coal mining development
-

To determine whether the proposed ERA will have a significant impact on MNES and for referral requirements, please refer to the guidance provided by the Federal Department of the Environment on **www.environment.gov.au**

3. Matters of national environmental significance

Is the proposed ERA/ERA project likely to have a significant impact on a matter of national environmental significance?

☐ Yes → please select 1 of the following:

- ☐ the proposed amendment has been referred to the Federal Government Environment Minister or delegate
- ☐ the proposed amendment has not yet been referred to the Federal Government Environment Minister or delegate.

☒ No

4. Details of the prescribed ERAs

Do any of the ERAs in Table A of IDAS form 8 have eligibility criteria developed that you can comply with?

☐ Yes→ attach details of these ERAs and identify the standard conditions that you can comply with

☒ No

5. Will the ERAs be carried out as a single integrated operation?

Will more than one ERA be operated at the location?

☐ Yes → complete the rest of this question

☒ No → go to question 6

Will the ERAs be operated as a single integrated operation?

☐ Yes → provide supporting information in the following table

☐ No → go to question 6

SUPPORTING INFORMATION

A single integrated operation must meet all the following criteria:

(a) the activities are carried out under the day-to-day management of a single responsible individual, for example, a site or operations manager

(b) the activities are operationally interrelated

(c) the activities are, or will be, carried out at 1 or more places

(d) the places where the activities are carried out are separated by distances short enough to make feasible the integrated day-to-day management of the activities.

6. Take effect date

You may choose to nominate a date or event for when the environmental authority will take effect. An event can include a phase of your project you know will occur before you commence operation (for example commissioning of equipment). This take effect date or event will be the date or event from which your annual fees will commence to be charged (your anniversary date).

Where you have nominated a take effect date, you must not commence any activities approved under the environmental authority until the take effect date stated on the environmental authority occurs. If you nominated an event, you will need to give written notice to the administering authority that the stated event has occurred before you commence your operation.

Do you want the environmental authority to take effect on a nominated date or event?

☐ Yes → nominate the date or event below and then go to question 7

NOMINATED TAKE EFFECT DATE OR EVENT

☒ No → go to question 7

7. Environmental offsets

An environmental offset may be required for an ERA where despite all reasonable measures to avoid and minimise impacts on certain environmental matters, there is still likely to be a significant residual impact on one or more of those matters. You must verify the presence, whether temporary or permanent, of those environmental matters.

For more information refer to the Significant Residual Impact Guideline for applications made under the *Nature Conservation*

Will the ERA(s) being applied for cause, or be likely to cause a significant residual impact to a prescribed environmental matter (other than a matter of local environmental significance)?

☐ Yes → you must attach supporting information that:

- details the magnitude and duration of the likely significant residual impact on each prescribed environmental matter (other than matters of local

Act 1992, Environmental Protection Act 1994 and *Marine Parks Act 2004* at the Queensland Government website at: **www.qld.gov.au** (search using the term 'significant impact guideline').

Offset delivery can be staged, however for this to occur; the condition of any approved EA needs to state that both the activity and the offset may be staged. Prior to the notice of election for each stage under the Environmental Offsets Act 2014 you are required to provide a detailed assessment of the quantum of impact of that stage and the offset obligation requirement for that stage.

environmental significance) for the entire activity; and

- demonstrates that all reasonable measures to avoid and minimise impacts on each of those matters will be undertaken; and
- if the activity is to be staged, details of how the activity is proposed to be staged.

☒ No → go to question 8

For further information on technical information to provide with your application, please refer to the business and industry website **www.business.qld.gov.au**

8. Assessment of the environmental impact and provision of specific supporting information

You must provide an assessment of the likely impact of each ERA on environmental values, including:

- a description of the environmental values likely to be affected by each relevant activity
- details of any emissions or releases likely to be generated by each relevant activity
- a description of the risk and likely magnitude of impacts on the environmental values
- details of the management practices proposed to be implemented to prevent or minimise adverse impacts
- details of how the land the subject of the application will be rehabilitated after each relevant activity ceases.

☒ Tick to indicate that an assessment of the environmental impact and provision of specific supporting information has been attached.

9. Details of waste management

A description of the proposed measures for minimising and managing waste generated by the ERAs must be attached.

☒ Tick to indicate attachment

10. Details of contaminated land

Is there a site management plan in effect for contaminated land that relates to the land that is the subject of this application.

☐ Yes → attach details of the site management plan

☒ No

Where there is more than 1 applicant, this declaration is to be signed by all applicants, unless a principal applicant has been nominated in Attachment 1, in which case the principal applicant can sign on behalf of all the joint applicants.

Where the sole or principal applicant is a company, this form is to be signed by an authorised person for that company.

Privacy statement

Where ERAs are administered by the Queensland Government:

The Department of Environment and Heritage Protection and Department of Agriculture and Fisheries are collecting the information on this form to process your application for an environmental authority. This collection is authorised under sections 115 and 125 of the *Environmental Protection Act 1994*. Your personal information will only be accessed by authorised employees within these departments and will not be disclosed to any other parties unless authorised or required by law. For queries about privacy matters please email **privacy@ehp.qld.gov.au** or telephone: (07) 3330 5436.

Where ERAs are administered by a local government:

Contact the local government for their privacy information.

11. Declaration

Note: If you have not told the truth in this application you may be prosecuted.

I declare that:

- I am the applicant or an authorised signatory for the applicant.
- I have identified in question 4, any ERAs that can comply with the eligibility criteria and standard conditions.
- The information provided is true and correct to the best of my knowledge. I understand that it is an offence under section 480 of the *Environmental Protection Act 1994* to give to the administering authority or an authorised person a document containing information that I know is false, misleading or incomplete in a material particular
- I understand that failure to provide sufficient information may result in the application being refused
- I understand that all information supplied on or with this application form may be disclosed publicly in accordance with the *Right to Information Act 2009* and the *Evidence Act 1977*.
- I understand that I am responsible for managing the environmental impacts of these activities, and that approval of this application is not an endorsement by the administering authority of the effectiveness of management practices proposed or implemented.

APPLICANT'S NAME DES HOWARD	
SIGNATURE	
POSITION OF SIGNATORY CEO	DATE 28/10/2016
JOINT APPLICANT'S NAME (IF APPLICABLE)	JOINT APPLICANT'S SIGNATURE (IF APPLICABLE)
JOINT APPLICANT'S NAME (IF APPLICABLE)	JOINT APPLICANT'S SIGNATURE (IF APPLICABLE)

Applicant checklist

☒ Application form has been signed and completed.

☐ Attachment 1: Appointment of principal applicant by all joint applicants has been signed and completed (if applicable).

☐ Question 4: Identification of the prescribed ERAs where eligibility criteria and standard conditions can be met, have been attached (if applicable).

☐ Question 7: Supporting information for biodiversity offsets (if applicable).

☒ Question 8: Information for assessment of environmental impacts attached (if applicable).

☒ Question 9: Details of waste management attached (if applicable).

☐ Question 10: Details of contaminated land attached (if applicable).

All requested information must be provided with this application, otherwise it will not be considered properly made.

Please include a word searchable electronic PDF copy of the application documents when you lodge your application.

Please submit this attachment, together with any additional information, with all relevant IDAS forms to the assessment manager for the development application.

Further information

The latest version of this publication and other publications referenced in this document can be found at **www.qld.gov.au** using the publication number (ESR/2015/1791 for this document) as a search term.

Attachment 1

Appointment of principal applicant by all joint applicants

We, being joint applicants for this environmental authority, hereby nominate the following as principal applicant:

Printed name of principal applicant

Name / Company		ABN/ACN/AN
Signatory name and position	Signature	Date

Name / Company		ABN/ACN/AN
Signatory name and position	Signature	Date

Name / Company		ABN/ACN/AN
Signatory name and position	Signature	Date

Name / Company		ABN/ACN/AN
Signatory name and position	Signature	Date

Name / Company		ABN/ACN/AN
Signatory name and position	Signature	Date

Name / Company		ABN/ACN/AN
Signatory name and position	Signature	Date

IDAS form 11—Clearing native vegetation

(*Sustainable Planning Act 2009* version 3.2 effective 6 July 2015)

This form must be used for development applications that involve the clearing of native vegetation.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications, you must:

- complete *IDAS form 1—Application details*
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application
- include the relevant application fee, noting that referral agency fees (where applicable) are to be paid to the referral agency.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* (SPA) or the *Sustainable Planning Regulation 2009*.

Mandatory requirements

1. What type of development is proposed?

☐ Operational work for clearing vegetation made assessable under Schedule 3 of the *Sustainable Planning Regulation 2009*

☒ Material change of use of the premises

☐ Reconfiguring a lot

2. What type of approval is being sought?

☒ Development permit

☐ Preliminary approval

☐ Both—provide details below

Mandatory supporting information

3. Confirm that the following mandatory supporting information accompanies this application

For ALL applications	Confirmation of lodgement	Method of lodgement
A property vegetation management plan including as defined under the *Vegetation Management Act 1999* schedule. Note: A property vegetation management plan must show the matters prescribed in section 11 of the *Vegetation Management Regulation 2012*.	☒ Confirmed	

For ALL applications	Confirmation of lodgement	Method of lodgement
A statement addressing the relevant part(s) of the State Development Assessment Provisions (SDAP).	☒ Confirmed ☐ Not applicable	
Written confirmation that the chief executive of the Department of Natural Resources and Mines is satisfied the proposed clearing is for a relevant purpose under the *Vegetation Management Act 1999*, section 22A.	☐ Confirmed ☒ Not applicable	
For applications for a material change of use or reconfiguring a lot		
The following additional detail to be included in the property vegetation management plan: • details of the location and extent of: – infrastructure, including buildings, fences, roads and electrical, telecommunication or sewerage services; and – firebreaks and fire management lines; and • details of the way the proposed clearing complies with the relevant part(s) of the SDAP.	☒ Confirmed ☐ Not applicable	

Notes for completing this form

- The Department of Natural Resource and Mines (DNRM) website contains a comprehensive range of information about the *Vegetation Management Act 1999.*
- Question 3 for operational work applications —Under the *Vegetation Management Act 1999*, the proposed vegetation clearing is only for a relevant purpose if the applicant satisfies the chief executive of the DNRM that the development applied for is one of the purposes listed in section 22A of that Act.

Privacy—Please refer to your assessment manager, referral agency and/or building certifier for further details on the use of information recorded in this form.

OFFICE USE ONLY

Date received | Reference numbers

The *Sustainable Planning Act 2009* is administered by the Department of Infrastructure, Local Government and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.

BARCALDINE REGIONAL COUNCIL

DIGITALLY STAMPED
APPROVED DOCUMENT

Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility

referred to in and subject to the conditions in Council's Decision Notice

Approval Date: 13 November 2017
Application Number: DA421617

Appendix B

Owner's Consent

Company owner's consent to the making of a development application under the Sustainable Planning Act 2009

I, Des Howard in my capacity as *Chief Executive Officer* of Barcaldine Regional Council, the owner of premises identified as Lot 1 on SP223525 (100 Yellowjack Drive, Barcaldine), consent to the making of a development application under the *Sustainable Planning Act 2009* by Barcaldine Regional Council for the purposes of Material Change of Use for "Public Utility" – Waste Management Facility.

signed on the 27 TH day of APRIL 20 17

Author Rosemary Alice Dean
File / Ref number 2017/001958
Directorate / Unit State Land Asset Management
Phone (07)45368369

Queensland Government

Department of
Natural Resources and Mines

15 May 2017

Colin Higginson
Campbell Higginson Town Planning
PO Box 692
Ashgrove Qld 4060

Dear Sir

Application for Owners Consent over part of R.56 – Reserve for Township Purposes being Lot 2 on SP243965.

Reference is made to the request for owners consent required to accompany the development application for a material change of use. Application is limited to part of Lot 2 on SP243965 being Yellowjack Drive (as constructed) to provide vehicle access to the Waste Management Facility.

The department hereby gives owner's consent to the above development application for a material change of use.

Although owners consent for the development application has been provided your client is always required to comply with the gazetted purpose of Reserve R.54 described as Lot 2 on SP243965 and undertake works only if and when the development application has been approved by the assessment manager, and in accordance with the conditions of that approval.

Although owners consent to the development application has been provided and no tenure under the Land Act is required, your client is to undertake works on the land only if and when the development application has been approved by the assessment manager, and in accordance with the conditions of that approval. However, a simultaneous road opening and closure application will be required to be lodged by Council when next dealing with Lot 2 on SP243965 to realign the road deviation.

A copy of this letter is to be attached to your IDAS Form 1 as the required evidence of owners consent.

Your client will also need to comply with all other legislative and regulatory requirements which may also include approvals that are not part of the assessment of the development application under the *Sustainable Planning Act 2009* (SPA) e.g. a marine park permit if in a marine park.

Postal :
DNRM Longreach
PO Box 210
Longreach
4730 QLD

Telephone : (07)45368353
Fax: 46501975

Further, please note that the above consent will expire on **16 November 2017**. Should the development application not be lodged with the assessment manager prior to this date, your client will be required again to lodge the IDAS Form 1 and any attachments with this Department with a further request for owners consent - any further request will need to be reconsidered by the Department.

It is also advised that any land use activities must comply with the *Aboriginal Cultural Heritage Act 2003* or the *Torres Strait Islander Heritage Act 2003*.

Finally, owner's consent is required under SPA to enable the application to be considered properly made for lodging with the assessment manager and is a completely separate process to assessment of the application under SPA.

Accordingly, the State may act at a later date as assessment manager or referral agency in the assessment of the development application - providing owners consent will not influence any role the State may have in this development assessment.

If you wish to discuss this matter please contact Rosemary Dean on (07)45368353.

All future correspondence relative to this matter is to be referred to the contact Officer at the address below or by email to ServiceCentre.Longreach@dnrm.qld.gov.au. Any hard copy correspondence received will be electronically scanned and filed. For this reason, it is recommended that any attached plans, sketches or maps be no larger than A3-sized.

Please quote reference number 2017/001958 in any future correspondence.
Yours sincerely

Greg Swan
Senior Land Officer
A duly authorised delegate of the Minister
under the current Land Act (Ministerial) Delegation

BARCALDINE REGIONAL COUNCIL

DIGITALLY STAMPED
APPROVED DOCUMENT

Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility

referred to in and subject to the conditions in Council's Decision Notice

Approval Date: 13 November 2017
Application Number: DA421617

Appendix C

Survey Plan and Title Documents

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 25259213
Search Date: 02/02/2017 15:55 **Title Reference: 50867129**
Date Created: 09/12/2011

Previous Title: 40063253

REGISTERED OWNER

Dealing No: 714207867 09/12/2011

BARCALDINE REGIONAL COUNCIL

ESTATE AND LAND

Estate in Fee Simple

LOT 1 SURVEY PLAN 223525
Local Government: BARCALDINE

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 40063253 (Lot 1 on SP 223525)

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
717697231	ADMIN NOTING	07/12/2016 08:47	CURRENT
	SEE DEALING FOR RELEVANT LEGISLATION		

UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

** End of Current Title Search **

COPYRIGHT THE STATE OF QUEENSLAND (DEPT OF NATURAL RESOURCES AND MINES) [2017]
Requested By: D-ENQ CITEC CONFIRM

CURRENT RESERVE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 25953361
Search Date: 16/05/2017 10:44

Title Reference: 49006506
Date GAZETTED: 26/07/1941
PAGE: 135

Opening Ref: RES 86-043
Purpose: TOWNSHIP
Sub-Purpose:
Local Name:
Address: BARCALDINE
County (R) No: R54
File Ref: RES 86-043 D

TRUSTEES

BARCALDINE REGIONAL COUNCIL GAZETTED ON 12/09/1942 PAGE 791

LAND DESCRIPTION

LOT 1	SURVEY PLAN 243965	AMENDED on 03/04/2017
	Local Government: BARCALDINE	
LOT 2	SURVEY PLAN 243965	AMENDED on 03/04/2017
	Local Government: BARCALDINE	
LOT 3	SURVEY PLAN 243965	AMENDED on 03/04/2017
	Local Government: BARCALDINE	
LOT 4	SURVEY PLAN 243965	AMENDED on 03/04/2017
	Local Government: BARCALDINE	
LOT 5	SURVEY PLAN 243965	AMENDED on 03/04/2017
	Local Government: BARCALDINE	
LOT 6	SURVEY PLAN 243965	AMENDED on 03/04/2017
	Local Government: BARCALDINE	
LOT 7	SURVEY PLAN 243965	AMENDED on 03/04/2017
	Local Government: BARCALDINE	
LOT 8	SURVEY PLAN 243965	AMENDED on 03/04/2017
	Local Government: BARCALDINE	
LOT 1	SURVEY PLAN 255286	AMENDED on 25/10/2012
	Local Government: BARCALDINE	

Area: 5028.470000 Ha. (ABOUT)

EASEMENTS AND ENCUMBRANCES

1. EASEMENT No 701025607 27/11/1995 at 15:15
   BURDENING THE LAND
   TO AUSTRALIAN GASFIELDS LIMITED
   OVER EASEMENT A ON CP885129

2. TRANSFER No 707012295 23/09/2003 at 09:56
   EASEMENT: 701025607
   QUEENSLAND POWER TRADING CORPORATION

CURRENT RESERVE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 25953361
Search Date: 16/05/2017 10:44

Title Reference: 49006506
Date GAZETTED: 26/07/1941
PAGE: 135

EASEMENTS AND ENCUMBRANCES

3. TRANSFER No 711864215 18/08/2008 at 15:43
   EASEMENT: 701025607
   ERGON ENERGY QUEENSLAND PTY LTD A.C.N. 121 177 802

4. CREATION OF PERMIT TO OCCUPY No 701402526 04/07/1996 at 01:10
   A PERMIT TO OCCUPY ON TITLE REFERENCE 17681126 HAS BEEN ISSUED

5. CREATION OF PERMIT TO OCCUPY No 701402528 04/07/1996 at 01:10
   A PERMIT TO OCCUPY ON TITLE REFERENCE 17739003 HAS BEEN ISSUED

6. EASEMENT IN GROSS No 707351368 06/01/2004 at 10:31
   burdening the land
   ERGON ENERGY CORPORATION LIMITED
   over
   EASEMENT B ON SP159856

7. STATE PERMIT No 708222979 18/11/2004 at 11:27
   A State Permit has been created see Title Reference 40045766

8. STATE PERMIT No 713386042 02/08/2010 at 08:43
   A State Permit has been created see Title Reference 40053717

9. STATE PERMIT No 713665824 11/01/2011 at 14:56
   A State Permit has been created see Title Reference 40016207

10. EASEMENT IN GROSS No 714521962 20/06/2012 at 16:02
    burdening the land
    ERGON ENERGY CORPORATION LIMITED A.C.N. 087 646 062
    over
    EASEMENT D ON SP252152

11. STATE PERMIT No 715608005 19/02/2014 at 09:13
    A State Permit has been created see Title Reference 40067756

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
708854549	RT NOTING LAND TITLE ACT 1994	27/07/2005 11:17	CURRENT
714010658	NT DETERM NATIVE TITLE ACT 1993 (CTH)	15/08/2011 14:13	CURRENT

CURRENT RESERVE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 25953361
Search Date: 16/05/2017 10:44

Title Reference: 49006506
Date GAZETTED: 26/07/1941
PAGE: 135

UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

** End of Current Reserve Search **

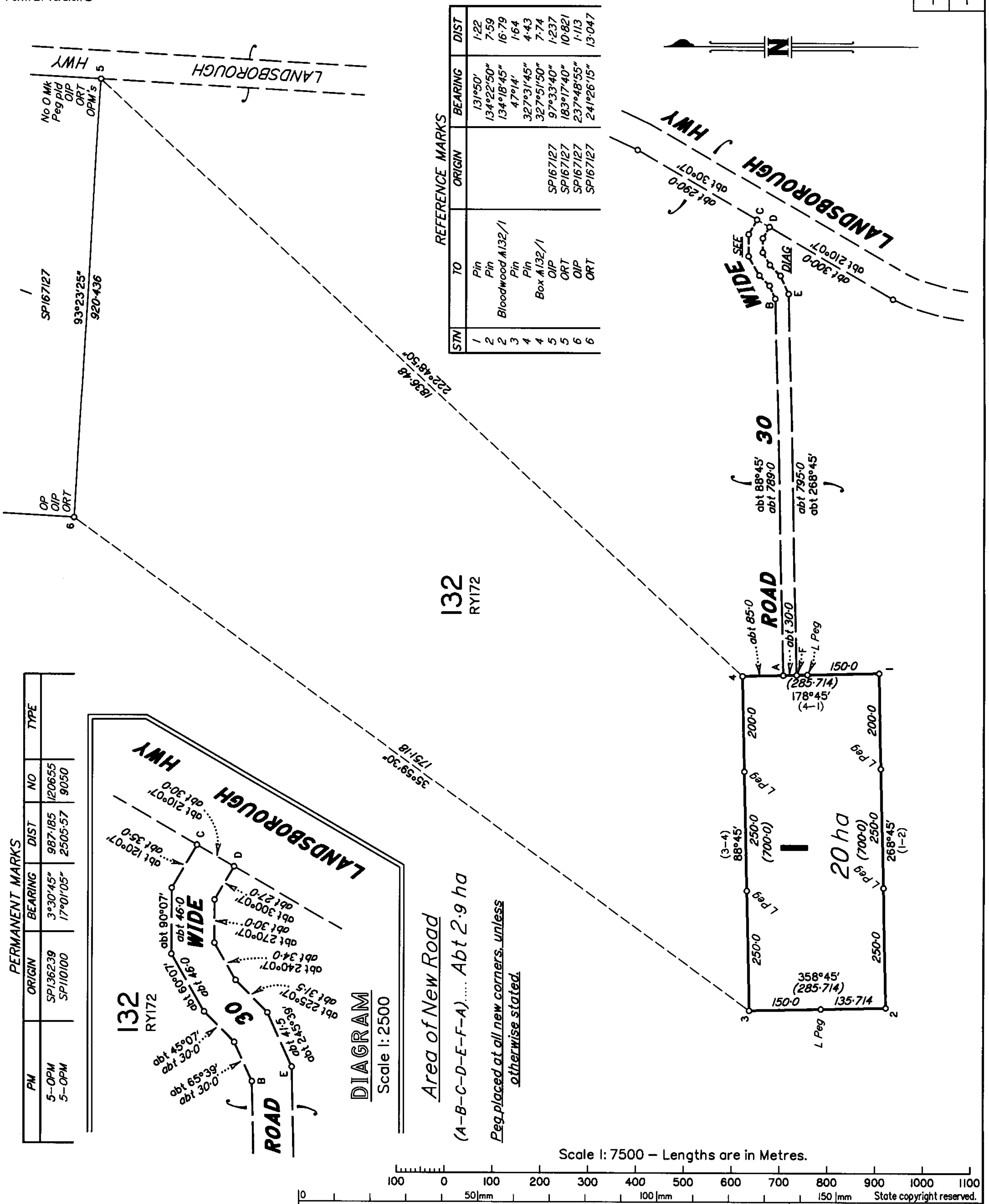
COPYRIGHT THE STATE OF QUEENSLAND (DEPT OF NATURAL RESOURCES AND MINES) [2017]
Requested By: D-ENQ CITEC CONFIRM

LB 8608

Land Title Act 1994 ; Land Act 1994
Form 21 Version 2

SURVEY PLAN

Sheet 1 of 1



REFERENCE MARKS

STN	TO	ORIGIN	BEARING	DIST
1	Pin		131°50'	1·22
2	Pin		134°22'50"	7·59
2	Bloodwood ▲132/1		134°18'45"	16·79
3	Pin		47°14'	1·64
4	Pin		327°31'45"	4·43
4	Box ▲132/1		327°51'50"	7·74
5	OIP	SP167127	97°33'40"	1·237
5	ORT	SP167127	183°17'40"	10·821
6	OIP	SP167127	237°48'55"	1·113
6	ORT	SP167127	241°26'15"	13·047

PERMANENT MARKS

PM	ORIGIN	BEARING	DIST	NO	TYPE
5–OPM	SP136239	3°30'45"	987·185	120655	
5–OPM	SP110100	17°01'05"	2505·57	9050	

State copyright reserved.

Hoffmann Surveyors – 4596

I, Anthony Joseph HOFFMANN hereby certify that the land comprised in this plan was surveyed by Anthony Scott Morcom surveying graduate for whose work I accept responsibility and that the plan is accurate, that the said survey was performed in accordance with the Survey and Mapping Infrastructure Act 2003 and Surveyors Act 2003 and associated Regulations and Standards and that the said survey was completed on 8/01/2009.

A. J. Hoffmann

Date 3 · 2 · 09 Cadastral Surveyor

Plan of Lot 1 and New Road in Lot 132

Cancelling part of Lot 132 on plan RY172

PARISH: **BARCALDINE** COUNTY: Rodney

Meridian: MGA Zone 55 by GPS F/N's: No

Scale: 1: 7500

Format: STANDARD

SP223525

Plan Status:

Copyright protects the plan/s being ordered by you. Unauthorised reproduction or amendments are not permitted.

714104620

NO FEE
11/10/2011 10:30

RN 495

WARNING : Folded or Mutilated Plans will not be accepted.
Plans may be rolled.
Information may not be placed in the outer margins.

Registered

5. Lodged by

Greg Swan
Senior Land Officer
PO Box 210
LONGREACH QLD 4730
Ph: (07) 4650 1928

(Include address, phone number, reference, and Lodger Code)

1. Certificate of Registered Owners or Lessees.

I/We .....

.....

.....

.....

.....

(Names in full)

*as Registered Owners of this land agree to this plan and dedicate the Public Use Land as shown hereon in accordance with Section 50 of the Land Title Act 1994.

*as Lessees of this land agree to this plan.

.....

Signature of *Registered Owners *Lessees

Parcel + endorsed in CISP 17/2/09.

* Rule out whichever is inapplicable

6.

Existing		Created				
Title Reference	Description	New Lots	Road	Emts	Cov.	Profit a prendre
49006506	Lot 132 on RY172	1	New Rd	———	———	———

All Encumbrances on Title 49006506 do not affect Lot 1 on this plan.

2. Local Government Approval.

* Barcaldine Regional Council

hereby approves this plan in accordance with the :

%

Dated this ..... day of .....

..... #

..... #

* Insert the name of the Local Government. % Insert Integrated Planning Act 1997 or
# Insert designation of signatory or delegation Local Government (Planning & Environment) Act 1990

Lots	Orig

7. Portion Allocation :

8. Map Reference :
7950–14432

9. Locality :
Barcaldine

10. Local Government :
Barcaldine Regional Council

11. Passed & Endorsed :

By : A J Hoffmann
Date : 3.2.09
Signed : A. J. Hoffmann
Designation : Cadastral Surveyor

12. Building Format Plans only.

I certify that :

* As far as it is practical to determine, no part of the building shown on this plan encroaches onto adjoining lots or road;

* Part of the building shown on this plan encroaches onto adjoining * lots and road

....
Cadastral Surveyor/Director* Date

*delete words not required

13. Lodgement Fees : R. 3864407 26/3/10

Survey Deposit	$.....
Lodgement	$.....
.....New Titles	$.....
Photocopy	$.....
Postage	$.....
TOTAL	$ 278-10

14. Insert Plan Number SP223525

3. Plans with Community Management Statement :

CMS Number :

Name :

4. References :

Dept File : Z008/009678
Local Govt :
Surveyor : 4596

BARCALDINE REGIONAL COUNCIL

DIGITALLY STAMPED
APPROVED DOCUMENT

Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility

referred to in and subject to the conditions in Council's Decision Notice

Approval Date: 13 November 2017
Application Number: DA421617

Appendix D

Prelodgement Advice –

Department of Infrastructure, Local Government and Planning

Queensland Government

Department of Infrastructure, Local Government and Planning

Our reference: SPL-1116-035043
Your reference: 140010

29 November 2016

Barcaldine Regional Council
C/- GBA Consulting Engineers
PO Box 191
Barcaldine QLD 4726

Attention: William Green

Dear Mr. Green,

Pre-lodgement advice for development application for Development Permit for Material Change of Use – Public Utility – Waste Landfill Site over Lot 1 on SP223525 at 100 Yellowjack Drive, Barcaldine QLD 4726

Thank you for your correspondence received on 15 November 2016 in which you sought pre-lodgement advice from the Department of Infrastructure, Local Government and Planning (the department) regarding the proposed development described above.

The department has undertaken a preliminary assessment of the proposal and its impact. Based on your written correspondence, the following advice is provided:

Reference information

Departmental role:	Concurrence agency
Jurisdiction:	Schedule 7, Table 3, Item 2 – Development impacting on state transport infrastructure (schedule 9 threshold)
	Schedule 7, Table 2, Item 1 – Environmentally Relevant Activities
	Schedule 7, Table 3, Item 10 – Native Vegetation Clearing

Site details

Street address:	100 Yellowjack Drive, Barcaldine QLD 4726
Real property description:	Lot 1 on SP223525
Local government area:	Barcaldine Regional

North and Central West Regional Office
1/75 Carooweal Street
PO Box 2221
Mount Isa QLD 4825

Proposed development details

Development type:	Material change of use (MCU)
Development description:	Development Permit for Material Change of Use – Public Utility – Waste Landfill Site

Supporting information

Plan / Report title	Author	Reference no.	Version and date
Barcaldine Waste Management Facility: Landfill Environmental Management Plan	GBA Consulting Engineers	140010	28 October 2016
Waste Management Facility Design	GBA Consulting Engineers	140010-2/01 - 04	P2 and 26 September 2016
Environmental Assessment: Barcaldine Regional Council Waste Management Facility	GBA Consulting Engineers	140010	Version 1.0 & November 2016
IDAS forms 1 & 8	GBA Consulting Engineers	-	-
SDAP response to Module 4 - Barcaldine Regional Council Waste Disposal Facility	GBA Consulting Engineers	-	-

The proposal is for a Waste Disposal Facility over Lot 1 on SP223525 at 100 Yellowjack Drive, Barcaldine QLD 4726. This proposal will require an application to be made to Barcaldine Regional Council (council) for a Development Permit for Material Change of Use – Public Utility – Waste Landfill Site. This should be confirmed with council prior to lodgement.

This pre-lodgement advice will address all requirements for referral to the Department of Infrastructure, Local Government and Planning (DILGP) associated with this application.

The following advice outlines the matters of interest to the department and matters that should be addressed if you proceed with your proposal to application stage.

Pre-lodgement advice

Item	Advice
Department of Transport and Main Roads (DTMR) – Application Requirements	
1.	• The proposed development will trigger referral to the Department of Infrastructure, Local Government and Planning (DILGP) under Schedule 7, Table 3, Item 2 of the Sustainable Planning Regulation 2009 – for development impacting on state transport infrastructure. • The proposed development is for a Waste Management Facility to service the township of Barcaldine. • The development of the site proposes access via the Landsborough Highway. • On 4 September 2014 a *Transport and Infrastructure Act 1994* Section 33 approval was issued to Barcaldine Regional Council for road access works for an existing access to the proposed development site on the Landsborough Highway by DTMR. • A BAR and BAL intersection has now been completed (Rural Basic Right-turn Treatment & Rural Basic Left-turn Treatment).

Item	Advice
	• DTMR reserves the right to re-assess the advice upon receiving development application material and should the proposal not proceed along the lines indicated. • As the access has now been constructed to DTMR specification a traffic report will not be required. • Modules 18 and 19 of the State Development Assessment Provisions (SDAP) will need to be addressed with any future development application.
Department of Natural Resources and Mines (DNRM) –Application Requirements (Vegetation Clearing)	
2.	• The proposed development will trigger referral to DILGP under schedule 7, Table 3, Item 10 of the *Sustainable Planning Regulation 2009* – for Clearing of Native Vegetation. • The proposed development includes clearing of assessable Category B remnant vegetation for the purpose of constructing the Barcaldine Waste Management Facility.
3.	The following information should be submitted with any future development application: o Completed IDAS forms 1 and 11. o Responses to Module 8 of the State Development Assessment Provisions (SDAP) Version 1.10. o Information on the total extent of the clearing footprint within the mapped remnant vegetation including any proposed building envelopes, necessary infrastructure and clearing as a result of a material change of use. o Information (including clearing footprints) for the 'Future Use Area' as outlined in drawing 140010-2/01. o Information on tree heights within the mapped remnant vegetation immediately adjacent to proposed clearing and infrastructure to determine applicable firebreak requirements. • As part of the assessment against SDAP it is necessary to identify any "clearing as a result of material change of use" which may occur - as defined in Module 8, section 8.4 Glossary of terms. • The following considerations are particularly relevant to this application: 1. Clearing to construct built infrastructure - including buildings and storage facilities. 2. Clearing for roads. 3. Clearing for firebreaks and fire management lines. • A statement addressing how the proposal meets either the performance outcome (PO) or acceptable outcome (AO) for Table 8.1.3 PO1-PO3 and Table 8.1.4 PO2-PO10 will be required as part of any future application
4.	The following items of SDAP Module 8 should be payed particular attention: • Table 8.1.3 – General o PO1 Clearing to avoid and minimise impacts. o Information to demonstrate that the development has first avoided, and then minimised the impacts of development will be required as part of this application. o The plan submitted by the applicant currently involves the direct clearing of 2.36ha of Category B remnant vegetation. The dominant regional ecosystems occurring across the proposed area include 10.5.12 (open woodland – least concern) and 10.5.2a (open woodland – least concern).

Item	Advice
	o The application will be assessed against the definition of "clearing as a result of a MCU", in which 'All built infrastructure other than underground services, roads and fences will be assessed as requiring clearing for firebreaks and safety buffers with a width if 20 metres or 1.5 times the height of the tallest adjacent tree to the infrastructure whichever is greater.' o It is recommended supporting evidence be provided to demonstrate the height of the tallest adjacent vegetation to infrastructure to calculate the necessary firebreak. If no supporting evidence is provided the necessary firebreak will be assessed based on information provided in the Regional Ecosystem Description Database (REDD) version 8.0. Eucalyptus Populnea, a dominant species of 10.5.12, grows to 20m tall, if not proved otherwise DNRM would assess fire breaks as 30m. • Table 8.1.4 Relevant Infrastructure o PO4 Connectivity. o The preliminary plan (140010-2/01) as prepared by GBA Consulting Engineers currently meets all acceptable outcomes of SDAP Module 8 Table 8.1.4 including AO4.1. o Any future application should provide information on intended clearing works for the 'Future Use Area'. Should works result in clearing not in accordance with Table 3 SDAP Module 8, the applicant will be required to address the performance outcome. o In order to meet the performance outcome, the application will need to demonstrate that in consideration of vegetation on the subject lot and in the landscape adjacent to the subject lot, vegetation is retained that: 1. Is of sufficient size and configured in a way that maintains ecosystem functioning; and 2. Remains in the landscape despite threatening processes. o It is recommended that the application achieve the acceptable outcome by complying with Table 3 of SDAP Module 8 to meet the connectivity criteria.
Department of Environment and Heritage Protection (DEHP) – Application Requirements	
5.	• The proposed development will trigger referral to DILGP under Schedule 7, Table 2, Item 1 of the Sustainable Planning Regulation 2009 – for environmentally relevant activities (ERA). • The application will be for Waste Disposal ERA 60, threshold 1 (a) which is a concurrence ERA. The proposed threshold involves operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) - less than 50,000t. • A waste transfer station is also proposed to be operated. ERA 62 – Waste transfer station will not apply because the waste transfer station is proposed on a site on which a section 60 activity is to be carried out. The application should still provide information surrounding the operation and layout of the waste transfer facility. • Any future application must address and action the requirements outlined under section 125 of the *Environmental Protection Act 1994* for the application to proceed.
6.	Any future application should include the following: • A Site Layout Plan that shows boundary of the site (i.e. lot boundaries), all nearby sensitive receivers/receptors, release points and monitoring points including up-

Item	Advice
	gradient and down-gradient groundwater monitoring bores, pollution control infrastructure such as sedimentation dam and leachate evaporation pond. • Information that identifies the receiving environment at the sedimentation dam outlet. If the proposed release is to surface waters, surface waters release limits that are based on the design outputs of the sedimentation dam and an assessment that demonstrates the release will not impact on waters. The *Environmental Protection (Water) Policy 2009*, *Queensland Water Quality Guidelines 2009* and *ANZECC 2000* should be considered in such assessments. • All designs must be verified by a RPEQ in accordance with the *Queensland Professional Engineers Act 2002*. • The supporting information for the Barcaldine Waste Management Facility - Landfill Environmental Management Plan, Section 2.2.1, Page 9 mentions the existing earth material at the base of the cell demonstrates very low hydraulic conductivity values (refer to Appendix E). Appendix E is inconclusive and states "Specimen saturation could not be achieved under this method. A measurement of permeability should be performed in accordance with AS1289.6.7.3." There is no information that supports the claim that the existing soil demonstrates very low hydraulic conductivity values. o Further information should be provided to support these claims. It must be demonstrated that in the design of the landfill liner, soils or other materials used to construct the landfill cells will not cause contaminants to be released to groundwater. Please refer to the attached documents for further guidance, the Department of Environment and Heritage Protection's *Model Operating Conditions for Waste Disposal* and *Guideline for Landfill Siting, Design, Operation and Rehabilitation* that are attached. • There is no site specific information available about the groundwater characteristics such as quality, level and data available to establish background levels for key indicators of leachate for the type of waste disposed. The applicant may amend the environmental authority to include groundwater monitoring limits once this information becomes available. Commitment from the applicant for this to occur would be required. • The following condition is considered a common condition for prescribed ERAs and it would need to be demonstrated that the proposal can comply: 'Chemicals and fuels in containers of greater than 15 litres must be stored within a secondary containment system'. • Information about the flood potential for the site should be provided with the any future application including confirmation that the pollution control equipment on site will be located above the Q100 flood level.
7.	SDAP Module 4 • The response to SDAP Module 4 provided as part of this prelodgement provides relevant responses to all POs however in some instances the supporting information has not been provided. For example: o The SDAP response to PO2 (AO2.2) indicates that flooding is highly unlikely as the site sits outside of the projected 1 in 100 year flood zone and modelled 1 in 500 year flood zones. This information, map and modelled report have not been included with the supporting information, nor distances from wetlands or aquatic environments. This information should be provided as part of any future application.

Item	Advice
Department of Infrastructure Local Government and Planning – Summary of Application Requirements and Fees	
8.	The following triggers and fees will apply to any future application: • Schedule 7, Table 3, Item 2 - development impacting on state transport infrastructure. o Fee = $3,024.00 • Schedule 7, Table 3, Item 10 – native vegetation clearing. o Fee = $6,048.00 • Schedule 7, Table 2, Item 1 – environmentally relevant activities. o Fee for ERA 60 Threshold 1(a) = $3,024.00
9.	The following IDAS forms will need to be provided with any future application: • IDAS form 1 – Application Details • IDAS form 5 – Material change of use assessable against a planning scheme • IDAS form 8 – Environmentally relevant activity • IDAS form 11 – Clearing native vegetation
10.	The following Modules of SDAP (**version 1.10**) will need to be addressed: • Module 4 – Environmentally relevant activities • Module 8 – Native vegetation clearing • Module 18 – State transport infrastructure protection • Module 19 – State transport network functionality These modules are available at http://www.dilgp.qld.gov.au/planning/development-assessment/state-development-assessment-provisions.html.

This pre-lodgement advice does not constitute an approval or an endorsement that the department supports the development proposal. Additional information may be required to allow the department to properly assess the development proposal when a formal application has been lodged.

If you require any further information, please contact Vivian Luxton, Planning Officer, on (07) 4898 6815, or via email viv.luxton@dilgp.qld.gov.au who will be pleased to assist.

Yours sincerely

Patrick Ruettjes
Manager (Planning) – Mackay Isaac Whitsunday Regional Office

BARCALDINE REGIONAL COUNCIL

DIGITALLY STAMPED
APPROVED DOCUMENT

Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility

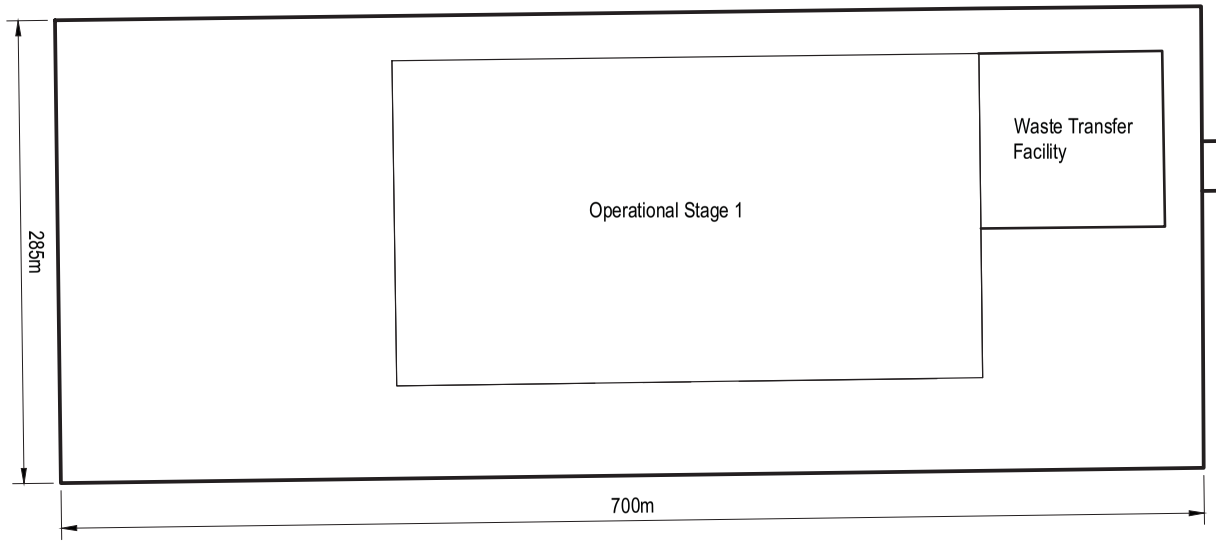
referred to in and subject to the conditions in Council's Decision Notice

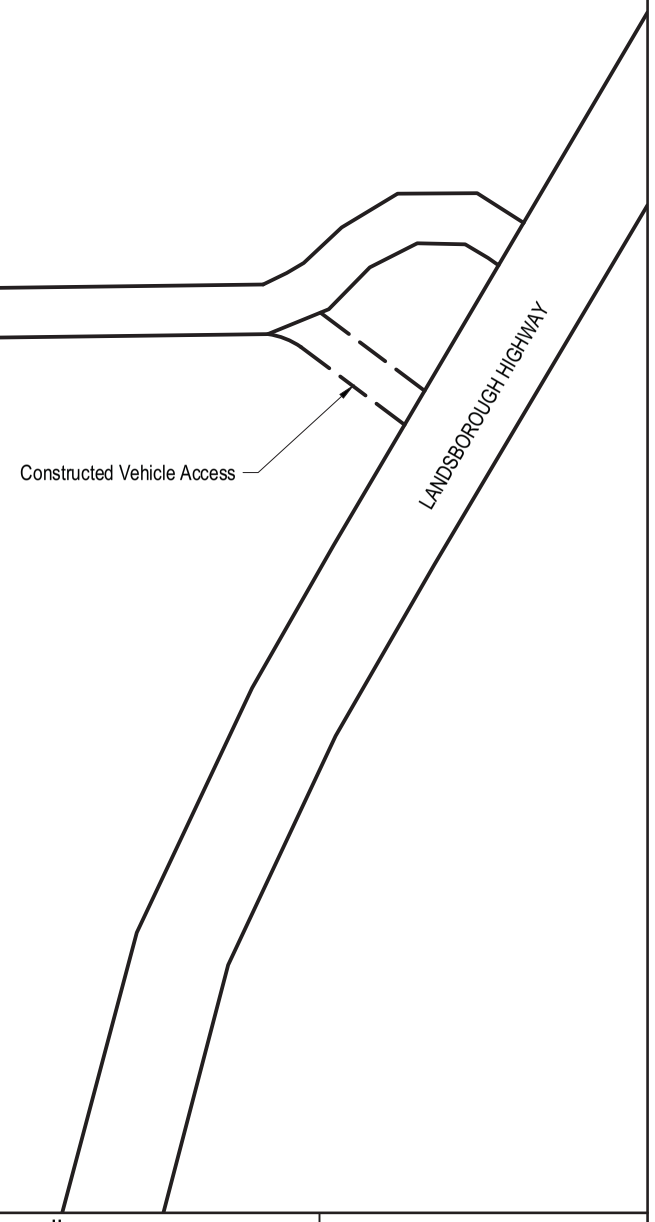
Approval Date: 13 November 2017
Application Number: DA421617

Appendix E

Plans of Development

Boundary Lot: 1 Plan: SP223525





Date Printed: 07/04/2017 11:59:32 M-Files ID: 250487

Rev.	Revision Description	By	Date
P1	Preliminary Revision	BD	07/04/2017

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All dimensions shown in metres unless otherwise specified.

Drawn: BD

Checked: SB

Approved:
Simon Bourne
RPEQ No. : 1513

GBA CONSULTING ENGINEERS
George Bourne and Associates
67 Elm Street (PO Box 169) Barcaldine Qld 4725
Phone: 07 4651 2177 Fax: 07 4651 1587
Email: admin@gbassoc.com.au

Client: Barcaldine Regional Council

Project: WASTE MANAGEMENT FACILITY

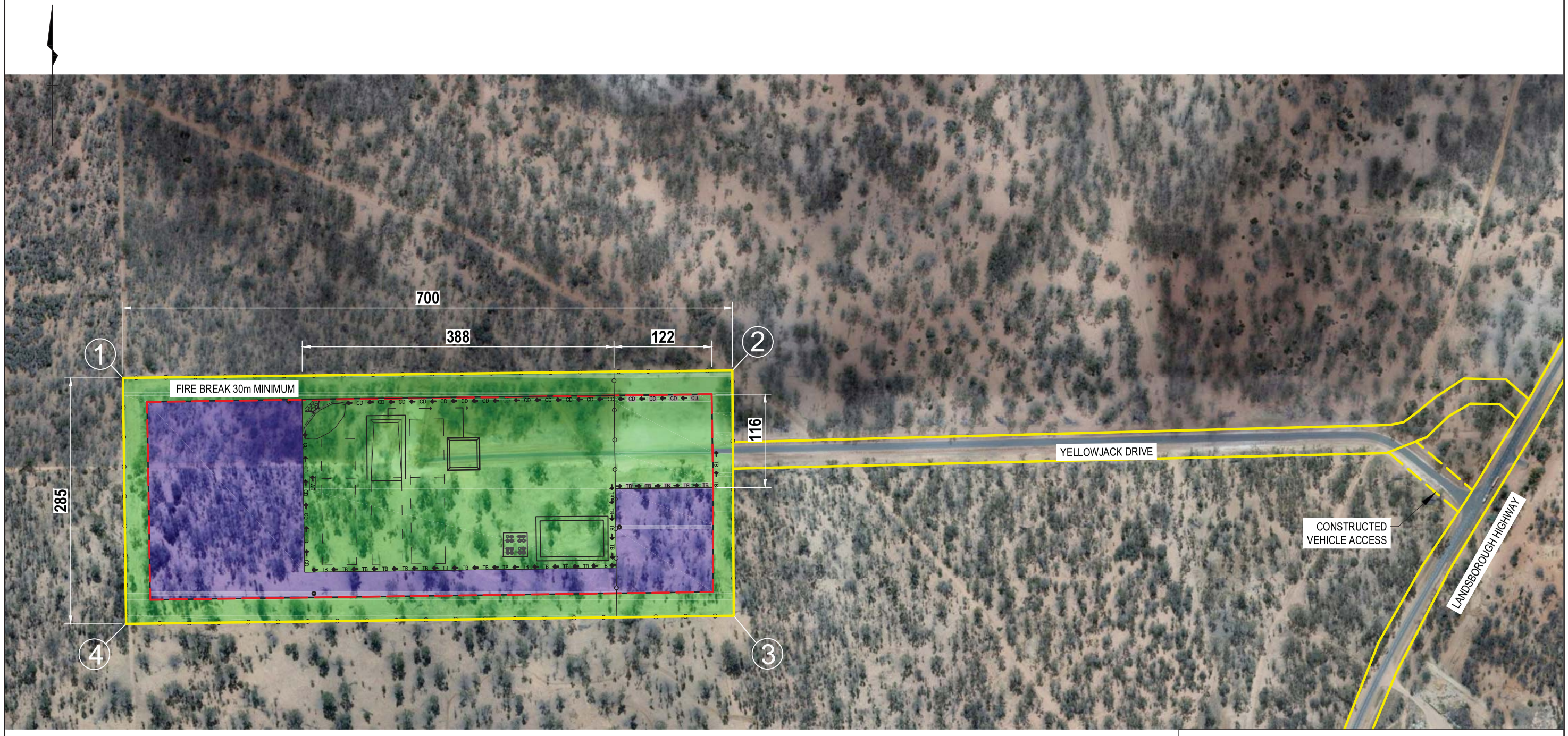
Title: WASTE MANAGEMENT FACILITY SITE LAYOUT
DOC ID 245004
APPENDIX B

Category: CH / Environmental

Project-Set: 140010-4 Sheet: 02 OF 02

Drawing No. 140010-4/01 Rev. A

Scale: 1:5000 Size: A3



COORDINATE BASE POINTS FOR VEGETATION CLEARING

ID	LATITUDE	LONGITUDE	GRID REFERENCE
1	-23d35'06.42"	145d15'46.52"	MGA-55
2	-23d35'06.21"	145d16'11.22"	MGA-55
3	-23d35'15.49"	145d16'11.31"	MGA-55
4	-23d35'15.71"	145d15'46.62"	MGA-55

LEGEND:

- STAGE 1 VEGETATION CLEARING (1-20yrs)
- STAGE 2 FUTURE VEGETATION CLEARING (+20yrs)
- LOT BOUNDARY
- CONSTRUCTED VEHICLE ACCESS BOUNDARY
- FIRE BREAK
- EXISTING FENCE LINE

NOTES:

ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

Rev.	Revision Description	By	Date
C	Town Planner Revisions	BD	07/04/2017
B	Added 30m perimeter fire break to drawing	BD	15/02/2017
A	Original issue	DW	12/01/2016

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Drawn: DW

Checked: SB

Approved: SLJ Bourne (RPEQ 1513)

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Email: admin@gbassoc.com.au

Client: BARCALDINE REGIONAL COUNCIL

Project: WASTE MANAGEMENT FACILITY

Title: WASTE FACILITY VEGETATION MANAGEMENT PLAN
DOC ID 245004
APPENDIX B

Category: ENGINEERING

Drawing No. 140010-3/01

Rev. C

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Size: A3

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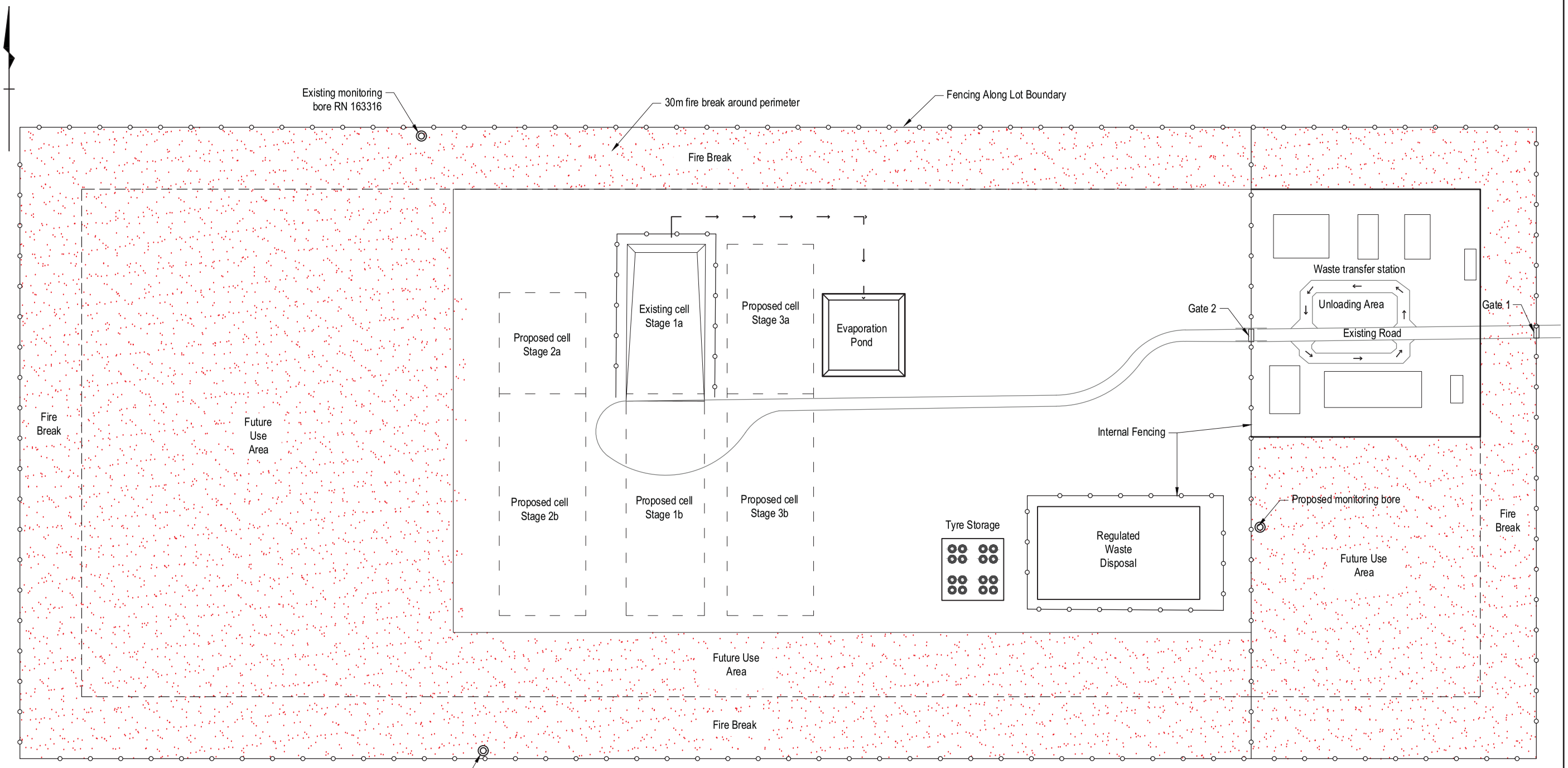

Site Layout

Scale 1:2000

Notes:

1. Dimensions are indicative only, to be confirmed on site.

Rev.	Revision Description	By	Date
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
A	Original Issue	JC	26/09/2016

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Approved: SLJ Bourne (RPEQ 1513)

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Client: BARCALDINE REGIONAL COUNCIL

Category: STORM WATER

Project: WASTE MANAGEMENT FACILITY

Title: SITE LAYOUT

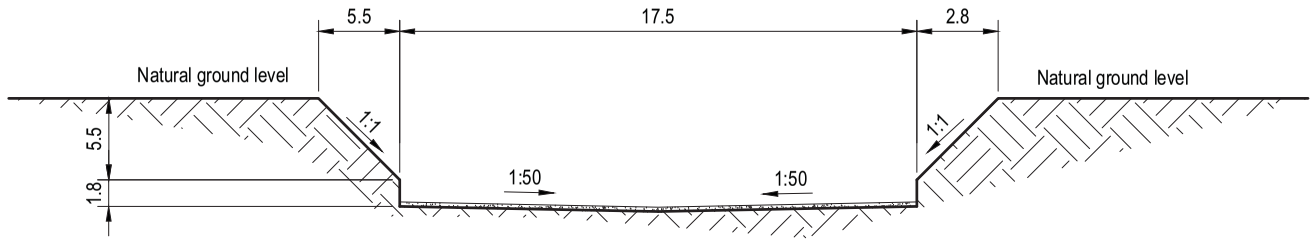
Drawing No. 140010-2/01

Rev. C

Scale: AS SHOWN

Size: A3

Date Printed: 07/04/2017 09:51:58



SECTION 1/02 CROSS SECTION
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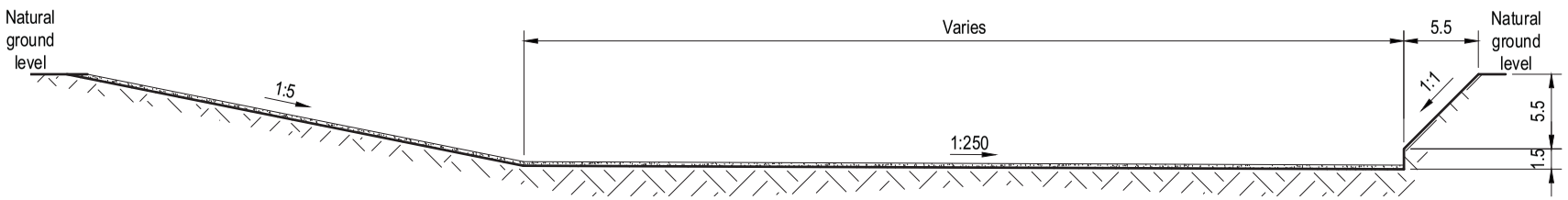

SECTION 2/02 LONGSECTION
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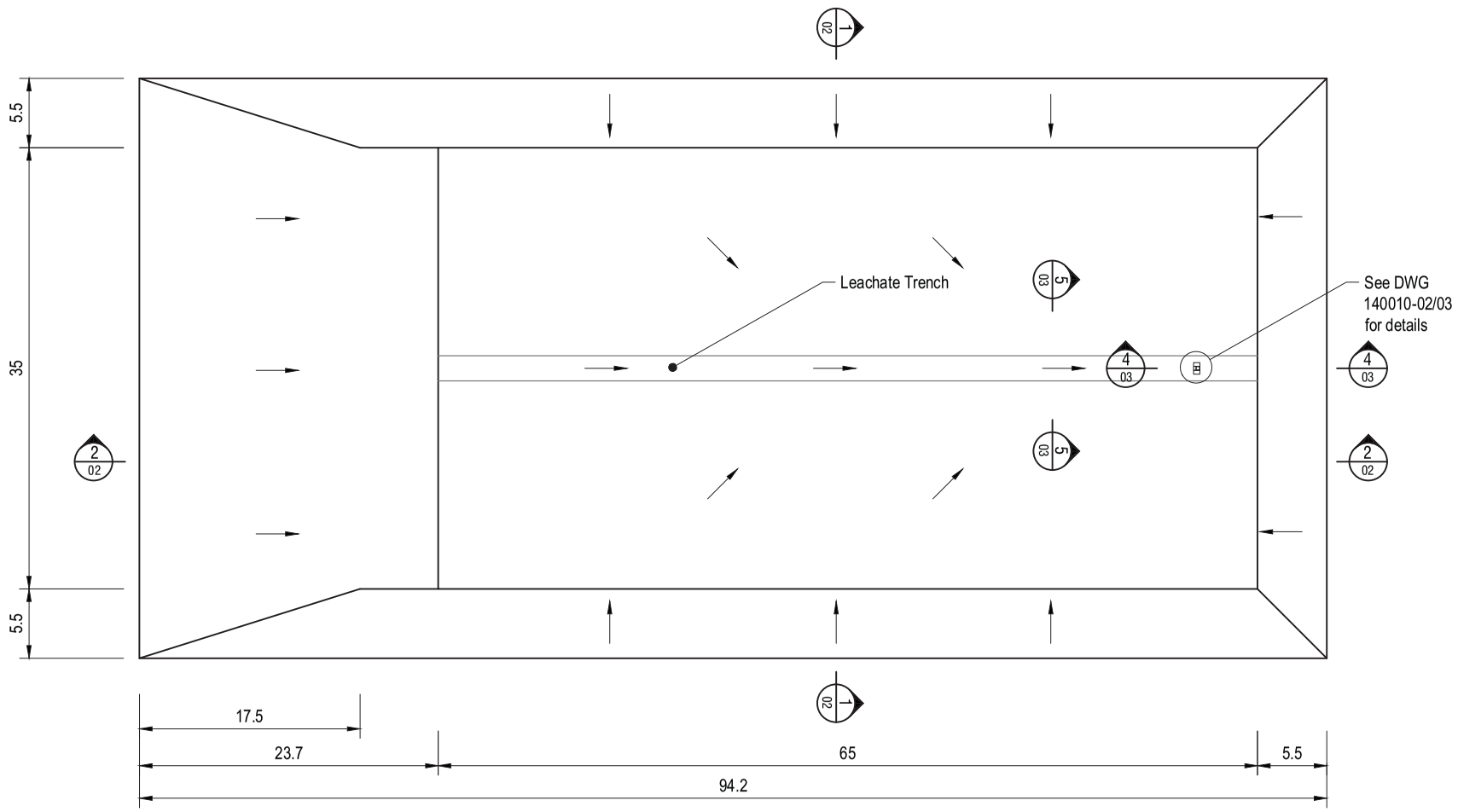
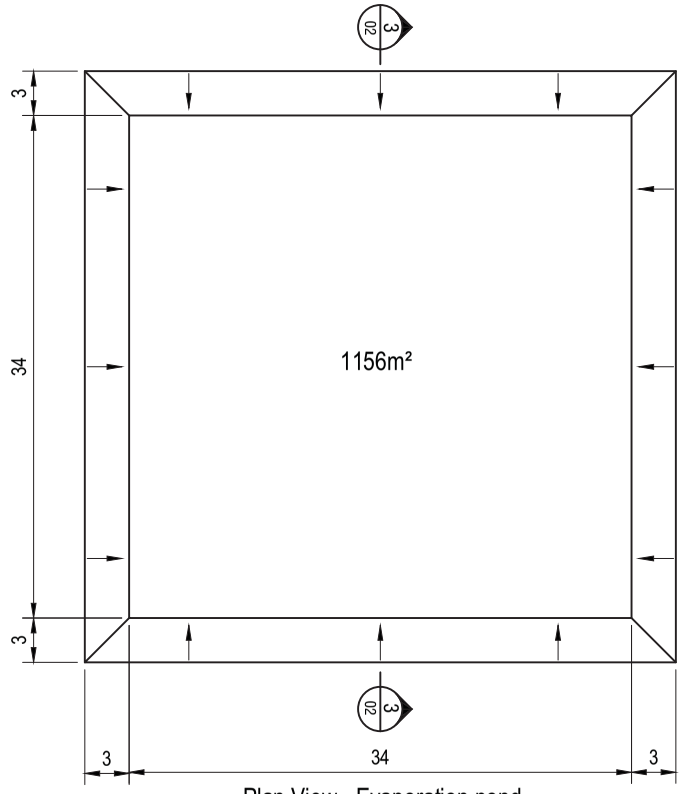


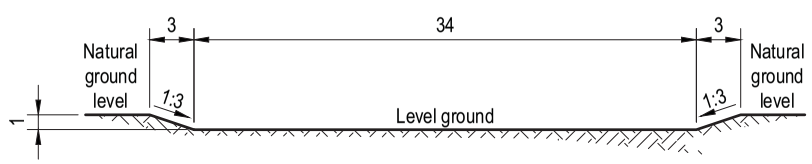
Plan View - Landfill Cell 1 - Stage 1

Scale 1:500



Plan View - Evaporation pond

Scale 1:500



SECTION 3/02 CROSS SECTION
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Rev.	Revision Description	By	Date
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
A	Original Issue	JC	26/09/2016

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Checked: SB

Approved: SLJ Bourne (RPEQ 1513)

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Client: BARCALDINE REGIONAL COUNCIL

Project: WASTE MANAGEMENT FACILITY

Title: LANDFILL CELL AND EVAPORATION POND PLAN AND SECTIONS

Category: STORM WATER

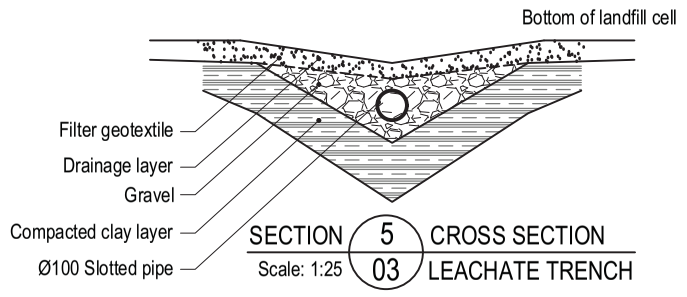
Drawing No. 140010-2/02

Rev. C

Scale: AS SHOWN

Size: A3

Date Printed: 07/04/2017 09:51:59



SECTION 5/03 CROSS SECTION LEACHATE TRENCH
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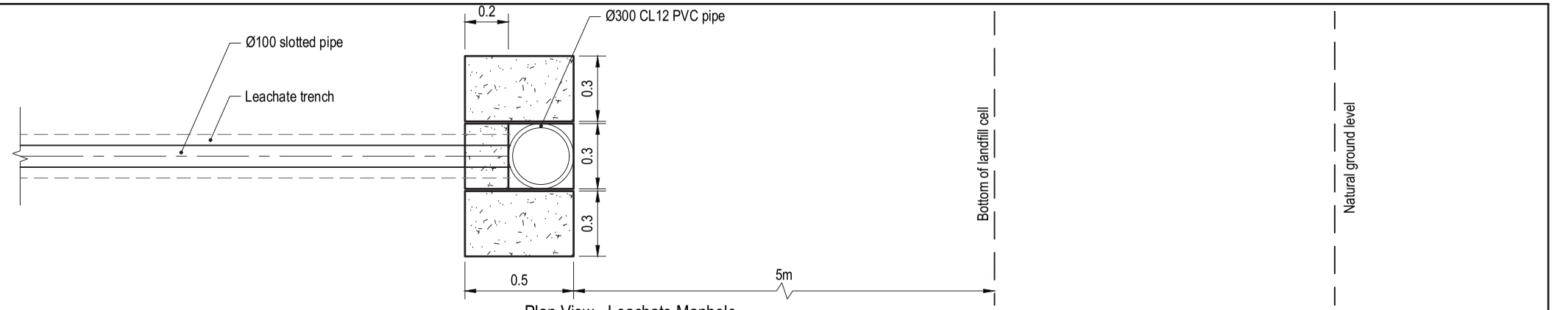
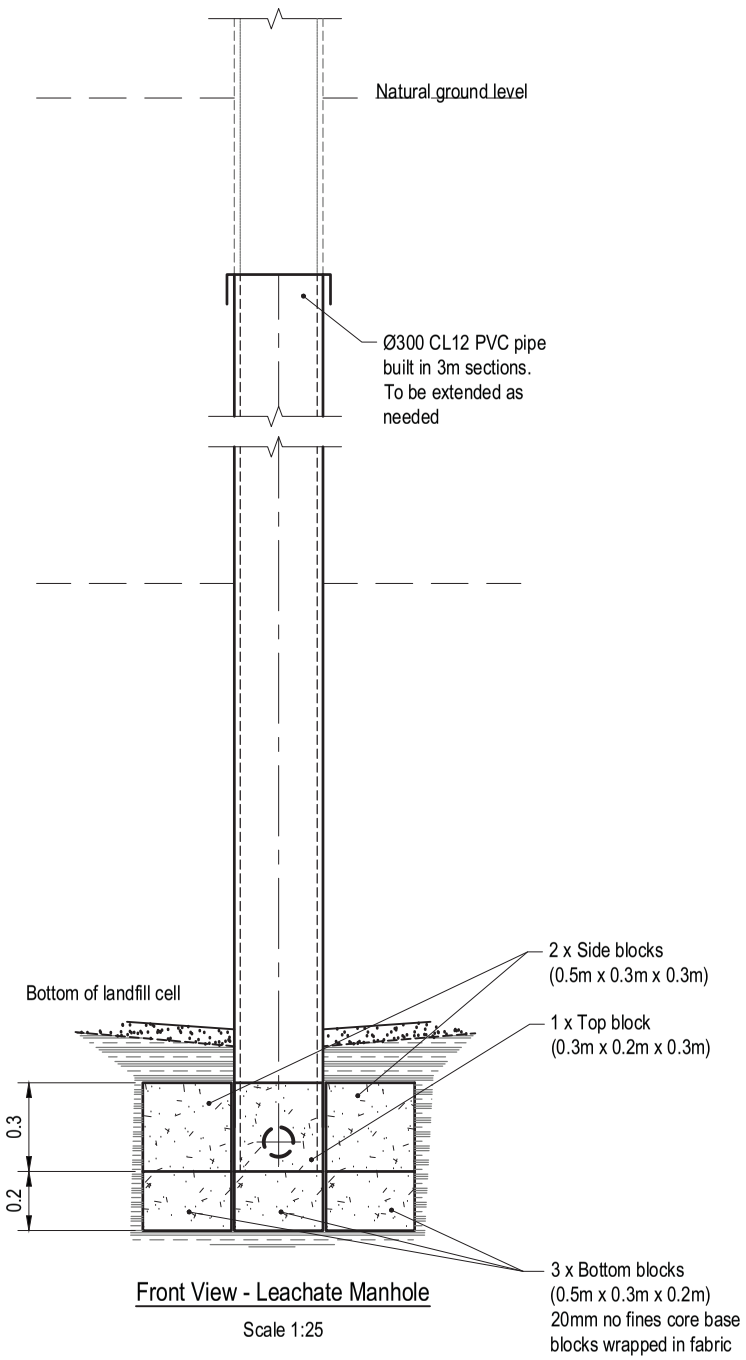
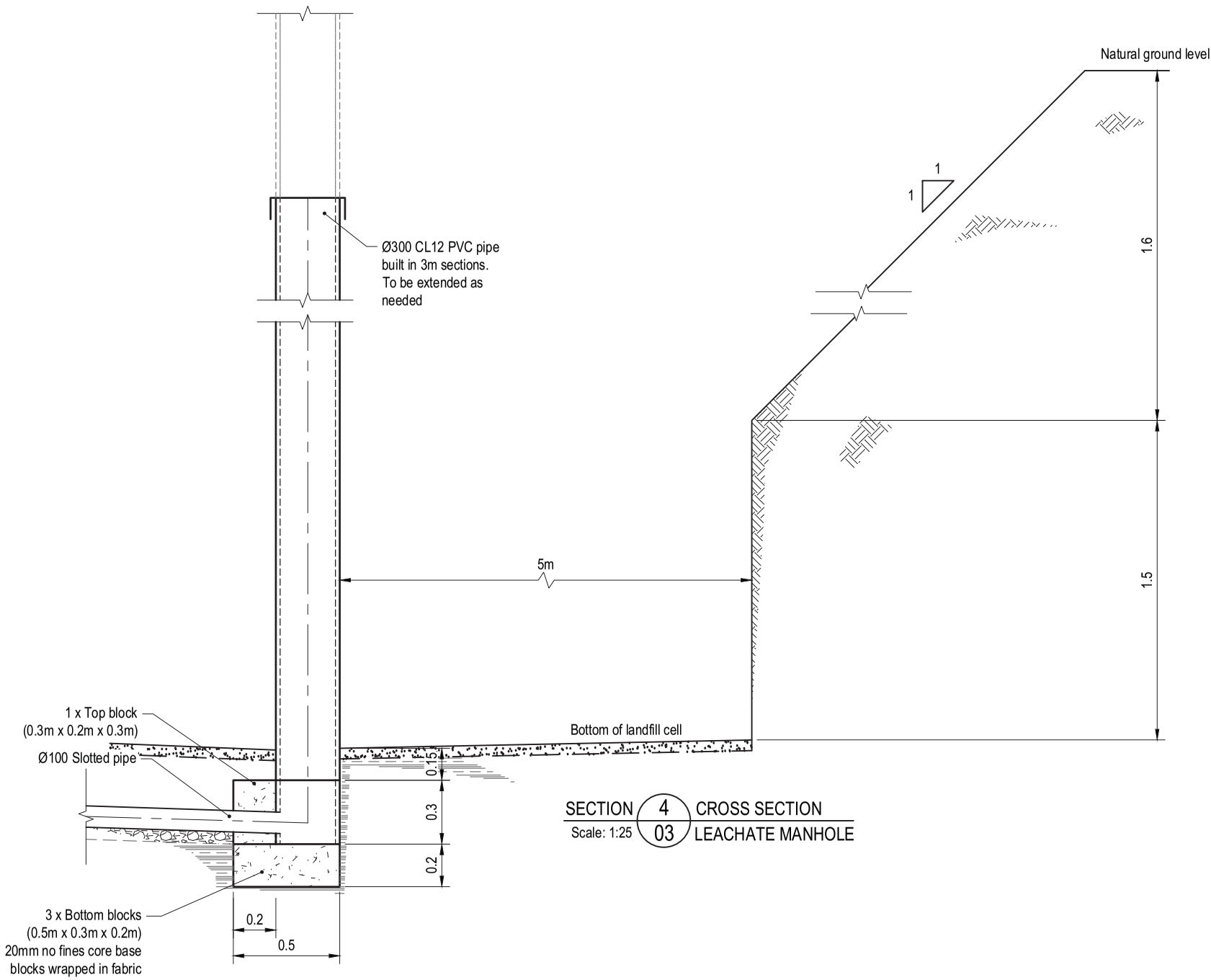


Plan View - Leachate Manhole
Scale 1:25



Front View - Leachate Manhole
Scale 1:25



SECTION 4/03 CROSS SECTION LEACHATE MANHOLE
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Rev.	Revision Description	By	Date
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
A	Original Issue	JC	26/09/2016

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All dimensions shown in metres unless otherwise specified.

Drawn: JC
Checked: SB
Approved: SLJ Bourne (RPEQ 1513)

Client: BARCALDINE REGIONAL COUNCIL
Project: WASTE MANAGEMENT FACILITY
Title: LEACHATE MANHOLE DETAILS

Category: STORM WATER
Drawing No. 140010-2/03
Rev. C
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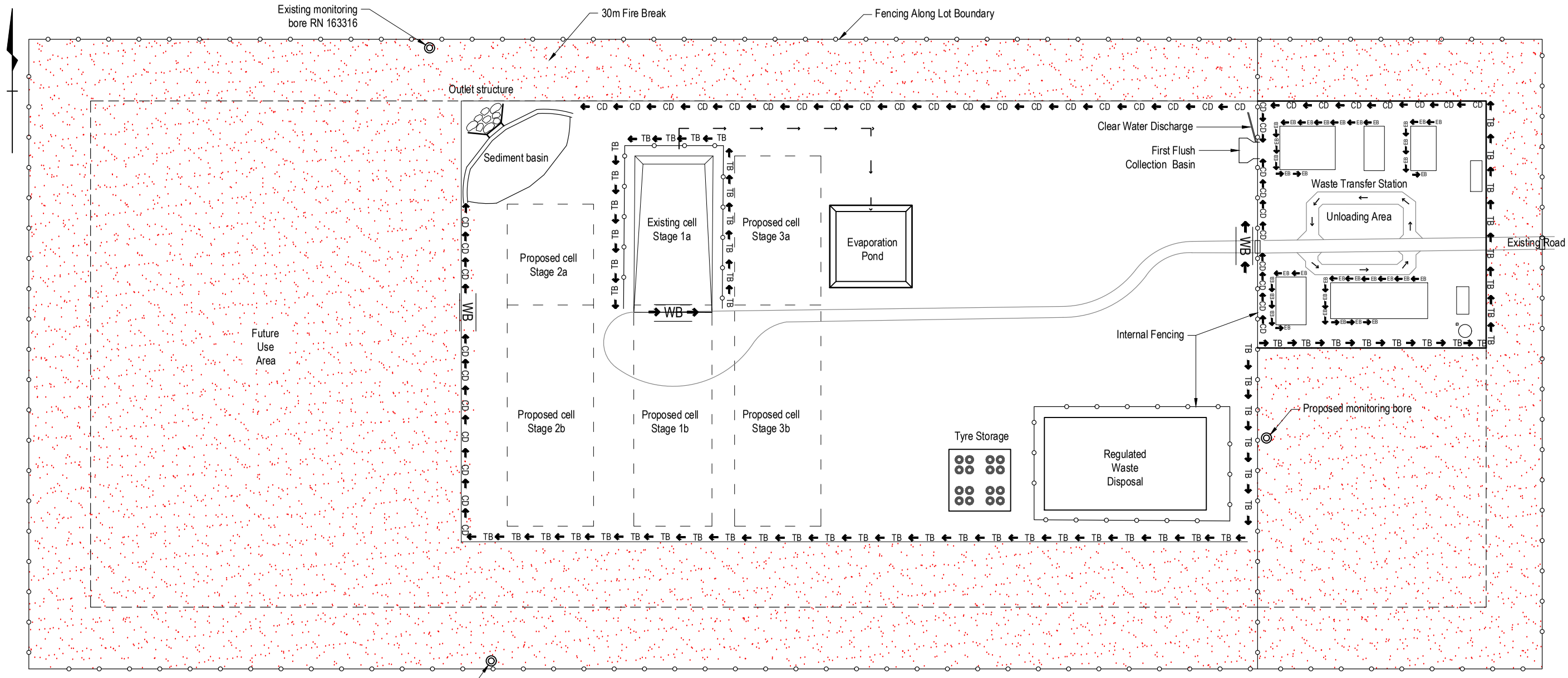
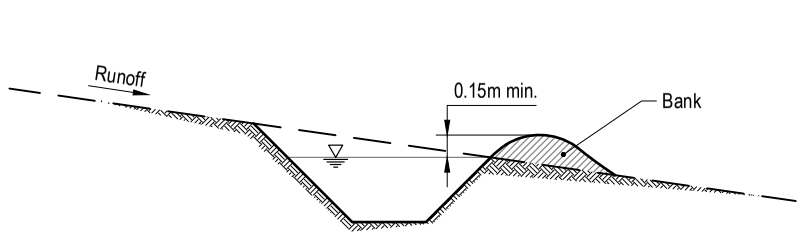
Size: A3

Date Printed: 07/04/2017 09:52:00

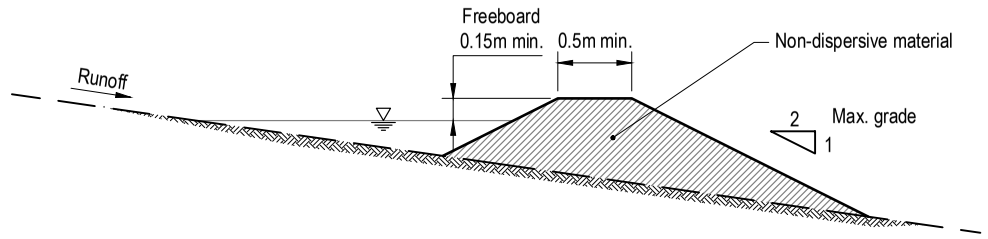


Plan View
Scale 1:2000

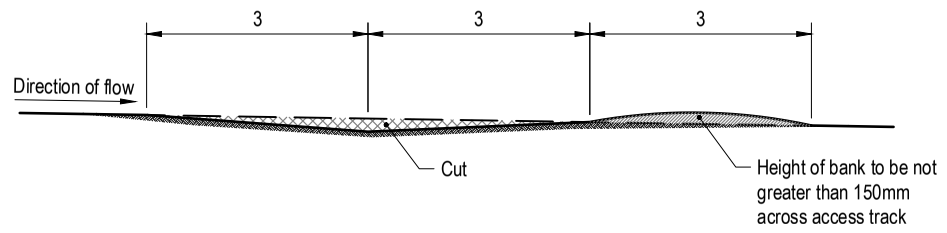
Legend	
WB	Woa-boy / Rollover Bank
TB	Topsoil Bank
CD	Catch Drain
EB	Earth Bank



Catch Drain with Bank
Scale 1:50



Topsoil Bank
Scale 1:50



Whoa-boy / Rollover bank
Scale 1:100

Rev.	Revision Description	By	Date
D	Site Erosion and Sediment Control Modifications	GC	20/07/2017
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
A	Original Issue	JC	26/09/2016

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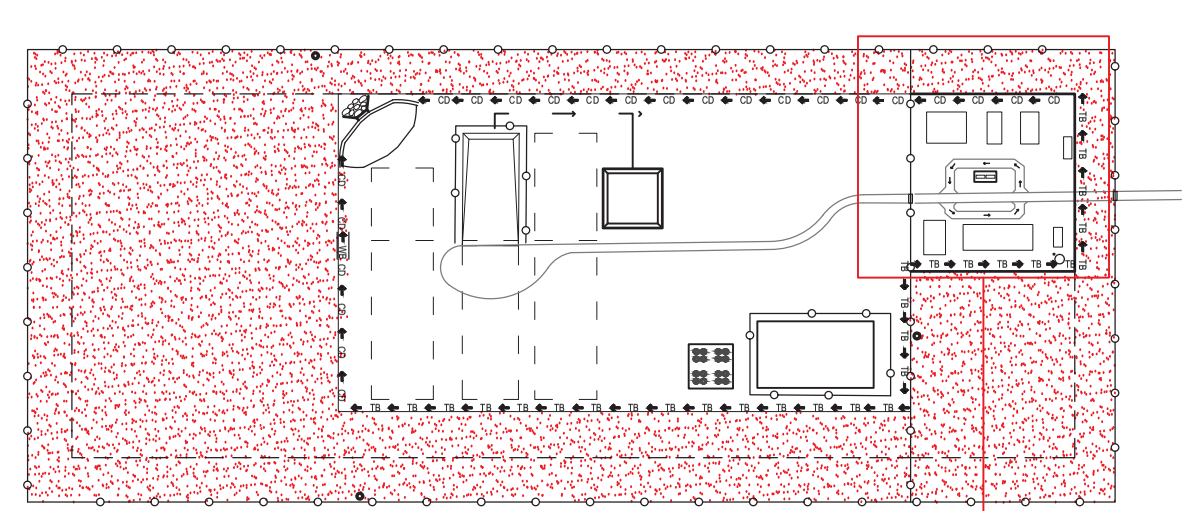
All dimensions shown in metres unless otherwise specified.

Drawn: GC
Checked: SB
Approved: SLJ Bourne (RPEQ 1513)

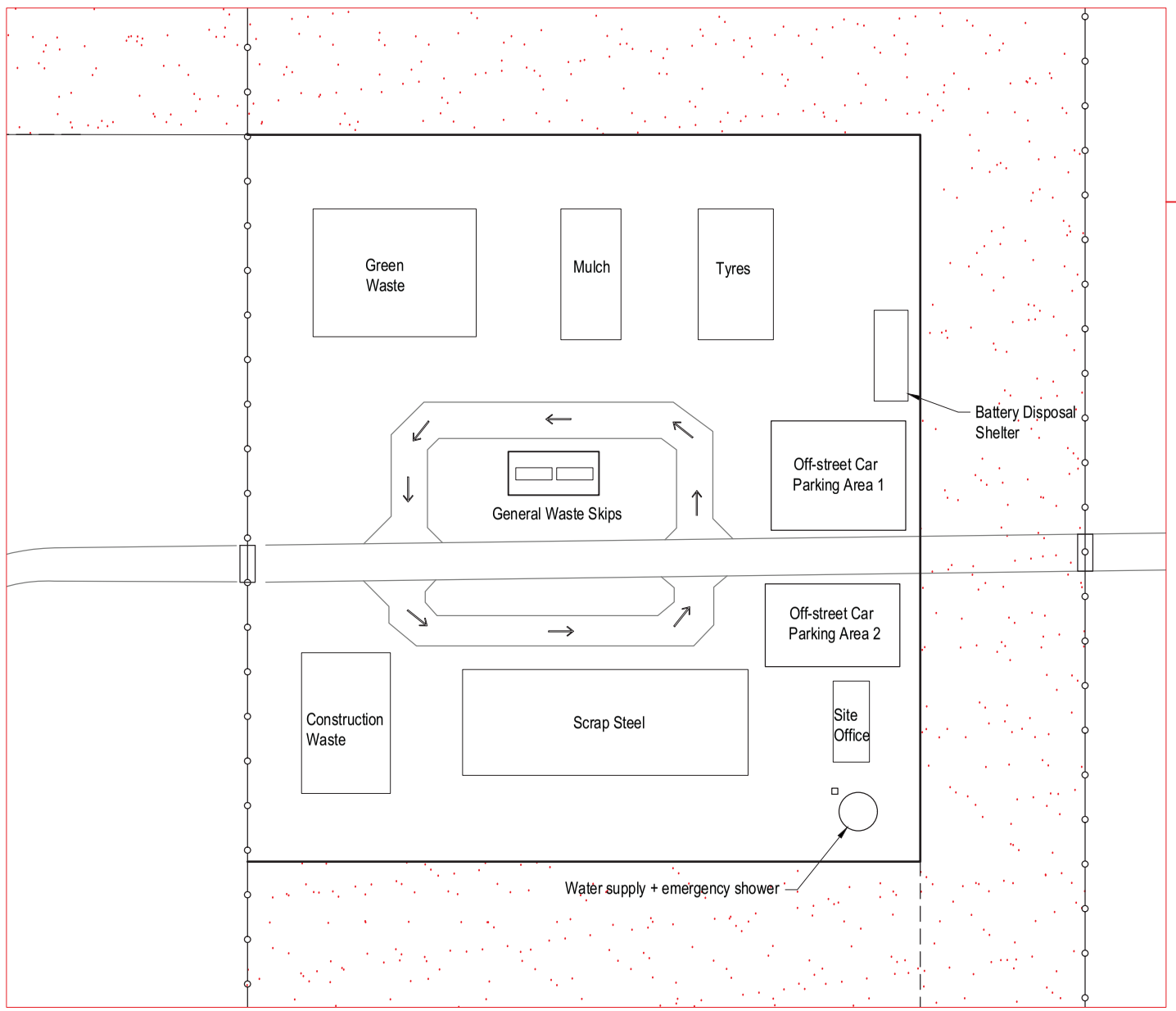
Client: BARCALDINE REGIONAL COUNCIL
Project: WASTE MANAGEMENT FACILITY
Title: SITE EROSION AND SEDIMENT CONTROL

Category: STORM WATER
Drawing No. 140010-2/04
Rev. D
Scale: AS SHOWN
Size: A3

Date Printed: 21/07/2017 11:26:00



SITE LAYOUT
SCALE 1:5000



WASTE TRANSFER STATION LAYOUT
SCALE 1:2000

Construction Notes

Site Office:

- Site office will be a 20ft shipping container converted to office space. Office will contain a kitchenette with potable water
- Dimensions Exterior: W:2440mm, H:2600mm, L:6058mm
- Footings: H50x800 deep footings with 8mm grade 70 chain cast into concrete and welded to container. Footings to be excavated to depth of 700mm and 100mm of draining gravel overlaid.
- 5000L water tank will be connected to office for supply of non-potable water, Dia:1840mm, H:2205mm. Connected to water supply will be a safety shower in case of emergency.

Battery Shelter

- A steel structure 3m x 6m will be constructed for storage of batteries & chemicals requiring temporary storage. Refer to drawing 140010-2/06 for detailed description.

Car Parking:

- Car parks will be constructed in accordance with AS 2890.1 off-street car parking.

Rev.	Revision Description	By	Date
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
A	Original Issue	JC	26/09/2016

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Phone: 07 4651 2177 Fax: 07 4651 1587
Email: admin@gbassoc.com.au

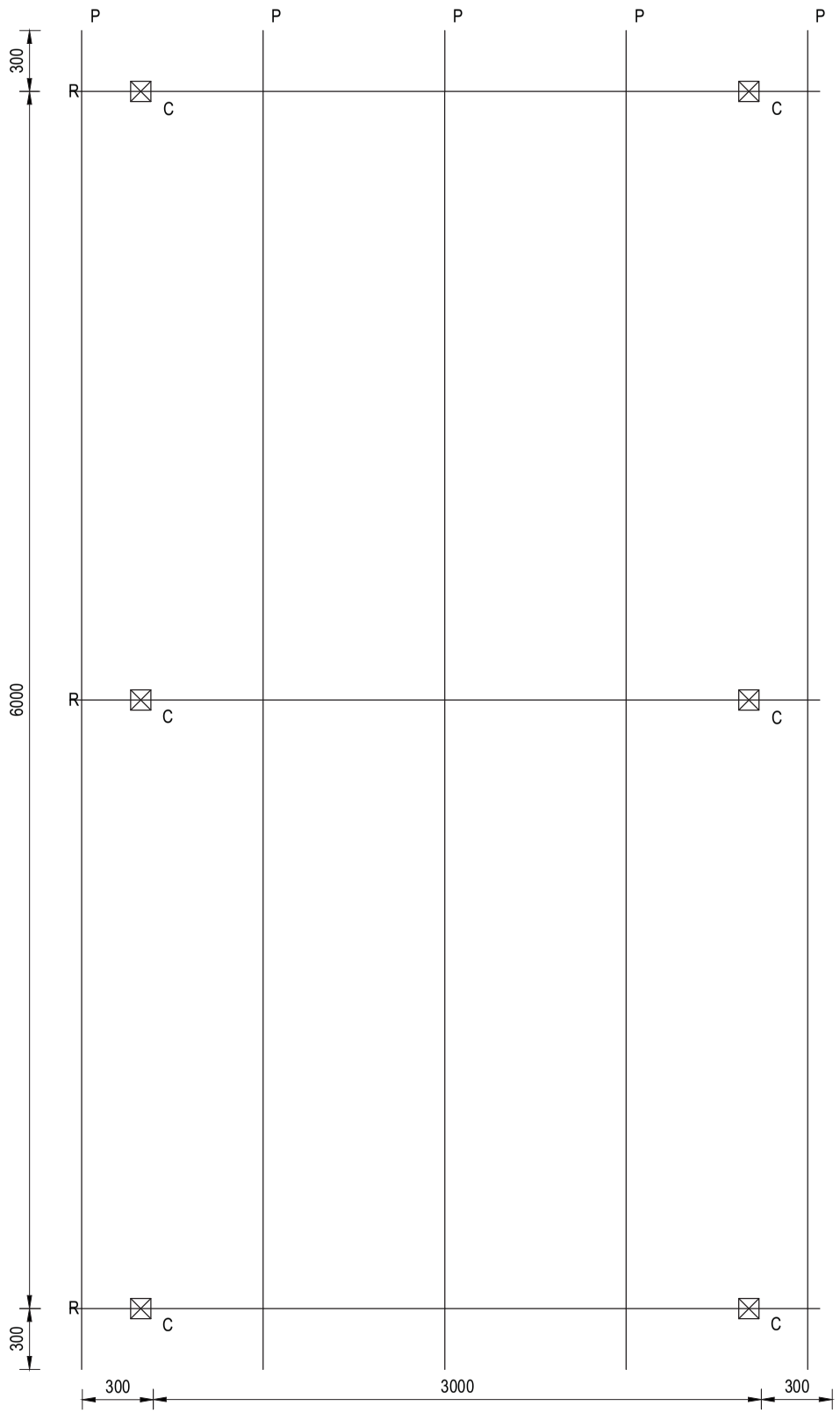
All dimensions shown in metres unless otherwise specified.

Drawn: JC
Checked: SB
Approved: SLJ Bourne (RPEQ 1513)

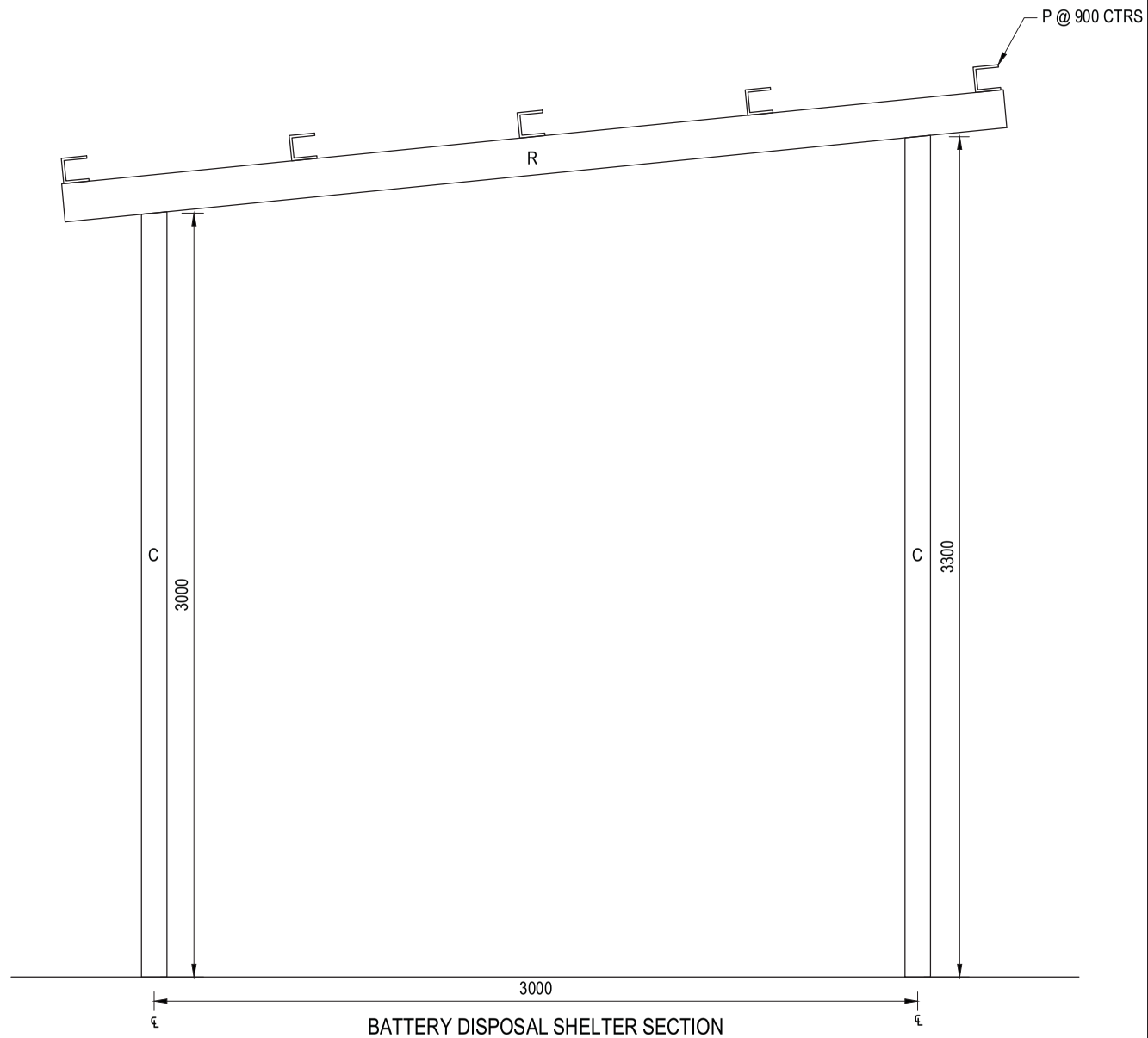
Client: BARCALDINE REGIONAL COUNCIL
Project: WASTE MANAGEMENT FACILITY
Title: WASTE TRANSFER STATION LAYOUT

Category: STORM WATER
Drawing No. 140010-2/05
Rev. C
Scale: AS SHOWN
Size: A3

Date Printed: 07/04/2017 09:52:01



BATTERY DISPOSAL SHELTER LAYOUT



BATTERY DISPOSAL SHELTER SECTION

SCALE: 1:25

LEGEND

C = 6 x 100x100x4 SHS COLUMNS

P = PURLINS C10010 @ 900 CTRS

R = RAFTER C15012 @ 3000 CTRS

Rev.	Revision Description	By	Date
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
A	Original Issue	JC	26/09/2016

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All dimensions shown in millimetres unless otherwise specified.

Drawn: JC

Checked: SB

Approved: SLJ Bourne (RPEQ 1513)

Client: BARCALDINE REGIONAL COUNCIL

Project: WASTE MANAGEMENT FACILITY

Title: WASTE TRANSFER STATION
SHADE STRUCTURE DETAILS AND LAYOUTS

Category: STORM WATER

Drawing No. 140010-2/06

Rev. C

Scale: AS SHOWN

Size: A3

Date Printed: 07/04/2017 09:52:01

BARCALDINE REGIONAL COUNCIL

DIGITALLY STAMPED
APPROVED DOCUMENT

Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility

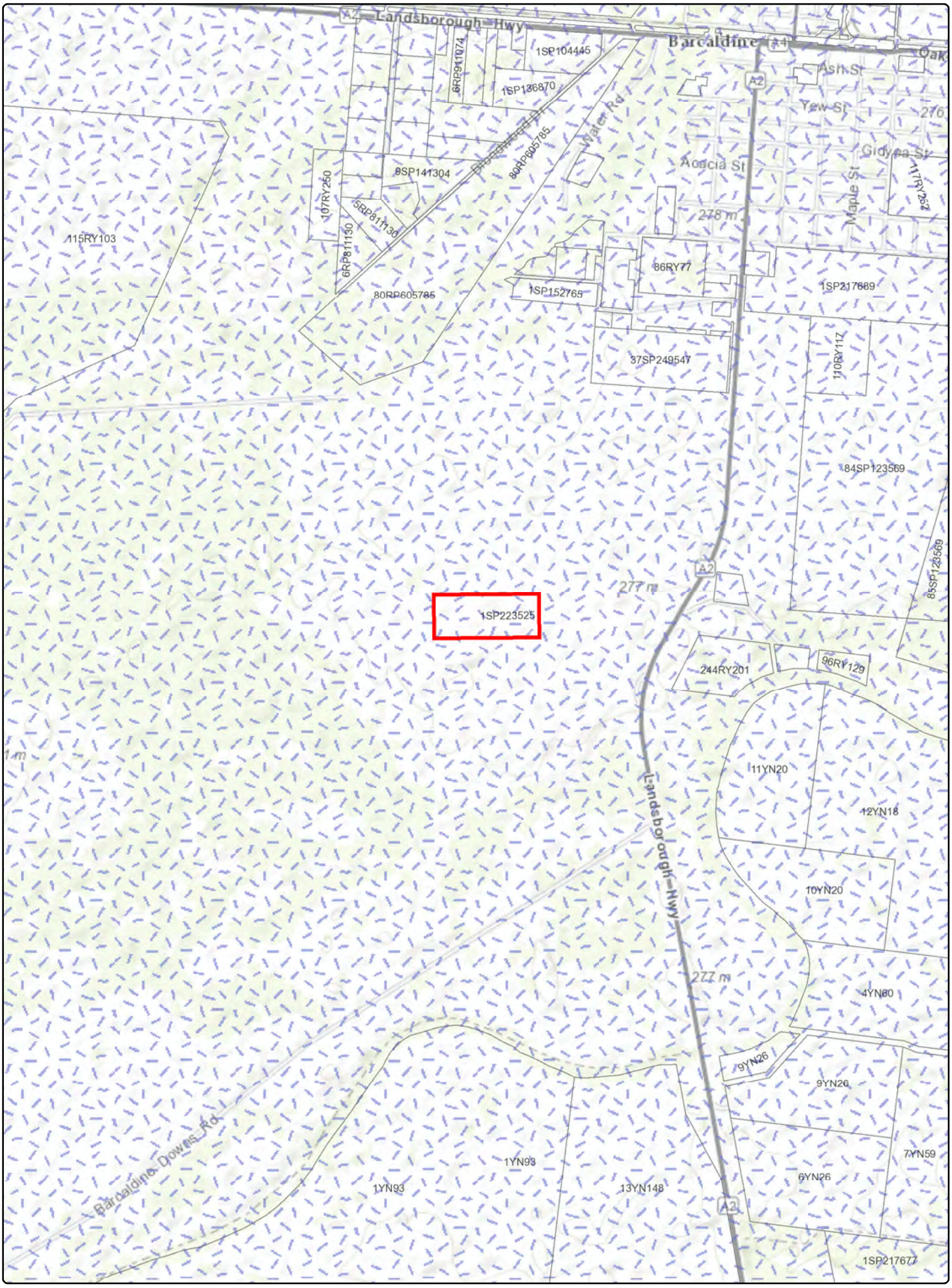
referred to in and subject to the conditions in Council's Decision Notice

Approval Date: 13 November 2017
Application Number: DA421617

Appendix F

State Planning Policy Mapping

(DA Mapping)



State Planning Policy

Local government development assessment

Date: 22/05/2017

Department of Infrastructure, Local Government and Planning

Queensland Government

© The State of Queensland 2017.

0 580 1,160 1,740 2,320

Metres

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Legend

Drawn Polygon Layer

Override 1

Drawn Polygon Layer

Override 1

Cadastre (50k)

Cadastre (50k)

Climatic regions - stormwater management design objectives

Climatic regions - stormwater management design objectives

Date: 22/05/2017

Department of Infrastructure, Local Government and Planning

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State Planning Policy

Local government development assessment

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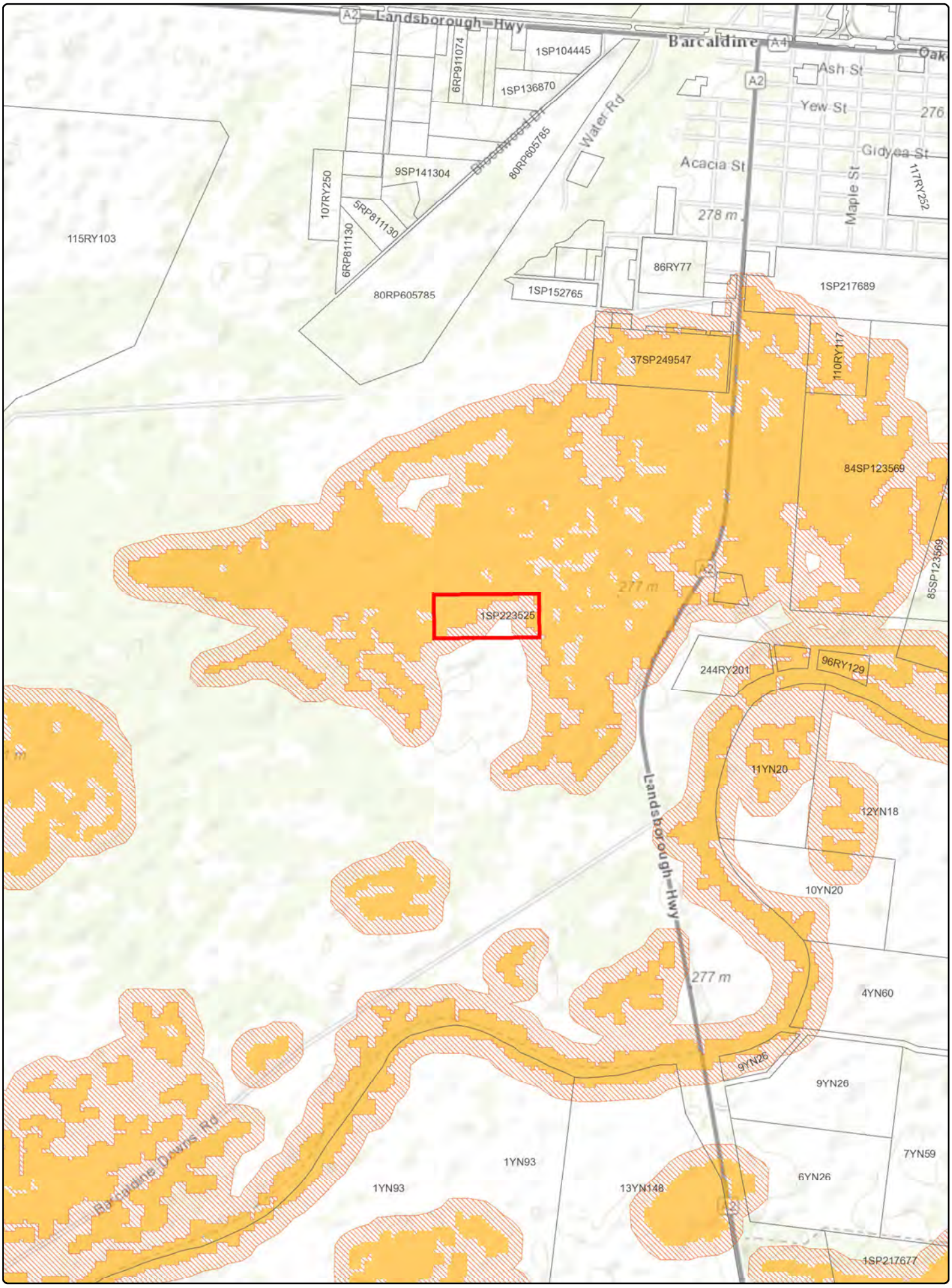

State Planning Policy

Local government development assessment

Date: 22/05/2017

Department of Infrastructure, Local Government and Planning

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Legend

Drawn Polygon Layer

Override 1

Drawn Polygon Layer

Override 1

Cadastre (50k)

Cadastre (50k)

Bushfire hazard area (Bushfire prone area)

Very High Potential Bushfire Intensity

High Potential Bushfire Intensity

Medium Potential Bushfire Intensity

Potential Impact Buffer

Queensland Government

Date: 22/05/2017

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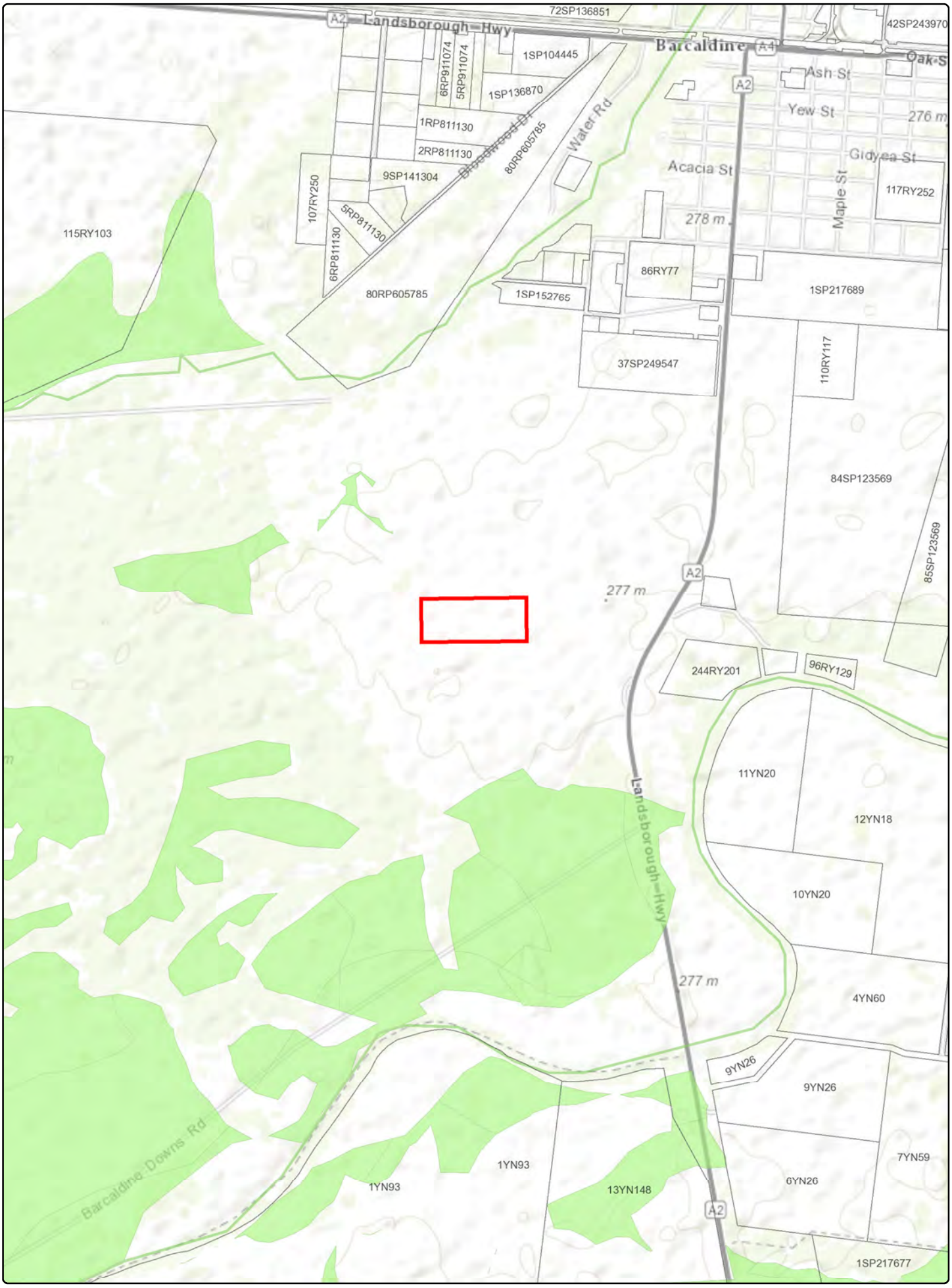

State Planning Policy

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Legend

Drawn Polygon Layer

Override 1

Drawn Polygon Layer

Override 1

Cadastre (50k)

Cadastre (50k)

MSES - Regulated vegetation (intersecting a watercourse)

MSES - Regulated vegetation (intersecting a watercourse)

MSES - Regulated vegetation

MSES - Regulated vegetation

Date: 22/05/2017

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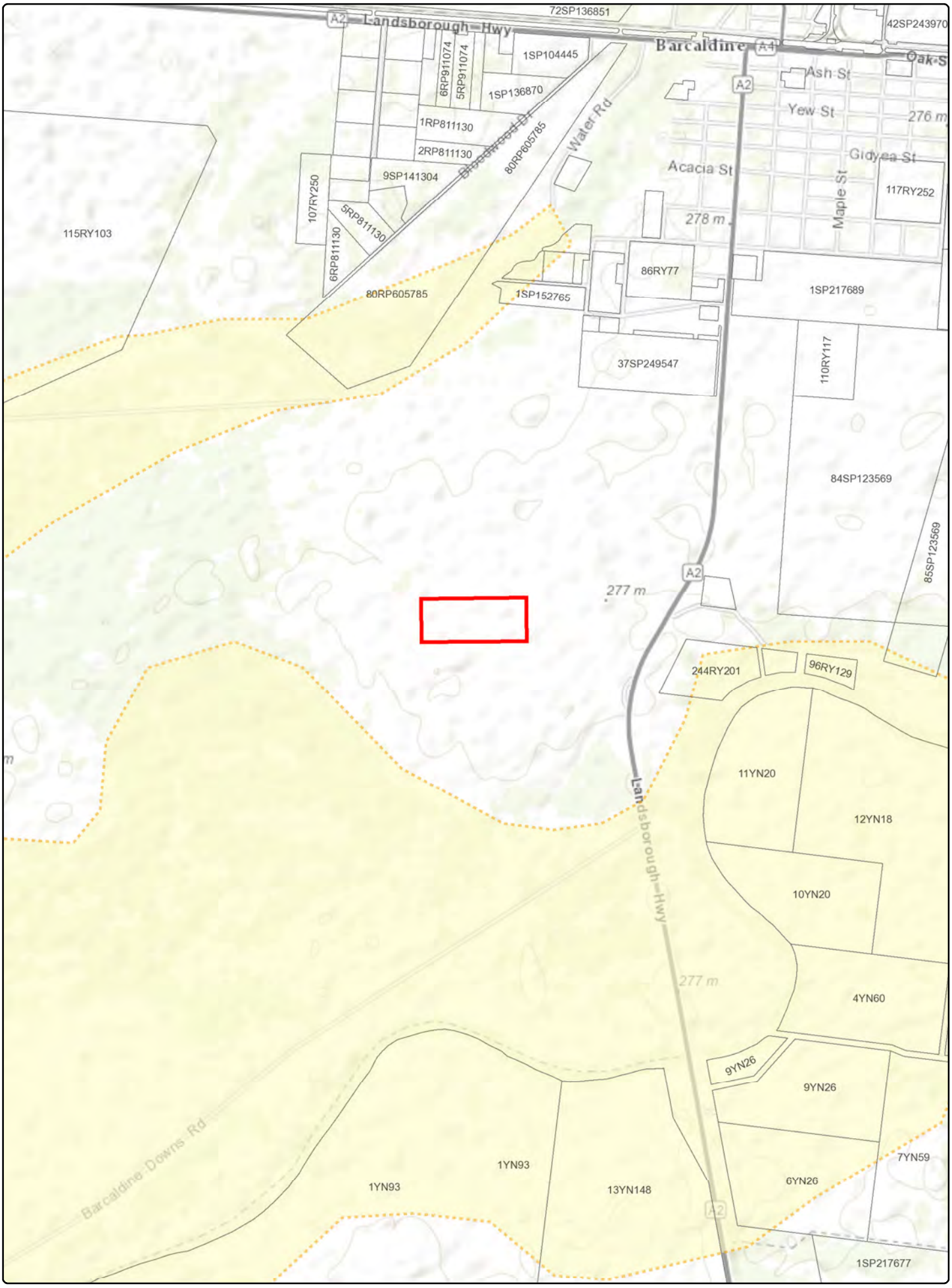

State Planning Policy

Local government development assessment

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0 580 1,160 1,740 2,320

Metres

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Legend

Drawn Polygon Layer

Override 1

Drawn Polygon Layer

Override 1

Cadastre (50k)

Cadastre (50k)

Flood hazard area* - Level 1 - Queensland floodplain assessment overlay

Flood hazard area* - Level 1 - Queensland floodplain assessment overlay

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BARCALDINE REGIONAL COUNCIL

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Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility

referred to in and subject to the conditions in Council's Decision Notice

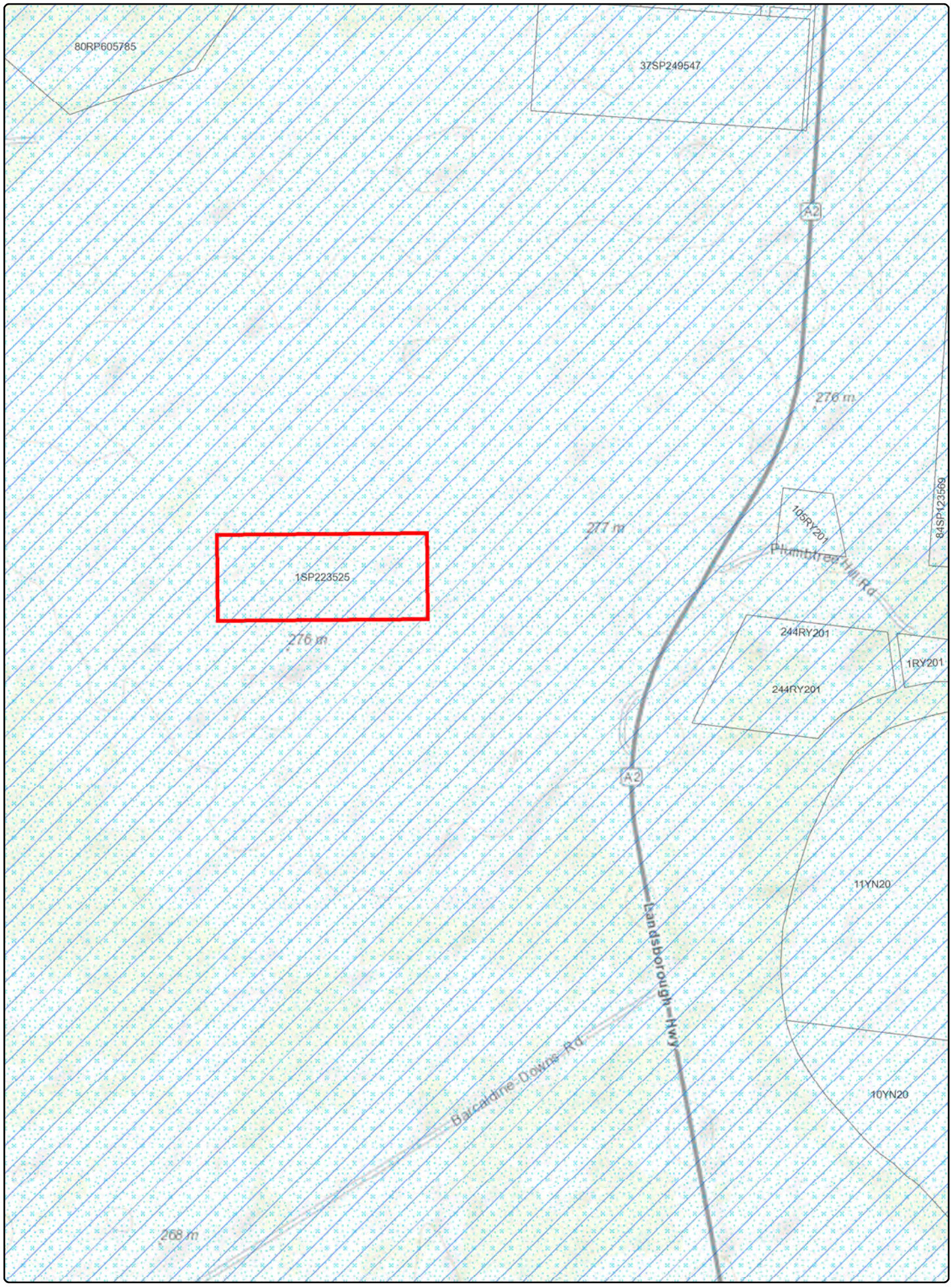
Approval Date: 13 November 2017

Application Number: DA421617

Appendix G

State Development Assessment Mapping

(SARA Mapping)



DA Mapping System – Print Screen

Date: 22/05/2017

0 290 580 870 1,160

Metres

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Legend

Drawn Polygon Layer

Override 1

Drawn Polygon Layer

Override 1

Cadastre (25k)

Cadastre (25k)

Water resource planning area boundaries

Water resource planning area boundaries

Great artesian water resource plan area

Great artesian water resource plan area

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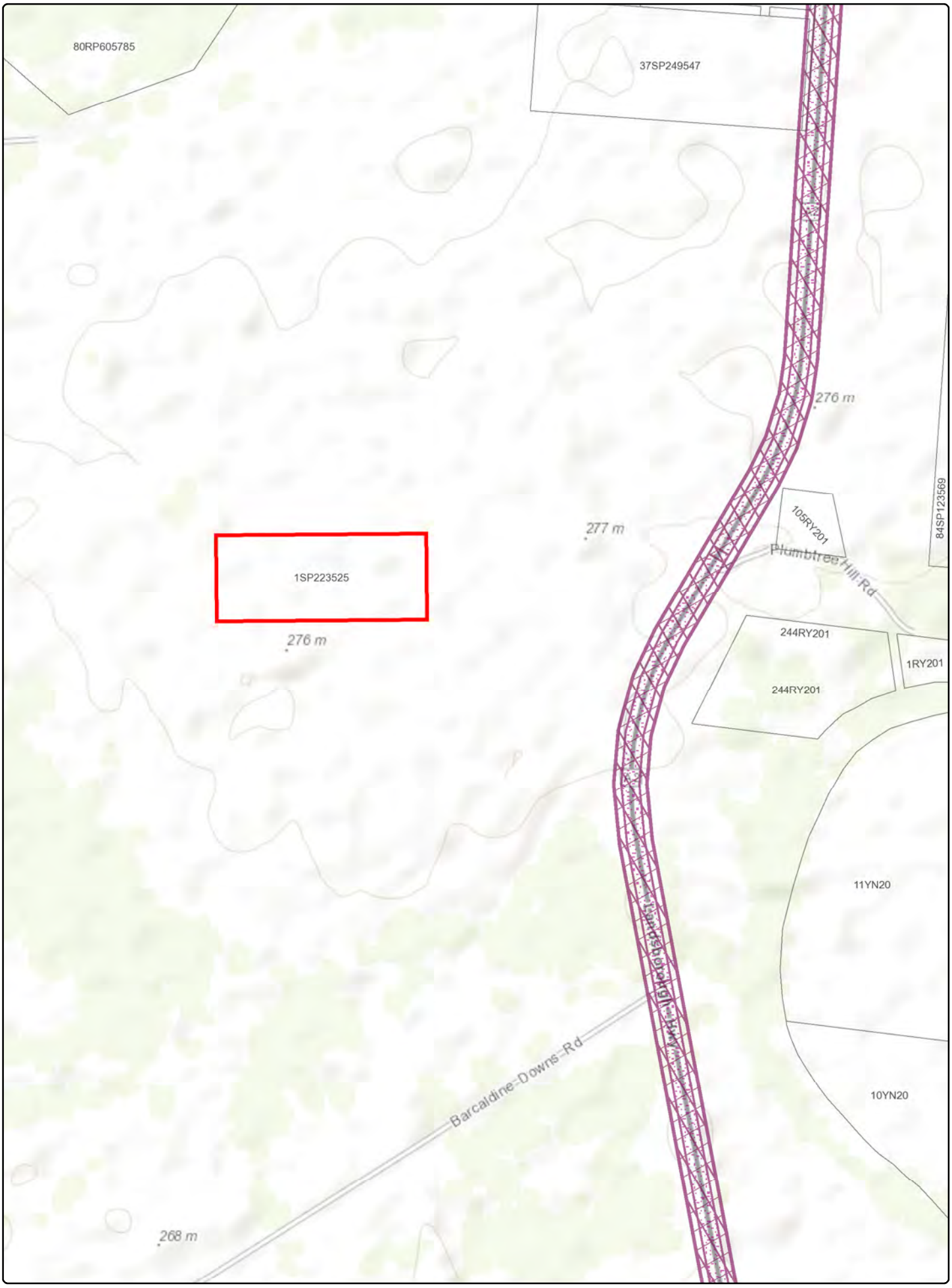

DA Mapping System – Print Screen

Date: 22/05/2017

0 290 580 870 1,160

Metres

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Legend

Drawn Polygon Layer

Override 1

Drawn Polygon Layer

Override 1

Cadastre (25k)

Cadastre (25k)

Area within 25m of State controlled roads

Area within 25m of State controlled roads

State-controlled roads

State-controlled roads

DA Mapping System – Print Screen

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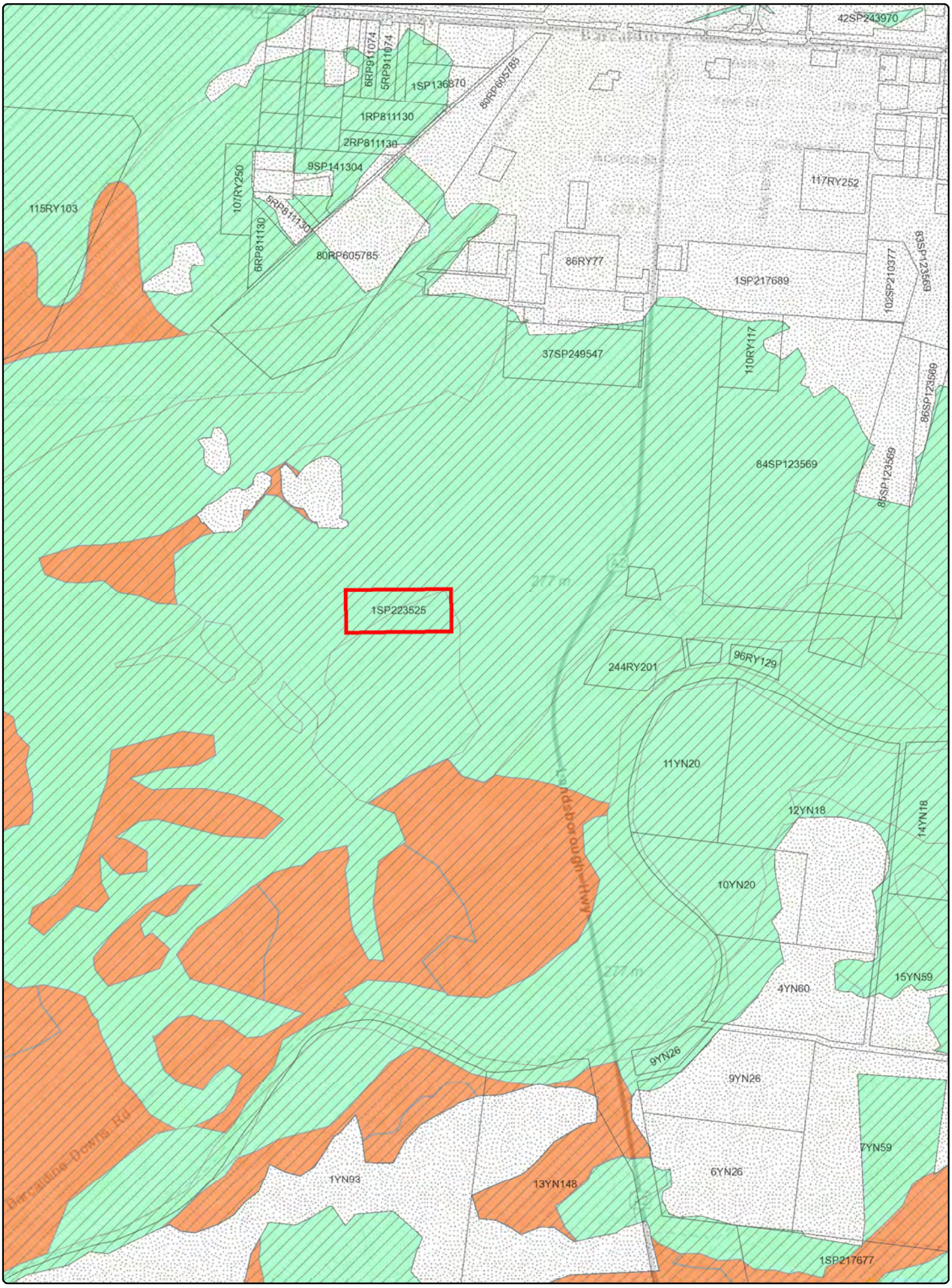

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0 580 1,160 1,740 2,320

Metres

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Legend

Drawn Polygon Layer

Override 1

Drawn Polygon Layer

Override 1

Cadastre (50k)

Cadastre (50k)

Regulated vegetation management map (Category A and B extract)

Category A on the regulated vegetation management map

Category B on the regulated vegetation management map

Regulated vegetation management map (Other vegetation categories)

Category C on the regulated vegetation managment map

Category R on the regulated vegetation management map

Category X on the regulated vegetation management map

Vegetation management regional ecosystem and remnant map

Category A or B area containing endangered regional ecosystems

Category A or B area containing of concern regional ecosystems

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

Category A or B area that is remnant vegetation (no regional ecosystem mapping available)

Non remnant

Water

Vegetation management coastal and non-coastal bioregions and sub-regions

Coastal bioregions and sub-regions

Non coastal bioregions and sub-regions

DA Mapping System – Print Screen

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BARCALDINE REGIONAL COUNCIL
DIGITALLY STAMPED
APPROVED DOCUMENT
Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility
referred to in and subject to the conditions in Council's Decision Notice
Approval Date: 13 November 2017
Application Number: DA421617

Appendix H

State Development Assessment Provisions State Codes: Module Reporting (V1.10)

Relevant SDAP Modules:

Module 1 – Community Infrastructure

- 1.1 Managing noise and vibration impacts from transport corridors state code
- 1.2 Managing air and lighting impacts from transport corridors state code

Module 4 – Environmentally relevant activities

- 4.1 Concurrence environmentally relevant activity state code

Module 8 – Native vegetation clearing

- 8.1 Queensland vegetation management state code

Module 17 – Public Passenger Transport

- 17.1 Public passenger transport state code

Module 18 – State Transport Infrastructure Protection

- 18.1 Filling, excavation and structures state code
- 18.2 Stormwater and drainage impacts on state transport infrastructure state code

Module 19 – State Transport network functionality

- 19.1 Access to state-controlled roads state code
- 19.2 Transport infrastructure and network design state code

1.1 Managing noise and vibration impacts from transport corridors state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 1.1.1: Building work and material change of use

Performance outcomes	Acceptable outcomes	Response	Comment
Residential buildings near a state-controlled road or type 1 multi modal corridor			
PO1 Development involving an accommodation activity achieves acceptable noise levels for residents and visitors by mitigating adverse impacts on the development from noise generated by a state-controlled road or a type 1 multi-modal corridor.	**AO1.1** All facades of an accommodation activity exposed to noise from a state-controlled road or type 1 multi-modal corridor meet the following external noise criteria#: (1) ≤60 dB(A) L_{10} (18 hour) facade corrected (measured L_{90} (8 hour) free field between 10 pm and 6 am ≤40 dB(A)) (2) ≤63 dB(A) L_{10} (18 hour) facade corrected (measured L_{90} (8 hour) free field between 10 pm and 6 am >40 dB(A)). **And**	**N/A**	The proposed development is for a "Public Utility" – Waste Management Facility. Given the above, Module 1 – 1.1 is not applicable.
	AO1.2 Every private open space in an accommodation activity exposed to noise from a state-controlled road or type 1 multi-modal corridor meets the following external noise criteria#: (1) ≤57 dB(A) L_{10} (18 hour) free field (measured L_{90} (18 hour) free field between 6 am and 12 midnight ≤45 dB(A)) (2) ≤60 dB(A) L_{10} (18 hour) free field (measured L_{90} (18 hour) free field between 6 am and 12 midnight >45 dB(A)). **And**	**N/A**	
	AO1.3 Every passive recreation area in an accommodation activity exposed to noise from a state-controlled road or type 1 multi-modal corridor meets the following external noise criteria#: (1) 63 dB(A) L_{10} (12 hour) free field (between 6 am and 6 pm). **And**	**N/A**	
	AO1.4 Every habitable room in an accommodation activity (other than a residential building), exposed to noise from a	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	~~state-controlled road or type 1 multi-modal corridor meets the following internal noise criteria#:~~ ~~(1) ≤35 dB(A) L_{eq} (1 hour) (maximum hour over 24 hours).~~ ~~Note: Noise levels from a state-controlled road or type 1 multi-modal corridor are to be measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise.~~ ~~Editor's note: Habitable rooms of residential buildings located within a transport noise corridor must comply with the Queensland Development Code MP4.4 Buildings in a transport noise corridor, Queensland Government, 2010. Transport noise corridors are mapped on the Department of Infrastructure, Local Government and Planning's State Planning Policy Interactive Mapping System.~~		
Accommodation buildings near a railway (with 15 or more passing trains per day) or a type 2 multi modal corridor			
~~**PO2** Development involving an accommodation activity achieves acceptable noise levels for residents and visitors by mitigating adverse impacts on the development from noise generated by a railway with 15 or more passing trains per day or a type 2 multi-modal corridor.~~	~~**AO2.1** All facades of an accommodation activity exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meet the following external noise criteria#:~~ ~~(1) ≤65 dB(A) L_{eq} (24 hour) facade corrected~~ ~~(2) ≤87 dB(A) (single event maximum sound pressure level) facade corrected.~~ ~~**And**~~	**N/A**	
	~~**AO2.2** Every private open space and passive recreation area exposed to noise from a railway with 15 or more passing trains per day or type 2 multi-modal corridor meets the following external noise criteria#:~~ ~~(1) ≤62 dB(A) L_{eq} (24 hour) free field~~ ~~(2) ≤84 dB(A) (single event maximum sound pressure level) free field.~~ ~~**And**~~	**N/A**	
	~~**AO2.3** Every habitable room in an accommodation activity (other than a residential building) exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meets the following internal noise criteria#:~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	(1) ≤45 dB(A) single event maximum sound pressure level (railway). Note: Noise levels from railways or type 2 multi-modal corridors are to be measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise. Editor's note: Habitable rooms of residential buildings located within a transport noise corridor must comply with the Queensland Development Code MP4.4 Buildings in a transport noise corridor, Queensland Government, 2010. Transport noise corridors are mapped on the Department of Infrastructure, Local Government and Planning's State Planning Policy Interactive Mapping System.		
Accommodation activities near a busway or light rail			
PO3 Development involving an accommodation activity achieves acceptable noise levels for residents and visitors by mitigating adverse impacts on the development from noise generated by a busway or light rail.	**AO3.1** All facades of an accommodation activity exposed to noise from a busway or light rail meet the following external noise criteria#: (1) ≤55 dB(A) L_{eq} (1 hour) facade corrected (maximum hour between 6 am and 10 pm) (2) ≤50 dB(A) L_{eq} (1 hour) facade corrected (maximum hour between 10 pm and 6 am) (3) ≤64 dB(A) L_{max} facade corrected (between 10 pm and 6 am). **And**	**N/A**	
	AO3.2 Every private open space and passive recreation area in an accommodation activity exposed to noise from a busway or light rail meets the following external noise criteria#: (1) ≤52 dB(A) L_{eq} (1 hour) free field (maximum hour between 6 am and 10 pm) (2) ≤66 dB(A) L_{max} free field. **And**	**N/A**	
	AO3.3 Every habitable room of an accommodation activity exposed to noise from a busway or light rail meets the following internal noise criteria#: (1) ≤35 dB(A) L_{eq} (1 hour) (maximum hour over 24	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	hours). Note: Noise levels from a busway or light rail are to be measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise.		
Particular development near a state-controlled road or type 1 multi modal corridor			
PO4 Development involving a: (1) child care centre, or (2) educational establishment achieves acceptable noise levels for workers and patrons by mitigating adverse impacts on the development from noise generated by a state-controlled road or a type 1 multi-modal corridor.	**AO4.1** All facades of buildings for a child care centre or educational establishment exposed to noise from state-controlled roads or type 1 multi-modal corridors meet the following external noise criteria#: (1) ≤58 dB(A) L_{10} (1 hour) facade corrected (maximum hour during normal opening hours). **And**	**N/A**	
	AO4.2 Outdoor education areas and outdoor play areas exposed to noise from a state-controlled road or type 1 multi-modal corridor meet the following external noise criteria#: (1) ≤63 dB(A) L_{10} (12 hours) free field (between 6 am and 6 pm). **And**	**N/A**	
	AO4.3 Indoor education areas and indoor play areas in a childcare centre or educational establishment exposed to noise from a state-controlled road or type 1 multi-modal corridor meet the following internal noise criteria#: (1) ≤35 dB(A) L_{eq} (1 hour) (maximum hour during opening hours). Note: Noise levels from state-controlled roads or type 1 multi-modal corridors are to be measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise.	**N/A**	
PO5 Development involving a hospital achieves acceptable noise levels for workers and patrons by mitigating adverse impacts on the development from noise generated by a state-	**AO5.1** All facades of buildings for a hospital exposed to noise from state-controlled roads or type 1 multi-modal corridors meet the following external noise criteria#: (1) ≤58 dB(A) L_{10} (1 hour) facade corrected (maximum hour during normal opening hours).	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
controlled road or a type 1 multi-modal corridor.	**And**		
	AO5.2 Patient care areas exposed to noise from a state-controlled road or type 1 multi-modal corridor meet the following internal noise criteria#: (1) ≤35 dB(A) L_{eq} (1 hour) (maximum hour during opening hours). Note: Noise levels from state-controlled roads or type 1 multi-modal corridors are to be measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise.	**N/A**	
Particular development near a railway (with 15 or more passing trains per day) or a type 2 multi modal corridor			
PO6 Development involving a: (1) child care centre, or (2) educational establishment achieves acceptable noise levels for workers and patrons by mitigating adverse impacts on the development from noise generated by a railway with 15 or more passing trains per day or a type 2 multi-modal corridor.	**AO6.1** All facades of buildings in a child care centre or educational establishment exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meet the following external noise criteria#: (1) ≤65 dB(A) L_{eq} (1 hour) facade corrected (maximum hour during normal opening hours) (2) ≤87 dB(A) (single event maximum sound pressure level) facade corrected. **And**	**N/A**	
	AO6.2 Outdoor education area and outdoor play area exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meet the following external noise criteria#: (1) ≤62 dB(A) L_{eq} (12 hour) free field (between 6 am and 6 pm) (2) ≤84 dB(A) (single event maximum sound pressure level) free field. **And**	**N/A**	
	AO6.3 Sleeping rooms in a child care centre exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meet the following internal noise criteria#: (1) ≤45 dB(A) single event maximum sound pressure level.	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	And		
	AO6.4 Indoor education areas and indoor play areas exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meet the following internal noise criteria#: (1) ≤50 dB(A) single event maximum sound pressure level. Note: Noise levels from railways or type 2 multi-modal corridors are measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise.	**N/A**	
PO7 Development involving a hospital achieves acceptable noise levels for workers and patrons by mitigating adverse impacts on the development from noise generated by a railway with 15 or more passing trains per day or a type 2 multi-modal corridor.	**AO7.1** All facades of buildings for a hospital exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meet the following external noise criteria#: (1) ≤65 dB(A) L_{eq} (1 hour) facade corrected (maximum hour during normal opening hours) (2) ≤87 dB(A) (single event maximum sound pressure level) facade corrected. **And**	**N/A**	
	AO7.2 Ward areas exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meet the following internal noise criteria#: (1) ≤45 dB(A) single event maximum sound pressure level. **And**	**N/A**	
	AO7.3 Patient care areas (other than ward areas) exposed to noise from a railway with 15 or more passing trains per day or a type 2 multi-modal corridor meet the following internal noise criteria#: (1) ≤50 dB(A) single event maximum sound pressure level. Note: Noise levels from railways or type 2 multi-modal corridors are measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise.	**N/A**	
Particular development near a busway or light rail			

Performance outcomes	Acceptable outcomes	Response	Comment
PO8 Development involving a: (1) child care centre, or (2) educational establishment achieves acceptable noise levels for workers and patrons by mitigating adverse impacts on the development from noise generated by a busway or light rail.	**AO8.1** All facades of buildings for a child care centre or educational establishment exposed to noise from a busway or light rail meet the following external noise criteria#: (1) ≤55 dB(A) L_{eq} (1 hour) facade corrected (maximum hour during normal opening hours). **And**	**N/A**	
	AO8.2 Outdoor education areas and outdoor play areas exposed to noise from a busway or light rail meet the following external noise criteria#: (1) ≤52 dB(A) L_{eq} (1 hour) free field (maximum hour during normal opening hours) (2) ≤66 dB(A) L_{max} free field (during normal opening hours). **And**	**N/A**	
	AO8.3 Indoor education areas and indoor play areas exposed to noise from a busway or light rail meet the following internal noise criteria#: (1) ≤35 dB(A) L_{eq} (1 hour) (maximum hour during opening hours). Note: Areas exposed to noise from a busway or light rail are measured in accordance with AS1055.1–1997 Acoustics – Description and measurement of environmental noise.	**N/A**	
PO9 Development involving a hospital achieves acceptable noise levels for workers and patients by mitigating adverse impacts on the development from noise generated by a busway or light rail.	**AO9.1** All facades of buildings for a hospital exposed to noise from a busway or light rail meet the following external noise criteria#: (1) ≤55 dB(A) L_{eq} (1 hour) facade corrected (maximum hour during normal opening hours). **And**	**N/A**	
	AO9.2 Patient care areas exposed to noise from a busway or light rail meet the following internal noise criteria#: (1) ≤35 dB(A) L_{eq} (1 hour) (maximum hour during opening hours). Note: Areas exposed to noise from a busway or light rail are measured in accordance with AS1055.1–1997 Acoustics –	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	~~Description and measurement of environmental noise.~~		
Noise barriers or earth mounds			
~~**PO10** Noise barriers or earth mounds erected to mitigate noise from transport operations and infrastructure are designed, sited and constructed to:~~ ~~(1) maintain safe operation and maintenance of state transport infrastructure~~ ~~(2) minimise impacts on surrounding properties~~ ~~(3) complement the surrounding local environment~~ ~~(4) maintain fauna movement corridors where appropriate~~	~~**AO10.1** Where adjacent to a state-controlled road or type 1 multi-modal corridor, noise barriers and earth mounds are designed, sited and constructed in accordance with Chapter 7 Integrated Noise Barrier Design of the Transport Noise Management Code of Practice – Volume 1 Road Traffic Noise, Department of Transport and Main Roads, 2013.~~ ~~**Or**~~	**N/A**	
	~~**AO10.2** Where adjacent to a railway or type 2 multi-modal corridor, noise barriers and earth mounds are designed, sited and constructed in accordance with the Civil Engineering Technical Requirement — CIVIL-SR-014 Design of noise barriers adjacent to railways, Queensland Rail, 2011.~~ ~~**Or**~~	**N/A**	
	~~**AO10.3** No acceptable outcome is prescribed for noise barriers and earth mounds adjacent to a busway or light rail.~~	**N/A**	
Vibration			
~~**PO11** Development mitigates adverse impacts on the development from vibration generated by transport operations and infrastructure.~~	~~No acceptable outcome is prescribed.~~	**N/A**	

1.2 Managing air and lighting impacts from transport corridors state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 1.2.1: Building work, material change of use and reconfiguring a lot

Performance outcomes	Acceptable outcomes	Response	Comment
Air quality			
~~**PO1** Development involving sensitive development achieves acceptable levels of air quality for occupiers or users of the development by mitigating adverse impacts on the development from air emissions generated by state transport infrastructure.~~	~~**AO1.1** Every private open space and passive recreation area of an accommodation activity meets the air quality objectives in the Environmental Protection (Air) Policy 2008 for the following indicators:~~ ~~(1) carbon monoxide~~ ~~(2) nitrogen dioxide~~ ~~(3) sulphur dioxide~~ ~~(4) photochemical oxidants~~ ~~(5) respirable particulate matter (PM10)~~ ~~(6) fine particulate matter (PM2.5)~~ ~~(7) lead~~ ~~(8) toluene~~ ~~(9) formaldehyde~~ ~~(10) xylenes.~~ ~~**And**~~	**N/A**	The proposed development is for a "Public Utility" – Waste Management Facility. Given the above, Module 1 – 1.2 is not applicable.
	~~**AO1.2** Every outdoor education area and passive recreation area of an educational establishment, childcare centre and hospital meets the air quality objectives in the Environmental Protection (Air) Policy 2008 for the following indicators:~~ ~~(1) carbon monoxide~~ ~~(2) nitrogen dioxide~~ ~~(3) sulphur dioxide~~ ~~(4) photochemical oxidants~~ ~~(5) respirable particulate matter (PM10)~~ ~~(6) fine particulate matter (PM2.5)~~ ~~(7) lead~~ ~~(8) toluene~~ ~~(9) formaldehyde~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	~~(10) xylenes.~~		
Lighting impacts			
~~**PO2** Development involving an accommodation activity or hospital achieves acceptable levels of amenity for residents and patients by mitigating lighting impacts from state transport infrastructure.~~	~~**AO2.1** Buildings for an accommodation activity or hospital are designed, sited and constructed to incorporate treatments to attenuate ingress of artificial lighting from state transport infrastructure during the hours of 10 pm – 6 am.~~	**N/A**	

4.1 Concurrence environmentally relevant activities state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 4.1.2: All environmentally relevant activities

Performance outcomes	Acceptable outcomes	Response	Comment
Site suitability			
PO1 The choice of the site at which the activity is to be carried out minimises serious environmental harm on areas of high conservation value and special significance, and sensitive land uses at adjacent places.	**AO1.1** Both of the following apply: (1) areas of high conservation value and special significance likely to be affected by the activity are identified and evaluated, and any adverse effects on these areas are minimised, including any edge effects on the areas (2) the activity does not have an adverse effect beyond the site. **Or**	☑	The site location was chosen to avoid adverse impacts on areas of significant environmental values. The site and access track lies entirely within least concern regional ecosystem 10.5.12 and 10.5.2a mapped as category B on the Regulated Vegetation Management Map. The site is located approximately 1.5km from the closest mapped watercourse and does not interfere with any identified wetland habitats or other mapped habitat areas. Substantial resources have been invested into the planning phase of this activity to identify sustainable management practices to ensure the avoidance of adverse environmental impacts occurring offsite. The site will be managed to contain and treat all potential sources of pollution.
	~~**AO1.2** Both of the following apply:~~ ~~(1) areas of high conservation value and special significance likely to be affected by the proposal are identified and evaluated and any adverse effects on the areas are minimised, including any edge effects on the areas~~ (2) ~~critical design requirements will prevent emissions having an irreversible or widespread impact on adjacent areas.~~		
Location of activity on the site			
PO2 The location for the activity on the site protects all environmental values relevant to adjacent sensitive land uses.	~~**AO2.1** The location of the activity means there will be no adverse effect on any environmental values.~~ **Or**		
	AO2.2 Both of the following apply: (1) the activity and components of the activity are located on the site in a way that prevents or minimises adverse effects on the use of adjacent land and allows for effective management of the environmental	☑	The site chosen for the activity is a suitable location as it avoids the disturbance of significant environmental values such as rare or threatened plant or animal communities. The site is a significant distance from aquatic and wetland environments and provides adequate distance from the surrounding community to minimise environmental

Performance outcomes	Acceptable outcomes	Response	Comment
	impacts of the activity (2) areas used for storing environmentally hazardous materials in bulk are located to take into consideration the likelihood of flooding.		nuisance. The Likelihood of flooding in the area is highly unlikely as the site sits outside of the projected 1 in 100 year flood zone and modelled 1 in 500 year flood zones. The risk of pollutants being transported from site in a flood event is therefore highly unlikely. Information regarding flood levels and proximity to aquatic environments is provided in the supporting information – "*Environmental Assessment Report*".
PO3 The activity avoids adverse impacts on matters of state environmental significance or, where this is not reasonably possible, impacts are minimised and, where this is not reasonably possible, an environmental offset is provided for any significant residual impact to matters of state environmental matters that are prescribed environmental matters.	**AO3.1** Matters of state environmental significance likely to be affected by the activity are identified and evaluated, and any adverse effects on the matters of state environmental significance are avoided or, where this cannot be reasonably achieved, impacts are minimised, and where this cannot be reasonably achieved, an environmental offset is provided for any significant residual impact to matters of state environmental significance that are prescribed environmental matters. Editor's note: Applications for development should identify anticipated losses, and outline what actions are proposed to be undertaken to offset the loss in accordance with the Significant Residual Impact Guideline and the relevant Queensland Environmental Offset Policy.	☑	This activity will not affect matters of state environmental significance. The site is located within an area of least concern vegetation or category B regulated vegetation with no identified significant habitat areas identified on site. The site is located a significant distance from watercourses, wetlands and aquatic habitats. The site is located within the water resource planning areas of the Cooper Creek Catchment and the Great Artesian Basin. The planning of this development has identified and managed the potential hazards associated with the contamination of surface waters and groundwater's associated with this project. A management Plan and site design detail the management strategies associated with this project, including the avoidance, capture and treatment of potential contaminants.
PO4 Development avoids or minimises and offsets any adverse impacts on riparian areas and ecological corridors located in a strategic environmental area.	**AO4.1** Development is set back from a waterway by at least 200 metres. **And**	☑	The site is located greater than 1km from mapped watercourses and will have minimal impact on the aquatic habitats in the vicinity of the site.
	AO4.2 Development minimises adverse impacts on fish passage during works and the carrying out of the activity. **And**	**N/A**	The activity will have no impact on fish passage as the site is a considerable distance from fish habitat areas.
	AO4.3 Clearing of riparian vegetation is minimised or, where this cannot be reasonably achieved, an environmental offset is provided for any significant residual impact. **And**	**N/A**	Clearing within riparian areas will not be necessary.

Performance outcomes	Acceptable outcomes	Response	Comment
	AO4.4 Natural regeneration of native plant species is facilitated in cleared riparian areas.	**N/A**	Clearing within riparian areas will not be necessary.
Critical design requirements			
PO5 The design of the facility at which the activity is to be carried out permits the activity to be carried out in accordance with best practice environmental management.	**AO5.1** The activity does not involve the storage, production, treatment or release of hazardous contaminants, or involve a regulated structure. **Or**		
	AO5.2 Development ensures that— (1) all storage provided for hazardous contaminants includes secondary containment to prevent or minimise releases to the environment from spillage or leaks (2) regulated structures must comply with the manual for assessing consequence categories and hydraulic performance of structures, Department of Environment and Heritage Protection, 2013 (3) containers are provided for the storage of hazardous contaminants and are secured to prevent the removal of the containers from the site by a flood event (4) the design of the facility— (a) prevents or minimises the production of hazardous contaminants and waste, or (b) contains and treats hazardous contaminants, rather than releasing them.	☑	The proposed activity will generate leachate material derived from waste disposal to landfill. This material will be contained, stored and treated in purpose built facilities meeting the regulating authority's specifications. The leachate generated onsite will be contained and treated onsite to ensure that these activities do not impact on the surrounding environment. The storage of small volumes of hazardous materials such as fuel, batteries and oil may be warranted onsite during the operation of the facility. All materials will be stored in accordance with Australian standards relating to the storage and handling of dangerous and flammable goods. As detailed in section 3.5.2 of the "*Landfill Environmental Management Plan*", chemicals and fuels in containers of greater than 15 litres will be stored within a secondary containment system.
PO6 Development avoids or minimises any adverse impacts from pollutants on environmental values and water quality objectives for receiving waters (surface and groundwater) on site or leaving a site located in a strategic environmental area.	**AO6.1** Development demonstrates current best practice environmental management to meet relevant environmental values and water quality objectives of the Environmental Protection (Water) Policy or relevant to the ERA to be carried out on the site. **Or**	☑	The development has been designed and planned to avoid the release of any contaminants offsite. Leachate generated from waste landfill will be collected and treated onsite primarily through evaporation. To ensure that contamination of groundwater does not occur, groundwater monitoring will take place on a regular basis in accordance with DEHP Water Quality Sampling Manual.
	AO6.2 All stormwater, wastewater, discharges and overflows leaving the site are: (1) treated to the quality of the receiving waters prior to		

Performance outcomes	Acceptable outcomes	Response	Comment
	discharge, or (2) reclaimed or re-used such that there is no export of pollutants to receiving waters.		

The following tables are not applicable and been removed from this document:

- Table 4.1.3: Environmentally relevant activities in a strategic environmental area
- Table 4.1.4: Intensive animal industries

8.1 Queensland vegetation management state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 8.1.3: General

Performance outcomes	Acceptable outcomes	Response	Comment
Clearing to reasonably avoid and minimise impacts			
PO1 Clearing only occurs where the applicant has demonstrated that the development has first reasonably avoided, and then reasonably minimised the impacts of development.	No acceptable outcome is prescribed.	☑	This activity has aimed to minimise the extent of disturbance to the surrounding vegetating communities. The extent of vegetation clearing will be minimised in order to avoid unnecessary disturbance to the surrounding environment. Barcaldine regional Council has acquired approximately 20Ha of state land for this development. This site was chosen as a suitable site as it avoids disturbance to Threatened Ecological Communities, aquatic habits, essential habitats and Endangered or of concern Regional Ecosystems. It is anticipated that this area will provide in excess of 50 years use. Clearing of the site will be staged as the site develops to avoid excessive clearing where infrastructure is not required in the short term. The initial area to be cleared for initial use will be approximately 6Ha, including landfill cell1, cell 2, regulated waste area and transfer station allowing for approximately 10 years of use. Approximately 9.7 Ha for 20 years use to include 4 cells. After 20 years it is estimated that the development will extend into the area depicted as “Future Use” in design drawing 140010-2/01.
Clearing on land in particular circumstances			
PO2 Clearing in an area must not be inconsistent with or impact on any of the following unless a better environmental outcome can be achieved: (1) a declared area, or (2) an exchange area, or (3) unlawfully cleared area, or (4) a restoration notice, or (5) an enforcement notice under the	No acceptable outcome is prescribed.	☑	This project does not impact on any unwarranted activities described in this performance outcome.

Performance outcomes	Acceptable outcomes	Response	Comment
Sustainable Planning Act 2009 issued for a vegetation clearing offence, or (6) a compliance notice containing conditions about the restoration of vegetation, or (7) a Land Act notice, or (8) a trespass notice if the trespass related act under the Land Act 1994 for the notice is the clearing of vegetation on the relevant land, or (9) an area on a PMAV shown to be category A where the chief executive of the VMA reasonably believes that a vegetation clearing offence is being, or has been, committed in relation to the area.			
Clearing on land that is an environmental offset area			
~~**PO3** Clearing on land that contains an existing environmental offset is consistent with the delivery plan or agreement for the environmental offset area.~~ ~~Editor's note: Environmental offset agreements may also be described as an 'agreed delivery arrangement' or 'delivery agreement'. Clearing should be consistent with any agreement however described.~~	~~**AO3.1** Clearing is consistent with the offset delivery plan or agreement for the environmental offset area.~~ ~~**Or**~~	**N/A**	Clearing is not on land containing an environmental offset area.
	~~**AO3.2** An additional environmental offset is provided that is consistent with the relevant Queensland Environmental Offsets Policy.~~	**N/A**	Clearing is not on land containing an environmental offset area.
No clearing of vegetation as a result of the material change of use or reconfiguration of a lot			
~~**PO4** Clearing as a result of the material change of use or reconfiguration of a lot will not occur.~~	~~No acceptable outcome is prescribed.~~	**N/A**	In accordance with Table 8.1.1: *Development and relevant provisions of the code—material change of use and reconfiguring a lot*, PO4 is not identified as a relevant provision of Table 8.1.3 in respect to the proposed development..
Clearing that could already be done under an exemption			
~~**PO5** All clearing is limited to clearing that could be done under an exemption for the purpose of the development (as prescribed under schedule 24, parts 1~~	~~No acceptable outcome is prescribed.~~	**N/A**	In accordance with Table 8.1.1: *Development and relevant provisions of the code—material change of use and reconfiguring a lot*, PO5 is not identified as a relevant provision of Table 8.1.3 in respect to the proposed

Performance outcomes	Acceptable outcomes	Response	Comment
~~and 2 of the Sustainable Planning Regulation 2009) prior to the material change of use application being approved.~~			development.

Table 8.1.4: Public safety, relevant infrastructure and coordinated projects

Performance outcomes	Acceptable outcomes	Response	Comment
Limits to clearing			
~~**PO1** Clearing is limited to the extent that is necessary:~~ ~~(1) for establishing a necessary fence, firebreak, road or vehicular track, or for constructing necessary built infrastructure (each relevant infrastructure), where the clearing cannot reasonably be avoided or minimised, or~~ ~~(2) as a natural and ordinary consequence of other assessable development for which a development approval as defined under the repealed *Integrated Planning Act 1997* was given, or a development application as defined under that Act was made, before 16 May 2003, or~~ ~~(3) to ensure public safety, or~~ ~~(4) for a coordinated project and any associated ancillary works—other than a coordinated project that involves high value agriculture clearing, or irrigated high value agriculture clearing.~~	~~No acceptable outcome is prescribed.~~	**N/A**	In accordance with Table 8.1.1: *Development and relevant provisions of the code—material change of use and reconfiguring a lot*, PO1 is not identified as a relevant provision of Table 8.1.4 in respect to the proposed development.
Wetlands			
PO2 Maintain the current extent of vegetation associated with any natural wetland to protect: (1) water quality by filtering sediments,	**AO2.1** Clearing does not occur in or within 100 metres of any natural wetland. **Or**	☑	Clearing will not be required within 100metres of a natural wetland. Refer to document "*Environmental Assessment Report*"

Performance outcomes	Acceptable outcomes	Response	Comment
nutrients and other pollutants (2) aquatic habitat (3) terrestrial habitat.			(Appendix K) for clearing proximity to wetland areas.
	~~**AO2.2** Clearing only occurs within 100 metres of any natural wetland where:~~ ~~(1) the clearing does not occur within 50 metres of the defining bank of any natural wetland, or~~ ~~(2) the widths stipulated by table 1 are not exceeded.~~ ~~**Or**~~	**N/A**	
	~~**AO2.3** Where it can be demonstrated that clearing cannot be reasonably avoided, and the extent of clearing has been reasonably minimised, an environmental offset is provided for any significant residual impacts from clearing of vegetation associated with a natural wetland.~~ ~~Editor's note: Applications for development should identify whether there is likely to be a significant residual impact and a need for an environmental offset having regard to section 3.3 (Wetlands and watercourses) of the Significant Residual Impact Guideline and the relevant Queensland Environmental Offsets Policy~~	**N/A**	
Watercourses and drainage features			
PO3 Maintain the current extent of vegetation associated with any watercourse or drainage feature to protect: (1) bank stability by protecting against bank erosion (2) water quality by filtering sediments, nutrients and other pollutants (3) aquatic habitat (4) terrestrial habitat.	**AO3.1** Clearing does not occur: (1) in any watercourse or drainage feature, or (2) within the relevant distance stipulated by table 2 of the defining bank of any watercourse or drainage feature. **Or**	☑	Clearing will not be required in the vicinity of a watercourse. The closest watercourse is greater than 1km from the facility. Refer to document "*Environmental Assessment Report*" (Appendix K) for clearing proximity to watercourse.
	~~**AO3.2** Clearing only occurs within any watercourse or drainage feature, or within the relevant distance stipulated by table 2 of the defining bank of any watercourse or drainage feature where:~~ ~~(1) the clearing does not occur within 5 metres of the defining bank, or~~ ~~(2) the widths stipulated by table 1 is not exceeded~~ ~~**Or**~~	**N/A**	
	~~**AO3.3** Where it can be demonstrated that clearing cannot be reasonably avoided, and the extent of clearing has~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	~~been reasonably minimised, an environmental offset is provided for any significant residual impact from clearing of vegetation associated with any watercourse or drainage feature.~~ ~~Editor's note: Applications for development should identify whether there is likely to be a significant residual impact and a need for an environmental offset having regard to section 3.3 (Wetlands and watercourses) of the Significant Residual Impact Guideline and the relevant Queensland Environmental Offsets Policy.~~		
Connectivity (public safety and relevant infrastructure)			
PO4 In consideration of vegetation on the subject lot(s) and in the landscape adjacent to the subject lot(s), vegetation is retained that: (1) is of sufficient size and configured in a way that maintains ecosystem functioning (2) remains in the landscape despite threatening processes.	**AO4.1** Clearing occurs in accordance with table 3.	☑	Clearing does not: (1) Occur in areas of vegetation that are less than 50 hectares: The extent of remnant vegetation outside of the proposed development area greatly exceeds 50Ha (2) Reduce the extent of vegetation to less than 50 hectares: Clearing for the proposed development will not reduce the extent of intact remnant vegetation to less than 50Ha. (3) Occur in areas of vegetation less than 200 metres wide: Intact remnant vegetation outside of proposed development area is greater than 200m wide. Clearing of the development site will not have a significant impact on the surrounding flora and fauna as the development will only impact on a small extent of the remnant vegetation in this area. (4) Reduce the width of vegetation to less than 200 metres: Clearing for the proposed development will not reduce the width if intact remnant vegetation to less than 200m. The development will only result in in a small proportion of the remnant vegetation in the area to be disturbed, having only a small bearing on the ecosystem function within the surrounding remnant vegetation. (5) Occur where the extent of vegetation on the subject lot(s) is reduced to or less than 30 per cent of the total area of the lot(s): Clearing for the proposed development will not reduce the extent of intact vegetation to less than 30% of the total area of the subject lot. Vegetation will remain intact until expansion requires that additional vegetation is cleared. As additional areas are cleared for landfilling activities the

Performance outcomes	Acceptable outcomes	Response	Comment
			exhausted cells will be revegetated ensuring ecosystem connectivity to the surrounding areas at all stages of development.
Connectivity (coordinated projects)			
~~**PO5** In consideration of vegetation on the subject lot(s) and in the landscape adjacent to the subject lot(s), vegetation is retained that:~~ ~~(1) is of sufficient size and configured in a way that maintains ecosystem functioning~~ ~~(2) remains in the landscape despite threatening processes~~ ~~or where this is not reasonably possible, maintain the current extent of vegetation.~~	~~**AO5.1** Clearing occurs in accordance with table 3.~~ ~~**Or**~~	**N/A**	Project is not a Coordinated Project
	~~**AO5.2** Where it can be demonstrated that clearing cannot be reasonably avoided, and the extent of clearing has been reasonably minimised, an environmental offset is provided for any significant residual impact from clearing of vegetation that forms a connectivity area.~~ ~~Editor's note: Applications for development should identify whether there is likely to be a significant residual impact and a need for an environmental offset having regard to section 3.2 (Connectivity areas) of the Significant Residual Impact Guideline and the relevant Queensland Environmental Offsets Policy.~~	**N/A**	Project is not a Coordinated Project
Soil erosion			
PO6 Clearing does not result in: (1) accelerated soil erosion including, but not limited to - mass movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion, or scalding (2) 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 or outside the lot(s) that are the subject of the application.	~~**AO6.1** Clearing is undertaken in accordance with a sediment and erosion control plan which includes measures to ensure the rates of soil loss and sediment movement are the same or less than those prior to the proposed development.~~ **Or**	**N/A**	
	AO6.2 The application is a development application where a local government is the assessment manager. Editor's note: For guidance on developing a sediment and erosion control plan please refer to the IECA (2008) Best practice erosion & sediment control document.	☑	The local government is the assessment manager for this development application. An Erosion and Sediment Control Plan has been developed for this activity by a suitably qualified person. Refer to plan 140010-2/04 D, titled "Site Erosion and Sediment Control" (Appendix E).
Salinity			
PO7 Clearing does not contribute to land degradation through: (1) waterlogging, or (2) the salinisation of groundwater,	**AO7.1** Clearing does not occur in or within 200 metres of a discharge area or recharge area. **Or**	☑	Clearing will not take place within 200m of a discharge or recharge zone.
	~~**AO7.2** Clearing is less than:~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
surface water or soil.	~~(1) 2 hectares, or~~ (2) ~~10 metres wide.~~		
Conserving endangered and of concern regional ecosystems			
PO8 Maintain the current extent of endangered regional ecosystems and of concern regional ecosystems.	**AO8.1** Clearing does not occur in: (1) an endangered regional ecosystem, or (2) an of concern regional ecosystem. **Or**	☑	Clearing occurs entirely within Least Concern Remnant Vegetation. Refer to document "*Vegetation Management Plan*" (Appendix L) for information regarding vegetation types to be cleared.
	~~**AO8.2** Clearing in an endangered regional ecosystem or an of concern regional ecosystem does not exceed the width or area prescribed in table 1.~~ ~~**Or**~~	**N/A**	
	~~**AO8.3** Where it can be demonstrated that clearing cannot be reasonably avoided, and the extent of clearing has been reasonably minimised, an environmental offset is provided for any significant residual impact from clearing of endangered regional ecosystems and of concern regional ecosystems.~~ ~~Editor's note: Applications for development should identify whether there is likely to be a significant residual impact and a need for an environmental offset having regard to section 3.1 (Regulated vegetation) of the Significant Residual Impact Guideline and the relevant Queensland Environmental Offsets Policy.~~	**N/A**	
Essential habitat			
PO9 Maintain the current extent of essential habitat.	**AO9.1** Clearing does not occur in an area of essential habitat. **Or**	☑	Clearing occurs entirely outside areas of essential habitat.
	~~**AO9.2** Clearing in essential habitat does not exceed the widths or areas prescribed in table 1.~~ ~~**Or**~~	**N/A**	
	~~**AO9.3** Clearing only occurs where an area of essential habitat is isolated and small in size and at risk from threatening processes, for the prescribed species.~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	~~**Or**~~		
	~~**AO9.4** Where it can be demonstrated that clearing cannot be reasonably avoided, and the extent of clearing has been reasonably minimised, an environmental offset is provided for any significant residual impact from clearing of essential habitat.~~ ~~Editor's note: Applications for development should identify whether there is likely to be a significant residual impact and a need for an environmental offset having regard to section 3.1 (Regulated vegetation) of the Significant Residual Impact Guideline and the relevant Queensland Environmental Offsets Policy.~~	**N/A**	
Acid sulfate soils			
PO10 Clearing activities do not result in disturbance of acid sulfate soils or changes to the hydrology of the location that will either: (1) aerate horizons containing iron sulfides, or (2) mobilise acid or metals.	**AO10.1** Clearing does not occur in land zone 1, land zone 2 or land zone 3. **Or**	☑	Clearing does not occur in land zones 1,2 or 3
	~~**AO10.2** Clearing in land zone 1, land zone 2 or land zone 3 in areas below the 5 metre Australian Height Datum only occurs where:~~ ~~(1) it does not involve mechanical clearing~~ ~~(2) the acid sulfate soils are managed consistent with the State Planning Policy, Department of State Development infrastructure and Planning 2014, and with the Soil Management Guidelines in the Queensland Acid Sulfate Soil Technical Manual, Department of Science, Information Technology, Innovation and the Arts, 2014.~~ ~~**Or**~~	**N/A**	
	~~**AO10.3** The application is a development application where a local government is the assessment manager.~~	**N/A**	

In accordance with Table 8.1.1: *Development and relevant provisions of the code—material change of use and reconfiguring a lot*, the following tables are not identified as relevant provisions of the State Code in respect to the proposed development and therefore have been removed:

- Table 8.1.5: Extractive industry
- Table 8.1.6: High value agriculture clearing and irrigated high value agriculture clearing
- Table 8.1.7: Necessary environmental clearing
- Table 8.1.8: Weed or pest management
- Table 8.1.9: Thinning
- Table 8.1.10: Encroachment
- Table 8.1.11: Fodder

17.1 Public passenger transport state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 17.1.1: Material change of use and reconfiguration of a lot

Performance outcomes	Acceptable outcomes	Response	Comment
All development			
~~**PO1** During construction, development ensures bus stops continue to function and pedestrian access to the bus stop is maintained at all times.~~	~~No acceptable outcome is prescribed.~~	**N/A**	There is no public passenger transport within the Barcaldine local government area.
~~**PO2** New or modified road accesses and modifications to the road network do not conflict with existing bus stops or a public passenger service.~~ ~~Editor's note: To demonstrate compliance with this performance outcome, it is recommended that a Public Transport Impact Assessment be prepared in accordance with Appendix 1 of the State Development Assessment Provisions Supporting Information – Public Passenger Transport, Department of Transport and Main Roads, 2014.~~	~~No acceptable outcome is prescribed.~~	**N/A**	
Accommodation activity (other than a residential care facility), educational establishment, airport, hospital, shopping centre or business activities			
~~**PO3** Development allows for safe, convenient and efficient access for public passenger transport and allows for the progressive staging or extension of public passenger transport to the development.~~	~~**AO3.1** Where a development proposes a new or modified road network it must provide for bus movement through the site whilst avoiding backtracking, looping or indirect routes.~~ ~~Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a Public Transport Impact~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	~~Assessment be prepared in accordance with Appendix 1 of the State Development Assessment Provisions Supporting Information – Public Passenger Transport, Department of Transport and Main Roads, 2014.~~ ~~**And**~~		
	~~**AO3.2** Roads intended to accommodate buses are designed and constructed in accordance with Road Planning and Design Manual (RPDM), Volume 3: Guide to Road Design.~~ ~~Editor's note: Guidance on how to meet the acceptable outcomes is available in the Road Planning and Design Manual (RPDM), Volume 3: Guide to Road Design,~~ ~~(1) Part 3:~~ ~~• 4.2 Traffic lanes~~ ~~• 4.8 Bicycle lanes~~ ~~• 4.9 High occupancy vehicle (HOV) lanes~~ ~~• 4.12 Bus stops~~ ~~• 7 Horizontal alignment~~ ~~• 7.7 Super elevation~~ ~~• 7.9 Curve widening~~ ~~(2) Part 4:~~ ~~• 6.3 Bus Facilities~~ ~~• 5.6 Design vehicle swept path~~ ~~(3) Part4A:~~ ~~• 5 Auxiliary lanes~~ ~~(4) Part 4B: Roundbabouts:~~ ~~• 4 Geometric Design~~ ~~• 4.6 Circulating carriageway.~~ ~~**And**~~ ~~AO3.3 Traffic calming devices are not installed on roads used for buses.~~ ~~**Or**~~ ~~AO3.4 Where road humps are installed on roads used for buses, the road humps are designed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).~~ ~~Editor's Note: Guidance on how to meet the acceptable outcomes are available in the Manual of Uniform Traffic Control Devices (MUTCD), Part 13:~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	• Local Area Traffic Management, section 2.4 – Road Humps. • Supplement Part 13: Local Area Traffic Management – 2.4.2-1 Hump Profiles for Bus Routes..		
Accommodation activity (other than residential care facility), airport, hospital, hotel, major sport recreation and entertainment facility, hardware and trade supplies, shop, shopping centre, showroom, tourist attraction or business activities			
PO4 Upgraded or new public passenger transport infrastructure is provided to accommodate the demand for public passenger transport generated by the development. Editor's note: To demonstrate compliance with this performance outcome, it is recommended that a Public Transport Impact Assessment be prepared in accordance with Appendix 1 of the State Development Assessment Provisions Supporting Information – Public Passenger Transport, Department of Transport and Main Roads, 2014.	No acceptable outcome is prescribed.	**N/A**	
PO5 The location of public passenger transport infrastructure avoids creating indirect or inefficient routes for public passenger services. Editor's note: To demonstrate compliance with this performance outcome, it is recommended that a Public Transport Impact Assessment be prepared in accordance with Appendix 1 of the State Development Assessment Provisions Supporting Information – Public Passenger Transport, Department of Transport and Main Roads, 2014.	No acceptable outcome is prescribed.	**N/A**	
Airport, hospital, hotel, major sport ,recreation and entertainment facility, residential care facility, shop, shopping centre, showroom, short-term accommodation or tourist attraction			
PO6 On site circulation ensures the safety of public passenger transport, and pedestrians.	**AO6.1** On site pedestrian crossings are located to provide safe sight distances for pedestrians and public passenger transport. **And**	**N/A**	
	AO6.2 On site circulation is designed and constructed so that public passenger transport can enter and leave in a forward gear at all times. **And**	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	AO6.3 Development does not result in public passenger transport movements through car parking aisles.		
PO7 Development provides safe and convenient pedestrian access to existing and future public passenger transport infrastructure.	No acceptable outcome is prescribed.	**N/A**	
PO8 Development provides taxi ranks which meet the anticipated demand of the proposed development and are located to provide convenient, safe and equitable access for patrons.	**AO8.1** A dedicated taxi rank is provided parallel to the kerb and adjacent to the main entrance. **And**	**N/A**	
	AO8.2 Taxi ranks are designed in accordance with: (1) AS2890.5–1993 Parking facilities – on-street parking and AS1428.1–2009 Design for access and mobility – general requirements for access – new building work (2) AS1742.11–1999 Parking controls – manual of uniform traffic control devices (3) AS/NZS 2890.6–2009 Parking facilities – off-street parking for people with disabilities (4) Disability standards for accessible public transport 2002 made under section 31(1) of the Disability Discrimination Act 1992 (5) AS/NZS 1158.3.1 – Lighting for roads and public spaces, Part 3.1: Pedestrian area (category P) lighting – Performance and design requirements.	**N/A**	
Educational establishments			
PO9 Educational establishments accommodate the safe and efficient operation of public passenger transport and provide safe and convenient pedestrian access to public passenger transport.	**AO9.1** Educational establishments are designed in accordance with public passenger transport provisions of the Planning for Safe Transport Infrastructure at Schools, Department of Transport and Main Roads, 2011.	**N/A**	

18.1 Filling, excavation and structures state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 18.1.1: All development

Performance outcomes	Acceptable outcomes	Response	Comment
All development			
~~PO1~~ ~~Buildings, services, structures and utilities do not adversely impact on the safety or operation of:~~ ~~(1) state transport corridors~~ ~~(2) future state transport corridors~~ ~~(3) state transport infrastructure~~ ~~Editor's note: For a railway, Section 2.3 – Structures, setbacks, utilities and maintenance of the Guide for Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.~~	**~~AO1.1~~** ~~Buildings, structures, services and utilities are not located in a railway, future railway land or public passenger transport corridor.~~ **~~And~~**	**N/A**	The proposed waste management facility is located on land approximately 900m from the State controlled road (Landsborough Highway) with vehicle access via Yellowjack Drive (a formed road). The access to the State controlled road (Landsborough Highway) from Yellowjack Drive has been constructed in accordance with DTMR standards and with DTMR approval. Refer to Appendix I. Given the above, Module 18 – 18.1 is not applicable.
	~~AO1.2~~ ~~Buildings and structures are set back horizontally a minimum of three metres from overhead line equipment.~~ **~~And~~**	**N/A**	
	~~AO1.3~~ ~~Construction activities do not encroach into a railway or public passenger transport corridor.~~ **~~And~~**	**N/A**	
	~~AO1.4~~ ~~The lowest part of development in or over a railway or future railway land is to be a minimum of:~~ ~~(1) 7.9 metres above the railway track where the proposed development extends along the railway for a distance of less than 40 metres, or~~ ~~(2) 9.0 metres above the railway track where the development extends along the railway for a distance of between 40 and 80 metres.~~ **~~And~~**	**N/A**	
	~~AO1.5~~ ~~Existing authorised access points and access routes to state transport corridors for maintenance and emergency works are maintained, allowing for uninterrupted access at all times.~~ **~~And~~**	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	AO1.6 Pipe work, services and utilities can be maintained without requiring access to the state transport corridor. **And**	**N/A**	
	AO1.7 Pipe work, services and utilities are not attached to rail transport infrastructure: (1) are not attached to rail transport infrastructure or other rail infrastructure, and (2) do not penetrate through the side of any proposed building element or structure where built to boundary in, over or abutting a railway. **And**	**N/A**	
	AO1.8 Buildings and structures are set back a minimum of three metres from a railway bridge. **And**	**N/A**	
	AO1.9 Development below or abutting a railway bridge is to be clear of permanent structures or any other activity that may impede emergency access or works and maintenance of rail transport infrastructure. Editor's note: Temporary activities below or abutting a railway bridge could include, for example, car parking or outdoor storage.	**N/A**	
	AO1.10 Development above a railway is designed to facilitate ventilation as follows: (1) for development extending above a railway for a distance of less than 80 metres, gaps are provided to ensure natural ventilation, or (2) for development extending above a railway for a distance of more than 80 metres, ventilation shafts are provided. Editor's note: For development extending above a railway for a distance of more than 80 metres, it is recommended that modelling of smoke dispersion should be undertaken by a RPEQ to predict the spread of combustion products and inform the ventilation design. Section 5.1 – Development over a railway of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this acceptable outcome.	**N/A**	
PO2 Development prevents unauthorised access to:	**AO2.1** Fencing is provided along the property boundary with the railway. Editor's note: Where fencing is provided it is to be in accordance	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
(1) state transport corridors, (2) future state transport corridors, (3) state transport infrastructure, by people, vehicles and projectiles. Editor's note: For a railway, Section 2.4 – Preventing unauthorised access of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.	with the railway manager's standards. **And**		
	AO2.2 Accommodation activities with a publicly accessible area located within 10 metres from the boundary of a railway or 20 metres from the centreline of the nearest railway track (whichever is the shorter distance), include throw protection screens for the publicly accessible area as follows: (1) openings of no greater than 25 mm x 25 mm (2) height of 2.4 metres vertically above the highest toe hold if see-through, or 2 metres if non see-through. Editor's note: Expanded metal is considered see-through. **And**	**N/A**	
	AO2.3 Development in or over a railway or future railway land includes throw protection screens. Editor's note: Throw protection screens in a railway or future railway land designed in accordance with the relevant provisions of the Civil Engineering Technical Requirement CIVIL-SR-005 Design of buildings over or near railways, Queensland Rail, 2011, and the Civil Engineering Technical Requirement CIVIL-SR-008 Protection screens, Queensland Rail, 2011, comply with this acceptable outcome. **And**	**N/A**	
		N/A	
	AO2.4 Road barriers are installed along any proposed roads abutting a railway. Editor's note: Road barriers designed in accordance with Queensland Rail Civil Engineering Technical Requirement CIVIL-SR-007 Design and selection criteria for road/rail interface barriers comply with this acceptable outcome. **And**	**N/A**	
	AO2.5 Proposed vehicle manoeuvring areas, driveways, loading areas or carparks abutting a railway include rail interface barriers. Editor's note: A Registered Professional Engineer of Queensland (RPEQ) certified barrier design complies with this acceptable outcome.	**N/A**	
PO3 Buildings and structures in, over or below a railway or future railway land are able to sustain impacts to their structural	**AO3.1** Buildings and structures, including piers or supporting elements, located in, over or below a railway or future railway land are designed and constructed in	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
integrity in the event of an impact from a derailed train.	accordance with AS5100 Bridge design, AS 1170 Structural design actions and Civil Engineering Technical Requirement CIVIL-SR-012 Collision protection of supporting elements adjacent to railways, Queensland Rail, 2011.		
PO4 Buildings and structures in, over, below or within 50 metres of a state-controlled transport tunnel or a future state-controlled transport tunnel have no adverse impact on the structural integrity of the state-controlled transport tunnel. Editor's note: For a railway, Section 2.5 – Tunnels of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.	**AO4.1** Development in, over, below or within 50 metres of a state-controlled transport tunnel or future state-controlled transport tunnel ensures that the tunnel is: (1) not vertically overloaded or affected by the addition or removal of lateral loading (2) not adversely affected as a result of directly or indirectly disturbing groundwater or soil. Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a Registered Professional Engineer of Queensland (RPEQ) certified geotechnical investigation, earthworks drawings and supporting technical details, and structural engineering drawings and supporting technical details be prepared and submitted with the application.	**N/A**	
PO5 Development involving dangerous goods adjacent to a railway or future railway land does not adversely impact on the safety of a railway. Editor's note: Section 2.6 – Dangerous goods and fire safety of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.	**AO5.1** Development involving dangerous goods, other than hazardous chemicals below the threshold quantities listed in table 5.2 of the State Planning Policy guideline: State interest – emissions and hazardous activities, Guidance on development involving hazardous chemicals, Department of State Development, Infrastructure and Planning, 2013, ensures that impacts on a railway from a fire, explosion, spill, gas emission or dangerous goods incident can be appropriately mitigated. Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a risk assessment be undertaken in accordance with Attachment 1: Risk assessment guide of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015.	**N/A**	
PO6 Any part of the development located within 25 metres of a state-controlled road or future state-controlled road minimises the potential to distract drivers and cause a safety hazard.	**AO6.1** Advertising devices proposed to be located within 25 metres of a state-controlled road or future state-controlled road are designed to meet the relevant standards for advertising outside the boundaries of, but visible from, a state-controlled road, outlined within the Roadside advertising guide, Department of Transport and Main Roads, 2013.	**N/A**	
PO7 Filling, excavation and construction does not adversely impact on or compromise the safety or operation of:	**AO7.1** Filling and excavation does not undermine, cause subsidence of, or groundwater seepage onto a state transport corridor or future state transport corridor.	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
(1) state transport corridors, (2) future state transport corridors, (3) state transport infrastructure. Editor's note: For a railway, Section 2.7 – Filling, excavation and ground disturbance of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.	Editor's note: To demonstrate compliance with this acceptable outcome for a state-controlled road, it is recommended that a filling and excavation report assessing the proposed filling and excavation be prepared in accordance with the requirements of the Road planning and design manual, Department of Transport and Main Roads, 2013. Editor's note: To demonstrate compliance with this acceptable outcome for a state transport corridor, excluding a state-controlled road, it is recommended that the following be submitted with the application: (1) a RPEQ certified geotechnical investigation (2) RPEQ certified earthworks drawings and supporting technical details (3) RPEQ certified structural engineering drawings and supporting technical details. Editor's note: If a development involves filling and excavation within a state-controlled road, an approval issued by the Department of Transport and Main Roads under section 33 of the *Transport Infrastructure Act 1994* may be required. **And**		
	AO7.2 Development involving excavation, boring, piling or blasting does not result in vibration impacts during construction or blasting which would compromise the safety and operational integrity of a state transport corridor. Editor's note: To demonstrate compliance with this acceptable outcome it is recommended that an RPEQ certified geotechnical report be prepared and submitted with the application. **And**	**N/A**	
	AO7.3 Development does not store fill, spoil or any other material in a railway.	**N/A**	
PO8 Filling and excavation does not interfere with or impact on existing or future planned services or public utilities on a state-controlled road.	**AO8.1** Any alternative service and public utility alignment must satisfy the standards and design specifications of the service or public utility provider, and any costs of relocation are borne by the developer. Editor's note: An approval issued by the Department of Transport and Main Roads under section 33 of the *Transport Infrastructure Act 1994* may be required.	**N/A**	
PO9 Retaining or reinforced soil structures required to contain fill and excavation:	**AO9.1** Retaining or reinforced soil structures (including footings, rock anchors and soil nails) are not located in a state transport corridor or future state transport corridor.	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
(1) do not encroach on a state transport corridor, (2) are capable of being constructed and maintained without adversely impacting a state transport corridor, (3) do not adversely impact on a state transport corridor through the addition or removal of lateral loads or surcharge loads, (4) are constructed of durable materials which maximise the life of the structure. Editor's note: For a railway, Section 2.7 – Filling, excavation and ground disturbance of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this performance outcome.	**And**		
	AO9.2 Retaining or reinforced soil structures in excess of an overall height of one metre abutting a state transport corridor are to be designed and certified by a structural RPEQ. Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that the following be submitted with the application: (1) a RPEQ certified geotechnical investigation (2) RPEQ certified earthworks drawings and supporting technical details (3) RPEQ certified structural engineering drawings and supporting technical details. **And**	**N/A**	
	AO9.3 Retaining or reinforced soil structures that are set back less than 750 millimetres from a common boundary with a state-controlled road are certified by a structural RPEQ and designed to achieve a low maintenance external finish. **And**	**N/A**	
	AO9.4 Retaining or reinforced soil structures adjacent to a state-controlled road, and in excess of an overall height of two metres, incorporate design treatments (such as terracing or planting) to reduce the overall height impact. **And**	**N/A**	
	AO9.5 Construction materials of all retaining or reinforced soil structures have a design life exceeding 40 years, and comply with the specifications approved by a RPEQ. **And**	**N/A**	
	AO9.6 Temporary structures and batters do not encroach into a railway. **And**	**N/A**	
	AO9.7 Surcharge loading from vehicles or the stockpiling of materials or soil on retaining or reinforced soil structures adjacent to a state transport corridor or future state transport corridor meet the requirements of AS5100.2 Bridge design—Design loads or a minimum of 10 kPa (whichever is greater).	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	And		
	AO9.8 Excavation or any other works do not remove the lateral load of retaining structures associated with, or adjacent to, a state transport corridor. Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a RPEQ certified geotechnical and structural assessment be prepared and submitted with the application.	**N/A**	
PO10 Filling and excavation does not cause siltation and erosion run-off from the property, or wind blown dust nuisance onto a state-controlled road.	**AO10.1** Compaction of fill is carried out in accordance with the requirements of AS 1289.0 2000 – Methods of testing soils for engineering purposes.	**N/A**	
PO11 Where the quantity of fill or excavated spoil material being imported or exported for a development exceeds 10 000 tonnes, and haulage will be on a state-controlled road, any impact on the infrastructure is identified and mitigation measures implemented.	**AO11.1** The impacts on the state-controlled road network are identified, and measures are implemented to avoid, reduce or compensate the effects on the asset life of the state-controlled road. Editor's note: It is recommended that a pavement impact assessment report be prepared to address this acceptable outcome. Guidance for preparing a pavement impact assessment is set out in Guidelines for assessment of road impacts of development (GARID), Department of Main Roads, 2006.	**N/A**	
PO12 Filling and excavation associated with providing a driveway crossover to a state-controlled road does not compromise the operation or capacity of existing drainage infrastructure.	**AO12.1** Filling and excavation associated with the design of driveway crossovers complies with the relevant Institute of Public Works Engineering Australia Queensland (IPWEAQ) standards. Editor's note: The construction of any crossover requires the applicant to obtain a permit to work in the state-controlled road corridor under section 33 of the *Transport Infrastructure Act 1994* and a section 62 approval under the *Transport Infrastructure Act 1994* for the siting of the access and associated works.	**N/A**	
PO13 Fill material does not cause contamination from the development site onto a state-controlled road.	**AO13.1** Fill material is free of contaminants including acid sulphate content, and achieves compliance with AS 1289.0 – Methods of testing soils for engineering purposes and AS 4133.0-2005 – Methods of testing rocks for engineering purposes.	**N/A**	
PO14 Vibration generated through fill compaction does not result in damage or nuisance to a state-controlled road.	**AO14.1** Fill compaction does not result in any vibrations beyond the site boundary, and is in accordance with AS 2436–2010 – Guide to noise and vibration control on construction, demolition and maintenance sites.	**N/A**	

18.2 Stormwater and drainage impacts on state transport infrastructure state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 18.2.1: All development

Performance outcomes	Acceptable outcomes	Response	Comment
Stormwater and drainage management			
~~**PO1** Stormwater management for the development must ensure there is no worsening of, and no actionable nuisance in relation to peak discharges, flood levels, frequency or duration of flooding, flow velocities, water quality, ponding, sedimentation and scour effects on an existing or future state transport corridor for all flood and stormwater events that exist prior to development, and up to a 1 per cent annual exceedance probability.~~	~~**AO1.1** The development does not result in stormwater or drainage impacts or actionable nuisance within an existing or future state transport corridor.~~ ~~Editor's note: It is recommended that basic stormwater information is to be prepared to demonstrate compliance with AO1.1.~~ ~~**Or**~~	**N/A**	The proposed waste management facility is located on land approximately 900m from the State controlled road (Landsborough Highway) with vehicle access via Yellowjack Drive (a formed road). The access to the State controlled road (Landsborough Highway) from Yellowjack Drive has been constructed in accordance with DTMR standards and with DTMR approval. Refer to Appendix I. Given the above, Module 18 – 18.2 is not applicable.
	~~**AO1.2** A stormwater management statement certified by an RPEQ demonstrates that the development will achieve a no worsening impact or actionable nuisance on an existing or future state transport corridor.~~ ~~**Or**~~	**N/A**	
	~~**AO1.3** A stormwater management plan certified by an RPEQ demonstrates that the development will achieve a no worsening impact or actionable nuisance on an existing future state transport corridor.~~ ~~**Or**~~	**N/A**	
	~~**AO1.4** For development on premises within 25 metres of a railway, a stormwater management plan certified by an RPEQ demonstrates that:~~ ~~(1) the development will achieve a no worsening impact or actionable nuisance on the railway~~ ~~(2) the development does not cause stormwater, roofwater, ponding, floodwater or any other drainage to be directed to, increased or concentrated on the railway~~ ~~(3) the development does not impede any drainage, stormwater or floodwater flows from the railway~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	(4) stormwater or floodwater flows have been designed to: (a) maintain the structural integrity of the light rail transport infrastructure (b) avoid scour or deposition (5) additional railway formation drainage necessitated by the development is located within the premises where the development is carried out (6) retaining structures for excavations abutting the railway corridor provide for drainage.		
Lawful point of discharge			
PO2 Stormwater run-off and drainage are directed to a lawful point of discharge to avoid adverse impacts on a future or existing state transport corridor.	**AO2.1** Where stormwater run-off is discharged to a state transport corridor, the discharge is to a lawful point of discharge in accordance with section 3.4 of Queensland urban drainage manual, Department of Energy and Water Supply, 2013. **Or**	**N/A**	
	AO2.2 For development on premises within 25 metres of a railway, approval from the relevant railway manager for the railway, as defined in the *Transport Infrastructure Act 1994*, schedule 6 has been gained to verify the lawful point of discharge for stormwater onto the railway. **And**	**N/A**	
	AO2.3 Development does not cause a net increase in or concentration of stormwater or floodwater flows discharging onto the state transport corridor during construction or thereafter. **And**	**N/A**	
	AO2.4 Development does not create any additional points of discharge or changes to the condition of an existing lawful point of discharge to the state transport corridor.	**N/A**	
Sediment and erosion management			
PO3 Run-off from upstream development is managed to ensure that sedimentation and erosion do not cause siltation of stormwater infrastructure in the state transport corridor.	**AO3.1** Development with a high risk of erosion incorporates erosion and sediment control measures. Editor's note: For a state-controlled road where a development has a high risk of erosion, an erosion and sedimentation control plan should be provided to support a stormwater management statement or stormwater management plan. Section 1 of the	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	~~*Stormwater guideline for environmentally relevant activities*, Department of Environment and Heritage Protection, 2014, defines development considered to have a high risk of erosion.~~		

19.1 Access to state-controlled roads state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 19.1.1: All development

Performance outcomes	Acceptable outcomes	Response	Comment
Location of the direct vehicular access to the state-controlled road			
~~**PO1** Any road access location to the state-controlled road from adjacent land does not compromise the safety and efficiency of the state-controlled road.~~	~~**AO1.1** Any road access location to the state-controlled road complies with a decision under section 62 of the TIA.~~ ~~**Or**~~	**N/A**	The proposed waste management facility is located on land approximately 900m from the State controlled road (Landsborough Highway) with vehicle access via Yellowjack Drive (a formed road). The access to the State controlled road (Landsborough Highway) from Yellowjack Drive has been constructed in accordance with DTMR standards and with DTMR approval. Refer to Appendix I. Given the above, Module 19 – 19.1 is not applicable.
	~~**AO1.2** Development does not propose a new or temporary road access location, or a change to the use or operation of an existing permitted road access location to a state-controlled road.~~ ~~**Or**~~	**N/A**	
	~~**AO1.3** Any proposed road access location for the development is provided from a lower order road where an alternative to the state-controlled road exists.~~ ~~Or all of the following acceptable outcomes apply~~	**N/A**	
	~~**AO1.4** Any new or temporary road access location, or a change to the use or operation of an existing permitted road access location, demonstrates that the development:~~ ~~(1) does not exceed the acceptable level of service of a state-controlled road~~ ~~(2) meets the sight distance requirements outlined in Volume 3, parts 3, 4, 4A, 4B and 4C of the Road planning and design manual, 2nd edition, Department of Transport and Main Roads, 2013~~ ~~(3) does not exceed the acceptable operation of an intersection with a state-controlled road, including the~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	~~degree of saturation, delay, queuing lengths and intersection layout~~ ~~(4) is not located within and/or adjacent to an existing or planned intersection in accordance with Volume 3, parts 4, 4A, 4B and 4C of the Road planning and design manual, 2nd edition, Department of Transport and Main Roads, 2013~~ ~~(5) does not conflict with another property's road access location and operation.~~ ~~Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended a traffic impact assessment be developed in accordance with Chapters 1, 4, 6, 7, 8 and 9 of the Guidelines for assessment of road impacts of development (GARID), Department of Main Roads, 2006, and the requirements of Volume 3, parts 4, 4A, 4B and 4C of the Road planning and design manual, 2nd edition, Department of Transport and Main Roads, 2013, SIDRA analysis or traffic modelling.~~ ~~**And**~~		
	AO1.5 Development does not propose a new road access location to a limited access road. Editor's note: Limited access roads are declared by the chief executive under section 54 of the TIA. Details can be accessed by contacting the appropriate DTMR regional office.	**N/A**	
Number of road accesses to the state-controlled road			
~~**PO2** The number of road accesses to the state-controlled road maintains the safety and efficiency of the state-controlled road.~~	~~**AO2.1** Development does not increase the number of **And** accesses to the state-controlled road.~~ ~~AND~~	**N/A**	
	~~**AO2.2** Where multiple road accesses to the premises exist, access is rationalised to reduce the overall number of road accesses to the state-controlled road.~~ ~~**And**~~	**N/A**	
	~~**AO2.3** Shared or combined road accesses are provided for adjoining land having similar uses to rationalise the overall number of direct accesses to the state-controlled road.~~ ~~Editor's note: Shared road accesses may require easements to provide a legal point of access for adjacent lots. If this is required, then the applicant must register reciprocal access easements on the titles of any lots for the shared access.~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
Design vehicle and traffic volume			
PO3 The design of any road access maintains the safety and efficiency of the state-controlled road.	**AO3.1** Any road access meets the minimum standards associated with the design vehicle. Editor's note: The design vehicle to be considered is the same as the design vehicle set under the relevant local government planning scheme. **And**	N/A	
	AO3.2 Any road access is designed to accommodate the forecast volume of vehicle movements in the peak periods of operation or conducting the proposed use of the premises. **And**	N/A	
	AO3.3 Any road access is designed to accommodate 10 year traffic growth past completion of the final stage of development in accordance with GARID. **And**	N/A	
	AO3.4 Any road access in an urban location is designed in accordance with the relevant local government standards or IPWEAQ R-050, R-051, R-052 and R-053 drawings. **And**	N/A	
	AO3.5 Any road access not in an urban location is designed in accordance with Volume 3, parts 3, 4 and 4A of the Road planning and design manual, 2nd edition, Department of Transport and Main Roads, 2013.	N/A	
Internal and external manoeuvring associated with direct vehicular access to the state-controlled road			
PO4 Turning movements for vehicles entering and exiting the premises via the road access maintain the safety and efficiency of the state-controlled road.	**AO4.1** The road access provides for left in and left out turning movements only. **And**	N/A	
	AO4.2 Internal manoeuvring areas on the premises are designed so the design vehicle can enter and leave the premises in a forward gear at all times. Editor's note: The design vehicle to be considered is the same as the design vehicle set under the relevant local government planning scheme.	N/A	
PO5 On-site circulation is suitably	**AO5.1** Provision of on-site vehicular manoeuvring space		

Performance outcomes	Acceptable outcomes	Response	Comment
designed to accommodate the design vehicle associated with the proposed land use, in order to ensure that there is no impact on the safety and efficiency of the state-controlled road.	is provided to ensure the flow of traffic on the state-controlled road is not compromised by an overflow of traffic queuing to access the site in accordance with AS2890 – Parking facilities. **And**		
	AO5.2 Mitigation measures are provided to ensure that the flow of traffic on the state-controlled road is not disturbed by traffic queuing to access the site.	**N/A**	
Vehicular access to local roads within 100 metres of an intersection with a state-controlled road			
PO6 Development having road access to a local road within 100 metres of an intersection with a state-controlled road maintains the safety and efficiency of the state-controlled road.	**AO6.1** The road access location to the local road is located as far as possible from where the road intersects with the state-controlled road and accommodates existing operations and planned upgrades to the intersection or state-controlled road. **And**	**N/A**	
	AO6.2 The road access to the local road network is in accordance with Volume 3, parts 3, 4 and 4A of the Road planning and design manual, 2nd edition, Department of Transport and Main Roads, 2013, and is based on the volume of traffic and speed design of both the local road and intersecting state-controlled road for a period of 10 years past completion of the final stage of development. **And**	**N/A**	
	AO6.3 Vehicular access to the local road and internal vehicle circulation is designed to remove or minimise the potential for vehicles entering the site to queue in the intersection with the state-controlled road or along the state-controlled road itself.	**N/A**	

19.2 Transport infrastructure and network design state code

Response column key:
☑ Achieved
P/S Performance solution
N/A Not applicable

Table 19.2.1: All development

Performance outcomes	Acceptable outcomes	Response	Comment
All state transport infrastructure – except state-controlled roads			
~~**PO1** Development does not compromise the safe and efficient management or operation of state transport infrastructure or transport networks.~~ ~~Editor's note: To demonstrate compliance with this performance outcome, it is recommended that a traffic impact assessment be prepared. A traffic impact assessment should identify any upgrade works required to mitigate impacts on the safety and operational integrity of the state transport corridor.~~	~~No acceptable outcome is prescribed.~~	**N/A**	The proposed waste management facility is located on land approximately 900m from the State controlled road (Landsborough Highway) with vehicle access via Yellowjack Drive (a formed road). The access to the State controlled road (Landsborough Highway) from Yellowjack Drive has been constructed in accordance with DTMR standards and with DTMR approval. Refer to Appendix I. Given the above, Module 19 – 19.2 is not applicable.
~~**PO2** Development does not compromise planned upgrades to state transport infrastructure or the development of future state transport infrastructure in future state transport corridors.~~ ~~Editor's note: Written advice from DTMR advising that there are no planned upgrades of state transport infrastructure or future state transport corridors that will be compromised by the development will assist in addressing this performance outcome.~~	~~**AO2.1** The layout and design of the proposed development accommodates planned upgrades to state transport infrastructure.~~ ~~**And**~~	**N/A**	
	~~**AO2.2** The layout and design of the development accommodates the delivery of state transport infrastructure in future state transport corridors.~~ ~~Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a traffic impact assessment be prepared.~~	**N/A**	
~~**PO3** Development does not adversely impact on the safety of a railway crossing.~~	~~**AO3.1** Development does not require a new railway crossing.~~ ~~**Or**~~	**N/A**	
	~~**AO3.2** A new railway crossing is grade separated.~~ ~~**Or**~~	**N/A**	
	~~**AO3.3** Impacts to level crossing safety are mitigated.~~ ~~Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a traffic impact assessment be prepared. An impact on a level crossing may require an Australian Level Crossing Assessment Model (ALCAM)~~	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
	assessment to be undertaken. Section 2.2 – Railway crossing safety of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this acceptable outcome. **And**		
	AO3.4 Upgrades to a level crossing are designed and constructed in accordance with AS1742.7 – Manual of uniform traffic control devices, Part 7: Railway crossings and applicable rail manager standard drawings. **And**	**N/A**	
	AO3.5 Access points achieve sufficient clearance from a level crossing in accordance with AS1742.7 – Manual of uniform traffic control devices, Part 7: Railway crossings by providing a minimum clearance of 5 metres from the edge running rail (outer rail) plus the length of the largest vehicle anticipated on-site. **And**	**N/A**	
	AO3.6 On-site vehicle circulation is designed to give priority to entering vehicles at all times.	**N/A**	
State-controlled roads			
PO4 Development does not compromise the safe and efficient management or operation of state-controlled roads. Editor's note: A traffic impact assessment will assist in addressing this performance outcome.	No acceptable outcome is prescribed.	**N/A**	
PO5 Development does not compromise planned upgrades of the state-controlled road network or delivery of future state-controlled roads. Editor's note: Written advice from DTMR that there are no planned upgrades of state-controlled roads or future state-controlled roads which will be compromised by the development will assist in addressing this performance outcome.	**AO5.1** The layout and design of the development accommodates planned upgrades of the state-controlled road. **And**	**N/A**	
	AO5.2 The layout and design of the development accommodates the delivery of future state-controlled roads. Editor's note: To demonstrate compliance with this acceptable outcome, it is recommended that a traffic impact assessment be prepared.	**N/A**	
PO6 Upgrade works on, or associated with, the state-controlled road network	**AO6.1** Upgrade works for the development are consistent with the requirements of the Road planning and design	**N/A**	

Performance outcomes	Acceptable outcomes	Response	Comment
~~are undertaken in accordance with applicable standards.~~	~~manual, 2nd edition, Department of Transport and Main Roads, 2013.~~ ~~**And**~~		
	~~**AO6.2** The design and staging of upgrade works on or associated with the state-controlled road network are consistent with planned upgrades.~~	**N/A**	
~~**PO7** Development does not impose traffic loadings on the state-controlled road network which could be accommodated on the local road network.~~	~~**AO7.1** New lower order roads do not connect directly to a state-controlled road.~~ ~~**And**~~	**N/A**	
	~~**AO7.2** The layout and design of the development directs traffic generated by the development to use lower order roads.~~	**N/A**	

BARCALDINE REGIONAL COUNCIL

DIGITALLY STAMPED
APPROVED DOCUMENT

Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility

referred to in and subject to the conditions in Council's Decision Notice

Approval Date: 13 November 2017
Application Number: DA421617

Appendix I

Letter from:

Department of Transport and Main Roads - "*Section 33 Assessment and Approval of Road Access Works*"

/05 140010

Queensland Government

Our ref P22764 500/18 GJA
Your ref
Enquiries Eric Denham

Department of
Transport and Main Roads

GEORGE BOURNE & ASSOCIATES
Recvd 5.9.14
File
For Attn SYB
Sighted
Ansd Life

4 September 2014

Mr Simon Bourne
George Bourne & Associates
PO Box 169
Barcaldine, QLD 4725

Dear Simon

Section 33 Assessment and Approval of Road Access Works for New Barcaldine Regional Council Refuse Tip, Landsborough Highway

I refer to your letter of 28 August 2014 making application for approval to construct a road access at chainage 102.2km on the Landsborough Highway (Blackall – Barcaldine) to service the new Barcaldine Regional Council Refuse Tip.

Pursuant to section 33 of the *Transport Infrastructure Act 1994* the Department of Transport and Main Roads (the department) has assessed your application, including the following plan/s:

- Drawing No. 2014-038/01A Titled Town of Barcaldine Access Road To New Dump Area Plan dated 29/08/2014
- Drawing No. 2014-038/02A Titled Town of Barcaldine Access Road mc01 Longitudinal Section dated 29/08/2014

I am writing to advise you that your application has been approved subject to:

1. The road access works must be constructed in accordance with the lines and dimensions shown on the above mentioned plans as a minimum.

Program Delivery And Operations
Central Queensland
Ground Floor Barcaldine Office
69 Ash Street Barcaldine Queensland 4725
PO Box 3 Barcaldine Queensland 4725

Telephone +61 7 4651 2722
Facsimile +61 7 4651 2772
Website www.tmr.qld.gov.au
Email eric.m.denham@tmr.qld.gov.au
ABN 39 407 690 291

Construction of Vehicular Property Access – Conditions

Road Access construction standard:

1. Your constructor shall be covered by a Public Liability Insurance Policy for the amount not less than $10,000,000. The proof of such insurance shall be submitted to this office prior to commencement of construction

2. Carrying out of road access works in the SCR reserve must not be undertaken outside of normal working hours. For the purpose of these conditions, normal working hours are considered to be between 7am and 5pm, Monday to Friday.

3. The applicant is required to rectify at no cost to the department or bear the cost of repairing any damage to the existing road infrastructure caused by the construction work or any breach of workplace Health and Safety requirements.

Construction Period

The road access works required to satisfy these conditions must be substantially completed prior to the commencement of use of the site, otherwise this approval will lapse. A new application for access construction shall be required if this approval lapses.

Important Information for Applicants:
If any variations from the approved works are required, further written approval from the department must first be obtained.

If you have any questions regarding this request please contact Gerard Arthur on (07) 46512722 will be pleased to assist.

Yours sincerely

Eric Denham
District Director (Central West)

BARCALDINE REGIONAL COUNCIL

DIGITALLY STAMPED
APPROVED DOCUMENT

Development Permit – Material Change of Use for:
"Community Oriented Activity" – "Public Utility"
– Waste Management Facility

referred to in and subject to the conditions in Council's Decision Notice

Approval Date: 13 November 2017

Application Number: DA421617

Appendix J

Report:
"Landfill Environmental Management Plan"

71 Ash Street (PO Box 191)

BARCALDINE QLD 4725

Barcaldine Regional Council

Yellow Jack Drive Waste Disposal Facility

Landfill Environmental Management Plan

AUGUST 2017

GBA CONSULTING ENGINEERS

Version History

Date	Name	Position	**Action required** *(Review/Endorse/Approve)*
25/01/2017	William Green	Environmental Engineer	Review
25/01/2017	William Green	Environmental Engineer	Issue
13/04/2017	William Green	Environmental Engineer	Amendment
16/08/2017	William Green	Environmental Engineer	Amendment
22/08/2017	William Green	Environmental Engineer	Approve

Prepared by William Green
Title Environmental Engineer, George Bourne & Associates, Barcaldine QLD
Location 67 Elm Street, Barcaldine, QLD 4725
Version date 22 August 2017
Status Landfill Environmental Management Plan
File/Doc No. 140010

Contact for enquiries and proposed changes

If you have any questions regarding this document or if you have a suggestion for improvements, please contact:

Project Manager William Green

Phone 07 4651 5177

TABLE OF CONTENTS

Objectives of This LEMP

This document records the techniques that shall be employed to ensure that any short or long term environmental impacts relevant to the operation are managed responsibly, minimised or removed, and that techniques are compatible with:

- The Department of Environment and Heritage Protection (DEHP) guidelines as set out in the Guideline-Landfill siting, design, operation and rehabilitation (Version 2).
- Model operating conditions: ERA 60-Waste disposal.

Scope & Format of This Document

This LEMP contains:

1. A description of environmental management practices to conform with Barcaldine Regional Councils (BRC) General Environmental Duty, and avoidance to cause environmental harm under the Environmental Protection Act.
2. Descriptions of relevant daily operational procedures necessary for ongoing compliance with ERA 60 Model operating conditions: ERA 60-Waste disposal & EHP guideline - Landfill siting, design, operation and rehabilitation (Version 2).
3. This document may be subject to change on receipt of an Environmental Authority (EA) Administered by DEHP. Conditions set out in the EA will be integrated into this document to ensure these conditions are adhered to in the management of the facility.

The format of this LEMP is that of a loose-leaf style document, recognising a long-term operational life and the expectation of changing environmental standards and improving management practices. The individual sections will allow for easy ongoing updates and/or amendments to be inserted.

SECTION 1 - SUPPORTING ORGANISATION

1.1 Landfill Site and Layout

The Waste Management Facility (WMF) is located on 20 ha owned by the BRC for immediate and long-term use. The first stage of development will utilise a portion of this allotment for the operation of all waste management activities. The facility will include the following activities operating in designated areas:

- Waste transfer station
- General waste landfill cell
- Regulated waste mono cell
- Tyre storage area.

For a designed layout plan refer to Appendix A Site Layout Plan Drawing No. 1.

The location of the BRC WMF is detailed below in **Fig 1.1** – Site Location Map.

1.2 Site Access & Signage

Access to the facility is via Yellowjack Drive only. General public access is not permitted past the waste transfer station; public access is not permitted to the landfill cell.

Signage at the entrance to the site or within the transfer station shall display the following:

- Name of the facility
- Landfill Operator & contact details (including Emergency contacts)
- List of materials accepted at the site and the location for them to be deposited
- Non permitted wastes
- A warning sign indicating that unlawful disposal and unauthorized scavenging is prohibited
- A warning sign indicating that open burning is not permitted.

1.3 Site Location Map

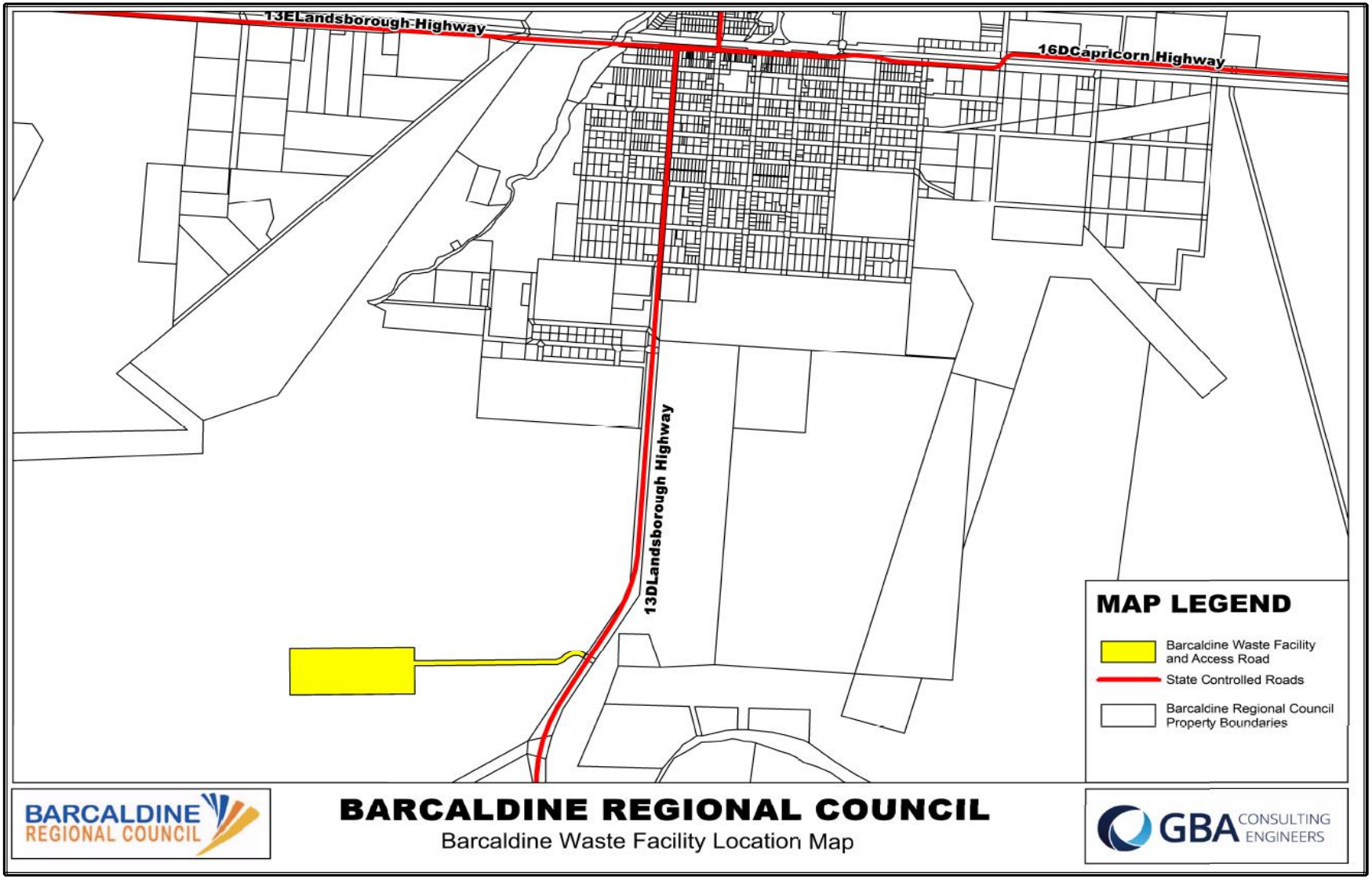


Figure 1.1 Location Map BRC Waste Management Facility

1.4 Contact Details

Management Objective:
Ensure the operator of the facility is contactable in case of emergency by the public or DEHP compliance staff.

Procedure:
The operator shall have a contact line to enable the public to directly contact one or more representatives of the operator.

Barcaldine Regional Council – Barcaldine Administration Office
Phone: 07 4651 5600

The operator shall:

i. Ensure that there is always a representative of the council available who can provide the informant any information or documentation required under the EA.
ii. Notify the DEHP of the complaints and contact phone line numbers.
iii. Inform DEHP of changes to the representatives named or the phone numbers, by writing within 14 days.

1.5 Hours of Operation

1.5.1 Standard Hours

Council waste collection received to the facility will be between 8am to 4pm Monday to Friday. Public access to the transfer station will be authorised between 6am and 6pm Monday to Sunday.

1.6 Permitted Activities

This landfill is classified as a Solid Waste Landfill. Only the following types of waste can be disposed of at the premises

Table 1.3

Activity	Description of Activity
ERA 60 1(a)	Waste Disposal Operating a facility for disposing of more than 50,000 tonnes a year of: regulated waste combined with general waste, limited regulated waste and/or no more than 5 tonnes of clinical waste in a scheduled area.

1.6.1 Waste Types and Quantities

General Waste
The majority of waste received at the facility will be general household waste produced by the community of Barcaldine. ERA 60 1(a) allows for the disposal of up to 50,000 tonnes of total waste per year. Waste received at the waste facility will be well under the total allowable quantity of ERA60 1(a). Calculated volumes of general waste production for the Barcaldine community including Council waste collection, contractor skip bins and waste received by the public equate to approximately 115m^3/ week of compacted general waste.

Garden Waste
The township of Barcaldine has a regular supply of high quality artesian water, unlike many outback communities gardens can be sustained through dry times. As such there is a considerable volume of garden waste generated on a continual basis. It is estimated that approximately 20m^3/week of garden waste will be received at the facility.

Regulated Waste
Regulate waste will be permitted to the facility. Types of regulated waste permitted to be received at the facility include:

i. Asbestos
ii. Tyres
iii. Septic Waste.

Asbestos waste received to the facility will be generated from the demolition or renovation of buildings from the local area. Volumes of asbestos generated are generally low and would be anticipated to be in the order of 5-10 tonne per year.

The disposal of tyres at the waste disposal facility may be warranted as recycling or reuse measures have not been identified at this stage to provide alternate uses for the volumes of tyres generated. The management of tyres onsite is discussed further below in Section 2.3.

Relatively low volumes of septic waste is generated within the community; the source of septic waste is from rural or semi-rural residences outside of the residential sewerage network relying on septic tanks for the treatment of effluent. Cleaning and maintenance of these systems generates approximately 40,000 litres per year of septic waste. The management of septic waste at the facility is discussed further below in Section 2.3.

1.6.2 Access to the Facility

Waste can only be sourced from local government areas. These are the rate paying districts of the Barcaldine Regional Council including the towns of:

- Barcaldine
- Aramac
- Jericho
- Alpha
- Muttaburra

Access to the Landfill facility is limited to:

- Council waste management vehicles
- Contractors nominated by the BRC delivering waste on their behalf
- Authorised private waste management haulage contractors whose waste is sourced within the local Council area.

Access by members of the general public is not permitted beyond the waste transfer station.

1.7 Community Engagement

Management Objective:
To provide the opportunity for the local community to liaise with the Council to address concerns regarding the waste facility.

Procedure:
Council will advertise a community engagement forum prior to the finalization of the facility's approval. A notice will be sent out to the community 2 weeks prior to the meeting occurring.

Discussion at the meetings must:

- Include implementation of the development consent and other statutory approvals.
- Provide adequate time for the community to raise matters of concern associated with the environmental impact of the development, with a view to achieving mutually satisfactory solutions.

1.8 Complaints Protocol

1.8.1 Community Complaints Contact Telephone Number

Management Objective:

i. To establish and maintain a community information and complaints telephone contact number to receive complaints from the public.
ii. To inform the community of the details and purpose of the landfill information and complaints telephone number.

Procedure:
The Landfill community information and complaints telephone number is:

Barcaldine Regional Council Administration Office: 07 4651 5600.

i. This number is available during operating hours to receive any complaints from members of the public in relation to activities conducted at the premises.
ii. The public are to be informed of the complaints number and its purpose. This shall be carried out within 3 months of the date of the issue of the Environmental Authority.
iii. Notices shall be placed in the local community newspaper, and representative community groups will be notified by Council.

1.8.2 Complaints Register

Management Objective:
To record and consider all complaints in relation to the operation of the Barcaldine Waste Management Facility.

Procedure:
A legible complaints register (refer to Appendix C) of all complaints made to the operator or its employees or agents in relation to any pollution arising from any activity at the facility must be kept for at least 5 years after the complaint was made.

The record must include:

i. Date/time of complaint
ii. Specific nature of complaint
iii. How the complaint was made
iv. Personal details of complainant
v. Action taken in response to complaint.

The operator shall:

i. When a complaint is received, enter all details in councils complaint register.
ii. Make the complaints record available to any authorised officer of the DEHP and the occupiers of the neighbouring properties.
iii. Ensure that complaints will not be removed from the record until at least 5 years after the complaint was received.

1.9 Financial Assurance

Financial Assurance for closure (either emergency or end of life) and the future rehabilitation of the landfill has been accepted as the responsibility of Barcaldine Regional Council.

Barcaldine Regional Council will be responsible for the 'end of life' rehabilitation and post closure management of the site over the post closure management period determined by in the conditions set out in the Environmental Authority.

SECTION 2 - WASTE HANDLING PROCEDURES

2.1 Receiving Waste

2.1.1 Control of Incoming Waste

The maximum quantity of permitted waste that can be received in a calendar year is 50,000 tonnes. All waste shall enter the facility via Yellowjack Drive. Public access will not be authorised to access the landfill cell, members of the public will be required to dispose of waste at the waste transfer station.

2.1.2 Non Approved Waste

Management Objective:

To prevent the landfilling of waste that is not permitted to be landfilled.

Procedure:

Waste that is identified during the initial screening as not being approved for disposal at this facility shall not be accepted. The non-permitted waste shall be transported offsite by a licensed transporter and disposed of at a licensed facility.

2.1.3 Transfer Station

The Transfer Station is a purpose built site designed to accommodate for public offloading of waste which is not included in council's weekly domestic pickup. The sites primary objective is to segregate waste and identify recyclable materials and avoid unnecessary disposal to landfill.

Management Objective:

All vehicles arriving at the facility shall only discharge within the waste transfer station unless they are Council authorised vehicles approved for tipping at the landfill face.

Procedure:

A Transfer Station supervisor will attend site weekly and perform the following tasks when on site:

i. Screen the waste for non-permitted wastes;
ii. Inspect the waste for potentially dangerous, hazardous or combustible materials e.g. LPG cylinders;
iii. Recover recyclables;
iv. Load general waste skip bins onto truck;
v. Cover loaded general waste skip bins; and
vi. Drive transfer truck to tipping face and unload skip bins.

2.1.3.1 Screening

Management Objective:

To screen deliveries of waste to ensure only permitted wastes are landfilled.

Procedure:

The operator must:

i. Inspect carefully that waste is approved.
ii. Identify 'rejected' waste partition accordingly and arrange transport from the premises (Via a waste transporter licensed by the DEHP).
iii. Waste identified as 'rejected' is separated and securely stored away in a designated storage and transported to a licensed facility.
iv. Record the non-permitted waste incident in incident register (refer to Appendix B) and report to the DEHP.

v. Inform waste provider that 'non-permitted' waste was delivered and conduct an investigation into the cause of the incident, to prevent future breaches.

A sign displaying permitted wastes is to be displayed in the waste transfer station for immediate reference.

2.1.3.2 Recycling

Management Objective:

To divert materials (where practical) that can be recycled from the incoming waste stream.

Procedure:

Where specific incoming waste materials are considered to be of economic value as a recycled product, they will be separated from the waste stream at the transfer station. Recyclable products received at the transfer station include:

i. Scrap steel
ii. Electrical goods
iii. Construction waste such as timber and bricks
iv. Lead acid batteries
v. Mulched green waste.

Purpose built storage areas to store no more than 50 tonnes of each type of recyclable materials shall be provided within the transfer station compound at any one time.

2.2 Landfilling General Waste

Waste can only be disposed of within the land fill cells as described below

2.2.1 Cell Design

Management Objective:

To place and compact waste within the active tipping face achieving optimal compaction.

Discussion

The landfill cell will be constructed by excavating an area 70m long by 35m wide and 7m deep with battered sides. This has been deemed to be an optimal size, minimising the amount of leachate generated whilst allowing for several years of active landfill to be processed.

A double liner system will be implemented in the landfill cell, the design of the liner system is discussed in more detail in section 3.3. The systems main components include a 600mm low permeability clay liner, a Geosynthecic Clay Liner and a 300mm drainage layer. The drainage layer will consist of porous gravel material to allow leachate material to drain along the base of the cell to the leachate sump. The drainage layer may also be overlaid with tyres, laid down horizontally and filled in with unsalvageable construction waste such as concrete and bricks, to further aid the drainage of leachate material and make use of the unusable waste.

Once the cell has reached capacity the cell will be extended in a forward motion that will avoid the need to construct an entirely new cell and will maximize the use of space within the site. Refer to design drawings site layout plan (Appendix A) for details on the stage 1 cell dimensions and planned extension of the cells.

The landfill void will be initially filled along the base with the active tipping face to be restricted to approximately 10m. The tipping face will start at the Southern end working forwards, as waste is added to the void the filling pattern will be replicated resulting in the layering of material as the void is filled.

2.2.2 Compaction

Management Objective:

To compact waste optimising landfill life and achieve maximum practical density.

Procedure:

The operator will:

i. Ensure uniform thickness of compacted layers.
ii. Keep the work area to a reasonable minimum (approximately 10m wide tipping face) that allows for successful compaction in a limited area.
iii. Tip the waste at the tipping face.
iv. Use the compacting machinery to spread and compact the waste to an approximate depth of 1m.

2.2.3 Cover

The materials to be used as cover are available on site, comprising the surplus material extracted from the excavation of the landfill cell. The Operator will maintain a stockpile of at least 2 weeks' worth of cover material adjacent to the active landfill area.

Management Objective:

i. To cover compacted waste to limit run-on and infiltration of water, controlling and minimising the risk of fire, minimising the emission of landfill gas and windblown litter, suppressing odour, reducing fly propagation and rodent attraction.
ii. To maintain at least 4 weeks supply of cover material at the premises under all weather conditions.

Procedure:

The operator will:

i. Maintain a stockpile of cover material in the landfill near the tipping face sufficient for 2 weeks, the required volume will depend on the weekly tonnages received.
ii. Ensure placement of a minimum depth of 150 mm of cover material at the conclusion of each week. In areas where waste will remain undisturbed for more than 90days, minimum cover must be 300 mm.

2.3 Management of Regulated Waste

Accepted Regulated Waste can only be disposed of within the designated areas of the waste management facility and must be supervised by the Site Manager or Site Supervisor.

2.3.1 Acceptance and Handling of Regulated Waste

Accepted regulated waste to the facility includes:

- Asbestos
- Tyres
- Septic Waste.

Management Objective:

i. Prevent the unauthorized/unlicensed disposal and or transportation of regulated waste.
ii. Ensure regulated waste is disposed of correctly to avoid the risk of contamination to the surrounding environment or risks to public health.

Procedure:

The procedures relating to the acceptance and handling of the regulated waste types listed above

are detailed below:

i. The site manager must be notified by the person requiring disposal of the regulated waste to allow access into the facility.
ii. Regulated waste is to be disposed of in the designated locations. (Refer to Appendix A Site Layout Plan).
iii. Asbestos is to be disposed of in the fenced off regulated waste facility.
iv. Tyres are to be used to line the cell base to aid leachate drainage along the cell base. Excess tyres are to be stored in a designated location in a controlled manner, if storage capacity is exceeded and alternate uses are not identified tyres may be buried on site in the designated regulated waste landfill facility.
v. On the notification of asbestos coming onto site, the site manager is to arrange for access to be granted and the asbestos disposed of in a pre-dug hole. Immediately after the asbestos has been disposed of the asbestos is to be covered with a minimum 1m of soil.
vi. Tyres are to be stacked horizontally in groups of four individual tyre stacks with a minimum separation of 2.5m at the base between each stack, individual stacks must not exceed 3.7m height and a 60m^2 area. A minimum clear separation of 18m must be maintained between each stack pile of four stacks.
vii. If the amount of tyres stored within the facility exceeds 50 tonnes (approximately 4 stacks) and an alternative use for the tyres cannot be identifies Council may wish to chip and burry the tyres
viii. Septic waste is to be disposed of in the leachate evaporation pond.
ix. Septic waste released into the leachate evaporation pond is to be allowed to dry out. If a build-up of solid residual material occurs it can be collected and disposed of to the general waste cell.

2.3.2 Cell Design Asbestos and Tyre Disposal

Management Objective:

To manage accepted regulated waste avoiding harm to the surrounding environment and public health risk.

Discussion

An area within the waste management facility has been dedicated to the landfilling of regulated waste in the form of asbestos and tyres.

The disposal of asbestos will occur on an intermittent basis. The construction of landfill cells for the burial of asbestos will be conducted on a needs basis, when asbestos is received onsite excavation will take place to allow for the burial of the asbestos. The excavation will be constructed to allow for all of the material to be buried at least 1m below the ground surface. Asbestos disposal sites will be surveyed and clearly delineated ensuring accurate placement of material avoiding the unearthing of previously buried material.

Disposal of tyres into landfill will be conducted only if required, the primary use of tyres will be to line the base of the general waste landfill cell to aid leachate drainage. Once a storage capacity of approximately 50 tonne is reached and no alternative use for the tyres can be identified the tyres may be chipped and disposed of in a purpose built cell when required. The cell is to be 20m long, 5m wide and 4m deep.

The landfilling of asbestos and tyres at the waste facility will not require the construction of a cell liner or leachate collection system given the inert nature of the materials and the processes in place to ensure that these materials are covered immediately after disposal.

2.3.3 Cover

The materials to be used as cover are available on site, comprising the surplus material extracted from the excavation of the landfill cells.

Management Objective:

i. To cover regulated waste immediately after landfilling to limit run-on and infiltration of water, controlling and minimising the risk of fire, and windblown fibres.
ii. To maintain an adequate supply of cover material at the premises under all weather conditions.

Procedure:

The operator will:

i. For the disposal of asbestos material the Operator will construct a purpose built small open cell designed to allow for individual loads received.
ii. Immediately following the disposal of asbestos a minimum of 1m of cover material will be placed over the asbestos material ensuring a minimum of 100mm of topsoil is reinstated.
iii. Tyres may require disposal to landfill once a storage volume of approximately 50 tonne is reached.
iv. A purpose if built cell will be constructed for the disposal of tyres within the regulated waste area if required.
v. Following the disposal of tyres to landfill a minimum of .6m of subsoil will be used as cover material along with a minimum .1m of topsoil reinstated on the surface.

2.4 Management of Green Waste

Management objective:

To ensure green waste is managed appropriately implementing the reuse of green waste avoiding waste generation.

Procedure:

i. Green waste is to be unloaded within the area designated for green waste within the Waste Transfer Station.
ii. Green waste will be mulched onsite at the Waste Transfer Station and will be stockpiled adjacent to the green waste unloading area.
iii. Mulched green waste will be available for public pickup for use on private gardens and use on council gardens.

SECTION 3 - ENVIRONMENTAL SAFEGUARDS & PROCEDURES.

3.1 Stormwater Management

A Stormwater Management Plan Report has been developed to identify the nature of stormwater releases from site, the environmental risks associated with stormwater releases and risk management strategies to minimise contaminant releases from site. Reference should be made to this document for a detailed discussion of the risk associated with the activity and management objectives to address these risks. This section identifies the operational requirements relating to stormwater management for this facility derived from the Stormwater Management Plan Report.

3.1.1 System Design

The main objectives of the stormwater management design will be to divert clean water around the operational site and to capture storm water from the operational area to avoid the uncontrolled release of potentially contaminated water.

It is also imperative to segregate stormwater runoff from areas where stormwater contamination is imminent or possible (leachate) and manage separately to uncontaminated stormwater. Storm water will be diverted away from the landfill cell to minimize leachate generation, to achieve this a peripheral stormwater diversion bank will be constructed around the void perimeter, and divert runoff to the site sediment basin. Stormwater that falls within the void will be collected via the leachate collection system.

Storm water runoff from the waste transfer station is to be managed in isolation from other areas of the facility. A first flush storm water retention system will be implemented to capture the potential pollutants which are more likely to be mobilised in the initial stages of runoff from the open waste storage areas of the waste transfer station. The system will capture runoff from a minimum 20mm rainfall event. Earth bunds constructed on the downslope side of the waste transfer station waste stockpiles will be constructed approximately .3m high x 1m wide to retain runoff and contaminants potentially present within the waste stockpiles.

Appendix A Drawing number 4 Erosion and Sediment Control details the design elements of the stormwater management controls within the WMF.

Management Objective:

The management objectives for landfill stormwater are to:

i. Divert offsite clean water from entering the site thus minimising stormwater onsite.
ii. Minimise surface water ingress into the landfill thus minimising leachate generation.
iii. Ensure stormwater onsite is directed to existing stormwater containment structures.
iv. Minimise stormwater contamination

Procedures:

i. Storm water controls will be designed to retain site runoff for a 24 hr storm event with an ARI of 1 in 10 years without causing water contamination, sheet, rill or gully erosion, sedimentation or damage to structures or property.
ii. A Sediment basin will be designed to collect and treat stormwater runoff from all disturbed areas of the site.
iii. The sediment basin will be designed for events up to and including a 24 hour storm event with an ARI of 1 in 10 years and have a sediment storage zone equal to 50% of the total storage volume required.
iv. For events larger than those stated above, all reasonable and practical measures must be taken to minimise the release of contaminants.
v. Within 120 hours of the most recent rainfall event, the required design capacity of the upper settling volume is available for capture and storage of stormwater runoff from the next rainfall event.

vi. The sediment basin design will be required to incorporate a spillway to allow for large flow events. The spillway will require a well-defined channel that can fully contain and is effectively armoured to withstand a 50 year ARI critical event.
vii. If the first flush retention basin requires additional freeboard to capture runoff, the water is to be extracted and utilised as dust control on the tipping face or deposited in the leachate evaporation pond.
viii. The first flush system is required to maintain storage capacity for runoff from a 20mm rainfall event and effectively shed additional water through a clean water bypass channel.
ix. To avoid the ingress of contaminants from the first flush water into the clean water bypass system the intake of the first flush retention pond will be sloped inward towards the retention pond and be lower than the clean water bypass channel.
x. Pooled water retained within the transfer station bunds is to be inspected following rainfall events and if required extracted and utilised as a dust suppressant on the tipping face or deposited to the leachate evaporation pond.
xi. Regular inspections of the site, particularly the waste transfer station to identify any potential contaminants deposited in incorrect locations with potential to contaminate site stormwater. These potential contaminants will be appropriately disposed of to landfill or if they are regulated waste materials unauthorised for disposal at the facility they will be appropriately stored and transported offsite by a regulated waste transporter.

3.1.2 Monitoring

Following large rainfall events exceeding the storage capacity of control devices, releases of storm water will occur and controlled releases will be required in order to maintain sufficient storage capacity of the sediment basin for future runoff events. Prior to the release of stormwater following large rainfall events water samples will be taken for analysis to identify if the water quality is suitable for release in accordance with the release parameter identified in table 2 below.

Table 1 Surface Water Monitoring Program

Compositional Analysis			
Analyte	**Limit Type**	**Frequency**	**Units**
pH	Range	6-8	pH
Dissolved Oxygen	Min	6.5	mg/l
Suspended Solids	Max	50	mg/l
Electrical Conductivity	Max	1000	µg/l
Visual Inspection			
Inspect water prior to discharge for evidence of hydrocarbons such as oil sheen, visible floating grease, scum, litter or other contaminants.			

Procedures:

i. Water monitoring techniques must be in accordance with the methods prescribed in the current edition of the DEHP's Water Quality Sampling Manual
ii. Laboratory testing shall be conducted in a NATA accredited laboratory.
iii. Monitoring records are to be logically filed and kept for at least 5 years.
iv. Sampling must be taken prior to the planned release of water from the sediment basin.
v. Be representative samples and a minimum of three grab samples shall be taken at 10cm below the water surface.
vi. Surface water will be sampled from the lower end of the sediment basin adjacent to the sediment basin outlet structure

3.1.3 Soil Handling and Storage

Management Objective

Minimise erosion and sedimentation onsite and avoid the contamination or degradation of topsoil material

Procedures:

i. Top soil is to be stored separate from subsoil material
ii. Topsoil to be stockpiled no higher than 2m
iii. Topsoil stockpiles are to be protected by erosion by seeding with seed mix approved by the Rural Lands Officer.
iv. Subsoil stockpiles unsuitable for vegetative growth should be covered with mulch,soil binder or geofabric.

3.1.4 Maintenance Procedures

Management objective:

To ensure all stormwater generated onsite is contained and does not leave site in an uncontrolled manner. Management structures are maintained to ensure maximum run off diversion away from the landfill void.

Procedures:

The operator shall:

i. Inspect all structures monthly for landslip damage.
ii. Following a rain event exceeding 12mm in any 24hour period:
    a) inspect all structures repair and restore any damage found promptly and safely, ensure sediment storage capacity is restored.
    b) In Ensure diversion banks are maintained and any degraded areas are repaired
    c) Identify if water is pooling against diversion banks or catch drains and improve flow through these areas
iii. Install velocity controls such as check dams if high velocity flows are causing damage to banks
iv. Any build-up of sediment impeding flows should be removed

3.2 Groundwater Management

A Groundwater Management Plan has been developed identifying risk management strategies to minimise leachate releases from site. Reference should be made to this document for a detailed discussion of the risk associated with the activity and management objectives to address these risks. This section identifies the operational requirements relating to leachate management a for this facility derived from the Groundwater Management Plan.

3.2.1 Groundwater Monitoring and Records

Management Objective:

i. To monitor ground water for any degradation of water quality through leachate contamination.
ii. To promote the early detection of changes to ground water quality and to identify the reasons for this change.

Background Data Monitoring Sites

A groundwater monitoring system will be implemented at the Barcaldine Waste Management Facility to monitor groundwater from depths sufficient to identify the potential for contamination to the underlying aquifers. Bores will be located to monitor from hydraulically up-gradient and downgradient locations. BRC have installed monitoring bores at two locations at the landfill site to a maximum depth of 18m, these monitoring bores have not reached water aquifers. BRC in July 2017 have requested quotations from suitably qualified professionals with hydrogeological experience to review the current monitoring bore design and provide guidance in the implementation of a groundwater monitoring

system to detect the migration of contaminants from the waste management facility. BRC will install the monitoring bores following the approval of the activity.

Frequency

Monitoring events should be undertaken on a six month frequency (April and November). These events should be scheduled at the same time each year (i.e. within 30 days of the previous year's event) to provide consistency in comparing results due to any possible seasonality effects that can occur in groundwater systems. These events are designed to monitor for post-wet season period (April) and post-dry season period (November). The two events should form the data set for the annual groundwater monitoring summary.

Procedures:

i. Monitoring bores are to be located at locations hydraulically up gradient and downgradient of the landfilled waste, targeting shallow unconfined aquifers.
ii. Monitoring techniques must be in accordance with the methods prescribed in the current edition of the DEHP's Water Quality Sampling Manual.
iii. Laboratory testing shall be conducted in a NATA accredited laboratory.
iv. Monitoring records are to be logically filed and kept for at least 5 years.
v. Analysis of groundwater monitoring data is to be conducted to identify:
   a) Groundwater flow direction.
   b) The presence of contaminants from the landfill.
   c) Checking laboratory reports for data integrity (i.e. analytes measured within holding times, relative percentile differences of duplicate samples are within appropriate ranges).

3.2.2 Environmental Triggers & Remedial Actions

Management objective:

i. To determine the point at which action must be initiated to prevent possible contamination of surface water.
ii. To implement an investigation and, if necessary, a remediation plan to reduce or eliminate further contamination.

Discussion

Due to back ground water quality data not being available in the vicinity of the site from upper level aquifers, as a default Australian and New Zealand Water Quality Monitoring Guidelines (ANZECC and ARMCANZ 2000) have been used to assess the water quality.

The ANZECC guidelines were written to assess surface water quality, and not specifically groundwater quality. However, because groundwater and surface water are often linked systems, and because groundwater is an essential water source for many water uses, the guidelines are applied to groundwater in such a way that when it comes to the surface, it will not affect the quality of surface water systems or compromise the EVs. Therefore, ANZECC trigger values for surface water quality are used as an initial assessment of groundwater quality criteria. Where ANZECC trigger values could not be ascertained ADWG aesthetic threshold values have been utilised as well, these trigger levels are indicated in the monitoring program summary below in Table 3.2.

The surrounding area in and around the landfill is predominantly used for agriculture and residential land use. Over the years, these practices have modified the landscape, affecting the volume and rate of runoff, the flow characteristics of creeks and the recharge of groundwater. As such, the aquatic ecosystems of the area have been modified. Because of historical use, the regional aquifers in the area surrounding the site can be classified as *slightly – moderately disturbed*. It has therefore been proposed that groundwater samples are to be assessed against ANZECC and ARMCANZ (2000) protection of slightly-moderately disturbed ecosystem criteria where possible.

TABLE 3.2 Groundwater monitoring program

Analyte	Unit	Trigger Level	Source
pH	pH Units	6 Min – 8 Max	ANZECC
EC	µS/cm	For interpretational purposes	
Sodium	mg/L	180mg/L	ADWG - Aesthetic
Magnesium	mg/L	For interpretational purposes	
Potassium	mg/L	For interpretational purposes	
Calcium	mg/L	For interpretational purposes	
Chloride	mg/L	250mg/L	ADWG - Aesthetic
Sulphate	mg/L	250mg/L	ADWG - Aesthetic
Cadmium	mg/L	0.0002mg/l	ANZECC
Chromium	mg/L	0.001mg/L	ANZECC
Iron	mg/L	For interpretational purposes	ANZECC
Lead	mg/L	0.0034mg/L	ANZECC
Manganese	mg/L	1.9mg/L	ANZECC
Zinc	mg/L	0.008	ANZECC
Nitrate	mg/L	0.7	ANZECC
Ammonia	mg/L	0.9	ANZECC
Total Nitrogen	mg/L	0.3	ANZECC
Disolved Oxygen	mg/L	6.8	ANZECC
Dissolved Organic Carbon	mg/L	For interpretational purposes	

Remediation Action Triggers

Procedure:

The operator will:

In the event a trigger level is exceeded in a sample of water, undertake further sampling to confirm contamination immediately. If the additional sampling confirms the identified anomaly then the following actions shall occur.

Action:

In a situation where contamination to the surrounding environment has or is likely to have occurred as a result of waste contamination the following steps will be undertaken:

i. Take immediate action to contain the pollution.
ii. Notify the regulating body within 24 hrs detailing:
    a. The nature and source of contamination/spill
    b. Actions taken
    c. Future corrective actions to prevent recurrence.
iii. Implementation of approved actions.

3.2.3 Records

Monitoring records are to be logically filed and kept for at least 5 years. The following information must be recorded and with the results stored at the Council office.

- Date and time of sampling
- Location where sample was taken
- Purpose of sample
- Person who took sample.

3.3 Leachate Management

3.3.1 Leachate Collection & Recirculation

Management objective:

i. To prevent all discharge of liquid from the landfill, other than into the leachate evaporation pond.
ii. To maintain a leachate level of less than 300mm at the base of the landfill cell.

Design Overview:

Leachate from the waste mass is channelled to a collection sump at the base of the landfill void, it is then pumped by an electronically powered submersible pump to the leachate evaporation pond located adjacent to the phase 1 landfill cell.

The system is designed to:

i. Ensure a maximum depth of 300mm of leachate is not exceeded within the landfill void (apart from normal surges due to heavy rainfall).
ii. Prevent freeboard within the evaporation pond going below 0.16m.
iii. In the event that unusually high levels of leachate are generated and the leachate evaporation pond freeboard level is exceeded, leachate will be recirculated over the landfill cell using landfill cell evaporation sprays. Spraying of leachate in the void is to be conducted when appropriate conditions prevail, to achieve wetting down of waste to facilitate decomposition and compaction, evaporate excess leachate and reduce fire risk.
iv. The operator will inspect the operation of the pump by observation of output when operating. A measurement of leachate depth in the leachate well should be taken if there is doubt about the operation of the pump or level switch. All failures or leaks should be promptly investigated and repaired.

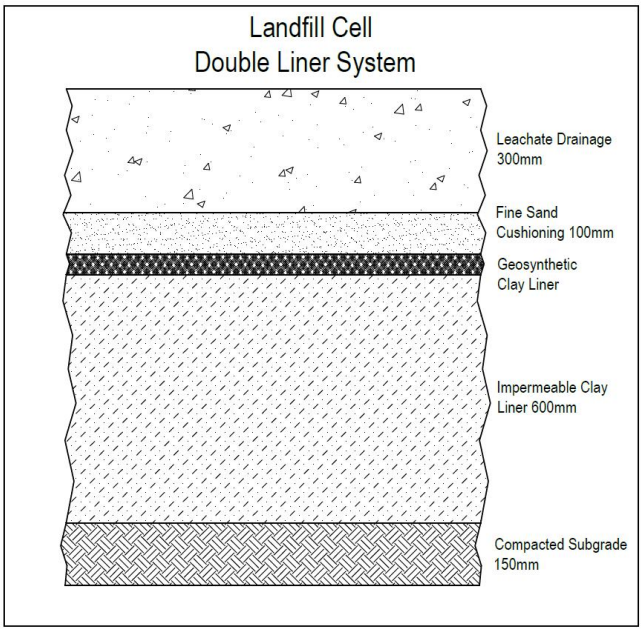
3.3.2 Landfill Cell Liner

3.3.2.1 Landfill Cell Liner Design

As a precautionary measure to prevent adverse impacts to groundwater, a double lined landfill liner will be constructed. The design will utilise a high quality Geosynthetic Clay Liner (GCL) capable of achieving a high level of protection with a very low hydraulic conductivity, the product utilised should achieve a hydraulic conductivity of $<3x10^{-11}$m/s.

The protective liner to be installed is comprised of five separate layers of material; figure 3 below provides an outline of the components of the liner system.

Figure 3.1 Landfill liner design



Management Objective:

Avoid adverse environmental impacts caused by the leaching of contaminants through the underlying geology and subsequent groundwater contamination.

Procedure:

i. Subgrade preparation must achieve:
   a) A smooth surface sloping towards the leachate sump.
   b) Compaction to a minimum dry density ratio of 95% relative of standard compaction to a minimum depth of .15m.
   c) Provide a sound platform for subsequent liner construction.

ii. The clay liner must be:
   a) Constructed from low permeability clay material with anin situ hydraulic conductivity of less than 1 x 10^{-9} metres/second.
   b) A minimum thickness of 600mm.
   c) A high plasticity material and a suitable particle-size distribution, with no particles greater than 50 millimetres in any dimension.
   d) Compacted to a minimum dry density ratio of 95% relative of standard compaction to a minimum depth of .15m.
   e) Constructed with suitable slope towards the leachate sump to effectively drain leachate.

iii. The geosynthetic clay liner must:
   a) Have adequate strength, flexibility and durability to maintain performance over the entire life of the landfill, including the operating and post-closure periods.
   b) Be reinforced, bonded by needle punching or stitching to enhance the internal shear strength of the geosynthetic clay liner.
   c) Be made from bentonite that is stable in slightly acidic conditions.
   d) Achieve a hydraulic conductivity of $<3 \times 10^{-11}$

iv. The sand cushioning layer must:
   a) Have no material >2mm diameter.
   b) Have > 50% of the material between <.25mm.
   c) Provide physical properties where the material forms a cast when wet, will crumble easily and will not form a ribbon.

v. The leachate Drainage layer Must:
   a) Consist of hard, strong, durable and clean material that will maintain the required performance under the maximum loads likely to be imposed on it in service.
   b) Be a pervious material and have a saturated hydraulic conductivity greater than $1x10^{-5}$ cm/s when tested in accordance with Australian Standard AS 1289.6.7.1.
   c) Be non-reactive in mildly acidic conditions and chemically resistant to the leachate in the landfill.
   d) Not have a shape and angularity that will damage the underlying geomembrane liner.
   e) Be installed in a continuous layer at least 300 millimetres thick across the entire base of the landfill cell, sloped with at least a 1% longitudinal gradient and 3% transverse gradient.

3.3.2.2 Operation and procedures

Management Objective:

Maintain a liner system capable of avoiding leachate migration through the underlying geology and subsequent groundwater contamination

Procedure:

i. General waste received to landfill is to be inspected for to identify and remove unauthorised hazardous waste capable of causing degradation to the liner.
ii. Maintain leachate depths below 300mm to reduce potential for leachate migration.
iii. Regularly inspect the integrity of the liner, particularly the drainage layer ensuring that the GCL is not exposed and susceptible to damage.

3.3.3 Leachate Evaporation Pond

3.3.3.1 Design

Management objective:

Ensure evaporation pond is capable of containing required volumes of leachate material generated onsite.

A water balance and design drawing for the evaporation pond are attached in Appendix D & A respectively.

Procedure:

iv. Required volumes to be collected based on cell catchment area and required rainfall occurrence frequencies (refer to water balance Appendix D).
v. Install pond liner in accordance with the landfill cell liner specifications described above.

3.3.3.2 Operation & Procedures

Management objective:

i. To hold and evaporate leachate in a pond, constructed so that leachate does not discharge other than into the Landfill.
ii. To ensure that the maximum depth of leachate in the pond does not exceed 1m and freeboard does not reduce to less than 0.16m.

Procedure:

The operator shall:

i. Ensure that leachate flows unimpeded into the leachate pond as required.
ii. Regularly inspect the leachate pond and associated plumbing.
iii. Remove the build-up of sediment from the pond on an annual basis or when build-up may have a significant effect on required freeboard levels.
iv. Monitor the vicinity of pond for offensive odours and if detected, apply procedure for controlling the odour.
v. Monitor the depth of sediment in the pond, if average depth exceeds 300mm develop a removal procedure.

3.4 Preventing Hazards & Loss of Amenity

3.4.1 Security

Management objective:

i. To take all practical steps to control entry to the landfill cell.
ii. Maintain a stock proof perimeter fence around all facilities.

Procedure:

The Operator will:

i. Maintain lockable gates to the landfill entrance.
ii. Keep all access gates locked when site is unattended.
iii. Install signs at the gate entrance to the facility indicating, who is permitted to enter.
iv. If there is a breach of security, review, and where necessary upgrade security procedures.

3.4.2 Litter Control

Management objective:

To minimise the impact of litter and to pick up any litter that may be generated by the Facility.

Procedure:

The Operator will:

i. Ensure that all Council waste trucks delivered to the site are covered or fully contained.
ii. During windy conditions ensure fresh waste is covered on a daily basis.
iii. Maintain a 1.8m chainmesh fences around the landfill void.
iv. Ensure public are reminded of the importance of covering loads through signage at entrance.
v. Maintain a minimum exposed surface area at the landfill tipping face.
vi. Inspect all litter fences weekly and following periods of strong wind collect litter as necessary.

vii. Inspect for litter along the access road weekly.

3.4.3 Dust Control

Management Objective:

To carry out all activities in a manner that will minimise the emissions of dust from the facility.

Procedure:

The operator will:

i. Ensure all access roads are bitumen sealed and well maintained.
ii. During dust generating activities such as depositing waste to landfill, routine covering of landfill and the sorting and stockpiling of waste ensure a water truck is present onsite for the wetting down of soil and waste materials.
iii. Wet down unsealed surfaces with water truck during operational activities when dry conditions prevail.
iv. Check weather forecast daily – hot dry weather and high winds increase the risk of dust production, where conditions are likely to cause an increase in dust nuisance a review of proposed work methods is to be conducted, including:
    a) review proposed work methods to identify measures to reduce dust – substitution of plant, staging works.
    b) implement additional dust mitigation measures – applying water and/or approved soil binders to disturbed areas.
    c) reschedule dust generating activities to avoid adverse weather conditions.
    d) communicate dust risk and mitigation measures to staff prior to commencing work.
v. Appropriately manage soil stockpiles ensuring topsoil stockpiles are seeded providing stabilisation through vegetative cover. Stockpiled subsoils are covered with a suitable material such as mulch, woodchip, soil binder or geo-fabric to avoid erosion.
vi. Respond to complaints from neighbouring residences that dust originating from landfilling activities is effecting them by:
    e) Correlating recorded weather data, wind direction, with time and location of the complainants
    f) Modify operations to reduce or eliminate the offending source of dust.

3.4.4 Pest, Vermin, Noxious Weed Controls

Management objective:

i. To minimise, if not negate, the infestation of pests, vermin and weeds.
ii. To maintain a proper level of general hygiene.

Noxious weeds

The potential for pest and weed infestation at the landfill requires strict hygiene controls. Prohibited invasive plants including grasses, herbs, shrubs and trees species have the potential to establish onsite.

Procedure:

The operator must:

i. Inform transport operators delivering waste to the facility that all loads must be covered (to prevent weed seeds and litter from escaping during transport).
ii. Regularly inspect the property for noxious weeds and spot spray, objective is to spray weeds before they set seed.
iii. Use best practice herbicide advice from QLD Department of Agriculture and Fisheries. Isolated plants can be removed manually and disposed of appropriately.

Insect pests

Insect pests that could be transported to the landfill include:

- Mosquitos
- Bush Flies and numerous plant bugs and mites.

These species can cause diseases in stock and crops and impact on native flora and fauna.

Procedure:

The operator shall:

Where necessary, apply insecticide to control insect infestation in the pondage areas or at the landfill tipping face.

Vertebrate Pests

A number of vertebrate pests are likely to be attracted to the site if hygiene standards in the landfill are poor.

These species include:

- Feral cats (*Felis catus*)
- European Red Fox (*Vulpes vulpes*)
- Native and introduced rodents
- Nuisance species such as the Australian Raven and Black Kite.

Procedure:

The operator shall:

i. If rodents are observed, lay suitable rodenticide baits.
ii. If feral cats are observed, eradicate by trapping, shooting and specific targeted cat baiting when it becomes practicable.
iii. Maintain weekly cover of waste within landfill cell.
iv. Review these procedures annually for their effectiveness and modify as required.

3.4.5 Odour Controls

Management objective:

i. To prevent the emission of offensive odours from the premises.
ii. Ensure that odours emitted from the site do not result in any irritation at any residential receptor.

Procedure:

The operator must:

i. Bury immediately loads presenting for disposal that contain large amounts of highly biodegradable wastes or are highly odorous.
ii. Ensure that all waste that is deposited is covered on a weekly basis.
iii. Cover waste to a depth of at least 150 mm and to a depth of 300 mm if undisturbed for more than 90 days.
iv. Monitor waste remains in the transfer station for extended periods, for the likelihood of odour and pest nuisance to nearby residential properties. If there is an odour or pest potential apply odour neutralising sprays and pesticides to minimise the impact.
v. Keep a supply of deodoriser and pesticide chemicals on hand.
vi. Regularly aerate the leachate, by pumping and circulating the leachate material over the pond through a low-pressure release point (avoiding small droplets which may become airborne) to avoid stagnation and anaerobic breakdown of leachate.
vii. When depositing septic waste to the leachate evaporation pond deodorising/digestion product such as *DIGEST PLUS* is added to the septic waste at the recommended concentration to reduce odour and assist with the breakdown of nutrients.
viii. Regular application of deodorising/digestion product such as *DIGEST PLUS* in accordance with product specifications to reduce odour emissions from leachate evaporation pond when

storage volumes are present.

ix. Remove the build-up of sediment from the leachate evaporation pond as required.

Odour complaint from local homesteads

If an odour complaint is received from local residents of the operator shall:

i. Record complaint details in register.
ii. Investigate the source of the odour.
iii. Confirm if odour is caused by landfilling activities.
iv. Apply odour neutralising products immediately to all exposed waste and leachate evaporation pond, applications continued until the problem is resolved.
v. Monitor methane gas at the complainant's residence.
vi. Notify the complainant that investigation was undertaken and remedial actions taken.

3.4.6 Landfill Gas

A Landfill Gas Risk Assessment has been developed to identify the level of risk associated with the production of landfill gas from the WMF. The risk assessment identified relatively low gas production levels are likely to be emitted from the site. As such the determination was made that landfill gas extraction or treatment would not be required, however monitoring would be conducted in accordance with table 3.4 below as a risk management measure. Reference should be made to the Landfill Gas Risk Assessment Report for a detailed discussion of the risk associated with the activity and management objectives to address these risks. This section identifies the operational requirements relating to landfill gas management for this facility derived from the Landfill Gas Risk Assessment Report.

Table 3.4 Landfill Gas Monitoring Program/ Action Levels

Location	Parameter(s)	Action level and unit	Monitoring Frequency
Subsurface geology at or beyond the landfill site boundary	Methane concentration in air	50,0000 ppm	Quarterly
50mm above the final and intermediate cover surface including the batter slopes of the landfill unit	Methane concentration in air	500 ppm	Quarterly
The landfill site boundary when measured in facility structures	Methane concentration in air	12,500 ppm	Quarterly

Management objectives:

i. Ovoid the production of dangerous levels of gas within and surrounding the waste management facility.
ii. Monitor gas concentrations to ensure they are within safe levels.

Procedure:

The operator Shall:

i. Monitor on a quarterly basis subsurface LFG concentrations from the test hole sites located on the northern and southern boundaries of the site.
ii. Monitor on a quarterly basis LFG surface concentrations 50mm above landfill cells including final and intermediate cover surfaces and batter slopes.
iii. Monitor on a quarterly basis LFG concentrations within buildings and structures on the site premises
iv. Monitoring is to take place by a suitably qualified staff member with a calibrated gas monitor meeting current industry safe work specification to detect methane concentrations in parts per million (ppm).

v. If action levels are exceeded, notify DEHP within 24hrs and implement remediation actions identified in LFG Risk Assessment Report in collaboration with DEHP.

3.4.7 Noise Controls

Management objective:

To minimise noise to avoid nuisance to nearby residents.

Procedure:

Noise impact from the landfilling activity will be minimal, due to low density occupation of the surrounding area and minimal heavy machinery operating onsite.

The operator shall:

i. Ensure all operating machinery are fitted with mufflers and are in sound mechanical order.
ii. Limit the use of waste haulage trucks 'exhaust brakes' except for emergency situations.

Noise Complaint

Management objective:

To control noise sources that are the cause for complaint

Procedure:

In the event of a noise complaint being received, the operator will:

i. Determine the source of the noise on which the complaint is based.
ii. Modify the situation as required to ensure optimum noise controls are implemented.
iii. Record all relevant information in the complaints register.

3.4.8 Fire

Management objective:

i. To reduce the risk of fire.
ii. To train all staff in the relevant fire risk reduction procedures.

Possible causes of fire

- Burning or smouldering waste delivered to the transfer station.
- Combustion in compacted waste in landfill.
- Accidental ignition by machinery.
- Piracy from members of the public.
- Human error or carelessness.

Fire risk reduction procedures

The operator must:

i. Inspect for evidence of heating, smoldering or combustion all waste delivered to the transfer station and landfill cell.
ii. Any suspect loads shall be thoroughly soaked with water before depositing to the landfill.
iii. Remove any potential highly flammable substances (hydrocarbons) and place in the appropriate safe storage system to await proper disposal.
iv. Ensure all waste placed in the landfill is compacted and covered with earth on a weekly basis.
v. Ensure gates are locked when landfill site is unattended.
vi. Ensure signage is maintained onsite stating unauthorized activities including No Burning of Waste.
vii. Keep the area surrounding the transfer station and landfill cell free of vegetation to prevent grass fire reaching stored waste.

viii. Maintain waste handling machinery in good operating condition and is inspected regularly for ingestion of combustible material into hot areas.
ix. Conduct regular training of staff in fire procedures.
x. Inspect and maintain all plant and equipment in good working order.
xi. Keep all machinery free from oil and fuel leaks.

Maintenance of firefighting equipment

Management objective:

To ensure that all firefighting equipment is functioning correctly.

Frequency:

i. Fire extinguishers are to be recharged annually by an independent certifier.

Procedure:

The operator shall:

i. Ensure fire extinguishers are checked/recharged/replaced annually by external contractor.
ii. Any malfunction must be repaired immediately and reported to the Site Manager as soon as practical.
iii. Maintain serviceable radio communication equipment in all plant.
iv. Maintain earth-moving equipment as per manufacturers schedules (refer to relevant maintenance manuals).

3.5 Emergency Response Procedures

3.5.1 Fire

Management objective:

i. To identify a fire quickly and initiate a response rapidly.
ii. In the event of a fire respond according to BRC Fire Response Procedure.

Fire identification procedure:

If a fire is suspected or directly observed by any personnel on site they must follow the BRC Fire Response Procedure.

Fire Response Plan

Equipment:

- Front end loader
- Hand held fire extinguishers
- Water truck
- Barcaldine Fire Brigade Tanker.

Procedure:

In the event of a fire at the facility the operator shall:

i. Call ‘000 ‘for Queensland Fire and Emergency Services for assistance when required.
ii. Assess the situation, determine the extent of the fire and risk to plant equipment, advise BRC Site Manager and alert other personnel if assistance is required.
iii. When the active fire is under control, use the waste loader to isolate the burnt or burning material from unburnt waste.
iv. Continue to apply water use the loader to turn the waste until the fire has been completely extinguished.

v. Record the fire in the incident Register (Appendix B).

Recording and Reporting Fires

Procedure:

The operator shall:

i. Maintain log to record the following data of fires at the site:
   a) Time/date that fire started
   b) Time/date stopped
   c) Cause of fire
   d) Type of material that burned
   e) Waste type & volume burnt
   f) Prevailing weather & smoke direction & dispersion
   g) Action taken to extinguish fire.
ii. Notify the DEHP of any fire immediately after the incident.

3.5.2 Hazardous Materials

Management Objective:

i. To prevent personal injury as a consequence of exposure to a hazardous or toxic substance.
ii. To manage the containment and proper disposal of a hazardous or toxic material.
iii. To have all personnel trained in the relevant procedures.

Procedure:

The operator shall:

i. Conduct regular training and familiarisation in Hazardous Substances Guidelines.
ii. Have on site personal protective equipment, first aid kit and Material Safety Data Sheets for anticipated substances.
iii. Ensure at all times site office has a fully stacked wall mounted medium risk workplace first aid kit.
iv. Ensure that safety shower located at the site office is functioning properly and a maintenance check conducted on a weekly basis.
v. Have suitable storage facilities available, ensuring that chemicals and fuels in containers of greater than 15 litres are stored within a secondary containment system.
vi. Maintain suitable spill kits on site to deal with small spills.

SECTION 4 - CELL CLOSURE

4.1 Cell Capping & Rehabilitation

The cell design of the Barcaldine Waste Management Facility includes the construction of relatively low volume cell voids, allowing for minimal leachate production/treatment, reduced surface areas for waste management and reduced risk of dispersal of litter from the cell. When the capacity of the landfill cell is reached the cell will be capped and rehabilitated and a new cell constructed for future use.

Management Objectives:

i. To prevent contamination to the surrounding environment caused by waste disposal activities.
ii. To prepare a landfill capping system in accordance with QLD DEHP Guideline-Landfill siting, design, operation and rehabilitation & Model operating conditions: ERA 60-Waste disposal.

Final Cell Design

The final surface of the landfill will be overfilled to approximately 2m above the rim of the void and graded to allow for future settlement in the centre. This settlement is expected to be approximately .7m (based on 10% of 7 m depth).

Appendix E contains a detailed discussion of the capillary cap design.

Cell Post Closure Water Management

The leachate collection and management system will continue to operate after closure of the landfill cells. The storm water diversion structures constructed around the cell void will be maintained to divert water from the final capped cell to the site sediment ponds.

Final Landform Revegetation:

The Operator proposes to revegetate the final landform as individual cells are capped with the following pasture grass mix **(Table 4.1)** demonstrated to be effective in the stabilisation of disturbed areas situated to Barcaldine's climate.

The pasture grass mix will be sown with conventional tractor and sowing equipment and supplemented with fertiliser as indicated in **Table 4.1.** Annual follow-up applications of fertiliser, and if necessary seed, will be undertaken if required.

Table 4.1

Proposed Pasture Mix and Fertiliser Application

Seed Type	Spring Sowing (kg/ha)
Keppel Indian Cooch Green Cooch Buffel Grass	15 15 5
Fertiliser Starter 15 Mo Super	40

4.2 Post Closure Monitoring & Maintenance

Post Closure Plan

Cell Cap parameters

Total area to be capped per cell stage = 6,080m^2
Estimated depth of cap = ·55m
Estimated depth of topsoil = 100mm
Once the final capping is in place monitoring would commence immediately and continue for 30 years.

Monitoring parameters

Duration = 30 years
No. of ground water bores = 3
Sampling frequency = twice yearly

Inspection parameters

Inspection will include assessment of:

- Cap settlement rate and vegetation / pasture growth (Yearly)
- Surface water control structures (Rainfall event & Yearly)
- Leachate management system components (Three monthly).

Table 4.2 lists the potential issues that could arise post closure and the envisaged investigations and possible remedial actions.

TABLE 4.2

Post - Closure Remedial Action Triggers

ASPECT	POTENTIAL IMPACT	INVESTIGATION	REMEDIAL ACTION
Surface Water	Failure of contour banks	- Condition monitoring of water retaining structures	- Strengthen areas that not satisfactory
	Ponding of surface water on the landfill capping due to settlement	- Settlement surveys - Field observations	- Regrade landfill cap
Groundwater	Contamination due to failure of leachate barrier system	- Monitoring of groundwater bores - Risk assessment to determine risks off-site including irrigation and deeper contamination	- Lower leachate levels - Minimise water infiltration through recapping - Recover seepage from groundwater
Leachate	Leachate volumes greater than anticipated	- Volume measurements in leachate evaporation ponds	- Construct additional evaporation pond - Improve capping to reduce infiltration
	Leachate seeping from leachate evaporation pond	- Volume measurements in leachate evaporation ponds - Risk assessment to determine off site impact risk	- Empty pond & repair liner

SECTION 5 - POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

Forward

This section details the Pollution Incident Response Management Plan (PIRMP) for the BRC WMF.

Objectives of this PIRMP

i. To ensure comprehensive and timely communication about a pollution incident to staff at the premises, the regulator of the environmental permit (DEHP) and people outside the facility who may be affected by the impacts of the pollution incident.
ii. To minimise and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks.
iii. To ensure that the plan is properly implemented by staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

5.1 What Is A Pollution Incident?

The definition of a pollution incident is:

Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur.

It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises.

A pollution incident is required to be notified if there is a risk of 'serious environmental harm or material harm to the environment' Defined in the EP Act as:

Material environmental harm is environmental harm (other than environmental nuisance):

- That is not trivial or negligible in nature, extent or context;
- That causes actual or potential loss or damage to property of an amount of, or amounts totalling, more than the threshold amount ($5000), but less than the maximum amount ($50,000); or
- That results in costs of more than the threshold amount ($5000) but less than the maximum amount ($50,000) being incurred in taking appropriate action to prevent or minimise the harm; and rehabilitate or restore environment to its condition before the harm.

Serious environmental harm is environmental harm (other than environmental nuisance):

- That is irreversible, of a high impact or widespread;
- Caused to an area of high conservation value or special significance,
- That causes actual or potential loss or damage to property of an amount of, or amounts totalling, more than the threshold amount ($50,000); or
- That results in costs of more than the threshold amount ($50,000) being incurred in taking appropriate action to:
  a. Prevent or minimise harm; and
  b. Rehabilitate or restore the environment to its condition before harm.

SEE SECTION 5.2 FOR A LIST OF POLLUTION INCIDENTS WHICH HAVE BEEN ASSESSED AS POSSIBLE AT THIS SITE.

IF YOU DETERMINE A POLLUTION INCIDENT HAS OCCURRED THEN YOU MUST REPORT THIS IMMEDIATELY. GO TO SECTION 5.4 FOR INSTRUCTIONS.

5.2 Description and Likely Hood of Hazards

HAZARD	TRIGGER	LIKELIHOOD (H,M,L)	IMPACT (H,M,L)
Leachate pond leak	1. Liner failure	**L**	**H**
Oil & Lubricant spill	1. Rupture 2. Human error	**M** **M**	**M**
Oil & Lubricant fire	1. Human error	**M**	**H**
Herbicide spill	1. Human Error	**L**	**L**
Sediment dam overflow	1. Rain event	**M**	**L**
Fire in landfill	1. Human error 2. Component Failure 3. Imported combustible material 4. Piracy	**L** **L** **M** **M**	**M**

KEY: H - HIGH M - MEDIUM L - LOW

5.3 Who Is Responsible For Managing A Pollution Incident?

Graham Lawrence (Site Manager)	0428 683 464
Brett Walsh (BRC Executive Manager)	0427 511 748
Des Howard (BRC Chief Executive Officer)	07 4651 5626

5.4 Who Must Be Notified Of A Pollution Incident?

If the incident presents an immediate threat to human health or property, call 000.

Fire and Emergency Services QLD, the QLD Police and the QLD Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order:

1)	DEHP INCIDENT NOTIFICATION	1300 130 372
2)	QLD HEALTH	13 43 25 84
3)	QLD FIRE & EMERGENCY SERVICE	000

5.5 How Is The Community To Be Notified Of A Pollution Event?

When it is appropriate for nearby community members to be informed of a pollution event.

If deemed necessary, an announcement will be made over local ABC radio Central Western QLD to inform the wider community as well as through attending agencies e.g. QLD Fire and Emergency Service.

5.6 What Are The Pollutants On This Site?

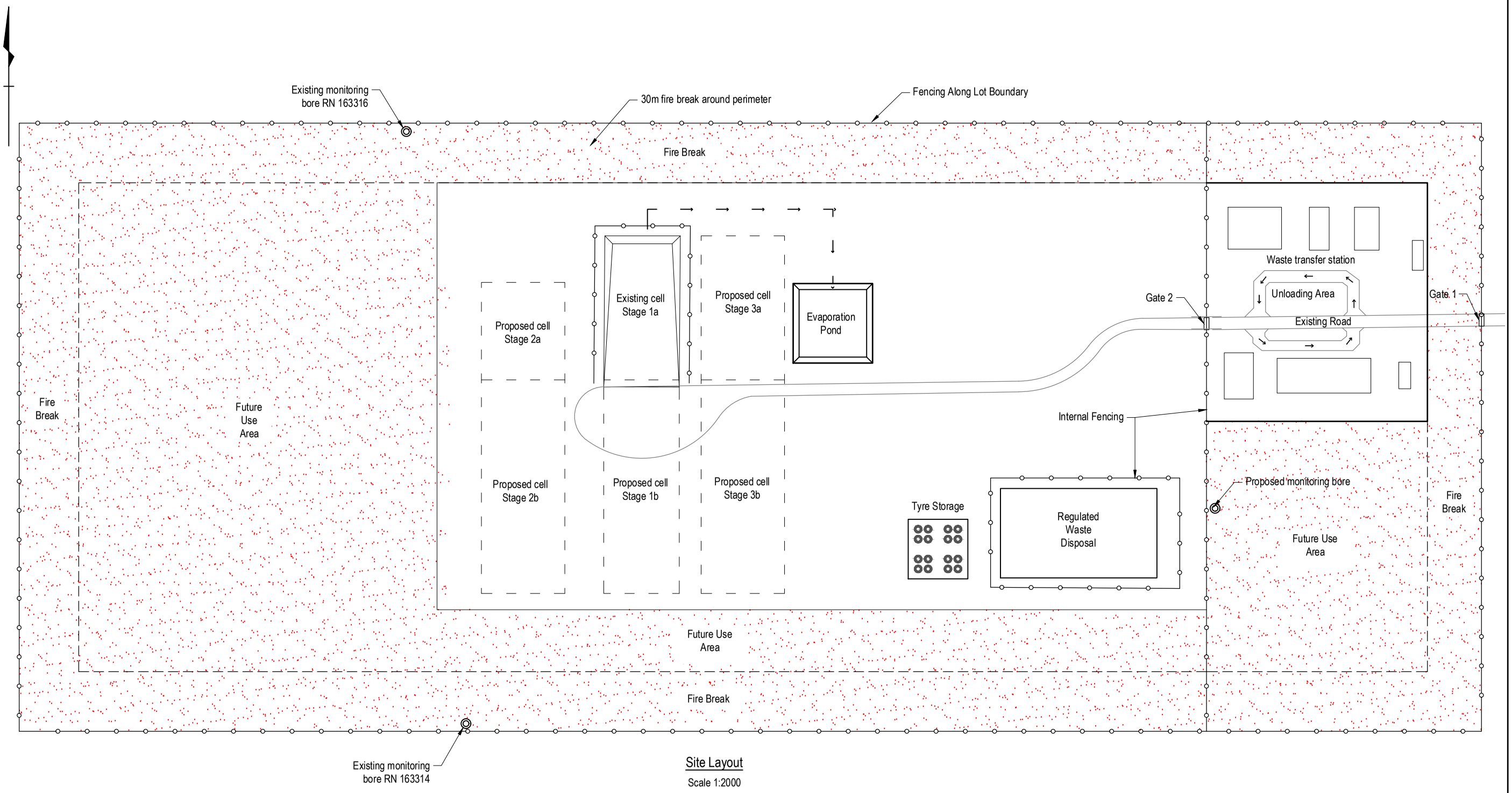
INVENTORY OF POLLUTANTS	Max Quantity
Landfill derived leachate stored in evaporation pond	1ML
Petroleum Based Oils and Lubricants	1000L
Dams containing sediment laden surface water runoff	257KL

5.7 What Actions Must Be Attempted?

HAZARD	ACTION & SAFETY EQUIPMENT
Leachate pond leak	Empty leachate pond, identify fault and repair liner. PPE...Chemspill Protective Clothing
Herbicide spill	Small spills –use spill kit PPE.gloves and eye wear Safety Shower
Sediment dam overflow	Monitor structure integrity for erosion and possible failure of containment structure.
Fire in Landfill or Transfer Station	Flood area with leachate using spray system Local Fire Authorities to control large fire event Refer Emergency Response section 3.6.1 Fire

APPENDIX A

DESIGN DRAWINGS



Site Layout

Scale 1:2000

Notes:

1. Dimensions are indicative only, to be confirmed on site.

Rev.	Revision Description	By	Date
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
A	Original Issue	JC	26/09/2016

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Drawn: JC

Checked: SB

Approved: SLJ Bourne (RPEQ 1513)

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Client: BARCALDINE REGIONAL COUNCIL

Project: WASTE MANAGEMENT FACILITY

Title: SITE LAYOUT

Category: STORM WATER

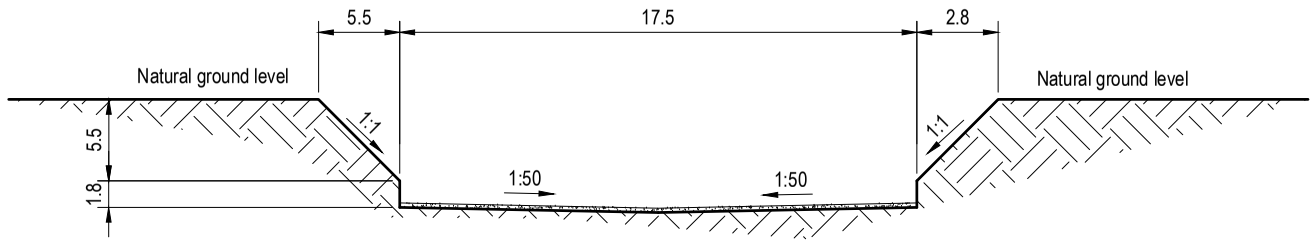
Drawing No. 140010-2/01

Rev. C

Scale: AS SHOWN

Size: A3

Date Printed: 07/04/2017 09:51:58



SECTION 1/02 CROSS SECTION
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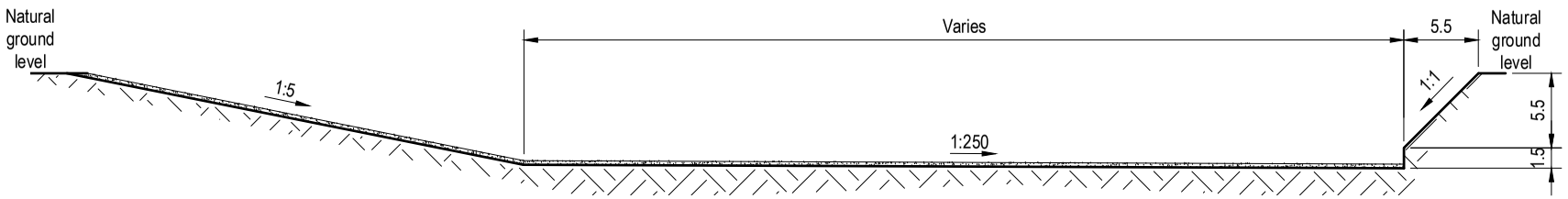

SECTION 2/02 LONGSECTION
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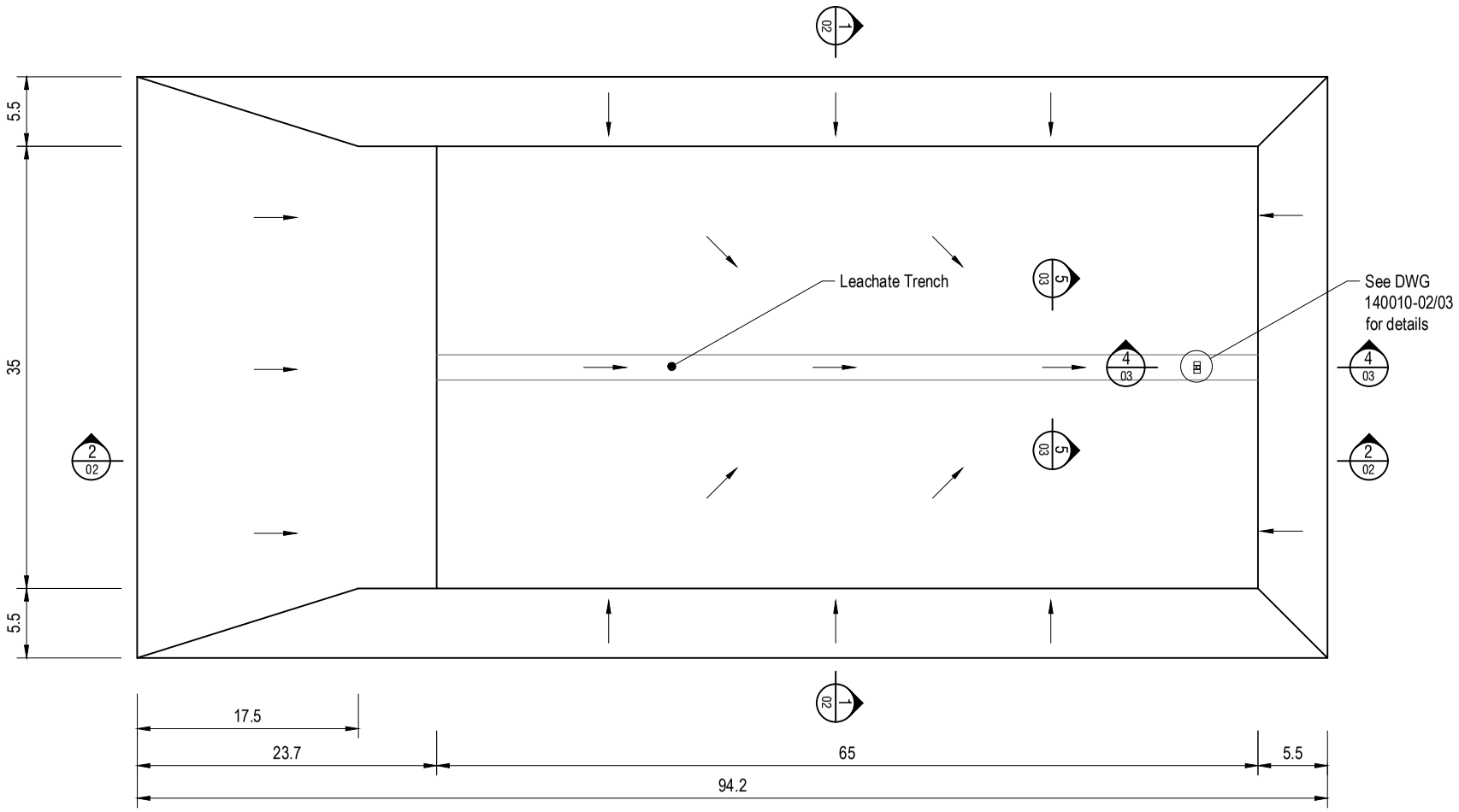
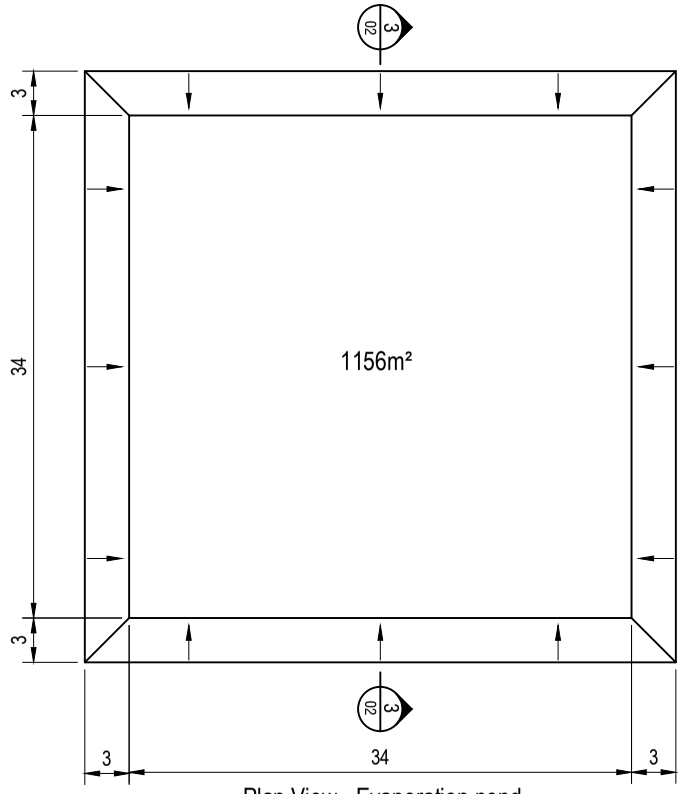


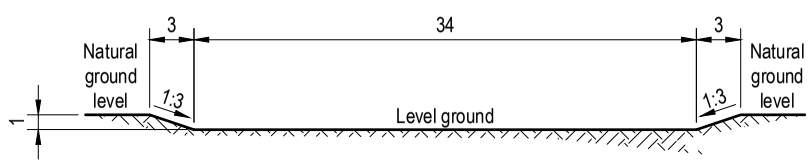
Plan View - Landfill Cell 1 - Stage 1

Scale 1:500



Plan View - Evaporation pond

Scale 1:500



SECTION 3/02 CROSS SECTION
Scale: 1:500 EVAPORATION POND

Rev.	Revision Description	By	Date
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
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Project: WASTE MANAGEMENT FACILITY

Title: LANDFILL CELL AND EVAPORATION POND PLAN AND SECTIONS

Category: STORM WATER

Drawing No. 140010-2/02

Rev. C

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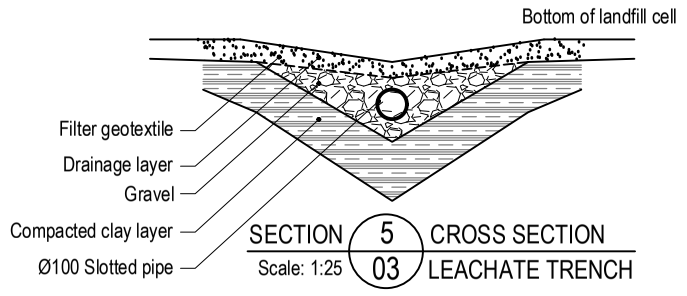
Size: A3

Date Printed: 07/04/2017 09:51:59



SECTION 5/03 CROSS SECTION LEACHATE TRENCH
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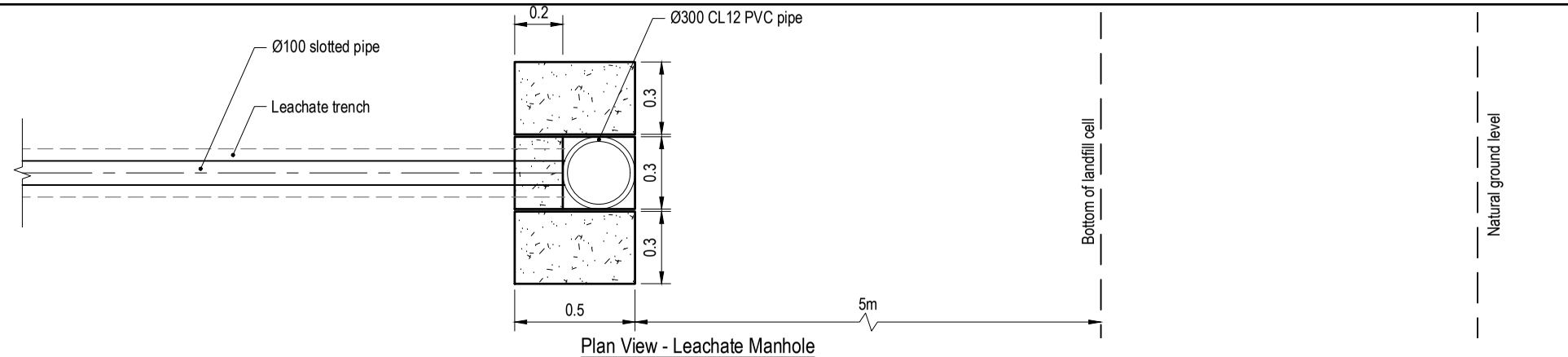
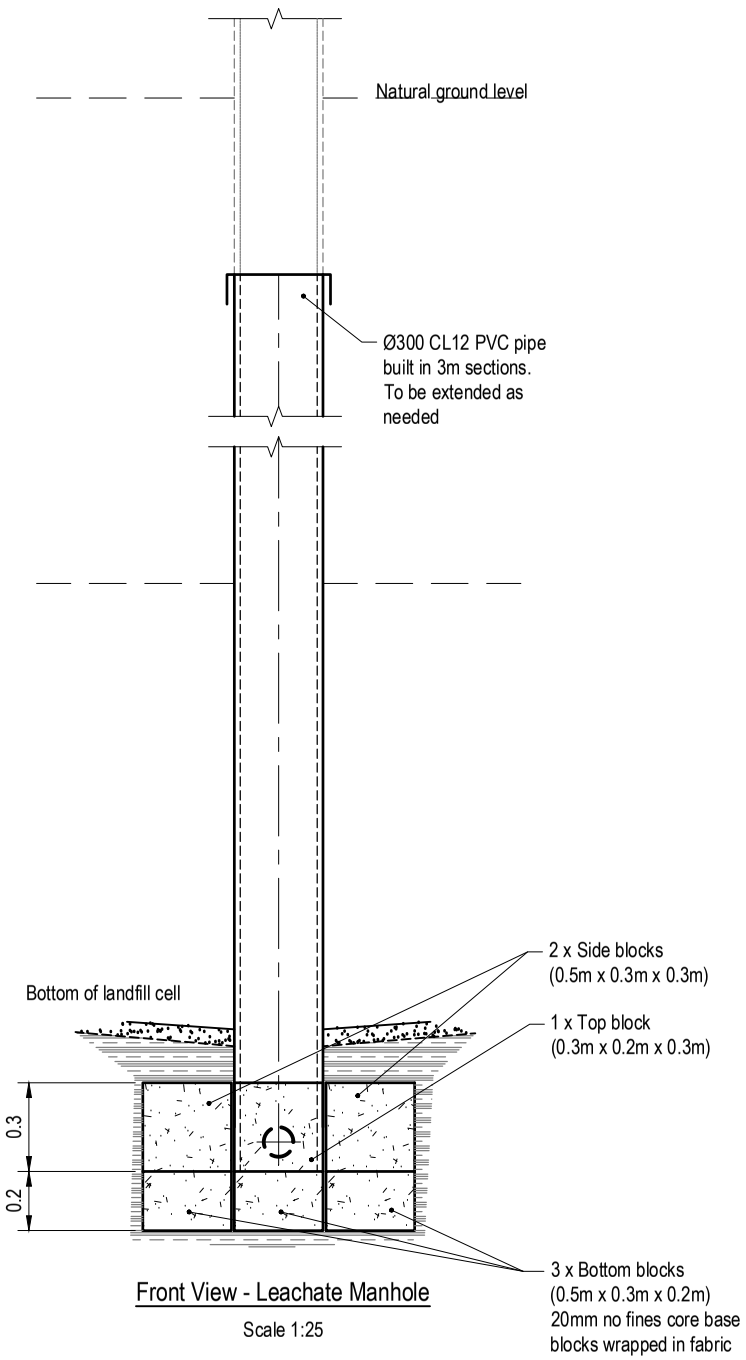
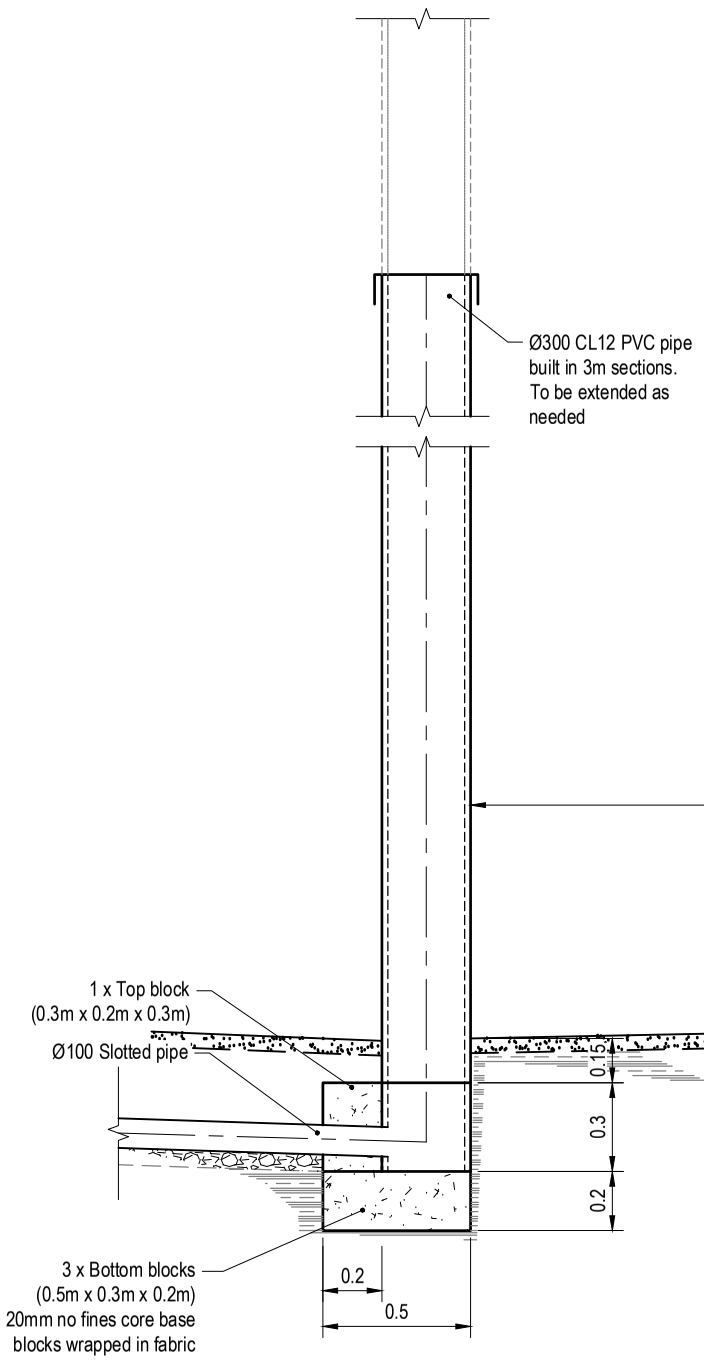
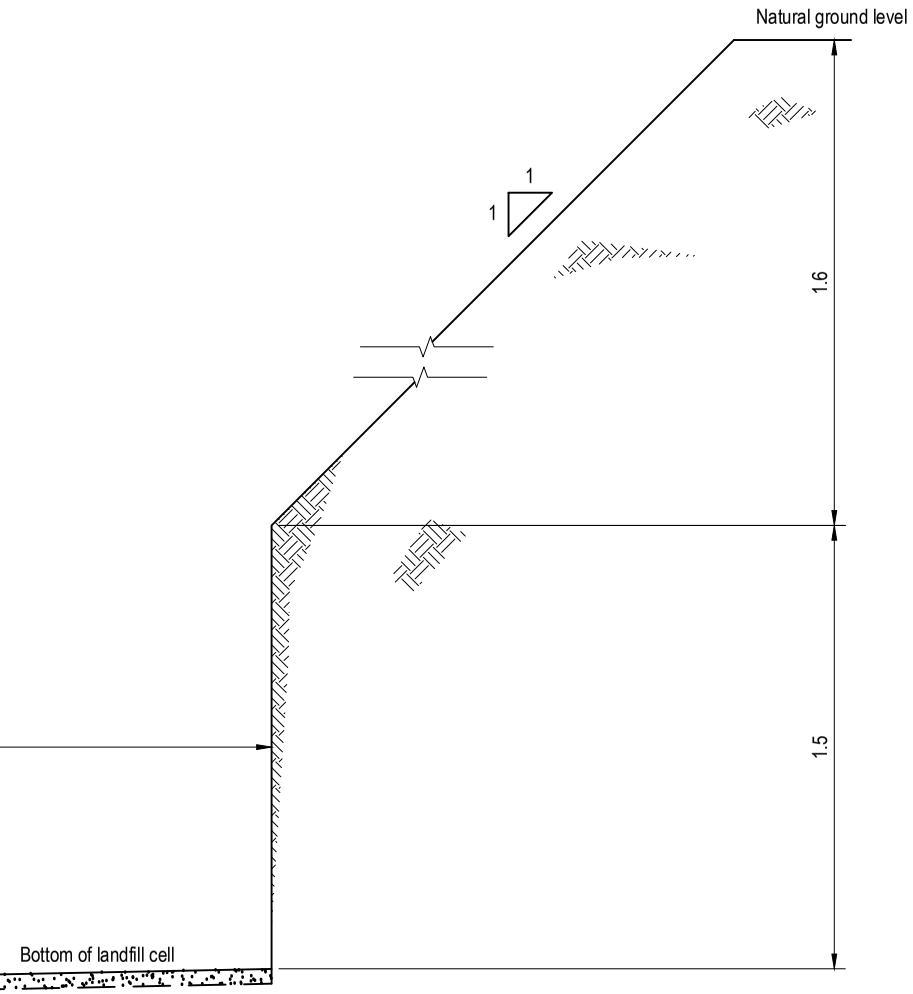


Plan View - Leachate Manhole
Scale 1:25



Front View - Leachate Manhole
Scale 1:25





SECTION 4/03 CROSS SECTION LEACHATE MANHOLE
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Rev.	Revision Description	By	Date
C	Modified fire break and added battery disposal shelter design	BD	04/04/2017
B	Added 30m perimeter fire break to drawing	BD	07/03/2017
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Checked: SB
Approved: SLJ Bourne (RPEQ 1513)

Client: BARCALDINE REGIONAL COUNCIL
Project: WASTE MANAGEMENT FACILITY
Title: LEACHATE MANHOLE DETAILS

Category: STORM WATER
Drawing No. 140010-2/03
Rev. C
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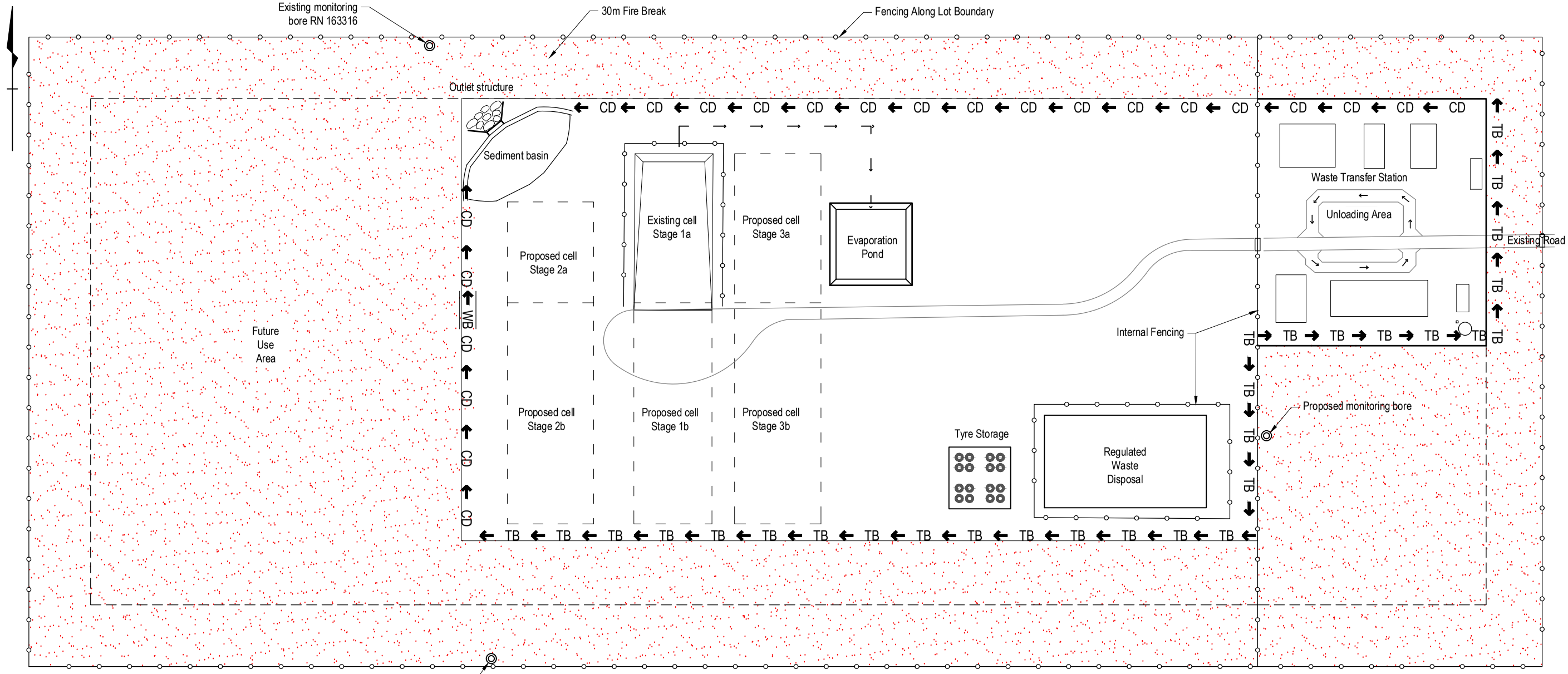
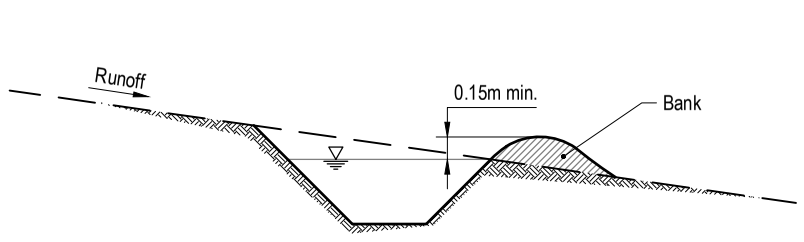
Size: A3

Date Printed: 07/04/2017 09:52:00



Plan View
Scale 1:2000

Legend	
← WB	Woa-boy / Rollover Bank
← TB	Topsoil Bank
← CD	Catch Drain



Catch Drain with Bank
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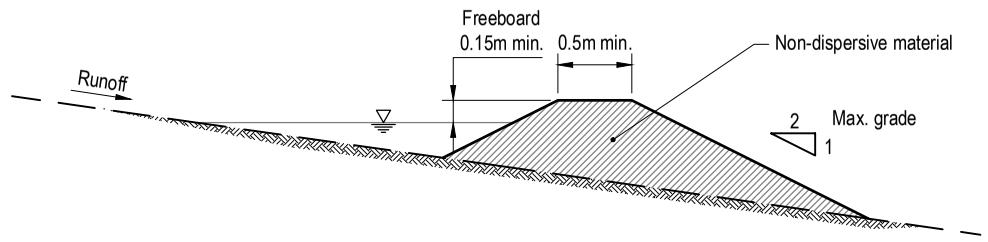

Topsoil Bank
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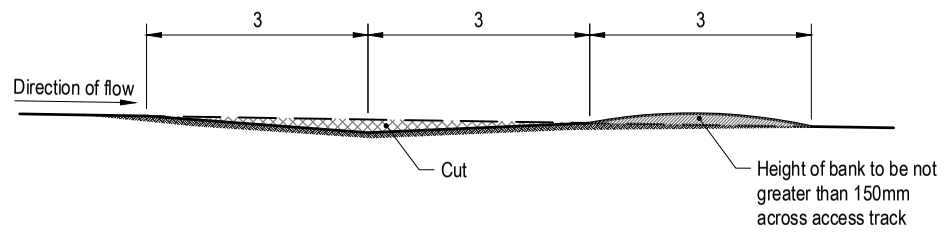

Whoa-boy / Rollover bank
Scale 1:100

Rev.	Revision Description	By	Date
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Project: WASTE MANAGEMENT FACILITY

Title: SITE EROSION AND SEDIMENT CONTROL

Category: STORM WATER

Drawing No. 140010-2/04

Rev. C

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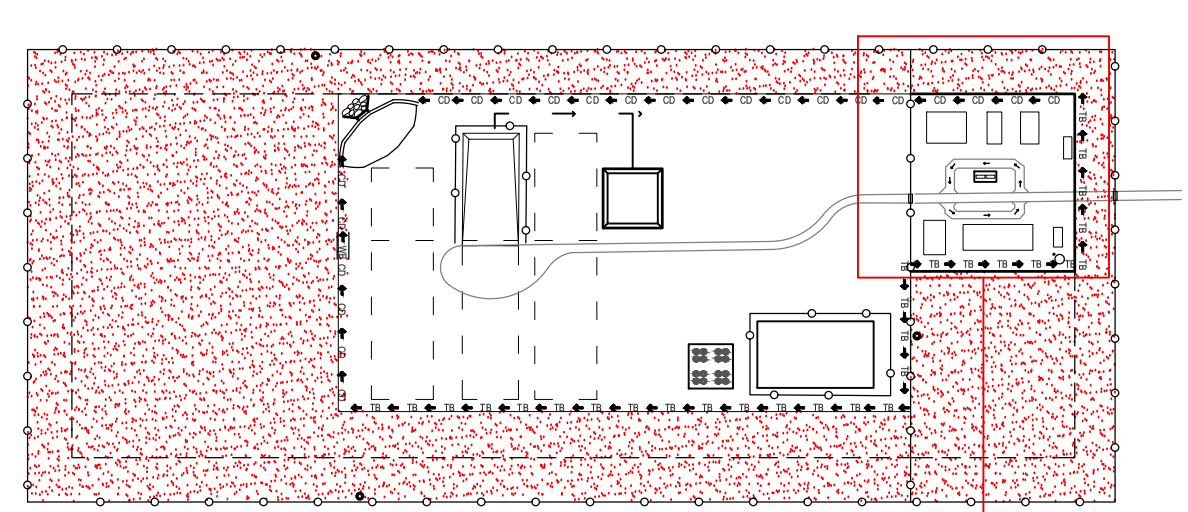
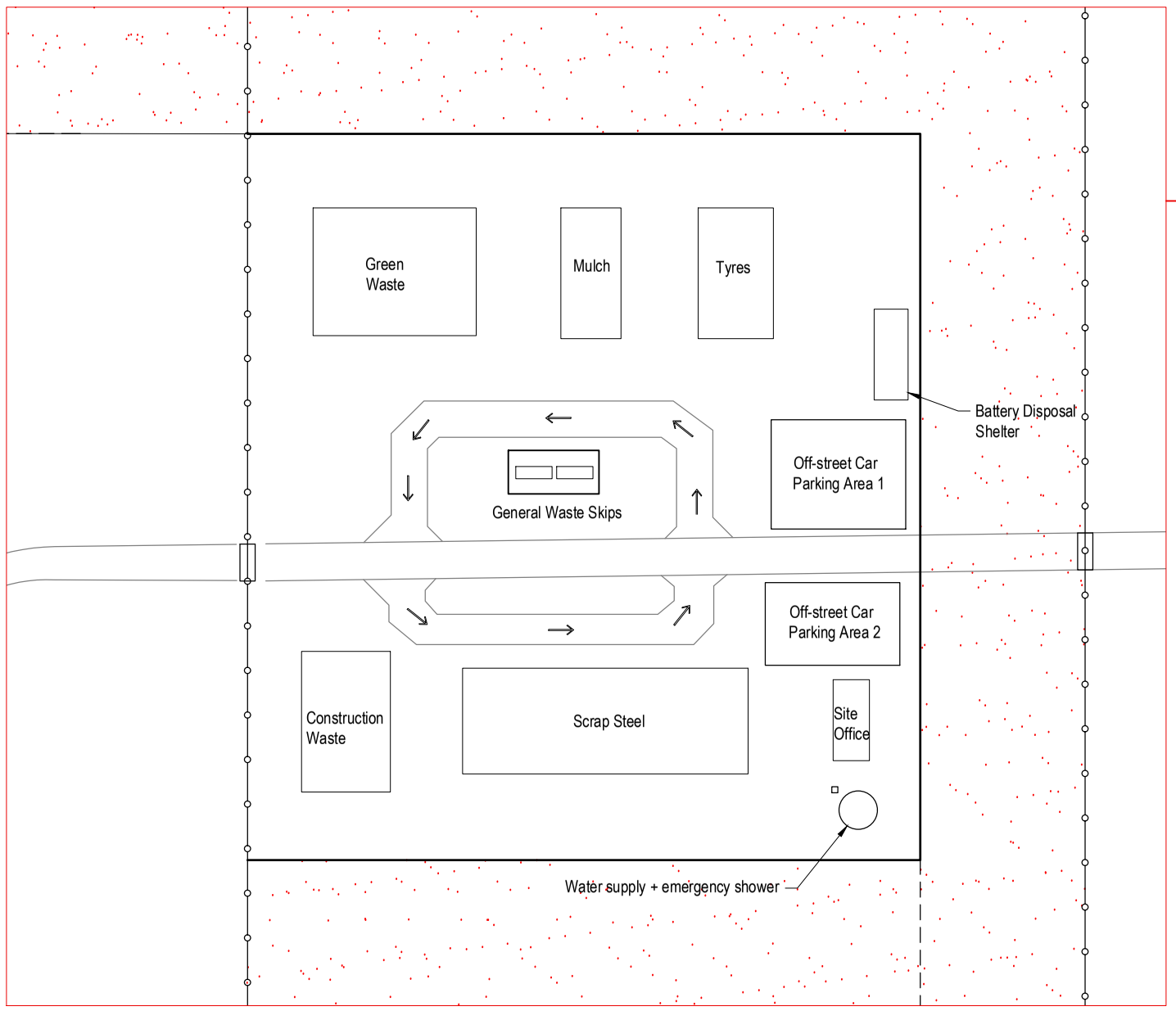
Size: A3

Date Printed: 07/04/2017 09:52:00



SITE LAYOUT
SCALE 1:5000



WASTE TRANSFER STATION LAYOUT
SCALE 1:2000

Construction Notes

Site Office:

- Site office will be a 20ft shipping container converted to office space. Office will contain a kitchenette with potable water
- Dimensions Exterior: W:2440mm, H:2600mm, L:6058mm
- Footings: H50x800 deep footings with 8mm grade 70 chain cast into concrete and welded to container. Footings to be excavated to depth of 700mm and 100mm of draining gravel overlaid.
- 5000L water tank will be connected to office for supply of non-potable water, Dia:1840mm, H:2205mm. Connected to water supply will be a safety shower in case of emergency.

Battery Shelter

- A steel structure 3m x 6m will be constructed for storage of batteries & chemicals requiring temporary storage. Refer to drawing 140010-2/06 for detailed description.

Car Parking:

- Car parks will be constructed in accordance with AS 2890.1 off-street car parking.

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Checked: SB
Approved: SLJ Bourne (RPEQ 1513)

Client: BARCALDINE REGIONAL COUNCIL
Project: WASTE MANAGEMENT FACILITY
Title: WASTE TRANSFER STATION LAYOUT

Category: STORM WATER
Drawing No. 140010-2/05
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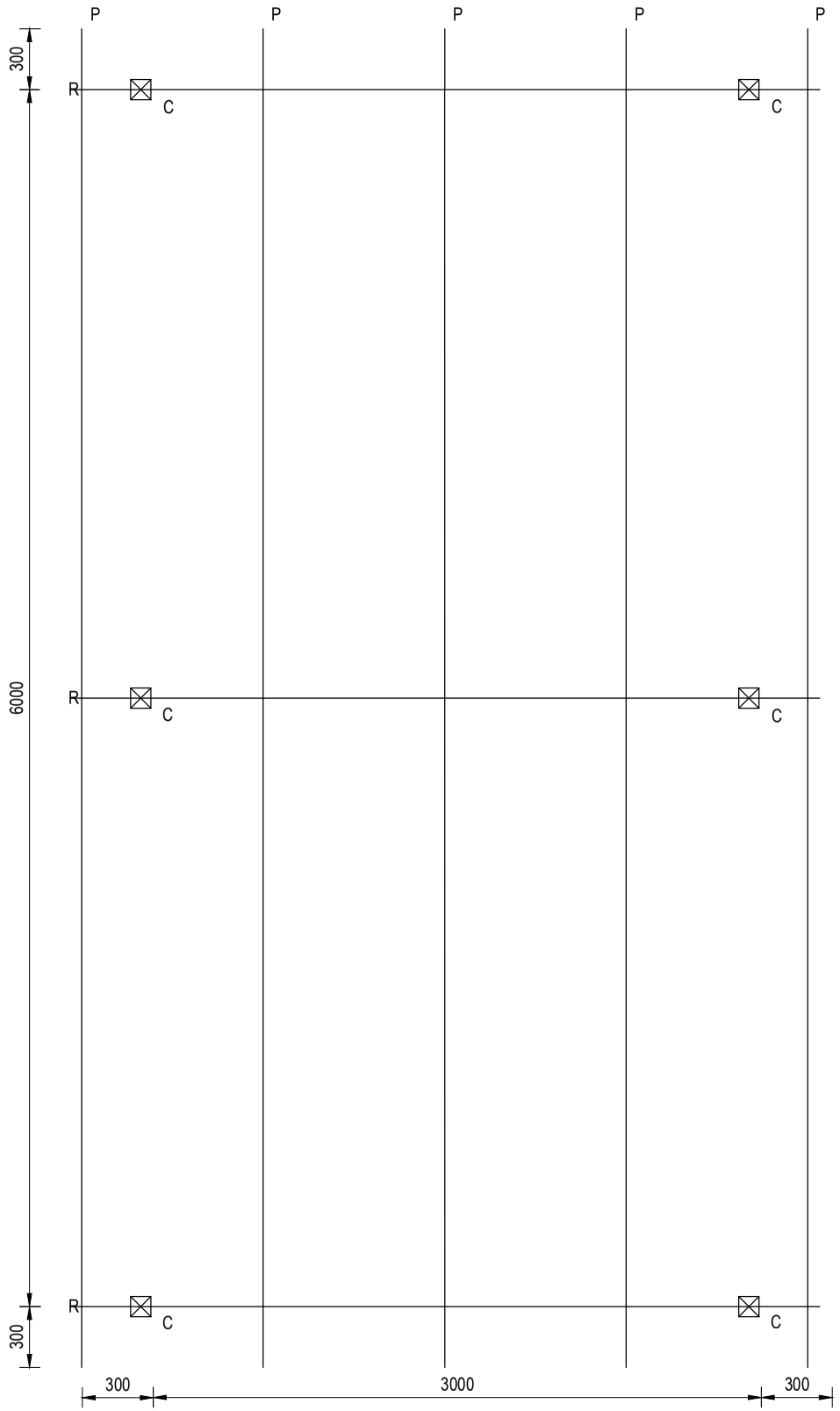
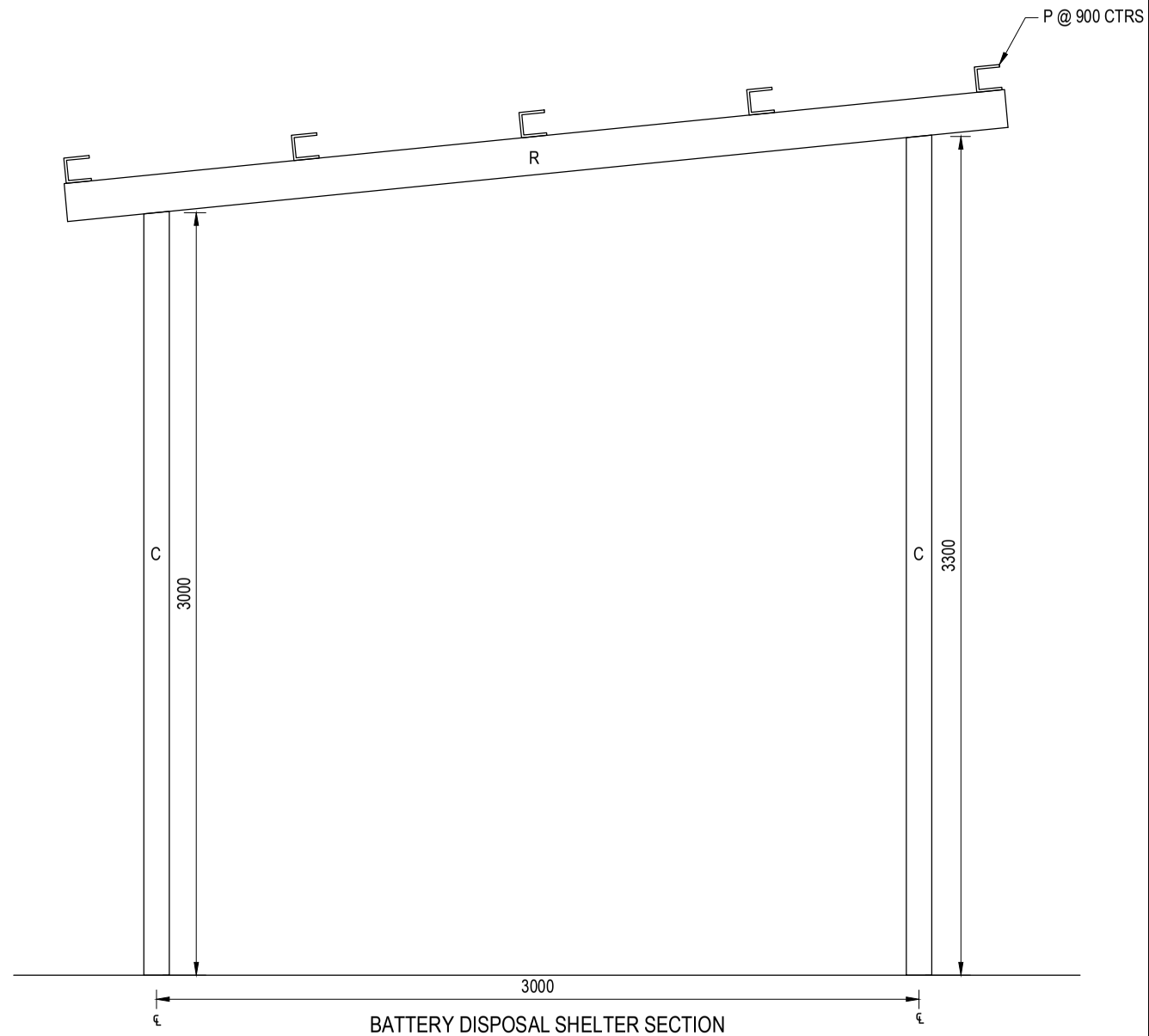


BATTERY DISPOSAL SHELTER LAYOUT



BATTERY DISPOSAL SHELTER SECTION

SCALE: 1:25

LEGEND

C = 6 x 100x100x4 SHS COLUMNS

P = PURLINS C10010 @ 900 CTRS

R = RAFTER C15012 @ 3000 CTRS

Date Printed: 07/04/2017 09:52:01

Rev.	Revision Description	By	Date
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Drawn: JC

Checked: SB

Approved:

SLJ Bourne
(RPEQ 1513)

Client: BARCALDINE REGIONAL COUNCIL

Project: WASTE MANAGEMENT FACILITY

Title: WASTE TRANSFER STATION
SHADE STRUCTURE DETAILS AND LAYOUTS

Category: STORM WATER

Drawing No. 140010-2/06

Rev. C

Scale: AS SHOWN

Size: A3

APPENDIX B

INCIDENT REGISTER

INCIDENT REGISTER

Incidents including fires, non-permitted waste and any other event that the operator is required to report to the EPA are recorded in the Incident Log. (See pages following)

Date Time	Incident Details:	Reported To: Date:
Action Taken:		
Follow up:		Time: By:
Date Time	Incident Details:	Reported To: Date:
Action Taken:		
Follow up:		Time: By:
Date Time	Incident Details:	Reported To: Date:
Action Taken:		
Follow up:		Time: By:
Date Time	Incident Details:	Reported To: Date:
Action Taken:		
Follow up:		Time: By:
Date Time	Incident Details:	Reported To: Date:
Action Taken:		
Follow up:		Time: By:

APPENDIX C

COMPLAINT REGISTER

COMPLAINTS REGISTER

Date/Time	Complainant Information (Name, Address)	Nature of Complaint	Action Taken

APPENDIX D

WATER BALANCE

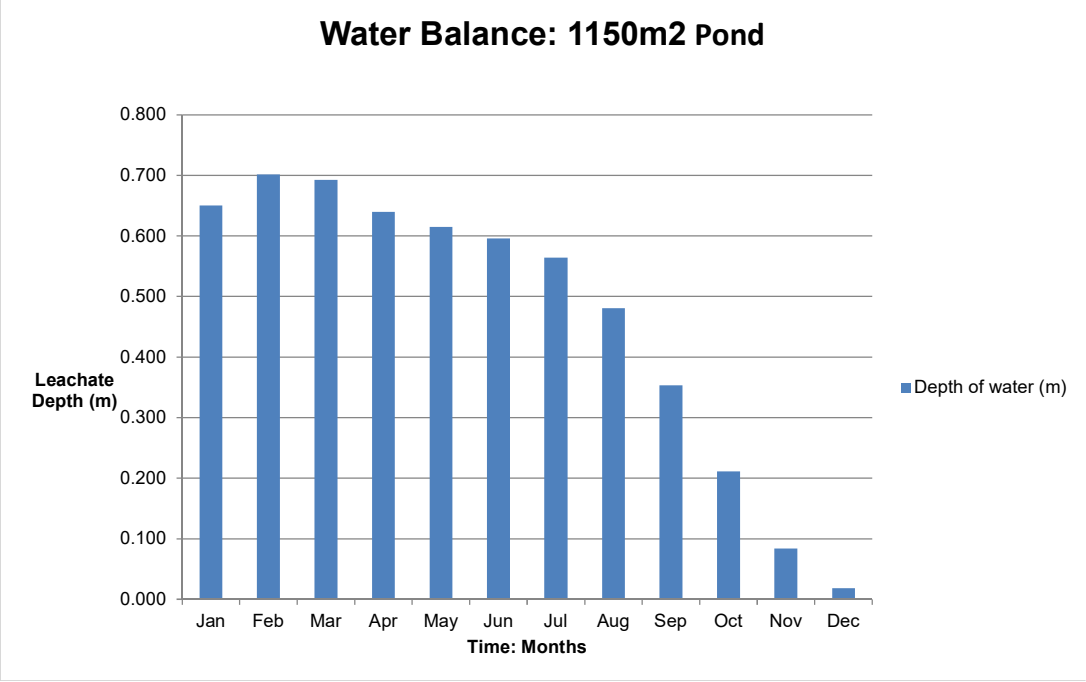
Barcaldine Waste Management Facility: Water Balance

	Leachate Pond Size	
Pond Size	**1150**	m2

Volume of water

1 in 25 yr event for 24 hr =	155	mm
Rubbish Pit Catchment Size m2=	2500	m2
Total m3=	775	m3
Waste absorption 7%, remaining	**720.75**	m3

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average rainfall (m)	0.09	0.08	0.06	0.04	0.03	0.02	0.02	0.02	0.02	0.03	0.04	0.06
Rainfall Volume (m3)	300.24	274.53	208.15	124.41	104.60	83.75	77.49	55.25	54.91	100.08	140.04	221.01
Septic Waste (m3)	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
Evaporation (m)	0.34	0.27	0.28	0.23	0.17	0.14	0.15	0.19	0.26	0.33	0.36	0.37
Evaporation @ 70% (m)	0.24	0.19	0.19	0.16	0.12	0.09	0.10	0.13	0.18	0.23	0.25	0.26
Evaporation volume (m3)	276.92	218.16	222.18	188.37	136.85	108.68	116.73	154.56	205.28	266.46	289.80	299.46
Previous volume (m3)	720.75	747.37	807.04	796.31	735.65	706.70	685.07	649.14	553.13	406.06	242.98	96.53
Residual (m3)	747.37	807.04	796.31	735.65	706.70	685.07	649.14	553.13	406.06	242.98	96.53	21.38
Depth of water (m)	0.650	0.702	0.692	0.640	0.615	0.596	0.564	0.481	0.353	0.211	0.084	0.019



APPENDIX E

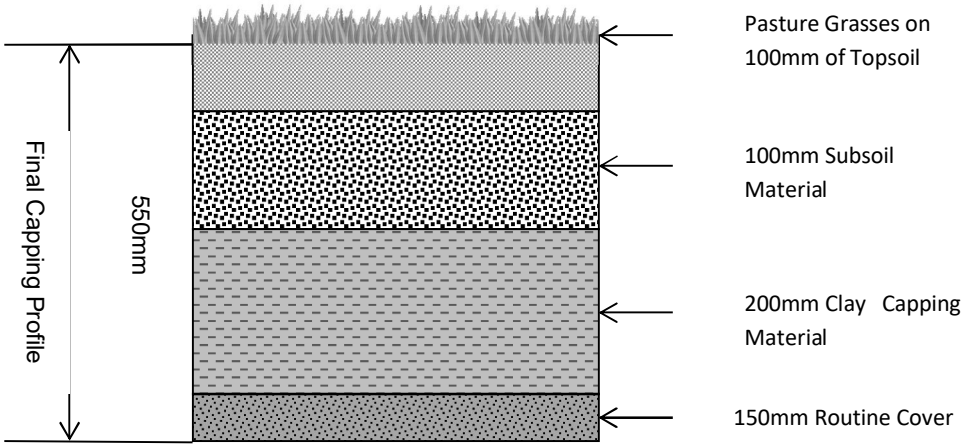
CAPILLARY CAP DESIGN

CAP DESIGN

As soon as is practically possible after the final waste profile is reached, the waste cell will be capped. The landfill cap will provide the primary means for protecting groundwater by preventing excessive water infiltration. The cap must also prevent access to the waste by insects, rodents and birds. The cap will consist of a minimum 500mm of compacted clean earth material. The design of the cap will consist of three separate layers:

1. One being a 150mm compacted layer of routine cover material;
2. The second layer will consist of a 200 mm compacted clay layer resistant to water penetration to prevent the infiltration of water into the underlying waste; and
3. A revegetation layer consisting of an upper most layer of 100mm of Topsoil capable of supporting and sustaining vegetation, underlying this top soil material will be a 100mm subsoil layer designed to insulate the compacted clay layer from desiccation and provide a suitable medium for deeper root growth to avoid penetration of the compacted clay layer.

A Sketch of landfill cap detail is presented below:



Landfill Capping

Clay capping material provides a low permeability barrier that prevents the infiltration of water into the underlying waste. The suitability of the clay should be assessed to determine, that it is capable of achieving a hydraulic conductivity of less than 1 x 10^{-9} meters per second.

To achieve the design objective of the low permeability liner the clay must:

1. Be placed at a moisture content of about two to four per cent wet of optimum;
2. Be placed by a series of shallow lifts not exceeding 200mm in thickness;
3. Be inspected to remove protruding rocks;
4. Have several passes by a pad foot roller, and
5. Have a total compacted thickness of not less than 0.2m.

The function of the surface layers, including the uncompacted subsoil and topsoil layer is to is to provide enough depth to prevent the underlying clay drying out and subsequently cracking as well as provide a medium to support vegetation, providing a great enough depth for the root zone of the plant to establish without penetrating the compacted clay layer. The surface layers should also promote water removal through evapotranspiration and reduce runoff.
The revegetation of the topsoil layer should not include deep rooted tree species but be rehabilitated using a suitable rehabilitation designed pasture species mix. A proposed seed mix has been developed by Pacific Seeds (Refer to Appendix F) including Indian Blue Grass, Cynodon dactylon – Couch with the inclusion of Bufell Grass. These species have been selected for their excellent stabilization characteristics and also their tolerance to dry conditions such as those experienced in Barcaldine.

APPENDIX F

PACIFIC SEEDS

From: Murray Aitchison - Progressive Seeds [mailto:info@pseeds.com.au]
Sent: Tuesday, 1 March 2016 10:24
To: William Green
Subject: RE: Seed mix for rubbish dump rehab

Hi William

Nice to hear from you again.

I will suggest you look at Indian couch (Keppel) and common green couch which could be used in combination with Buffel.

Both are stoloniferous grass and quite drought tolerant once established.

Attached is some information.

Prices excluding GST ex store Brisbane.

Keppel Indian couch	$30.00 kg packed 25 kg
Green couch	$15.00 kg packed 25 kg
Buffel coated	$8.50 kg packed 20 kg.

We will supply small lots minimum 1 kg.

Regards

Murray Aitchison
Progressive Seeds Pty Ltd
P O Box 10
Mt Crosby QLD 4306
Phone 617 32011741, Mobile 0409896822
Email: info@pseeds.com.au
Address: 466 Lake Manchester Rd., Kholo, Brisbane.