Beef Processing Opportunity

Flinders Shire Council

Hughenden

Where Beef Begins

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In 2014, Flinders Shire Council (FSC) in northern Queensland, Australia took the first steps to secure the region’s place as a reliable, innovative supplier of quality Australian beef to growing markets in Asia, Middle East and other parts of the world.

This document presents the main findings from two studies commissioned by FSC for a beef processing plant at Hughenden, in the centre of Flinders Shire. It will assist investors and their advisors to appreciate Flinders Shire’s special place in Queensland’s beef production industry and to outline the next steps to develop this venture further.

FSC has completed two key reports about beef processing:

1. **Scoping Study** (July 2014) to assess the merits of two potential sites; make preliminary operating models; identify any environmental risks; and present a mass balance for livestock, utilities, labour and logistics.

2. **Pre-Feasibility Study** (February 2015) to look at livestock availability in the cattle-rich Flinders region plus capital costs, operating budgets, breakeven figures and labour requirements.

Both reports were prepared by STEWART ROUTLEDGE & Associates (SRA), an international agribusiness consultancy with over 30 years’ experience in meat, livestock, grain, wool and trading sectors. The reports combine technical knowledge about meat processing with a strong understanding of global markets for beef and co-products. Full reports are available to potential partners/investors on request. The table below shows the key points for investors.

### Competitive Advantages of a Beef Plant at Hughenden

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Details</th>
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<tbody>
<tr>
<td>Cattle supply confirmed by ABS - the northern region is home to more than 20% of Queensland’s cattle herd</td>
<td>Sufficient water licence already available, up to 450 megalitres per annum</td>
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<td>Export-focused plant design for discerning markets</td>
<td>Power supply to plant is already costed; Council will absorb connection to state grid</td>
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<td>Plant costed for two throughput levels</td>
<td>Low or no -cost land package available</td>
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<td>Detailed mass balances on cattle throughput; labour needs; per head utilities (water, energy and fuel) already available</td>
<td>Detailed capital and operating budgets completed</td>
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<td>Low <em>prima facie</em> environmental risks</td>
<td>Fly-in, fly-out location for owners, clients and workers; excellent access to state road network for livestock</td>
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Background

Closure of meatworks in regional Queensland has reduced the marketing options for millions of cattle located in the state’s “Outback” region. This area has over 30 percent of the state’s total cattle. Demand for beef and beef co-products from Asia’s expanding markets is intensifying and expected to rise over coming decades because of population growth and higher per capita incomes.

The case has been made by many stakeholders, including NorthBEEF (www.northbeef.com.au) about the great potential for an export beef processing plant located closer to production zones in northern Queensland. This case was further supported when the Government-funded DEEDI study of 2012 identified Hughenden, out of 10 Queensland towns, as the preferred location for a plant based on availability of the right category and class of cattle. Change in the region’s grazing operations has resulted in more cattle than in previous years as they are well-suited to the terrain, climate and natural vegetation.

This is why FSC and NorthBEEF are promoting the feasibility of a beef processing plant at Hughenden, using the DEEDI report’s assumptions on optimal plant size as a starting point. The decision is supported by results from other studies by state and federal bodies which re-assess northern Australia’s role to increase agricultural production and strengthen food security for a hungry world.

Northern Queensland is poised to capitalise on expanded agricultural production from other infrastructure projects such as:

- Road upgrades to access more livestock
- Development of port facilities at Townsville
- Large-scale and mosaic irrigation projects to empower cropping and feedlot businesses
- Environmentally friendly energy supply from wind and solar products

These initiatives will contribute to more efficient agricultural production in the north; grow the population base; and promote diversification into many other agricultural industries.

Situated in Queensland’s beef country

Flinders Shire is situated in Queensland’s northwest division, home to around 20 percent of Queensland’s 12 million cattle. A further 20 percent of the herd is located in adjoining regions. Ongoing improvements to the road network will improve access (particularly from the far north) to more cattle for the plant’s owners.

Producers will be incentivised to sell their cattle to the Hughenden beef plant because per-head savings on livestock freight to Hughenden are substantial. The plant will also benefit from higher carcass yield due to less carcass shrink and bruising.

The livestock mix used in the studies accurately reflects the current cattle population in the region, with cull cows and bulls providing consistent throughput volumes and average carcass weights, regardless of seasonal conditions experienced across the north. In the future, start-up feedlots and improved pastures supported by local irrigation businesses will help increase the total weight of beef produced and the range of potential markets.
Road improvements will give access to more cattle

The Flinders region will benefit from the initiatives to develop northern Australia, especially transport. The 2014 CSIRO study, Livestock Logistics, states an abattoir at Hughenden would give a 65% reduction in livestock transport costs compared to transporting cattle to east coast plants or to live export. This confirms that the final stage of the Hann Highway will quickly unlock all-weather access to livestock in the far north. A beef plant at Hughenden could realise savings of up to $400,000 per annum through reduced carcass shrink and carcass bruising caused by travel over longer distances.

Beef plant concept

The Study shows the site has adequate land, good drainage, good access on sealed roads and no major environmental issues, simplifying the approvals process from major authorities. It supplies costs and details for:

- an integrated beef processing plant
  - inside the cattle tick zone, giving greater access to cattle at lower costs
  - cattle slaughtered Halal
  - deboning into cuts and manufacturing packs
  - freezing
  - rendering of meal and tallow
- two potential operating models
  - hot boning cows, plus cold boning prime steer (Model 1) or
  - hot boning cows (Model 2)
- anticipated beef production per day
  - 59.1 tonnes (Model 1)
  - 29.3 tonnes (Model 2)
- employ approximately 200 workers

The investor can use the different operating models for different business models and markets: boneless beef targeted at growing budget-conscious markets; or high-end markets seeking grassfed, range-reared beef which the region can also produce.

Utilities and services

Adequate water, power and fuel can be connected to site. Financial analysis in the Pre-Feasibility Study gives further detail of first order costs for infrastructure and annual operating costs. Mass balances for the two operating models show the major utility and services needs for the business in both models, along with volumes of other products like offal, meatmeal and tallow.

The plant uses plate freezers which are fast, highly efficient and well suited to the product range and specifications envisaged for the business.

Council already has a license for the plant’s potable water requirements to cover livestock washing, process water, knife sterilizers, steam and worker sanitation.

The study concludes Hughenden can accommodate sufficient workers for the plant; and if more workers are needed, more housing can potentially be built as sufficient serviced land is available.

2 CSIRO is Australia’s national science and research agency, focused on solutions for agribusiness and other sectors.
Efficient, modern plant design

The professional concept drawing shows how production can expand from one to two shifts with minimal further investment. The drawing includes lairage, slaughter and dressing, hides, offal handling, deboning and pack-off, plus freezing and loadout.

The plant footprint is modern and efficient, developed by internationally-experienced process designers to make best use of the site’s topography and capture efficiencies in labour, energy for refrigeration and operational tasks.

Capital budget developed for two operating models

The capital budget for Model 1, the larger of the two options, is approximately $52.8 million. The capital budget for Model 2 is significantly lower at $34.4 million. The report shows capital costs are not a significant burden on the plant’s projected turnover.

Capital budget estimates give the investor a high-level picture of the set-up, construction, fitout and commissioning costs for the business.

The financial analysis breaks up capital costs to show the expected spend each year over the first five-year period by category (environmental work, civil and earthworks, processing equipment etc).