



Barcaldine Macropod Processor

Project Business Case

Clean Growth Choices



Photo Credit: ABC: <https://www.abc.net.au/news/rural/2015-10-29/kangaroo-processing-plant-hopes-for-aramac/6895614>

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Extensive resources including case studies are available at: <https://www.cleangrowthchoices.org/>

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Table of Contents

The Clean Growth Choices Consortium is delivering the Communities in Transition (CiT) pilot project with the support of the Queensland Government. 2

1 Executive Summary 5

 1.1 Communities in Transition: Clean Growth Choices 5

2 Introduction/Background 6

3 Overview 6

 3.1 Vision 6

 3.2 Organisational Objective 6

4 The Business Case 6

 4.1 Purpose of the Business Case 6

 4.2 Business Case Sponsor 8

5 Situational Assessment and Problem Statement 8

6 Assumptions and Constraints 9

7 Identification and Analysis of Options 10

 7.1 Identification of Options 10

 7.1.1 Option 1 – Abattoir Development 10

 7.1.2 Option 2 – Do Nothing Option 10

 7.2 Comparison of Options 10

 7.3 Recommended Option 11

8 Risks and Benefits 11

 8.1 Matters to be Considered 11

 8.2 Risks 13

 8.3 Potential Benefits 13

9 Implementation Strategy 13

 9.1 Project Title 13

 9.2 Target Outcomes 14

 9.3 Outputs 14

 9.4 Work Plan 14

 9.5 Budget 14

 9.6 Other Resources 15

10 Project Management Framework 15

 10.1 Governance 15

 10.2 Project and Quality Management 17

Appendix A: Benefit Analysis 19

Appendix B: Risk Analysis 20

Appendix C: Background Information 21

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1 Executive Summary

This Project is identified in the Clean Growth Choices Roadmap for Barcaldine.

This business case reflects the desire of the Barcaldine Clean Growth Choices' participants to diversify the economy to increase regional revenue from enterprises that are not as weather dependent, thus mitigating the increasing uncertainty in agriculture.

This preliminary business case assesses a proposal to locate a macropod processor in Aramac and provide a work program for the delivery of an investment grade business case. There has been some consideration of a macropod processing project for some time¹.

Our Future State: This business case advances projects that address a number of key government objectives including:

- Creating Jobs in a Strong Economy by creating and maintaining jobs for regional employees in drought-affected communities
- Keeping Queenslanders Healthy – by reducing financial pressures on regional families, reducing suicides.

The business case identifies that the proposed processor's key risks relate to securing a long-term supply of carcasses, and recommends that further work is undertaken to secure a long-term supply of carcasses.

1.1 Communities in Transition: Clean Growth Choices

The CiT Program delivers on the Queensland Climate Transition Strategy's action to build leadership capacity within communities to develop place-based climate transition roadmaps.

These roadmaps and this business case, identify opportunities for economic and social development and climate resilience in regional Queensland. These opportunities range across a number of sectors including agriculture, waste, water supply, tourism, energy, manufacturing, transport and human services.

The multidisciplinary nature of these business cases means that other Queensland Government priorities are indirectly addressed, thus offering an opportunity to leverage efforts across government.

The CiT Pilot Program contributes to reducing emissions contributions by identifying economic opportunities that support the transition to a low carbon economy, under the Queensland Climate Transition Strategy.

Importantly, this business case identifies not only low-emissions opportunities, but offers economic diversification to build resilience in regional economies.

The Barcaldine Living Roadmap outlines how a group of Barcaldine residents came together to develop a series of business cases for future development projects.

1. _____

¹ <https://www.abc.net.au/news/rural/2015-10-29/kangaroo-processing-plant-hopes-for-aramac/6895614>

2 Introduction/Background

This project has been prioritised by the Barcaldine working groups under a Value Creation pathway. The pathway recognises the potential for key tourist destinations along with a central coordinating strategy to diversify the regional economy.

The proposal is to build a small abattoir plant to process 500 to 800 kangaroos per week, blast freezing the meat and using a local transport company to deliver the frozen meat to the Townsville or Brisbane ports. The process used at a small abattoir would be: (1) a macropod harvester brings in a load, (2) carcasses are weighed, skinned, checked by a vet, then (3) boned and frozen. Only four people touch the carcasses and the kangaroo meat stays in a cold environment for the entire process period, limiting the chance of contamination.

If the macropod abattoir was to diversify into other small animals like goats and sheep, further jobs would be created and regional graziers would benefit as their transport costs would be significantly reduced. Currently, these animals are transported to Charleville for processing.

3 Overview

3.1 Vision

Diversify the Barcaldine Region economy with a comprehensive approach to adding value to the Region's primary produce.

The strategy will provide a genuine long-term diversification of the Barcaldine economy to enable it to be sustainable in the long-term, with sufficient diversity to allow it to withstand periods of prolonged drought.

3.2 Organisational Objective

To add diversity to Barcaldine's economy through the development of an Aramac facility that processes kangaroos and freezes them for shipping to market.

The objectives of the development of the business case are:

- The Clean Growth Choices core value is the provision of a practical tool within a structured framework to help participants better examine how their ideas can take the community towards the BRC big vision of BRC communities as growth communities,
- Emphasis is on idea translation and to try help ensure successful progress from idea to execution,
- To enable an enterprise/community to explore, find, validate, integrate and pursue viable strategic options that ensure its business model and identity are viable.

4 The Business Case

4.1 Purpose of the Business Case

The purpose of the business case is to:

1. Outline the potential for macropod processing in Barcaldine,

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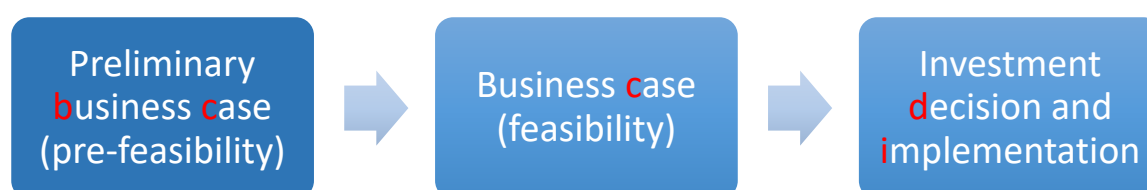


2. analyse a number of options as proposed by the Clean Growth Choices Working Group
3. identify costs, benefits and risks, and
4. develop a proposal to proceed with the project, or to identify a funding source and develop a proposal to fund the project. .

The business case proposes three project options to achieve the above outcome.

This is a preliminary business case that will provide the working group with:

1. A sound basis for a decision to proceed to a business case, and
2. The next steps and estimated costs to develop the business case.



Sustainable Development Goals

The project aims to achieve sustainable economic development in Barcaldine and in particular, work towards achieving the following of the [United Nations Sustainable Development Goals](#) (SDGs):

Number	Goal	Explanation
SDG 7	Affordable and Clean Energy	Focusing on universal access to energy, increased energy efficiency and the increased use of renewable energy through new economic and job opportunities is crucial to creating more sustainable and inclusive communities and resilience to environmental issues like climate change.
SDG 9	Industries Innovation and Infrastructure	Investments in infrastructure – transport, irrigation, energy and information and communication technology – are crucial to achieving sustainable development and empowering communities in many countries. It has long been recognized that growth in productivity and incomes, and improvements in health and education outcomes require investment in infrastructure.
SDG 13	Climate Action	Climate change is now affecting every country on every continent. It is disrupting national economies and affecting lives, costing people, communities and countries dearly today and even more tomorrow. Weather patterns are changing, sea levels are rising, weather events are becoming more extreme and greenhouse gas emissions are now at their highest levels in history. Without action, the world’s average

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		surface temperature is likely to surpass 3 degrees centigrade this century. The poorest and most vulnerable people are being affected the most.
SDG 17	Partnerships for the Goals	A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the centre, and are needed at the global, regional, national and local level.

4.2 Business Case Sponsor

The sponsor of the business case is the Queensland Department of Environment and Science (DES). Note that if the project progresses to the next stage, there may be a new project sponsor.

5 Situational Assessment and Problem Statement

This section outlines the benefit to the region for proceeding with the one or more of the proposed options and contains:

- a description of the current situation, challenges and opportunities,
- an assessment of how the opportunities are currently being met or not met,
- an analysis of the gap between the current situation and the stated objective.

The project seeks to value-add to the local macropod harvesting industry by developing a commercial abattoir capable of processing local kangaroos. This will have the added benefit of overcoming other issues including maintaining food safety standards through the chain of custody.

The project considers the prospect of a macropod abattoir, located at Aramac, to process carcasses for human consumption and supply frozen meat to domestic and export markets.

At present, the potential availability of macropod carcasses may be restricted by a number of factors affecting supply directly or indirectly:

- The harvesting quota will prevent the culling of Eastern Grey Kangaroos and reduce the number of other species,^{2 3}
- On-farm culling with permits by farms has been increasing which means the culled macropods are not utilised,
- There is anecdotal evidence that cluster fencing may be impacting macropod movement numbers, though there has been no formal study to demonstrate this.

Barcaldine is in the central harvest zone for macropods⁴. The commercial macropod harvest in Queensland ranges between about 800,000 and 2,000,000 animals per annum with the number trending down from a peak in 2006⁵.

1. _____

² <https://www.queenslandcountrylife.com.au/story/6474143/roo-harvest-suspension-monumentally-foolish/?cs=4698>

³ <https://www.abc.net.au/news/2019-11-05/harvest-cancelled-while-millions-of-kangaroos-starve-in-drought/11669190>

Macropod harvesting has a long history in Aramac and surrounding communities. It has proven to be sustainable; constantly harvesting 810 tonnes of kangaroo meat for human consumption per year. The kangaroos are collected weekly and trucked to Brisbane or Townsville, with 800 carcasses to a truck. The current process may result in contamination with the back doors being opened at each town pick up, leading to the risk of introducing heat, fumes, dust and other contaminants.

They are then unloaded at their destination, already having been handled by at least six people before entering the abattoir. The current Barcaldine regional macropod harvesters firmly believe that kangaroos are one of our biggest assets. The harvested kangaroos have, according to records, been sent away for processing for over 80 years.

The region's macropod industry currently holds 14 licensed macropod harvesters in Aramac, 22 in Barcaldine and a further two in Muttaborra. The establishment of a macropod abattoir would create four to six immediate jobs for local people. If the abattoirs were to diversify into other small animals like goats and sheep, a further eight to ten jobs would be created for local people. In addition, current services in the area, such as transport companies, sale yards, electricians, fuel suppliers and plumbers, would benefit from opportunities to deliver and sell product, and maintain the abattoir.

In its Animal Industries – New Developing and Maturing: Five Year RD&E Plan 2013-2018⁶, the RIRDC noted that the annual turnover of the Kangaroo Industry is around \$100M (2014 figures), with significantly less than the quota being harvested (1.7M of a quota of 5.4M), and listed the Growth Prospects as *Neutral* (p. 5). The closure of the Barcoo macropod pet food processor in 2017 highlights the operational risks of such projects, and notes that employment could be up to 25 with a supply chain of up to 30 shooters⁷.

A project of this scale would, therefore, provide an important economic boost for the region.

The key issues in the planning and development phase of the project include:

1. Gaining access to a suitable site,
2. Gaining development and environmental approvals for the proposal on the site (it is likely a Material Change of Use approval would be required for such a proposal on a new site in accordance with the Shire of Aramac Planning Scheme V2 (updated 2013)⁸,
3. Access to a suitable number of carcasses (supply),
4. Agreements by potential customers to purchase processed carcasses (customers).

6 Assumptions and Constraints

The business case provides a pre-feasibility level assessment of the project. It has been prepared by the Clean Growth Choices team under the direction of the Clean Growth Choices working group. The working group largely consists of volunteers who are providing guidance and input. Accordingly, the accuracy and reliability of data is referenced where available and provided to a pre-feasibility standard.

2.

⁴ <https://www.qld.gov.au/environment/plants-animals/wildlife-permits/macropods/macropods-quotas>

⁵ https://www.qld.gov.au/data/assets/pdf_file/0017/96101/mm-rp-annual-report-2018.pdf

⁶ <https://www.agrifutures.com.au/wp-content/uploads/publications/14-055.pdf>

⁷ <https://www.abc.net.au/news/rural/2017-06-09/qld-kangaroo-abattoir-shuts-doors/8602852>

⁸ <https://www.barcaldinerc.qld.gov.au/downloads/file/486/aramac-shire-planning-scheme-2006-version-2-v2-pdf>

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7 Identification and Analysis of Options

This is a high level analysis of the possible alternatives that could be employed to bridge the gap between the current situation and what is proposed as outlined in Section 4.

7.1 Identification of Options

Two options were identified for analysis:

Option 1 – Abattoir development

Option 2 – Do nothing

This business case is built around two options, being a “go” or “no-go”. It will be “no-go” if there are any major red flags identified in this process. If “go”, the next step will be to develop an investment grade business case.

7.1.1 Option 1 – Abattoir Development

Conduct further feasibility on the development of an abattoir to the point that:

- an investment decision can be reached (with all costs budgeted),
- planning approvals can be gained,
- power and water can be connected.

The key issue is to determine and develop a high degree of certainty around:

- an available and committed supply of enough carcasses,
- committed customers to purchase processed carcasses and other products (skins etc).

The work program for this option therefore, centres around gaining certainty for the availability of carcasses for processing and customers for the facility’s products.

The costing of the development and gaining approvals can then proceed.

7.1.2 Option 2 – Do Nothing Option

This option proposes to do nothing and so not change the status quo. This option avoids any project risks but also does not offer the opportunity for any benefits to be realised.

7.2 Comparison of Options

The table provides an initial comparison of the options by summarising the benefits, disbenefits, costs, risks and issues. For further information, refer to the Appendix.

Criteria	Option 1: Abattoir Development	Option 2: Do Nothing
Benefits to:	<ul style="list-style-type: none"> • Direct and indirect employment • Additional revenue from expenditure by 	<ul style="list-style-type: none"> • No Benefits

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<ul style="list-style-type: none"> • Kangaroo shooters • Council • Barcaldine community • Farmers 	<p>employees and contractors</p> <ul style="list-style-type: none"> • Increased rateable value of the site 	
<p>Disbenefits to:</p> <ul style="list-style-type: none"> • Kangaroo shooters • Council • Barcaldine community 		<ul style="list-style-type: none"> • Missed opportunity to increase employment and local revenue
<p>Costs:</p> <ul style="list-style-type: none"> • Direct • Indirect • Recurrent 	<ul style="list-style-type: none"> • Feasibility costs • Construction costs • Operational costs 	<ul style="list-style-type: none"> • Opportunity Cost
<p>Risks:</p> <ul style="list-style-type: none"> • Initial • Minimisation/ mitigation costs • Resulting risk 	<ul style="list-style-type: none"> • Site suitability and access • Planning and environmental approvals • Cost of grid connection • Supply chain risks – access to supply of carcasses and markets • Commercial risk - detailed feasibility and financial model required. 	<ul style="list-style-type: none"> • Nil

7.3 Recommended Option

To determine the project’s potential, it is recommended that further supply analysis and market development be conducted at a pre-feasibility level.

8 Risks and Benefits

8.1 Matters to be Considered

Market Development

Market development is a key issue to be resolved. A long-term market for processed kangaroo carcasses and meat would need to be identified. Investors in such a proposal are likely to require that the proponent is at an advanced stage of discussions relating to the long-term availability of kangaroos and the commitment of potential customers.

A detailed business case would need to address a number of key questions:

- Can the project guarantee a supply of kangaroos for processing?
- What are the likely production costs and how do these compare to existing producers?
- Are there enough potential customers?

Enabling Infrastructure

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Before the site is ready for production, infrastructure needs to be upgraded or installed. This includes

a number of design and operational considerations:

- Power supply to site. Ergon is an interested party and it has agreed in principle. If the project transforms into an actual business, it will supply and install, at no cost, the \$38,000 transformer needed to supply the power to the site. Three phase power lines will also be supplied to the site at no cost,
- Building and site refurbishment to a safe and industry standard,
- All weather access road. 200 meters of bitumen surface to be installed as natural black soil is impassable in wet weather,
- Water licence to draw from the current bore for commercial use,
- Water line connecting the current bore which is 600 meters from building to the building,
- Water storage (2 x 10,000 gallons water tanks and base pads) to ensure an adequate water supply,
- Truck wash down bay,
- Two 40 feet production containers which would include a skinning machine/area, boning area, blast freezers and cold storage areas. [Australian Micro Abattoirs](#) and/or Michael Mathewson who recently built the Charleville Macropod Abattoirs which is of similar design, may be able to provide advice in relation to this type infrastructure,
- If the abattoirs were to diversify into other small animals (sheep, goats) then an offal area would need to be installed. This is not needed for macropod abattoirs as the gutting processes occurs in the paddock where the macropod is shot.

Aramac-based Fergusons Transport has advised that it will be able to deliver the produced meat to suppliers on the coast. This company has given a verbal undertaking that it will purchase freezer trailer(s) should the proposal become a reality.

Macropod Impact

A business case could explore the potential differences in environmental impact between commercial macropod feet and agricultural livestock with hooves that may impact the environment and soil. The continued regional development of this industry may result in more opportunity for diversification in the sector and could ease some of the pressures traditional animals place on the environment.

By-products

Box: Case Study, Kangaroo Leather By-products

Kangaroo leather is a valuable by-product of a macropod abattoir. Packer Leather in Caboolture Queensland has been manufacturing leather since 1891 for both local and international customers. It was awarded Queensland's Exporter of the Year in 2015 and exports over 250,000 m² of performance leather annually to a range of global brands.¹

Kangaroo leather accounts for 80% of its turnover and is a preferred supplier to a number of European luxury brands and high-performance sportswear manufacturers providing products such as Test Match cricket balls, World Cup soccer balls, Grand Prix racing leathers and luxury car interiors.²

1. Queensland State Development, Manufacturing, Infrastructure and Planning, Made in Queensland. www.statedevelopment.qld.gov.au/industry/priority-industries/advanced-manufacturing/made-in-qld.html
2. Trade and Investment Queensland Australia, Queensland Showcase, Packer Leather.

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www.tiq.qld.gov.au/showcase/packer-leather/

Macropod abattoirs generally do not produce the waste that other red meat abattoirs do as there is no offal waste from a macropod abattoir (as described above). There is the potential for the use and value-adding of by-products, residues and waste from the proposed development, such as fertilizer or generating power.

It is suggested that a detailed business case consider the opportunity to add value to the project through the incorporation of circular economy principles to increase the commercial appeal of the project.

8.2 Risks

A number of risks and mitigation strategies are outlined at Appendix B. The key risks outlined are:

1. Some initial work is required to confirm access to the site with the current lessee. In addition, there is a need to formalise an agreement with Ergon Energy to provide power connection to the site,
2. Approval Risks: unable to secure the necessary approvals,
3. Customer Risks: unable to secure sale of products and by-products,
4. Supply Risks: unable to secure a supply of carcasses for processing.

The key risks to be resolved are customer risks and supply risks.

8.3 Potential Benefits

The potential benefits of the project have been identified in Appendix A. Below is a list of benefits that may result from the project. They have been classified into direct and indirect benefits.

No	Topic	Direct/Indire	Details
1	Employment	Direct and Indirect	The project will employ people directly, and secure employment of others through the supply chain.
2	Local income	Indirect	Additional revenue to the area from additional activities associated with the abattoir such as contractors and visitors.
3	Environmental	Direct and Indirect	Potential for environmental benefits through the regional management of macropods.

9 Implementation Strategy

This section outlines the implementation strategy for the preferred options. It considers the additional work that will be required to progress the project to a point where a formal decision can be made.

9.1 Project Title

Barcaldine Macropod Processor

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9.2 Target Outcomes

Outcomes of the investment-grade business case will include:

- Market research demonstrating the customer base and likely revenue from the project,
- Confirmation from macropod harvesters that there will be sufficient supply of carcasses for the facility,
- Advice that the preferred site can be used for the facility,
- Pre-lodgement advice from the Barcaldine Regional Council that such a proposal would be likely to gain planning approval at the site subject to conditions.

9.3 Outputs

The output of the project will be a business case completed to a standard suitable to gain investment from partners and any other financial approvals.

9.4 Work Plan

Further work required to implement the strategy:

Work Package	Details
Consultation	Gain support for the concept
Secure site	Initial agreement from the land owner
Concept design	Develop a more detailed concept design
Market research	Establish need and desire for the project
Business model	Develop a preliminary business model including the preparation of a management plan or overall project direction/report, vision, mission, objectives, strategies and action plans
Approvals	Develop and gain approval for a detailed design phase plan
Detailed design and costing	Consolidate final costings into a detailed financial model suitable for approval by investors
Raise funding	Prepare an application to the Building Better Regions Fund for the 4 th round of the program which is anticipated to open in the second half of 2019
Final approvals	Gain all necessary approvals for the project
Tender and build	Select and commission contractors to build the abattoir

9.5 Budget

A number of major areas of work identified above will need to be conducted at some cost:

Work	Details	Discipline	Est Cost.
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Package		
Project management	Establish steering group and coordinate all activities (part-time over 12 months initial period)	\$75,000
Priority: Market Research	Establish potential customer base for products and supply of carcasses by kangaroo shooters	\$50,000
Design	Concept design and detailed design	\$50,000
Technical and scientific advice	Engineering, geotechnical, and other input	\$100,000
Approvals	Contingency to cover costs of any approvals that may be required	\$50,000
Legal advice, agreements, etc	Contingency to cover cost of preparing agreements and gaining legal advice on commercial aspects	\$30,000
TOTAL		\$355,000

Subsequent costs will include land acquisition costs and construction costs.

9.6 Other Resources

Other Resources that may be relevant to the development of the proposal include:

- A recent article indicating the current progress of the various abattoir proposals under development in Queensland - <https://www.beefcentral.com/processing/australias-proposed-new-abattoirs-where-are-they-all-up-to/>
- Building Better Regions Fund with two streams for 'Infrastructure Projects' and for 'Community Investments' - <https://www.business.gov.au/assistance/building-better-regions-fund>).
- Northern Australia Infrastructure Fund (NAIF)
- Regional Development Australia Fitzroy and Central West (RDAFCW) which facilitates economic development opportunities for the region by collaborating with government, community and business. A number of funding opportunities are available from time to time, and might be suitable for this project - <https://rdafcw.com.au/funding/>

10 Project Management Framework

10.1 Governance

A key question for this project is “Who Owns the Project?”

It is important to ensure that this project continues to facilitate the participation of working group members and other interested members of the community such that local people continue to have a say in the future of their region.

The governance system proposed to deliver the business case is as follows (with the exact representation to be determined at the commencement of the project):

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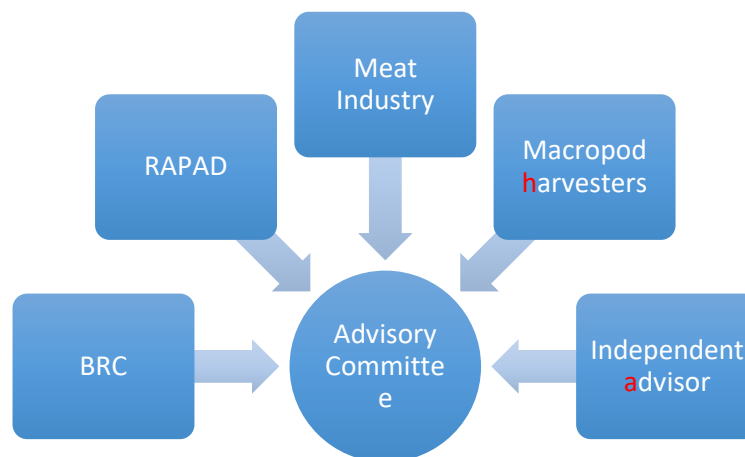


- Steering Committee – responsible for meeting the project's objectives on time within budget. The Steering Committee members will also consult strategically with external stakeholders to ensure the that project has the support of a wider network,
- Working Group – responsible for advising the Project Manager on technical and operational aspects of the project and will meet to advise the Project Manager,
- Project Manager - reports to the Advisory Committee. The Project Manager should sit within the RAPAD or BRC structures and have access to relevant expertise, including through regular meetings of the Working Group.

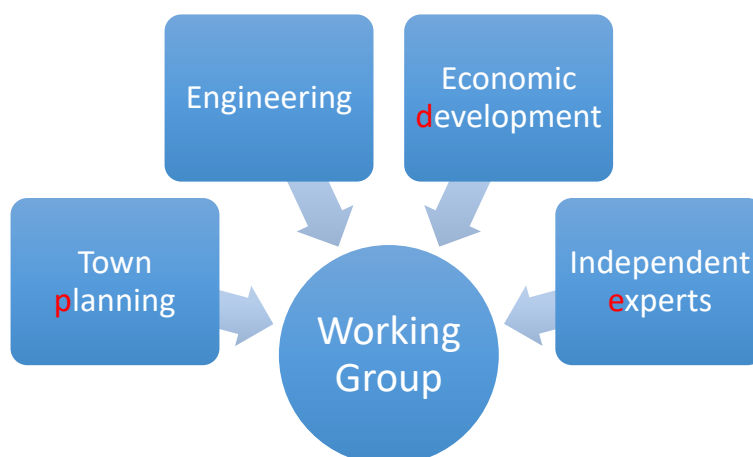
The Project Manager will be responsible for the delivery of the project.

The Advisory Committee should be established with representatives from the Barcaldine Regional Council, RAPAD, the meat industry, macropod harvesters and an independent advisor. The Project Sponsor should be represented, particularly if funding is provided.

The potential structure of the Project Advisory Committee:



The potential structure of the Project Working Group:



The business case should be progressed by a project manager, with the close advice of key agencies and advisors in an operational working group as suggested above.

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10.2 Project and Quality Management

A detailed project plan incorporating a number of factors including the following will need to be prepared:

1. Organisational Impact - How the project work will be undertaken, how it will impact the organisation and how the impacts will be addressed,
2. Outcome Realisation - How outputs will be managed once they are delivered and who will be accountable. Accountability may change as the project evolves,
3. Quality Management - Define suitable standards, requirements and best practice for the project to deliver against, and internal quality requirements,
4. Post-project Review - How the group will capture the lessons learnt throughout the project and what review will be conducted to assess whether the initiative delivered the intended benefits.

The Project Manager will need to ensure that the final project developed is robust and based on sound science:

- Financial analysis should be sufficiently robust to allow decision making, so initial consultation should occur with potential funders and financiers about the level of detail required.

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Appendix A: Benefit Analysis

A preliminary assessment of the potential benefits of the proposal for each of the stakeholders.

Option 1: Macropod Abattoir Development

Stakeholder	Positive Impact	Negative Impact	Overall
Kangaroo shooters	Revenue security Local customers		Positive
Meat processors	New Business		
Barcaldine Region residents	Local growth – increased local workforce spend Job security	Potential amenity impacts near proposed site	Likely to be positive if environmental risks are suitably managed
Council	Security of employment for residents		
Farmers, other landholders	Opportunity for revenue – kangaroo shooters on property (ie. no management tags)	Additional people on land	Positive
Land owner	Ongoing rent		Positive

Option 2: Do Nothing Option

Stakeholder	Positive Impact	Negative Impact	Overall
Kangaroo shooters			
Meat processors	New business		
Barcaldine Region residents		Missed employment opportunities	Slight negative
Council	Environmental impact not managed	Missed additional revenue opportunities, economic development opportunities	Slight negative (opportunity cost)
Land owner		Missed opportunity of ongoing rent	Slight negative

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Appendix B: Risk Analysis

As a pre-feasibility level business case, this is an initial consideration of risks, and what strategies can be put in place, or what investigations in further work can mitigate these risks.

Option 1: Macropod Abattoir

Major Risk and what does it do to the project	Mitigation Strategy
Site access risk – current lease or tenure arrangements prevent the establishment of such an enterprise at the site.	As a priority, investigate lease and tenure arrangement to determine if there are any restrictions on the proposed use. Find alternate site if restrictions are likely.
Approval risks – proposal cannot be approved at the site, or conditions are likely to be too onerous to enable a viable project.	Conduct early pre-lodgement discussions with Council and other regulators to understand all planning and environmental considerations.
Supply risks – unable to guarantee a supply of macropods for processing for reasons including culling restrictions, increased culling by local farmers and drought conditions.	Continue to discuss supply with kangaroo shooters. Determine the likelihood of continued quota restrictions on the Eastern Grey Kangaroo (risk assessment). Consider empirical study of any impacts on macropod populations cause by cluster fencing. Consider contingencies in case there are further reductions in culling numbers. Consider commercial farming and the potential development of farmer relationships for commercial production.
Customer risks – no customers as the project unable to meet customer cost, quality and time expectation	Consult with customers regularly throughout project development to determine the depth of the market as well as other opportunities, restrictions, standards and potential for other risks (political, social etc).
Conflict with agricultural uses or perception of conflict affecting supply of macropods or access to lands.	Continue consulting local farmers and landowners on progress to ensure levels of support are maintained. Consider agreements if necessary.

Option 2: Do Nothing Option

Major Risk and what does it do to the project	Mitigation Strategy
No jobs created in Barcaldine	Conduct feasibility study to give the project the best chance of success.

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Appendix C: Background Information

AgriFutures Australia (formerly known as the Rural Industries Research and Development Corporation – RIRDC) has prepared a Research Development and Extension (RD&E) Plan

The Kangaroo Industries of Australia - <http://www.kangaroo-industry.asn.au/>

Existing Macropod Businesses:

- Website of Warroo Game Meats - <http://www.warroogamemeats.com.au/>

History of some Queensland abattoirs or proposed abattoirs including details relevant to the development of a business case. Note that whilst most of these are red meat projects, they highlight relevant issues such as the need to secure supply chains and customers.

- Chronology of Surat kangaroo abattoir. Warroo Game Meats noting risks, issues etc - <https://australianabattoirs.com/tag/surat-kangaroo-meat-processor/>
- Kangaroo Industries Association of Australia - <http://www.kangarooindustry.com/>
- Chronology of Western Meat Exporters (Charleville)(goat) - <https://australianabattoirs.com/2014/03/08/charleville/>
- Charleville Game Meat Abattoir closed - <https://australianabattoirs.com/2017/12/06/charleville-game-meat-qld/>
- Assessment of Cloncurry proposed abattoir (presumably did not proceed) - <https://australianabattoirs.com/2013/07/27/cloncurry-2-proposed-2/>
- Investigations into Julia Creek beef abattoir (2012) – good summary of what is required in the analysis - <https://australianabattoirs.com/wp-content/uploads/2015/05/nwq-abattoir-opportunities.pdf>
- Summary of Mt Isa (beef) reasons for closure – <https://australianabattoirs.com/2013/06/19/mt-isa/>
- Indicative price of \$75K for “high level feasibility” for Roma Abattoir (beef, sheep goats) (2014) - <https://australianabattoirs.com/2014/09/01/roma-2-proposed/>
- Multi-species Abattoir Tolga (not macropod) <https://australianabattoirs.com/2013/06/20/tolga/>
- Kangaroo Island Abattoir feasibility news (covers issues and costs, not macropod) - <https://www.theislanderonline.com.au/story/6074711/feasibility-study-into-artisan-meat-processing-on-ki/>

https://www.abc.net.au/news/rural/2019-07-29/meatworks-deeds-signed-in-hughenden/11355548?WT.ac=statenews_qld

<https://www.beefcentral.com/processing/australias-proposed-new-abattoirs-where-are-they-all-up-to/>

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