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Murray & Associates (Qld) Pty Ltd

**MURRAY &
ASSOCIATES**
SURVEYORS & TOWN PLANNERS



ACN 075 543 154 ABN 81 075 543 154

8 October 2020

The Chief Executive Officer
Barcaldine Regional Council
PO Box 191
BARCALDINE QLD 4725

Attention: Development Assessment

Dear Sir/Madam,

**APPLICATION FOR A DEVELOPMENT PERMIT FOR OPERATIONL WORK:
EXCAVATING AND FILLING ASSOCIATED WITH CATEGORY 2 LEVEE**

Property Description: Lot 1-11 on RY185, Lot 7 on SP243965, Lot 81 on SP246238,
Lot 1 on SP252172, Lot 1 on SP223525 and Road Reserve
Proposed Development: Application for a Development Permit for Operational Works:
Excavating and Filling associated with a Category 2 Levee; and
Local Government: Barcaldine Regional Council
Planning Scheme: Barcaldine Shire Council Planning Scheme
Our Reference: 400085
Applicant: Barcaldine Regional Council

On behalf of Barcaldine Regional Council, please find attached our Application for a Development Permit for Operational Works: Excavating and Filling associated with a Category 2 Levee.

The development is spread across a number of subject sites, specifically; Lot 1-11 on RY185, Lot 7 on SP243965, Lot 81 on SP246238, Lot 1 on SP252172, Lot 1 on SP223525 and Road Reserve.

In support of this application, please find attached:

- Completed DA Form 1; and
- A digital copy of Planning Report No. 400085 prepared by Murray & Associates (Qld) Pty Ltd, including Appendix A - D.

Upon processing please advise the application Reference Number and Council's Assessment Fee. The estimated value of the work is \$2 155 000.

We look forward to receiving Council's favourable Decision Notice for this proposal in due course.
Yours faithfully,

Andrew Bell
Director / Registered Surveyor / Senior Town Planner
MURRAY & ASSOCIATES (QLD) PTY LTD

Sunshine Coast

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2/9 First Ave Maroochydore
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Emerald

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PO Box 665 Emerald 4720
Phone (07) 4987 5363

Roma

22 Lewis Street
PO Box 1244 Roma 4455
Phone (07) 4622 1666

Chinchilla

39 Heeney Street
PO Box 243 Chinchilla 4413
Phone (07) 4662 8100

DA Form 1 – Development application details

Approved form (version 1.2 effective 7 February 2020) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) and parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application 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*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: All terms used in this form have the meaning given under the *Planning Act 2016*, the *Planning Regulation 2017*, or the *Development Assessment Rules (DA Rules)*.

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) <i>(individual or company full name)</i>	Barcaldine Regional Council
Contact name <i>(only applicable for companies)</i>	C/- Murray & Associates (QLD) Pty Ltd
Postal address <i>(P.O. Box or street address)</i>	PO Box 665
Suburb	Emerald
State	QLD
Postcode	4720
Country	
Contact number	(07) 4987 5363
Email address <i>(non-mandatory)</i>	andrewb@mursurv.com
Mobile number <i>(non-mandatory)</i>	
Fax number <i>(non-mandatory)</i>	
Applicant's reference number(s) <i>(if applicable)</i>	400085

2) Owner's consent

2.1) Is written consent of the owner required for this development application?

- Yes – the written consent of the owner(s) is attached to this development application
 No – proceed to 3)

PART 2 – LOCATION DETAILS

3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

Note: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see [DA Forms Guide: Relevant plans](#).

3.1) Street address and lot on plan

- Street address **AND** lot on plan (all lots must be listed), **or**
 Street address **AND** lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).

a)	Unit No.	Street No.	Street Name and Type	Suburb
				Barcaldine
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
b)	Unit No.	Street No.	Street Name and Type	Suburb
				Barcaldine
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
		1	SP252172	Barcaldine Regional Council

3.2) Coordinates of premises (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)

Note: Place each set of coordinates in a separate row.

- Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

- Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> 54 <input type="checkbox"/> 55 <input type="checkbox"/> 56	<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

3.3) Additional premises

- Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application
 Not required

4) Identify any of the following that apply to the premises and provide any relevant details

- In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer: Unnamed

- On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

- In a tidal area

Name of local government for the tidal area (if applicable):

Name of port authority for tidal area (if applicable):

- On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*

Name of airport:

Item 3.1 – Schedule of Land Relevant to Development Application

Unit No.	Street No.	Street Name and Type	Suburb
			Barcaldine
Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	1-11	RY185	Barcaldine Regional Council
Unit No.	Street No.	Street Name and Type	Suburb
			Barcaldine
Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	7	SP243965	Barcaldine Regional Council
Unit No.	Street No.	Street Name and Type	Suburb
			Barcaldine
Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	81	SP246238	Barcaldine Regional Council
Unit No.	Street No.	Street Name and Type	Suburb
		Yellow Jack Drive	Barcaldine
Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	1	SP223525	Barcaldine Regional Council

<input type="checkbox"/> Listed on the Environmental Management Register (EMR) under the <i>Environmental Protection Act 1994</i>
EMR site identification: <input type="text"/>
<input type="checkbox"/> Listed on the Contaminated Land Register (CLR) under the <i>Environmental Protection Act 1994</i>
CLR site identification: <input type="text"/>

5) Are there any existing easements over the premises?
Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see DA Forms Guide.

Yes – All easement locations, types and dimensions are included in plans submitted with this development application

No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect
a) What is the type of development? <i>(tick only one box)</i>
<input type="checkbox"/> Material change of use <input type="checkbox"/> Reconfiguring a lot <input checked="" type="checkbox"/> Operational work <input type="checkbox"/> Building work
b) What is the approval type? <i>(tick only one box)</i>
<input checked="" type="checkbox"/> Development permit <input type="checkbox"/> Preliminary approval <input type="checkbox"/> Preliminary approval that includes a variation approval
c) What is the level of assessment?
<input checked="" type="checkbox"/> Code assessment <input type="checkbox"/> Impact assessment <i>(requires public notification)</i>
d) Provide a brief description of the proposal <i>(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):</i>
Operational work associated with the construction of a category 2 levee.
e) Relevant plans <i>Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms guide: Relevant plans.</i>
<input checked="" type="checkbox"/> Relevant plans of the proposed development are attached to the development application
6.2) Provide details about the second development aspect
a) What is the type of development? <i>(tick only one box)</i>
<input type="checkbox"/> Material change of use <input type="checkbox"/> Reconfiguring a lot <input type="checkbox"/> Operational work <input type="checkbox"/> Building work
b) What is the approval type? <i>(tick only one box)</i>
<input type="checkbox"/> Development permit <input type="checkbox"/> Preliminary approval <input type="checkbox"/> Preliminary approval that includes a variation approval
c) What is the level of assessment?
<input type="checkbox"/> Code assessment <input type="checkbox"/> Impact assessment <i>(requires public notification)</i>
d) Provide a brief description of the proposal <i>(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):</i>
e) Relevant plans <i>Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.</i>
<input type="checkbox"/> Relevant plans of the proposed development are attached to the development application
6.3) Additional aspects of development
<input type="checkbox"/> Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
<input checked="" type="checkbox"/> Not required

Section 2 – Further development details

7) Does the proposed development application involve any of the following?

Material change of use	<input type="checkbox"/> Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	<input type="checkbox"/> Yes – complete division 2
Operational work	<input checked="" type="checkbox"/> Yes – complete division 3
Building work	<input type="checkbox"/> Yes – complete DA Form 2 – Building work details

Division 1 – Material change of use

Note: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material change of use

Provide a general description of the proposed use	Provide the planning scheme definition <i>(include each definition in a new row)</i>	Number of dwelling units <i>(if applicable)</i>	Gross floor area (m ²) <i>(if applicable)</i>

8.2) Does the proposed use involve the use of existing buildings on the premises?

Yes

No

Division 2 – Reconfiguring a lot

Note: This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?

1

9.2) What is the nature of the lot reconfiguration? *(tick all applicable boxes)*

<input type="checkbox"/> Subdivision <i>(complete 10)</i>	<input type="checkbox"/> Dividing land into parts by agreement <i>(complete 11)</i>
<input type="checkbox"/> Boundary realignment <i>(complete 12)</i>	<input checked="" type="checkbox"/> Creating or changing an easement giving access to a lot from a constructed road <i>(complete 13)</i>

10) Subdivision

10.1) For this development, how many lots are being created and what is the intended use of those lots:

Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?

Yes – provide additional details below

No

How many stages will the works include?

What stage(s) will this development application apply to?

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?				
Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment			
12.1) What are the current and proposed areas for each lot comprising the premises?			
Current lot		Proposed lot	
Lot on plan description	Area (m ²)	Lot on plan description	Area (m ²)
12.2) What is the reason for the boundary realignment?			

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? (attach schedule if there are more than two easements)				
Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? (e.g. pedestrian access)	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work

Note: This division is only required to be completed if any part of the development application involves operational work.

14.1) What is the nature of the operational work?	
<input type="checkbox"/> Road work <input type="checkbox"/> Drainage work <input type="checkbox"/> Landscaping <input type="checkbox"/> Other – please specify:	<input type="checkbox"/> Stormwater <input checked="" type="checkbox"/> Earthworks <input type="checkbox"/> Signage Levee Construction
<input type="checkbox"/> Water infrastructure <input type="checkbox"/> Sewage infrastructure <input type="checkbox"/> Clearing vegetation	
14.2) Is the operational work necessary to facilitate the creation of new lots? (e.g. subdivision)	
<input type="checkbox"/> Yes – specify number of new lots:	
<input checked="" type="checkbox"/> No	
14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)	
\$2 155 000	

PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application
Barcaldine Regional Council
16) Has the local government agreed to apply a superseded planning scheme for this development application?
<input type="checkbox"/> Yes – a copy of the decision notice is attached to this development application <input type="checkbox"/> The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached <input checked="" type="checkbox"/> No

PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?

Note: A development application will require referral if prescribed by the Planning Regulation 2017.

No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the *Planning Act 2016***:

- Clearing native vegetation
- Contaminated land (*unexploded ordnance*)
- Environmentally relevant activities (ERA) (*only if the ERA has not been devolved to a local government*)
- Fisheries – aquaculture
- Fisheries – declared fish habitat area
- Fisheries – marine plants
- Fisheries – waterway barrier works
- Hazardous chemical facilities
- Heritage places – Queensland heritage place (*on or near a Queensland heritage place*)
- Infrastructure-related referrals – designated premises
- Infrastructure-related referrals – state transport infrastructure
- Infrastructure-related referrals – State transport corridor and future State transport corridor
- Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
- Infrastructure-related referrals – near a state-controlled road intersection
- Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
- Koala habitat in SEQ region – key resource areas
- Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
- Ports – Brisbane core port land – environmentally relevant activity (ERA)
- Ports – Brisbane core port land – tidal works or work in a coastal management district
- Ports – Brisbane core port land – hazardous chemical facility
- Ports – Brisbane core port land – taking or interfering with water
- Ports – Brisbane core port land – referable dams
- Ports – Brisbane core port land – fisheries
- Ports – Land within Port of Brisbane’s port limits (*below high-water mark*)
- SEQ development area
- SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
- SEQ regional landscape and rural production area or SEQ rural living area – community activity
- SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
- SEQ regional landscape and rural production area or SEQ rural living area – urban activity
- SEQ regional landscape and rural production area or SEQ rural living area – combined use
- Tidal works or works in a coastal management district
- Reconfiguring a lot in a coastal management district or for a canal
- Erosion prone area in a coastal management district
- Urban design
- Water-related development – taking or interfering with water
- Water-related development – removing quarry material (*from a watercourse or lake*)
- Water-related development – referable dams
- Water-related development – levees (*category 3 levees only*)
- Wetland protection area

Matters requiring referral to the **local government**:

- Airport land
- Environmentally relevant activities (ERA) (*only if the ERA has been devolved to local government*)

Heritage places – Local heritage places

Matters requiring referral to the Chief Executive of the distribution entity or transmission entity:

Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:

- The **Chief Executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual

Infrastructure-related referrals – Oil and gas infrastructure

Matters requiring referral to the Brisbane City Council:

Ports – Brisbane core port land

Matters requiring referral to the Minister responsible for administering the Transport Infrastructure Act 1994:

Ports – Brisbane core port land *(where inconsistent with the Brisbane port LUP for transport reasons)*

Ports – Strategic port land

Matters requiring referral to the relevant port operator, if applicant is not port operator:

Ports – Land within Port of Brisbane’s port limits *(below high-water mark)*

Matters requiring referral to the Chief Executive of the relevant port authority:

Ports – Land within limits of another port *(below high-water mark)*

Matters requiring referral to the Gold Coast Waterways Authority:

Tidal works or work in a coastal management district *(in Gold Coast waters)*

Matters requiring referral to the Queensland Fire and Emergency Service:

Tidal works or work in a coastal management district *(involving a marina (more than six vessel berths))*

18) Has any referral agency provided a referral response for this development application?

Yes – referral response(s) received and listed below are attached to this development application

No

Referral requirement	Referral agency	Date of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application , or include details in a schedule to this development application *(if applicable)*.

PART 6 – INFORMATION REQUEST

19) Information request under Part 3 of the DA Rules

I agree to receive an information request if determined necessary for this development application

I do not agree to accept an information request for this development application

Note: *By not agreeing to accept an information request I, the applicant, acknowledge:*

- *that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties*
- *Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules.*

Further advice about information requests is contained in the [DA Forms Guide](#).

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)			
<input checked="" type="checkbox"/> Yes – provide details below or include details in a schedule to this development application <input type="checkbox"/> No			
List of approval/development application references	Reference number	Date	Assessment manager
<input type="checkbox"/> Approval <input type="checkbox"/> Development application			
<input type="checkbox"/> Approval <input type="checkbox"/> Development application			

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)		
<input type="checkbox"/> Yes – a copy of the receipted QLeave form is attached to this development application <input type="checkbox"/> No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid <input checked="" type="checkbox"/> Not applicable (e.g. building and construction work is less than \$150,000 excluding GST)		
Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
\$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?
<input type="checkbox"/> Yes – show cause or enforcement notice is attached <input checked="" type="checkbox"/> No

23) Further legislative requirements	
Environmentally relevant activities	
23.1) Is this development application also taken to be an application for an environmental authority for an Environmentally Relevant Activity (ERA) under section 115 of the <i>Environmental Protection Act 1994</i> ?	
<input type="checkbox"/> Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below <input checked="" type="checkbox"/> No <i>Note: Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.</i>	
Proposed ERA number:	Proposed ERA threshold:
Proposed ERA name:	
<input type="checkbox"/> Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.	
Hazardous chemical facilities	
23.2) Is this development application for a hazardous chemical facility ?	
<input type="checkbox"/> Yes – Form 69: Notification of a facility exceeding 10% of schedule 15 threshold is attached to this development application <input checked="" type="checkbox"/> No <i>Note: See www.business.qld.gov.au for further information about hazardous chemical notifications.</i>	

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

- Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)
- No

Note: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.
2. See <https://www.qld.gov.au/environment/land/vegetation/applying> for further information on how to obtain a s22A determination.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

- Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter
- No

Note: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.

Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

- Yes – the development application involves premises in the koala habitat area in the koala priority area
- Yes – the development application involves premises in the koala habitat area outside the koala priority area
- No

Note: If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at www.des.qld.gov.au for further information.

Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the Water Act 2000**?

- Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development
- No

Note: Contact the Department of Natural Resources, Mines and Energy at www.dnrme.qld.gov.au for further information.

DA templates are available from <https://planning.dsdmip.qld.gov.au/>. If the development application involves:

- Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1
- Taking or interfering with water in a watercourse, lake or spring: complete DA Form 1 Template 2
- Taking overland flow water: complete DA Form 1 Template 3.

Waterway barrier works

23.7) Does this application involve **waterway barrier works**?

- Yes – the relevant template is completed and attached to this development application
- No

DA templates are available from <https://planning.dsdmip.qld.gov.au/>. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants**?

- Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*
- No

Note: See guidance materials at www.daf.qld.gov.au for further information.

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000*?

- Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
 No

Note: Contact the Department of Natural Resources, Mines and Energy at www.dnrme.qld.gov.au and www.business.qld.gov.au for further information.

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995*?

- Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
 No

Note: Contact the Department of Environment and Science at www.des.qld.gov.au for further information.

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the *Water Supply Act*)?

- Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the *Water Supply Act* is attached to this development application
 No

Note: See guidance materials at www.dnrme.qld.gov.au for further information.

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district**?

- Yes – the following is included with this development application:
 Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)
 A certificate of title
 No

Note: See guidance materials at www.des.qld.gov.au for further information.

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

- Yes – details of the heritage place are provided in the table below
 No

Note: See guidance materials at www.des.qld.gov.au for information requirements regarding development of Queensland heritage places.

Name of the heritage place:		Place ID:	
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Brothels

23.14) Does this development application involve a **material change of use for a brothel**?

- Yes – this development application demonstrates how the proposal meets the code for a development application for a brothel under Schedule 3 of the *Prostitution Regulation 2014*
 No

Decision under section 62 of the Transport Infrastructure Act 1994

23.15) Does this development application involve new or changed access to a state-controlled road?

- Yes - this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)
 No

PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist	
I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17 <i>Note: See the Planning Regulation 2017 for referral requirements</i>	<input checked="" type="checkbox"/> Yes
If building work is associated with the proposed development, Parts 4 to 6 of DA Form 2 – Building work details have been completed and attached to this development application	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
Supporting information addressing any applicable assessment benchmarks is with the development application <i>Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template.</i>	<input checked="" type="checkbox"/> Yes
Relevant plans of the development are attached to this development application <i>Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.</i>	<input checked="" type="checkbox"/> Yes
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (<i>see 21</i>)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable

25) Applicant declaration	
<input checked="" type="checkbox"/> By making this development application, I declare that all information in this development application is true and correct	
<input checked="" type="checkbox"/> Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the <i>Electronic Transactions Act 2001</i> <i>Note: It is unlawful to intentionally provide false or misleading information.</i>	
<p>Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.</p> <p>Personal information will not be disclosed for a purpose unrelated to the <i>Planning Act 2016</i>, <i>Planning Regulation 2017</i> and the DA Rules except where:</p> <ul style="list-style-type: none"> • such disclosure is in accordance with the provisions about public access to documents contained in the <i>Planning Act 2016</i> and the <i>Planning Regulation 2017</i>, and the access rules made under the <i>Planning Act 2016</i> and <i>Planning Regulation 2017</i>; or • required by other legislation (including the <i>Right to Information Act 2009</i>); or • otherwise required by law. <p>This information may be stored in relevant databases. The information collected will be retained as required by the <i>Public Records Act 2002</i>.</p>	

PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received: Reference number(s):

Notification of engagement of alternative assessment manager	
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment			
<i>Note: For completion by assessment manager if applicable</i>			
Description of the work			
QLeave project number			
Amount paid (\$)		Date paid (dd/mm/yy)	
Date receipted form sighted by assessment manager			
Name of officer who sighted the form			

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Figure 1 – Haul Route

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Appendix A – Levee Design

Appendix B – Code Assessment

Appendix C – SARA Assessment

Contact Details

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1.0 Summary

SITE DETAILS

Address	Barcaldine QLD 4725
Real Property Description	Lot 1-11 on RY185 Levee Lot 7 on SP243965 Levee Lot 81 on SP246238 Levee Lot 1 on SP252172 Levee Lot 1 on SP223525 Fill Material Road Reserve Levee
Local Authority	Barcaldine Regional Council

PLANNING DESIGNATIONS

Planning Instrument	Barcaldine Shire Planning Scheme
Zoning	Rural Zone, Mixed Used Zone and Open Space and Recreation Zone

APPLICATION DETAILS

Applicant	Barcaldine Regional Council
Proposal	- Excavating and Filling associated with a Category 2 Levee
Application Type	Development Permit for Operational Works
Level of Assessment	Code Assessment

PROJECT TEAM

Town Planning Consultant	Murray & Associates (Qld) Pty Ltd
Consulting Engineers	George Bourne & Associates ACS Engineers

2.0 Introduction

Murray & Associates (Qld) Pty Ltd have been commissioned to prepare this planning report on behalf of Barcaldine Regional Council, for Application for a Development Permit for Operational Works - Excavating and Filling associated with a Category 2 Levee.

The development involves land described as Lot 1-11 on RY185, Lot 7 on SP243965, Lot 81 on SP246238, Lot 1 on SP252172, Lot 1 on SP223525 and Road Reserve.

The proposed development requires 'Code Assessment' as determined in accordance with:

- Tables 4.1.1(4), 4.6.1(4) and 4.7.1(4) of the Barcaldine Shire Planning Scheme; and
- Schedule 10, Division 4, Subdivision 2 of the Planning Regulation 2017.

This planning report provides an assessment of the development proposal against the applicable provisions of the Barcaldine Shire Planning Scheme and relevant Water Regulation benchmarks and should be read in conjunction with the supporting information included within the Figures and Appendices, together with attached DA Form 1.

3.0 Characteristics of the Site and Surrounding Area

3.1 Overview

3.1.1 Location of the Subject Site

The land involved in the application is situated in and around the town of Barcaldine and is described as Lot 1-11 on RY185, Lot 7 on SP243965, Lot 81 on SP246238, Lot 1 on SP252172, Lot 1 on SP223525 and Road Reserve.

3.1.2 Site Characteristics

Lot 1-11 on RY185, Lot 7 on SP243965, Lot 81 on SP246238, Lot 1 on SP252172 and the affected road reserve are all vacant of any buildings, structures or any physical improvements.

Lot 1 on SP223525 is the Council refuse facility and contains a pit that has been used to source fill material for other Council projects. Lot 1 on SP223525 is located to the south of Barcaldine. This site is accessed via Yellowjack Drive.



4.0 Proposed Development

4.1 Development Overview

The proposed development applies for approval for Operational Works - Excavating and Filling associated with a Category 2 Levee.

On 23/01/19 Barcaldine Regional Council approved an application seeking Development Permit for Material Change of Use for Outdoor Recreation. Relative to this application it involved the construction of a ski park on land identified as Lot 9 on SP297069.

The design required excavation of 224 124m³ of material, 177 790m³ of which was used as fill for the construction of the ski park.

As a result of the ski park design it was identified that it had potential to increase flooding heights within the town of Barcaldine should a major flood event occur. In order to proceed with the ski park whilst also ensuring no detrimental impact to the town of Barcaldine it is intended to construct a earth levee on the north western side of town, between the existing township and the natural watercourse, Lagoon Creek.

Excavating and Filling for Category 2 Levee

The Barcaldine Flood Hazard Assessment Study refer Appendix B, identified that the ski park would result in an increase in flood levels for all modelled events. For the detailed findings please refer to the report.

In section 5 of the Flood Hazard Assessment Study it has been determined that the preferred method of mitigating the flood impacts resulting from the ski park is the construction of an earth levee. The proposed levee has been included in flood modelling within the report.

The levee is identified as a Category 2 Levee given the proposed levee has an

off-property impact and for which the affected population is less than 3. No habitable buildings or structures will be affected as a result of the construction of the levee.

The levee will be a predominantly earthen embankment with the following general dimensions:

- Height – 0.5 m to 3.5 m
- Crest width – 2 m
- Side slopes: 1 in 3
- Horizontal alignment - 978m (including section across road which will not be constructed)

The levee will also have a 1 m x 1 m key into natural ground to act as a footing.

The levee will require approximately 20853m³.

Fill will be sourced from Lot 1 on SP223525. This land contains Council's refuse facility to the south of town and has a pit that has been used to source fill for other Council projects.

Appendix A contains detailed designs showing the position and alignment of the levee.

The haul route to the construction site will be:

- Yellowjack Drive – 900m
- Landsborough Highway/Box Street – 3.9km (State-controlled)
- Oak Street – 240m (State-controlled)
- Beech Street/Barcaldine Aramac Road - 470m (depending on dump point) (State-controlled)



— Haul Route

Figure 1 – Haul Route

The construction is expected to be completed within an 8-week timeframe weather pending. At this stage the works are scheduled to commence start of February and be completed by end of March.

All material will be hauled by side or rear tipper trucks. All trucks used will have a covered bucket. This will ensure dust emissions are minimised whilst transporting material through town.

Appendix A of this report contains the following documents relating to the levee:

- Flood Hazard Assessment
- Figures for Flood Hazard Assessment

-
- Levee Operations and Maintenance Manual
 - Barcaldine Regional Council Construction Timeline

5.0 Development Assessment

5.1 Level of Assessment & Strategic Framework

As stated under Section 1.0 and 2.0 of this report, the proposed development is 'Code Assessable', as determined in accordance with:

- Tables 4.1.1(4), 4.6.1(4) and 4.7.1(4) of the Barcaldine Shire Planning Scheme; and
- Schedule 10, Division 4, Subdivision 2 of the Planning Regulation 2017.

5.2 Applicable Codes

The applicable use and development codes for the proposed development are listed as follows: -

- Operational Work Code (Note: The Operational Work Code is the same for the Rural, Mixed Use and Open Space and Recreation Zone); and
- Water Regulation Schedule 10 – Code for Assessment of Development for Construction or Modification of Particular Levees.

A response to the applicable assessment provisions is included with **Appendix B** of this report.

6.0 State Planning Matters

7.1 Referral for Matters of State Interest

The Planning Act 2016 and the Planning Regulation 2017 provide the legislative framework within Queensland for authorities (Local and State Government) to assess development applications. Matters that require assessment may be delegated to the Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) for assessment by the State Assessment and Referral Agency (SARA).

Following a review of the SARA DA Online Mapping System and the Planning Regulation 2017, it is acknowledged that the subject development requires referral to DSDMIP for the following triggers:

- Schedule 9, part 9, div 4, sub 2, table 5 - State transport corridors (premises within 25m of a Railway)
- Schedule 10, part 9, div 4, sub 1, table 1 - Operational work involving excavation/fill > 10,000t

7.0 Conclusions and Recommendations

This application provides justification for approval for a Development Permit for Operational Works - Excavating and Filling associated with a Category 2 Levee

This is on the following grounds:

- The levee bank will improve the flood immunity of the building on the north-west side of Barcaldine nearby Lagoon Creek.
- The levee has been appropriately designed by an RPEQ Engineer.
- The proposed levee does not have any adverse impact on surrounding properties, in particular habitable buildings or farm infrastructure.
- The proposed development achieves the provisions of the Barcaldine Shire Council Planning Scheme and Water Regulation 2016.

Thus, it is recommended that Council issue approval for a Development Permit for Operational Works - Excavating and Filling associated with a Category 2 Levee.

Levee Design

Code Assessment

SARA Assessment

Levee Design

ACS Engineers

CIVIL | ENVIRONMENTAL | PROJECT MANAGEMENT

BARCALDINE FLOOD HAZARD ASSESSMENT STUDY



Project Name: Barcaldine Ski Park
Flood Hazard Assessment Study
and Mitigation Report

Prepared for: Barcaldine Regional
Council


Barcaldine Qld

ACS Engineers

18 August 2020

190005

Document Control:-

Rev No.	Author	Reviewed	Approved		Description	Date
	Name	Name	Name	Signature		
1	Susan Shay	Darcy Stevenson	Susan Shay		Draft	27/07/2020
2	Susan Shay	Darcy Stevenson	Susan Shay		Final	18/08/202

Notes:

Revision 1 Draft for client review

Revision 2 Final issue. Comments regarding detention/retention and easements and reserves added to Sections 5.1.1 and 5.1.2.

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Executive Summary

Barcaldine Regional Council (BRC) engaged ACS Engineers (ACS) to undertake a flood hazard assessment, in accordance with the development approval conditions (MCU DA491718), of the potential increase in flood hazard impact due to the proposed Barcaldine Recreation Park. This flood hazard impact assessment also addresses and evaluates mitigation strategies. This assessment follows from the Barcaldine Ski Park Flood Impact Assessment (2018) prepared for George Bourne and Associates (GBA) by ACS as part of the development approval application and subsequent further advices memorandums.

The recreational park proposal includes the construction of a water ski lake on land adjacent to Lagoon Creek, to the west of the main residential area of Barcaldine. As the area will be located within the flood plain, an assessment of the potential flood hazard impacts to the adjacent areas is required. This report documents the hydrological and hydraulic assessments undertaken and the potential impacts at selected locations. It also documents flood hazard mitigation options assessed and evaluated.

The ski lake design was adopted through the development approval process. The structure uses a cut to fill methodology, where the outer embankments are formed using the excavated material from within the footprint. The outer embankments will be capped with the pre-stripped site topsoil, providing a material balance.

A hydrology model was produced to estimate the peak discharge at the proposed ski park site, to understand the potential changes as a result of the development. The 63.2%, 50%, 20%, 10%, 5%, 2%, 1%, 0.2% Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) peak discharges were assessed.

A flood model was subsequently produced using HEC-RAS 2D (Version 5.0.3) (USACE 2016), to assess the potential change in flood impacts, as a result of the ski park, at the points of interest for the peak flood events. The results of the model showed the flood inundation depths, the velocity and flood hazard across the assessment area. The post development scenario shows an increase in flood level at all assessed locations. Of the eleven locations assessed, five locations were shown to not be impacted during the pre development scenario. These all remained unaffected at the developed scenario. The flood levels downstream of the ski lake showed no significant change in inundation depth. The maximum velocities for all scenarios were seen to increase due to the restricted flood plain width.

A number of flood mitigation options were identified that could be considered for future implementation to reduce the potential flood impact to the development, properties, the environment and public safety. These options and considerations not only address the strategies to mitigate flood impacts with respect to the ski park development but also the flood impacts generally as experienced by the town due to the proximity of Lagoon Creek. These include:

- Specific design elements for the protection of the ski park embankment during flood events
- Design requirements of infrastructure associated with the ski park (buildings and services)
- Operational requirements of the ski park with respect to flood events
- Review of town flood warning and evacuation procedures
- Construction of a town flood mitigation levee
- Incorporation of additional planning assessment criteria for future development within the identified flood zone

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1. Introduction

Barcaldine Regional Council (BRC) engaged ACS Engineers (ACS) to undertake a flood hazard assessment, in accordance with the development approval conditions (MCU DA491718), of the potential increase in flood hazard impact due to the proposed Barcaldine Recreation Park. This flood hazard impact assessment also addresses and evaluates mitigation strategies. This assessment follows from the Barcaldine Ski Park Flood Impact Assessment (2018) prepared for George Bourne and Associates (GBA) by ACS as part of the development approval application and subsequent further advices memorandums.

The recreational park proposal includes the construction of a water ski lake on land adjacent to Lagoon Creek, to the west of the main residential area of Barcaldine. As the area will be located within the flood plain, an assessment of the potential flood hazard impacts to the adjacent areas is required.

This report documents the hydrological and hydraulic assessments undertaken and the potential impacts at selected locations. It also documents flood hazard mitigation options assessed and evaluated.

1.1. Background

The proposed recreation park is to be located immediately to the east of the township of Barcaldine and situated within the Lagoon Creek flood impact zone. Lagoon Creek (proper) is within 50 m of the proposed ski lake extents and approximately 15 km upstream of the confluence with the Alice River. Both the Alice River and Lagoon Creek are ephemeral however sub-surface flow continues through much of the year.

The ski lake design, shown in Figure 1, was produced by SMK Consulting (2018) and subsequently adopted through the development approval process. The structure uses a cut to fill methodology, where the outer embankments are formed using the excavated material from within the footprint. The outer embankments will be capped with the pre-stripped site topsoil, providing a material balance. Following development approval additional design was undertaken to detail the spillway incorporated into the ski park embankment. The design plans are provided as Appendix A).



Figure 1 Proposed Ski Park Layout

1.2. Design Basis

The following assumptions were used for this assessment:

- The discharges from the urban areas of Barcaldine will occur faster than the discharges from the greater catchment. As such the stormwater system was not modelled within the hydrological model, and inflows from the urban zone were combined.
- Catchment flooding will be assessed in context of the highest risk flood.
- All minor culverts are assumed to be blocked during flood events and are not included within the model.
- Peak flood levels in Lagoon Creek are not influenced by coincident flooding in the Alice River. (Verification modelling has not been undertaken)
- The Ski Park will be maintained at a standing water level of RL 257.1 m.

2. Hydrological Assessment

A hydrology model was produced to estimate the peak discharge at the proposed ski park site, to understand the potential changes as a result of the development. The 63.2%, 50%, 20%, 10%, 5%, 2%, 1%, 0.2% Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) peak discharges were assessed, and the catchment conditions were updated for the proposed developed conditions.

The catchment contributing to the project site is approximately 530 km².

2.1. Runoff Model Methodology

RORB (Nathan 2017), is a catchment modelling software used to estimate the peak discharge and routing between sub-catchments. The program is widely used within Australia and it is appropriate to request potential landholders use RORB (or similar) for future studies.

The following assumptions were used for all catchments:

- Dams assumed to be full, with no staged routing through the impoundment.
- Land use based on aerial imagery.
- Urban areas were not modelled separately, and no urban stormwater was included within the model. This was assessed to be satisfactory due to the difference in catchment response between the urban areas (at the outlet) and the greater catchment.
- The antecedent conditions of the catchment were modelled as the average condition, where the catchment is not already 'wet up.' In the wetter scenario, the catchment responses would generally be faster, and a higher peak discharge could be expected.

2.2. Inputs

RORB requires a series of climate input data and assumptions, as provided in Table 1. The intensity-frequency-duration (IFD) data was sourced from the Bureau of Meteorology (BOM) using the 2016 IFD data release 1 and the RORB input files were sourced from Geoscience Australia (2016). To model the PMF event, the Probable Maximum Precipitation (PMP) for the catchment was calculated using the Revised Generalised Tropical Storm Method (GTSMR) as described in the Bureau of Meteorology 2005 issue of the “Guidebook to the Estimation of Probable Maximum Precipitation: Generalised Tropical Storm Method”.

A single RORB model was produced with 8 sub-catchments and reaches conveying the flow between sub catchments. The catchment characteristics, were sourced from the survey provided to ACS Engineers by GBA supplemented with data from QGIS AusMap (Knott 2017).

The catchment, sub catchments and peak discharge reporting location are shown in Figure 2.

