

**Flinders University**  
Australian Industrial  
Transformation  
Institute

# Economic Impact Assessment of Viterra Operations in South Australian Regions, 2011-2019



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Australian Industrial Transformation Institute

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**Economic Impact  
Assessment of Viterra  
Operations in South  
Australian Regions,  
2011-2019**

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## Key Findings

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This report quantifies the level of economic activity that Viterra generated in the nine-year period between 2011 and 2019 within the state of South Australia and in selected small areas (local councils). The study was commissioned by Viterra, and follows the *Going with the Grain – Viterra’s Socioeconomic Contribution to South Australia Report* (2016), a supplemental update extending the analysis from state level to include selected local government areas, for the 2011 to 2016 period, and subsequent updates in 2017 and 2018.

For the 2019 period, findings at the state level showed that:

- **Viterra contributed \$4.6 billion (in Gross State Product, 2019 dollars<sup>1</sup>) to the South Australian economy between 2011 and 2019.** On average this translates to \$516 million per year. Of this amount, Viterra contributed an annual average of \$270.6 million directly, with a further \$245 million flow on from indirect business generated by Viterra operations.
- **Viterra directly employed 943 FTE on average each year for the nine-year period.** Average annual flow on employment was 1,603 FTE. This means Viterra’s average annual total employment contribution (direct and indirect) to the South Australian economy between 2011 and 2019 was 2,546 FTE.
- For the 2011 to 2019 period, **Viterra’s total expenditure in South Australia was \$2.6 billion.**

Analysis at the selected local council level showed that over the nine-year period Viterra contributed the following amounts in value added (including the share of value added in Viterra’s operations) to local economies:

- \$227.5 million to the Port Lincoln economy
- \$167 million to the Copper Coast economy
- \$162 million to the Yorke Peninsula economy
- Between \$39 and \$107.5 million to the respective economies of the remaining 10 Council areas.

In terms of total direct expenditure within the selected regions between 2011 and 2019, Viterra spent:

- \$86.2 million in the Port Lincoln area
- \$59.6 million in the Copper Coast area
- \$55.8 million in the Yorke Peninsula area
- Between \$24 million and \$38.6 million in most other council areas, and \$14 million in Loxton-Waikerie.

Between 2011 and 2019 Viterra contributed on average annually:

- 113 FTE to Port Lincoln (84 FTE directly)
- 84 FTE to the Copper Coast (62 FTE directly)
- 80 FTE to the Yorke Peninsula (62 FTE directly),
- Between 20 FTE and 53 FTE in the remaining council areas (15-41 FTE directly).

accounting for between 1.4% to 3.5% of regional economies compared with 0.3% of the state economy (average annual impact across 2011-2019). Viterra accounts for 3.5% of the Ceduna

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<sup>1</sup> All estimations in this report are in 2019 dollars



economy, 3% of the Wakefield economy and 2.7% of the Coorong economy. Most remaining regions ranged from 1.4% (Northern Areas) to 2.2% (Coorong and Yorke Peninsula) of economies accounted for by Viterra. Loxton Waikerie was the lowest at 0.2% of the economy.

Table 1 below provides a summary of the economic impact of Viterra by region for the 2011 to 2019 period.

The contribution of Viterra operations to regional economies remains significant, accounting for between 1.4% to 3.5% of regional economies compared with 0.3% of the state economy (average annual impact across 2011-2019). Viterra accounts for 3.5% of the Ceduna economy, 3% of the Wakefield economy and 2.7% of the Coorong economy. Most remaining regions ranged from 1.4% (Northern Areas) to 2.2% (Coorong and Yorke Peninsula) of economies accounted for by Viterra. Loxton Waikerie was the lowest at 0.2% of the economy.

**Table 1: Summary of Viterra's main economic impact by selected region, 2011-2019 (2019 dollars)**

	Total economic contribution to region	Aggregate expenditure in the region	Aggregate Household Income created in region (direct plus flow on)	Average Annual Employment (direct plus flow on)
	(\$ million)	(\$ million)	(\$ million)	(FTE)
<b>South Australia</b>	<b>4641.8</b>	<b>2313.2</b>	<b>2148.1</b>	<b>2546.2</b>
Port Lincoln	227.5	86.2	87.7	113.5
Copper Coast	166.9	59.6	63.7	83.9
Yorke Peninsula	161.9	55.8	60.8	80.0
Wakefield	107.5	38.6	40.2	52.8
Tatiara	90.1	33.7	33.6	44.5
Ceduna	75.2	27.7	28.6	37.1
Coorong	69.9	25.3	27.2	39.9
Lower Eyre Peninsula	67.2	25.4	24.9	32.1
Northern Areas	67.0	24.2	25.3	33.3
Loxton Waikerie	38.9	14.0	14.7	19.5





# 1 Introduction

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In 2016, the Australian Industrial Transformation Institute completed the *Going with the Grain – Viterra’s Socioeconomic Contribution to South Australia* report which examined the direct and indirect economic and employment impacts of Viterra’s spend in South Australia for the 2010-2015 period. In 2017 AITI provided an updated analysis for the 2011 to 2016 period, extending the analysis to include breakdowns of Viterra’s economic contribution at a local council level. Ten local council areas with a significant Viterra footprint were selected for individual analysis. AITI has since provided updated analyses on a year by year basis. The present report provides the latest update at state and regional level, for the extended 2011 to 2019 period. All estimates of contribution in the current report are in 2019 prices.

Input-output analysis was used to examine economic impacts in terms of Gross State/Regional Product (GSP/GRP) and full-time equivalent employment (FTE) - at the state level and across a number of specific local government areas. To account for seasonal variation in the year to year performance of the Grains Industry (for example, exerted by drought or other climatic conditions), a longer-term analysis of economic impact has been undertaken, presenting aggregate and average figures for the 2011 to 2019 period.

The current analysis involves identifying Viterra’s expenditure in each region and then identifying the supply chain and flow on effects using a whole of economy model developed for each region. The basis of the methodology, and the assumptions used are contained in Appendix A: and Appendix B: Summary tables of Aggregate Economic Impact for Selected Small Areas – Aggregate Impact 2011-2019 and Aggregate Economic Impact for Selected Small Areas – Average Annual Impact, 2011-2019 are provided in Appendix C:.

## 2 Viterra's Economic Contribution to South Australia, 2011-2019

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### 2.1 Data and Assumptions

The data used in the state level analysis includes the portion of transactions that occurred in South Australia (all expenditures that took place outside South Australia were excluded) and was provided by Viterra to the Australian Industrial Transformation Institute (AITI) for the purpose of the economic impact assessment.

The annual revenues and expenditures were adjusted to 2019 dollars using the 'all groups' Consumer Prices Index (CPI) numbers for June of each year (Australian Bureau Statistics (ABS) 2019).

Summary tables of aggregate and average annual economic impact for South Australia and the selected council areas for 2011 to 2019 are presented in Appendix C:.

### 2.2 Viterra's Economic Contribution to South Australia, 2011-2019

Viterra's total economic contribution to South Australia in terms of Gross State Product for the 2011 to 2019 period was \$4,642 million (in 2019 dollars). This included a direct impact of \$2,435 million and a flow on impact of \$2,207 million. On average over this period, Viterra contributed \$516 million annually to the economy, including a direct impact of \$270.6 million and a flow on impact of \$245 million<sup>2</sup>.

Viterra directly employed 943 FTE on average each year for the nine-year period, with an average flow on employment impact of 1,603 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the South Australian economy was 2,546 FTE.

For the 2011 to 2019 period, Viterra's total operating expenditure within state was \$2,305 million, with a further \$257 million of capital expenditure (in 2019 dollars). Between 2011 and 2019, Viterra's average annual contribution through expenditure to the South Australian economy included:

- \$96.4 million in labour costs (wages and salaries)
- \$29.4 million in capital expenditure
- \$169 million in operational expenditure

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<sup>2</sup> Rounding errors may occur



**Table 2: Total contribution of Viterra to South Australia, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	2,305.4	-	2,305.4
Total Expenditure in Region (\$m)	2,562.1	-	2,562.1
<i>Economic metrics</i>			
Household Income (\$m)	835.0	1313.1	2148.1
Other Value Added (\$m)	1599.9	893.8	2493.7
Gross State Product (\$m)	2435.0	2206.9	4641.8
<b>Employment (FTEs)</b>	<b>8,486</b>	<b>14,430</b>	<b>22,916</b>

All dollar estimates are in 2019 prices

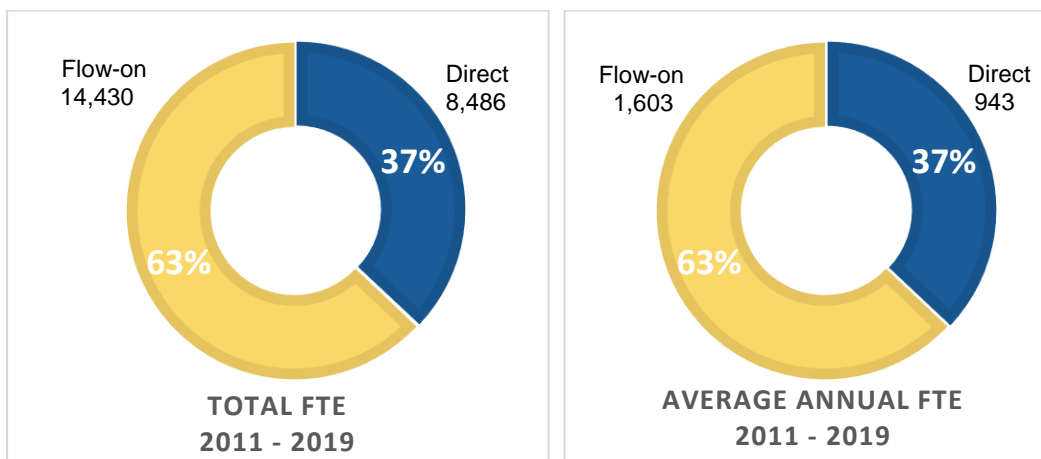
**Table 3: Average annual contribution of Viterra to South Australia, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	256.2	-	256.2
Total Expenditure in Region (\$m)	284.7	-	284.7
<i>Economic metrics</i>			
Household Income (\$m)	92.8	145.9	238.7
Other Value Added (\$m)	177.8	99.3	277.1
Gross State Product (\$m)	270.6	245.2	515.8
Employment (FTEs)	943	1,603	2,546

**Table 4: Average annual contribution of Viterra to South Australia, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	256.2	-	256.2
Total Expenditure in Region (\$m)	284.7	-	284.7
<i>Economic metrics</i>			
Household Income (\$m)	92.8	145.9	238.7
Other Value Added (\$m)	177.8	99.3	277.1
Gross State Product (\$m)	270.6	245.2	515.8
Employment (FTEs)	943	1,603	2,546

All dollar estimates are in 2019 prices



### 3 Viterra's Economic Contribution at Local Council level, 2011-2019

As a major company servicing the grain industry, Viterra has a significant impact in regional areas. A primary focus of this study is to provide estimates of the economic contribution Viterra makes to ten small areas or local councils where Viterra has a significant footprint. Viterra provided updated expenditure estimates for each of the ten selected Council areas by category of expenditure and estimated the proportion of expenditure in each category that occurs within the Council area, and the proportion that occurs outside. A more detailed methodology of how the small area impact of Viterra was analysed is provided in Appendix D:

#### 3.1 Data and Assumptions

It is important to note in this context that there are a range of expenditures that *support activity* in the regions but do not specifically *create activity* in the regions. An example of this is rail transport – where grain is freighted by rail and the rail operates in the region, but as a highly capital-intensive industry the expenditure is primarily returned to the central source. Expenditure that includes this level of spending is represented in the results tables within 'operating expenditure'. Also represented is an 'expenditure in the region' figure, which accounts for expenditure *after direct imports into the region* (i.e. spend contained within the region).

In addition, the *other value added* associated with Viterra operations has been distributed to the various regions proportional to the employment level of the region. This is a conservative approach, and a much higher regional value-added estimate would have resulted had a more liberal assumption been applied (e.g. proportion of grain collected in a given region).

As with the state level analysis, the annual revenues and expenditures were adjusted to 2019 dollars using the 'all groups' Consumer Prices Index (CPI) numbers for June of each year (Australian Bureau Statistics (ABS) 2019).



### 3.2 Viterra's Economic Contribution to the City of Port Lincoln, 2011-2019

Viterra's total economic contribution to the City of Port Lincoln for the 2011 to 2019 period was \$228 million. This included a direct impact of \$194 million and a flow on impact of \$33.4 million. On average over this period, Viterra contributed \$25 million annually to the regional economy, including a direct impact of \$22 million and a flow on impact of \$3.7 million<sup>3</sup>.

Viterra directly employed 84 FTE on average each year for the nine-year period, with an average flow on employment impact of 30 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the City of Port Lincoln economy was 113 FTE.

For the 2011 to 2019 period, Viterra's **total expenditure in the region** was \$86 million. Between 2011 and 2019, Viterra's **average annual contribution** through expenditure to the City of Port Lincoln region was \$9.6 million.

**Table 5: Total contribution of Viterra to City of Port Lincoln, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	82.1	-	82.1
Expenditure in the Region (\$m)	86.2	-	86.2
<i>Economic metrics</i>			
Household Income (\$m)	66.6	21.2	87.7
Other Value Added (\$m)	127.5	12.3	139.8
Gross State Product (\$m)	194.0	33.4	227.5
Employment (FTEs)	752	270	1,021

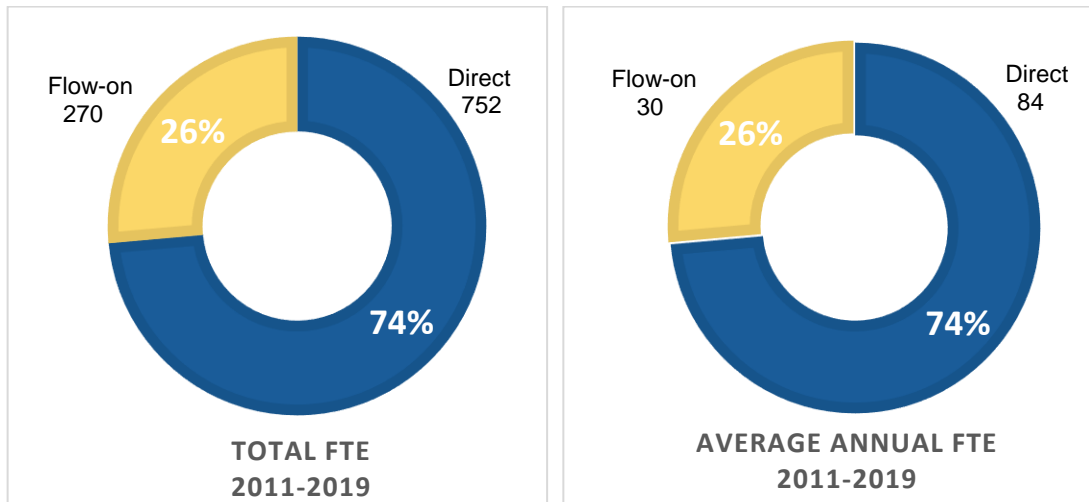
*All dollar estimates are in 2019 prices*

**Table 6: Average annual contribution of Viterra to City of Port Lincoln, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	9.1	-	9.1
Expenditure in the Region (\$m)	9.6	-	9.6
<i>Economic metrics</i>			
Household Income (\$m)	7.4	2.4	9.7
Other Value Added (\$m)	14.2	1.4	15.5
Gross State Product (\$m)	21.6	3.7	25.3
Employment (FTEs)	84	30	113

*All dollar estimates are in 2019 prices*

<sup>3</sup> Rounding errors may occur



### 3.3 Viterra's Economic Contribution to District Council of Ceduna, 2011-2019

Viterra's total economic contribution to the District Council of Ceduna for the 2011 to 2019 period was \$75 million. This included a direct impact of \$65 million and a flow on impact of \$10 million. On average over this period, Viterra contributed \$8.4 million annually to the regional economy, including a direct impact of \$7 million and a flow on impact of \$1 million<sup>4</sup>.

Viterra directly employed 28 FTE on average each year for the nine-year period, with an average flow on employment impact of 9 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the District Council of Ceduna economy was 37 FTE.

For the 2011 to 2019 period, Viterra's **total expenditure in the region** was \$27.7 million. Between 2011 and 2019, Viterra's **average annual contribution** through expenditure to the District Council of Ceduna region was \$3 million.

**Table 7: Total contribution of Viterra to District Council of Ceduna, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	27.0	-	27.0
Expenditure in the Region (\$m)	27.7	-	27.7
<i>Economic metrics</i>			
Household Income (\$m)	22.4	6.3	28.6
Other Value Added (\$m)	42.8	3.7	46.5
Gross State Product (\$m)	65.2	10.0	75.2
Employment (FTEs)	253	81	334

<sup>4</sup> Rounding errors may occur

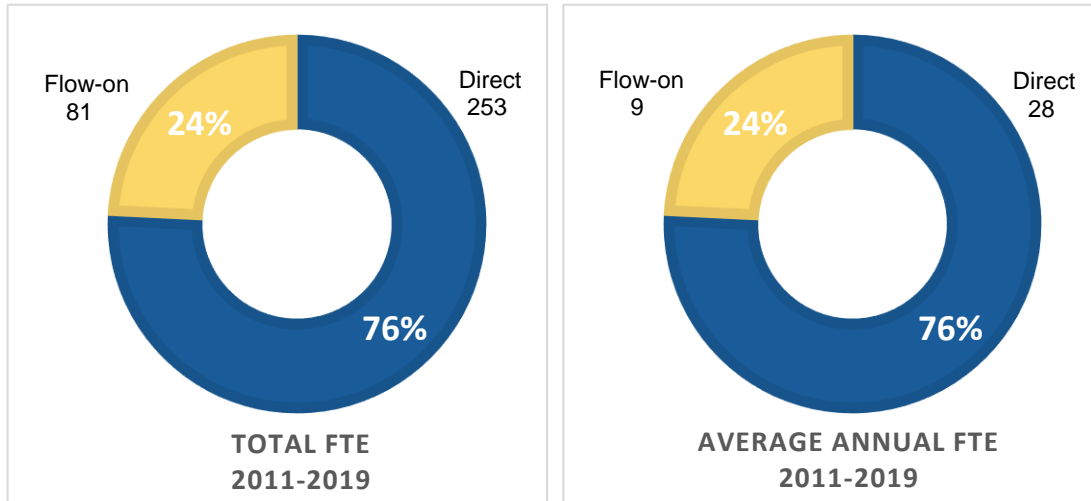


All dollar estimates are in 2019 prices

**Table 8: Average annual contribution of Viterra to District Council of Ceduna, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	3.0	-	3.0
Expenditure in the Region (\$m)	3.1	-	3.1
<i>Economic metrics</i>			
Household Income (\$m)	2.5	0.7	3.2
Other Value Added (\$m)	4.8	0.4	5.2
Gross State Product (\$m)	7.2	1.1	8.4
Employment (FTEs)	28	9	37

All dollar estimates are in 2019 prices



### 3.4 Viterra’s Economic Contribution to District Council of Lower Eyre, 2011-2019

Viterra’s total economic contribution to the District Council of Lower Eyre for the 2011 to 2019 period was \$67.2 million. This included a direct impact of \$60.4 million and a flow on impact of \$6.8 million. On average over this period, Viterra contributed \$7.5 million annually to the regional economy, including a direct impact of \$6.7 million and a flow on impact of \$0.8 million<sup>5</sup>.

Viterra directly employed 26 FTE on average each year for the nine-year period, with an average flow on employment impact of 6 FTE annually. Combining direct and indirect impacts, Viterra’s average annual employment contribution to the District Council of Lower Eyre economy was 32 FTE.

<sup>5</sup> Rounding errors may occur



For the 2011 to 2019 period, Viterra's **total expenditure in the region** was \$25.4 million. Between 2011 and 2019, Viterra's **average annual contribution** through expenditure to the District Council of Lower Eyre region was \$2.8 million.

**Table 9: Total contribution of Viterra to District Council of Lower Eyre, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	25.0	-	25.0
Total Expenditure in the Region (\$m)	25.4	-	25.4
<i>Economic metrics</i>			
Household Income (\$m)	20.7	4.2	24.9
Other Value Added (\$m)	39.7	2.6	42.3
Gross State Product (\$m)	60.4	6.8	67.2
Employment (FTEs)	234	55	289

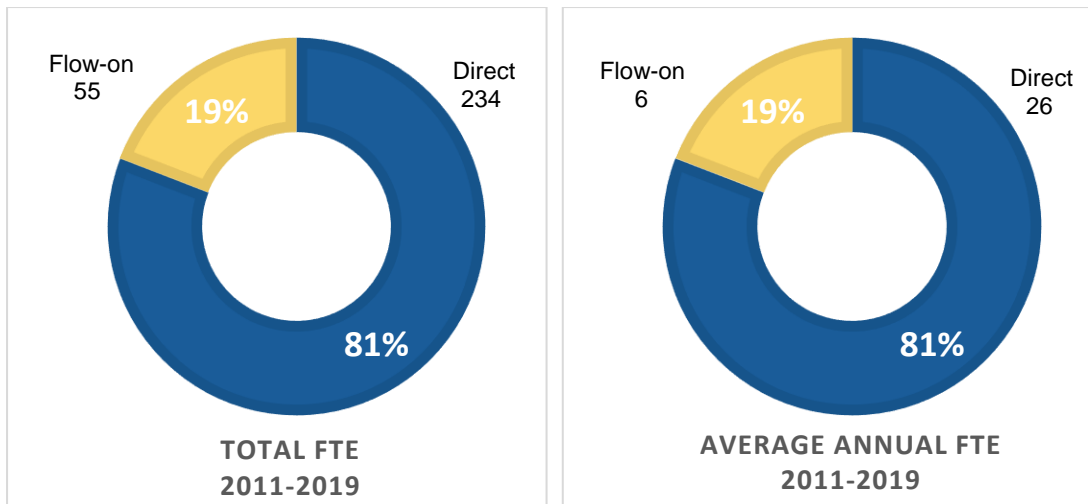
*All dollar estimates are in 2019 prices*

**Table 10: Average annual contribution of Viterra to District Council of Lower Eyre, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	2.8	-	2.8
Total Expenditure in the Region (\$m)	2.8	-	2.8
<i>Economic metrics</i>			
Household Income (\$m)	2.3	0.5	2.8
Other Value Added (\$m)	4.4	0.3	4.7
Gross State Product (\$m)	6.7	0.8	7.5
Employment (FTEs)	26	6	32

*All dollar estimates are in 2019 prices*





### 3.5 Viterra's Economic Contribution to Coorong District Council, 2011-2019

Viterra's total economic contribution to the Coorong District Council for the 2011 to 2019 period was \$70 million. This included a direct impact of \$63 million and a flow on impact of \$7 million. On average over this period, Viterra contributed \$8 million annually to the regional economy, including a direct impact of \$7 million and a flow on impact of \$1 million<sup>6</sup>.

Viterra directly employed 27 FTE on average each year for the nine-year period, with an average flow on employment impact of 13 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the Coorong District Council economy was 40 FTE.

For the 2011 to 2019 period, Viterra's **total expenditure in the region** was \$25.3 million. Between 2011 and 2019, Viterra's **average annual contribution** through expenditure to the Coorong District Council region was \$3 million.

Table 11: Total contribution of Viterra to Coorong District Council, 2011-2019

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	25.2	-	25.2
Total Expenditure in the Region (\$m)	25.3	-	25.3
<i>Economic metrics</i>			
Household Income (\$m)	21.6	5.6	26.0
Other Value Added (\$m)	41.3	1.3	43.9
Gross State Product (\$m)	62.9	7.0	69.9
Employment (FTEs)	244	115	359

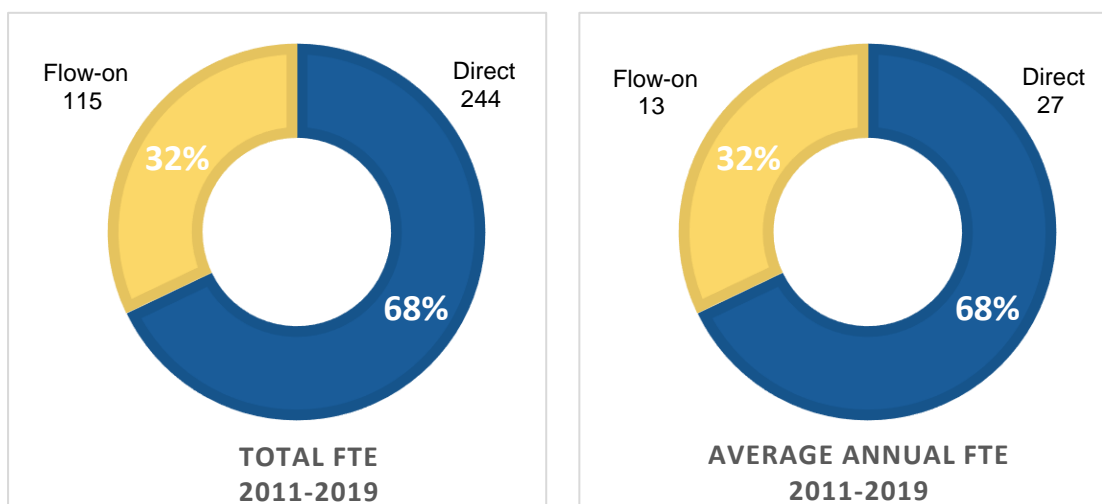
*All dollar estimates are in 2019 prices*

Table 12: Average annual contribution of Viterra to Coorong District Council, 2011-2019

<sup>6</sup> Rounding errors may occur

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	2.8	-	2.8
Total Expenditure in the Region (\$m)	2.8	-	2.8
<i>Economic metrics</i>			
Household Income (\$m)	2.4	0.6	2.9
Other Value Added (\$m)	4.6	0.1	4.9
Gross State Product (\$m)	7.0	0.8	7.8
Employment (FTEs)	27	13	40

All dollar estimates are in 2019 prices



### 3.6 Viterra's Economic Contribution to District Council of Loxton Waikerie, 2011-2019

Viterra's total economic contribution to the District Council of Loxton Waikerie for the 2011 to 2019 period was \$40 million. This included a direct impact of \$34.4 million and a flow on impact of \$4.6 million. On average over this period, Viterra contributed \$4.3 million annually to the regional economy, including a direct impact of \$3.8 million and a flow on impact of \$0.5 million<sup>7</sup>.

Viterra directly employed 15 FTE on average each year for the nine-year period, with an average flow on employment impact of 5 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the District Council of Loxton Waikerie economy was 20 FTE.

<sup>7</sup> Rounding errors may occur



For the 2011 to 2019 period, Viterra’s **total expenditure in the region** was \$14 million. Between 2011 and 2019, Viterra’s **average annual contribution** through expenditure to the District Council of Loxton Waikerie region was \$1.6 million.

**Table 13: Total contribution of Viterra to District Council of Loxton Waikerie, 2011-2019**

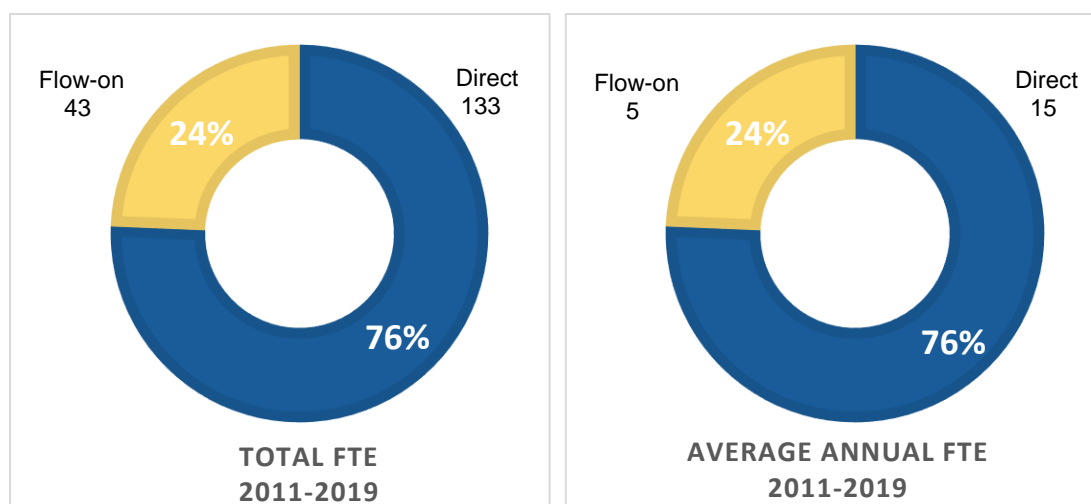
Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	13.6	-	13.6
Total Expenditure in the Region (\$m)	14.0	-	14.0
<i>Economic metrics</i>			
Household Income (\$m)	11.8	2.9	14.7
Other Value Added (\$m)	22.6	1.6	24.2
Gross State Product (\$m)	34.4	4.6	38.9
Employment (FTEs)	133	43	176

All dollar estimates are in 2019 prices

**Table 14: Average annual contribution of Viterra to District Council of Loxton Waikerie, 2011-2019**

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	1.5	-	1.5
Total Expenditure in the Region (\$m)	1.6	-	1.6
<i>Economic metrics</i>			
Household Income (\$m)	1.3	0.3	1.6
Other Value Added (\$m)	2.5	0.2	2.7
Gross State Product (\$m)	3.8	0.5	4.3
Employment (FTEs)	15	5	20

All dollar estimates are in 2019 prices



### 3.7 Viterra's Economic Contribution to District Council of Copper Coast, 2011-2019

Viterra's total economic contribution to the District Council of Copper Coast for the 2011 to 2019 period was \$167 million. This included a direct impact of \$145 million and a flow on impact of \$21.7 million. On average over this period, Viterra contributed \$18.5 million annually to the regional economy, including a direct impact of \$16 million and a flow on impact of \$2.4 million<sup>8</sup>.

Viterra directly employed 62 FTE on average each year for the nine-year period, with an average flow on employment impact of 21 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the District Council of Copper Coast economy was 84 FTE.

For the 2011 to 2019 period, Viterra's **total expenditure in the region** was \$59.6 million. Between 2011 and 2019, Viterra's **average annual contribution** through expenditure to the District Council of Copper Coast region was \$6.6 million.

Table 15: Total contribution of Viterra to District Council of Copper Coast, 2011-2019

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	59.4	-	59.4
Total Expenditure in the Region (\$m)	59.6	-	59.6
<i>Economic metrics</i>			
Household Income (\$m)	49.8	13.9	63.7
Other Value Added (\$m)	95.4	7.8	103.2
Gross State Product (\$m)	145.2	21.7	166.9
Employment (FTEs)	562	193	755

All dollar estimates are in 2019 prices

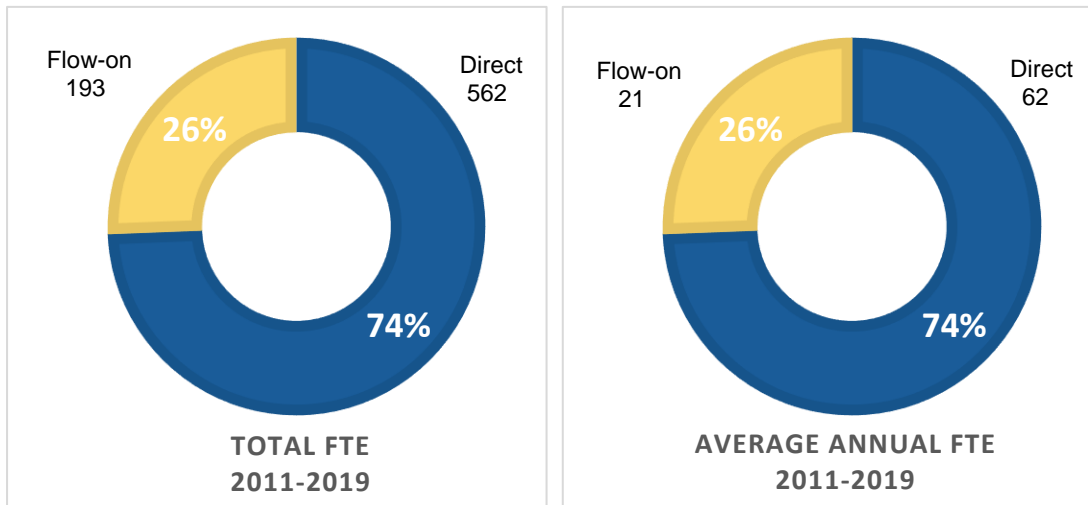
Table 16: Average annual contribution of Viterra to District Council of Copper Coast, 2011-2019

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	6.6	-	6.6
Total Expenditure in the Region (\$m)	6.6	-	6.6
<i>Economic metrics</i>			
Household Income (\$m)	5.5	1.5	7.1
Other Value Added (\$m)	10.6	0.9	11.5
Gross State Product (\$m)	16.1	2.4	18.5
Employment (FTEs)	62	21	84

<sup>8</sup> Rounding errors may occur



All dollar estimates are in 2019 prices



### 3.8 Viterra's Economic Contribution to Northern Areas Council, 2011-2019

Viterra's total economic contribution to the Northern Areas Council for the 2011 to 2019 period was \$67 million. This included a direct impact of \$59 million and a flow on impact of \$8.3 million. On average over this period, Viterra contributed \$7.4 million annually to the regional economy, including a direct impact of \$6.5 million and a flow on impact of \$1 million<sup>9</sup>.

Viterra directly employed 25 FTE on average each year for the nine-year period, with an average flow on employment impact of 8 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the Northern Areas Council economy was 33 FTE.

For the 2011 to 2019 period, Viterra's **total expenditure in the region** was \$24 million. Between 2011 and 2019, Viterra's **average annual contribution** through expenditure to the Northern Areas Council region was \$2.7 million.

Table 17: Total contribution of Viterra to Northern Areas Council, 2011-2019

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	24.2	-	24.2
Total expenditure in the Region (\$m)	24.2	-	24.2
<i>Economic metrics</i>			
Household Income (\$m)	20.2	5.2	25.3
Other Value Added (\$m)	38.6	3.1	41.7
Gross State Product (\$m)	58.8	8.3	67.0
Employment (FTEs)	227	73	300

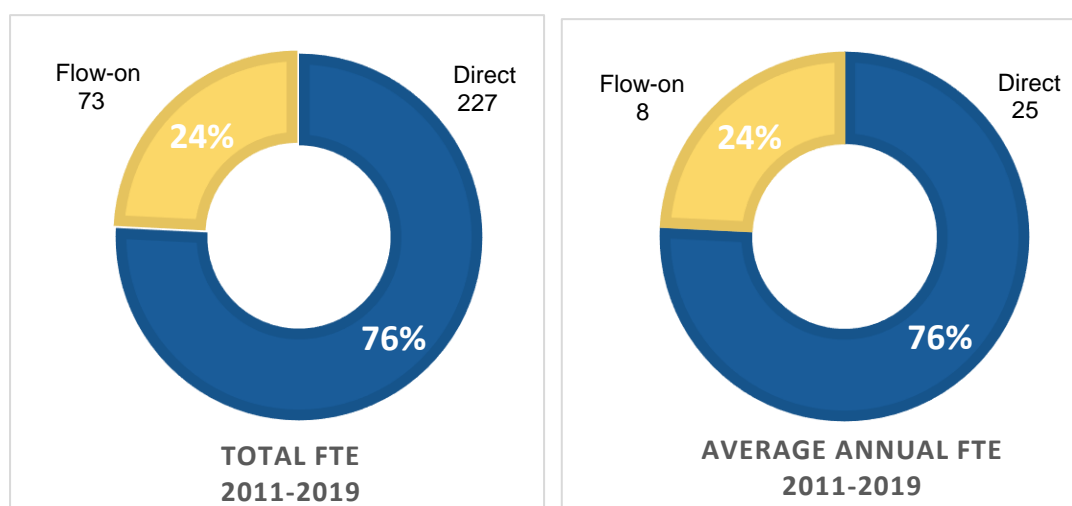
All dollar estimates are in 2019 prices

<sup>9</sup> Rounding errors may occur

Table 18: Average annual contribution of Viterra to Northern Areas Council, 2011-2019

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	2.7	-	2.7
Total Expenditure in the Region (\$m)	2.7	-	2.7
<i>Economic metrics</i>			
Household Income (\$m)	2.2	0.6	2.8
Other Value Added (\$m)	4.3	0.3	4.6
Gross State Product (\$m)	6.5	0.9	7.4
Employment (FTEs)	25	8	33

All dollar estimates are in 2019 prices



### 3.9 Viterra's Economic Contribution to Wakefield Regional Council, 2011-2019

Viterra's total economic contribution to the Wakefield Regional Council for the 2011 to 2019 period was \$107.5 million. This included a direct impact of \$94.6 million and a flow on impact of \$12.9 million. On average over this period, Viterra contributed \$12 million annually to the regional economy, including a direct impact of \$10.5 million and a flow on impact of \$1.4 million<sup>10</sup>.

Viterra directly employed 41 FTE on average each year for the nine-year period, with an average flow on employment impact of 12 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the Wakefield Regional Council economy was 53 FTE.

<sup>10</sup> Rounding errors may occur





For the 2011 to 2019 period, Viterra’s **total expenditure in the region** was \$38.6 million. Between 2011 and 2019, Viterra’s **average annual contribution** through expenditure to the Wakefield Regional Council was \$4.3 million.

Table 19: Total contribution of Viterra to Wakefield Regional Council, 2011-2019

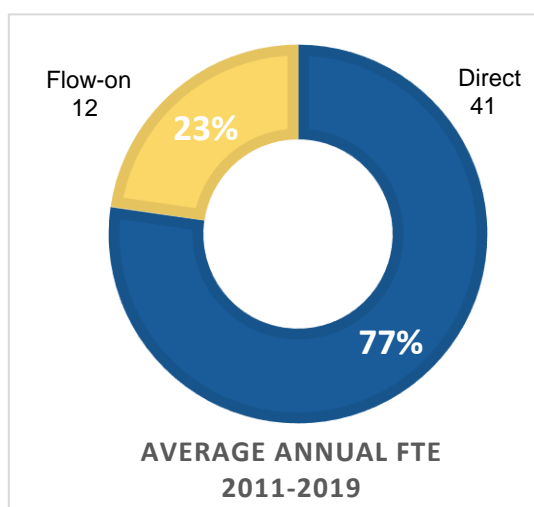
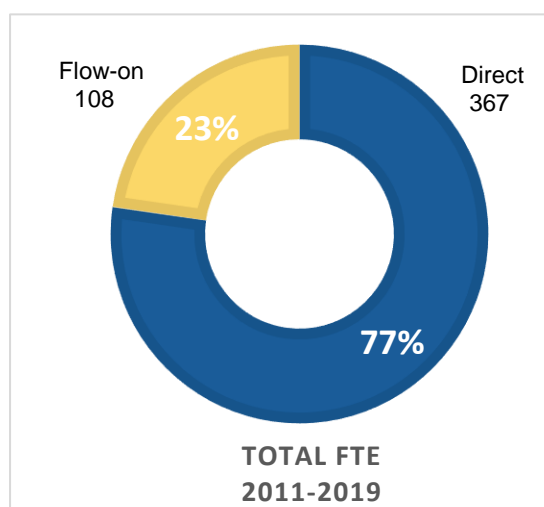
Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	38.5	-	38.5
Total expenditure in the Region (\$m)	38.6	-	38.6
<i>Economic metrics</i>			
Household Income (\$m)	32.5	7.8	40.2
Other Value Added (\$m)	62.1	5.1	67.2
Gross State Product (\$m)	94.6	12.9	107.5
Employment (FTEs)	367	108	475

All dollar estimates are in 2019 prices

Table 20: Average annual contribution of Viterra to Wakefield Regional Council, 2011-2019

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	4.3	-	4.3
Total Expenditure in the Region (\$m)	4.3	-	4.3
<i>Economic metrics</i>			
Household Income (\$m)	3.6	0.9	4.5
Other Value Added (\$m)	6.9	0.6	7.5
Gross State Product (\$m)	10.5	1.4	11.9
Employment (FTEs)	41	12	53

All dollar estimates are in 2019 prices



### 3.10 Viterra's Economic Contribution to Yorke Peninsula Council, 2011-2019

Viterra's total economic contribution to the Yorke Peninsula Council for the 2011 to 2019 period was \$162 million. This included a direct impact of \$144 million and a flow on impact of \$18 million. On average over this period, Viterra contributed \$18 million annually to the regional economy, including a direct impact of \$16 million and a flow on impact of \$2 million<sup>11</sup>.

Viterra directly employed 62 FTE on average each year for the nine-year period, with an average flow on employment impact of 18 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the Yorke Peninsula Council economy was 80 FTE.

For the 2011 to 2019 period, Viterra's **total expenditure in the region** was \$56 million. Between 2011 and 2019, Viterra's **average annual contribution** through expenditure to the Yorke Peninsula Council was \$6 million.

Table 21: Total contribution of Viterra to Yorke Peninsula Council, 2011-2019

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	54.9	-	54.9
Total expenditure in the Region (\$m)	55.8	-	55.8
<i>Economic metrics</i>			
Household Income (\$m)	49.4	11.5	60.8
Other Value Added (\$m)	94.5	6.6	101.1
Gross State Product (\$m)	143.9	18.0	161.9
Employment (FTEs)	557	162	720

All dollar estimates are in 2019 prices

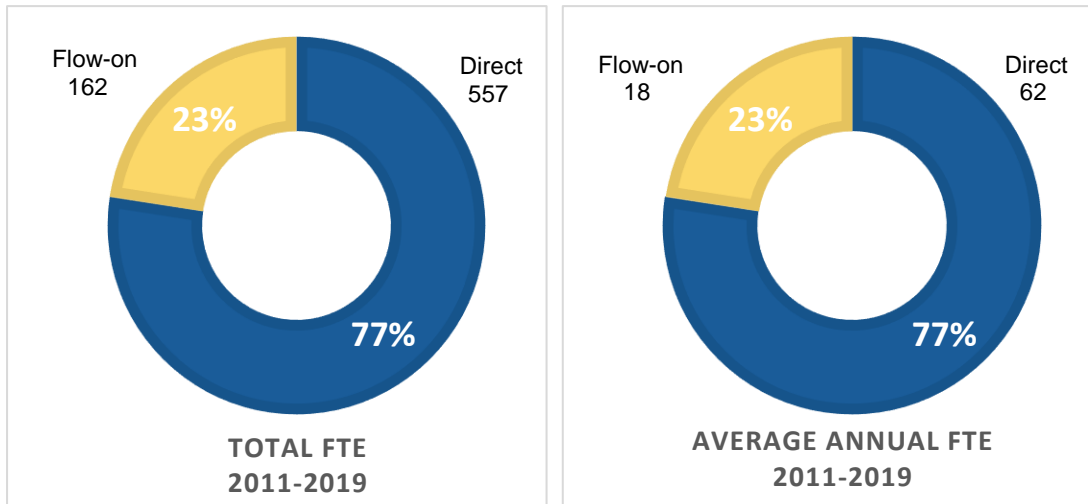
Table 22: Average annual contribution of Viterra to Yorke Peninsula Council, 2011-2019

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	6.1	-	6.1
Total Expenditure in the Region (\$m)	6.2	-	6.2
<i>Economic metrics</i>			
Household Income (\$m)	5.5	1.3	6.8
Other Value Added (\$m)	10.5	0.7	11.2
Gross State Product (\$m)	16.0	2.0	18.0
Employment (FTEs)	62	18	80

All dollar estimates are in 2019 prices

<sup>11</sup> Rounding errors may occur





### 3.11 Viterra's Economic Contribution to Tatiara District Council, 2011-2019

Viterra's total economic contribution to the Tatiara District Council for the 2011 to 2019 period was \$90 million. This included a direct impact of \$79.7 million and a flow on impact of \$10.3 million. On average over this period, Viterra contributed \$10 million annually to the regional economy, including a direct impact of \$9 million and a flow on impact of \$1 million<sup>12</sup>.

Viterra directly employed 34 FTE on average each year for the nine-year period, with an average flow on employment impact of 10 FTE annually. Combining direct and indirect impacts, Viterra's average annual employment contribution to the Tatiara District Council economy was 44 FTE.

For the 2011 to 2019 period, Viterra's **total expenditure in the region** was \$33.7 million. Between 2011 and 2019, Viterra's **average annual contribution** through expenditure to the Tatiara District Council was \$3.7 million.

Table 23: Total contribution of Viterra to Tatiara District Council, 2011-2019

Metric	Direct	Flow-on	2011-2019 Total
<i>Financial metrics</i>			
Operating Expenditure (\$m)	32.9	-	32.9
Total Expenditure in the Region (\$m)	33.7	-	33.7
<i>Economic metrics</i>			
Household Income (\$m)	27.4	6.3	33.6
Other Value Added (\$m)	52.4	4.1	56.4
Gross State Product (\$m)	79.7	10.3	90.1
Employment (FTEs)	309	91	400

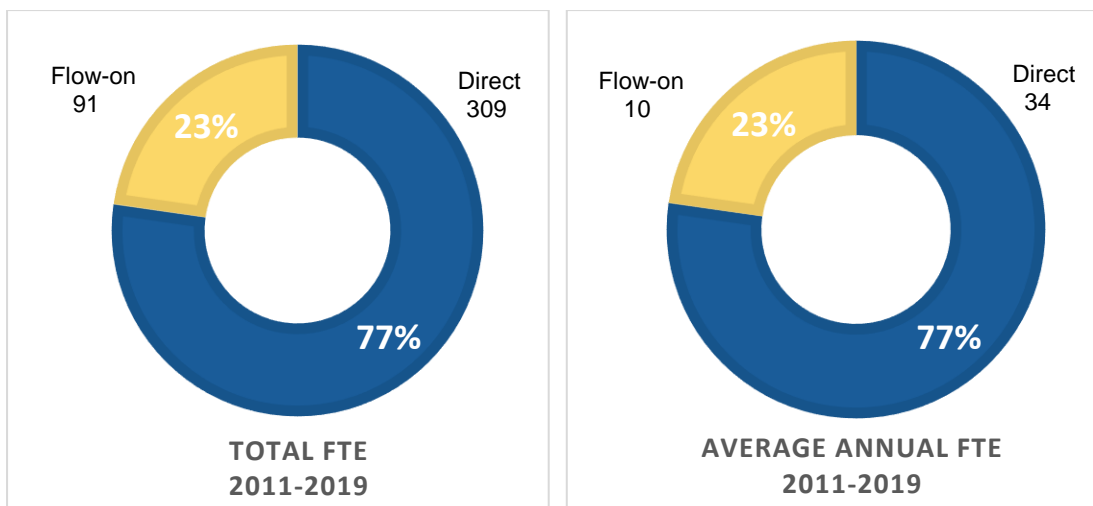
All dollar estimates are in 2019 prices

Table 24: Average annual contribution of Viterra to Tatiara District Council, 2011-2019

<sup>12</sup> Rounding errors may occur

Metric	Direct	Flow-on	2011-2019 Average
<i>Financial metrics</i>			
Operating Expenditure (\$m)	3.7	-	3.7
Total Expenditure in the Region (\$m)	3.7	-	3.7
<i>Economic metrics</i>			
Household Income (\$m)	3.0	0.7	3.7
Other Value Added (\$m)	5.8	0.5	6.3
Gross State Product (\$m)	8.9	1.1	10.0
Employment (FTEs)	34	10	44

All dollar estimates are in 2019 prices



### 3.12 Viterra's Economic Contribution in other areas, 2011-2019

While the above ten modelled local councils represent the regions where Viterra has more expansive operations, the company undertakes activities across most regional areas of South Australia. The impact across these other regions has been estimated by using a ratio approach where the economic contribution in the region is proportional to the operating expenditure (and based on the ratios of modelled economic contribution to operating spend for the ten councils above). The outcome of this analysis is summarised in Appendix E:, Table 27.

### 3.13 Comparison across regions

The local council area with the highest level of direct Viterra operating expenditure is the City of Port Lincoln (\$127 million aggregated across 2011 to 2019, with an average annual spend of \$12.5 million), followed by Yorke Peninsula (\$95 million aggregate, \$9.4 million annual average), Copper Coast (\$86 million aggregate, \$8.7 million annual average), and Wakefield (\$85.4 million aggregate, \$8.5 million annual average).

The local council area with the highest level of direct Viterra total expenditure *within the region* (i.e. excluding imports) is the City of Port Lincoln (\$86 million

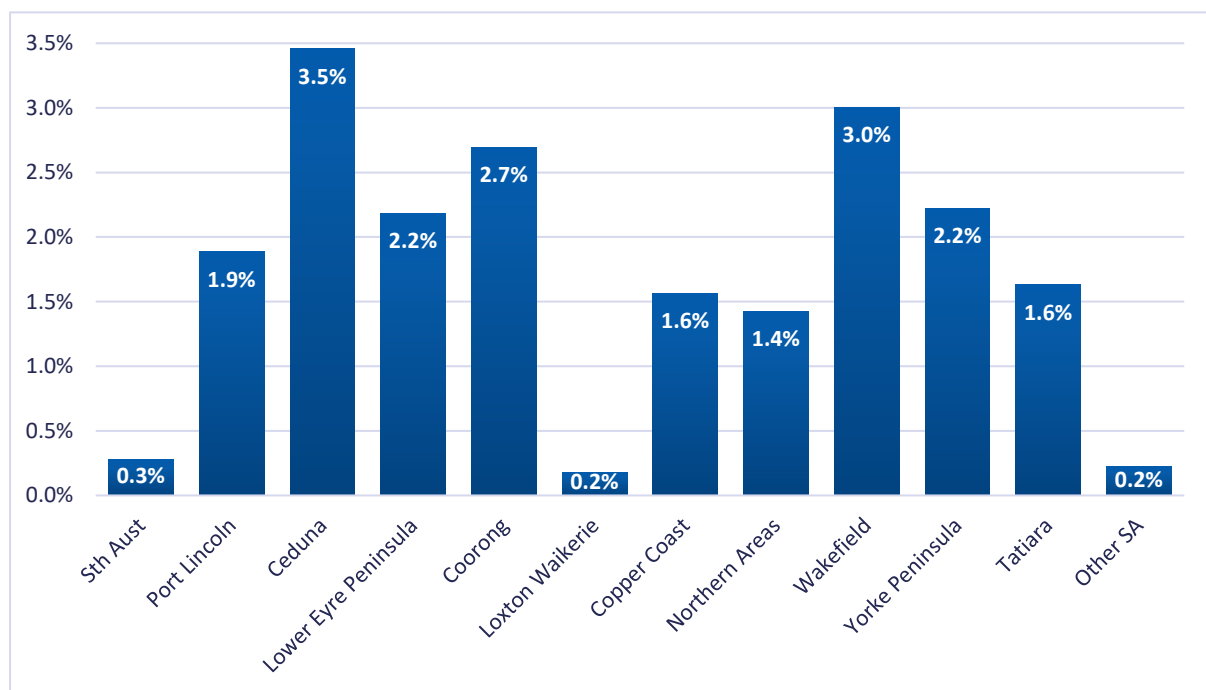


aggregated across 2011 to 2019, with an average annual spend of \$9.6 million), followed by Copper Coast (\$59.6 million aggregate, \$6.6 million annual average), Yorke Peninsula (\$56 million aggregate, \$6 million annual average), and Wakefield (\$38.6 million aggregate, \$4.3 million).

Notably, the *within region* aggregated Viterra operating spend is a higher proportion of *total* operating expenditure in the Northern Areas (80.4%), Lower Eyre Peninsula (80.1%) and Tatiara (78.8%) compared with Wakefield (50.5%) where more of the expenditure leaks outward of the local region boundaries. This difference is due in part to Viterra operating expenditure patterns but is also largely due to differing percentages of imports as a function of local consumption (i.e. expenditure on imported goods and services).

Figure 1 shows the proportional contribution in terms of employment by Viterra to the economy by region as at 2019. The results continue to demonstrate the significance of Viterra to its major regional economies in contrast with South Australia as a whole, accounting for between 1.4% to 3.5% of regional economies compared with 0.3% of the state economy. Ceduna demonstrated the highest proportion (3.5%) followed by Wakefield (3%) and the Coorong (2.7%). Loxton Waikerie was the lowest among the selected regions, at 0.2%.

**Figure 1: Aggregate proportional contribution by Viterra to the economy, by region, 2019**



## Appendix A: Methodology and Assumptions in the Economic Modelling

The process for undertaking the analysis is as follows:

1. Viterra provided expenditure estimates for each of the ten selected Council areas by category of expenditure, and estimated the proportion of expenditure in each category that occurs within the Council area, and the proportion that occurs outside.

2. These expenditures have been distributed to the relevant industry sectors in the input output tables, including a break down to allow for multi-sector contribution (converting expenditures to basic values by allowing for margins).
3. Small area input output models have been produced for this study for each of the Councils under evaluation using a mathematical interpolation method (location quotient). To estimate the direct regional FTE equivalent for employment, it has been assumed that the average salary in the regional areas is 85% of the average Viterra salary.

The industry sector expenditure, and the average consumption patterns of wages, has been traced through the respective input output tables to provide estimates of direct and flow on economic impacts for each region.

The estimates of economic impact for the period 2011-2016 are based on version 4.0 of the Regional Industry Structure and Employment (RISE) model for South Australia and its regions in 2012, constructed (Econsearch, 2013) for SA's Department of Premier and Cabinet (DPC). The model is available at the 78 industry sectors, and it has been reduced to a 20-sector model for consistent application at the state and local area level. The analyses here have been undertaken independently by AITI using the RISE model as a base – with the following adaptations:

- The state and regional tables available in the RISE model have been adapted to a 2016 base by adjusting for inflation (Australian Bureau of Statistics, 2017) and for real labour productivity growth per sector (based on the observed changes in turnover by employee between 2010 and 2014 from the national tables) to the midpoint of the 6 year period.
- Each of the small area (i.e. local government level) tables for the selected councils have been based on the broader region tables as specified in the model (e.g. the model for the City of Port Lincoln has been derived from the Eyre and Far Western region table from the RISE model) using 2011 census data for the region and a mathematical adjustment methodology (the location quotient method).

The magnitude of the impacts on the state and local area economies is determined by expenditures incurred in each industry sector. The detailed expenditures of Viterra were allocated to relevant industry sectors within RISE based on input-output industry groups and 2006 Australian and New Zealand Standard Industrial Classification (ANZSIC) definitions and concordances (ABS 2015) – with some spends split across sectors based on the nature of the expenditure and to convert to basic values. The eventual allocations vary based on yearly expenditure patterns (and for example the proportion of operating versus capital expenditure – so for example expenditure on equipment, construction and professional (business) services tends to be higher in periods with greater capital spend).

For adding in the impacts related to 2017-2019 expenditures, the base of the input output table used has been modified as the RISE tables were becoming increasingly out of date. An input output table for the state has been specifically developed, based on latest national input output table in each year prepared by the ABS, with the 2019 modelling based on the 2017 table (Australian Bureau of Statistics, 2019) using the location quotient method based on labour force data (Australian Bureau of Statistics) and superior data from the state accounts on wages and value added (Australian Bureau of Statistics, 2019) and updated for inflation. The regional tables have been created using the state table as a base, using the location quotient method and census data on employment by industry for 2016.

The 2017-2019 results have been added on to the 2011-2016 results, all updated to 2019 dollars.



In the modelling, direct or initial impacts refer to the impact of the assumed dollar change in sales directly linked to the change in expenditure. Associated directly with this dollar change in output is an own-sector change in household income (wages and salaries, drawings by owner operators etc.) used in the production. Household income together with other value added provide the total Gross State Product (GSP) from the production of that dollar of output. Also associated is own-sector change in employment, represented by the size of the employment coefficient. The employment coefficient represents an 'employment/output' ratio and is usually calculated as 'employment per million dollars of output'.

Flow-on or indirect impacts are the sum of production-induced impacts and consumption-induced impacts. Production-induced impacts are made up of first-round impacts and industrial support impacts. The first-round impact refers to the effect of the first round of changes in purchases by the sector. Industrial-support impacts are the second and subsequent round effects as successive waves of output changes occur in the economy to provide industrial support, as a response to the original dollar change in sales to final demand, excluding any changes in household consumption. Consumption-induced impacts are defined as those induced by changes in household income associated with the original dollar change in output. Total impacts are the sum of direct and flow-on impacts.



## Appendix B: Summary of Regional Input-Output Analysis

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Regional economic impact statements regarding the impact of major projects and policies has become a critical part of regional development analysis and is an extensive component of the applied economic literature. Input-output (I-O) analysis provides a standard approach for the estimation of the economic impact of a particular activity.

The Australian Bureau of Statistics produces I-O tables, consistent with the 2006 Australian and New Zealand Standard Industrial Classification (ANZSIC) 4-digit industry codes (114 sectors), at the national level only with the latest for 2016/17 year (Australian Bureau of Statistics, 2019).

The preparation of a regional I-O table is dependent on the availability of data at the regional level. There is limited economic data available for regions and as such provision of a region-specific table may require extensive survey work and collection of region-specific information. However, there are a number of mathematical techniques that have been developed in order to provide estimates of tables from information that is available, without the expense and inconvenience of survey and primary data collection. It should be evident that the more region-specific data (or 'superior data') that is available the more reliable the table. The less data available, the more indicative (in terms of orders of magnitude) is the table derived. Due to the level of detail in state economic data state table used in this study are developed is prepared at the 20-sector level based on the national table using state accounts and labour force data from the ABS.

I-O tables can be used by private and public stakeholders to conduct an I-O analysis providing an economic impact assessment of regional projects and policies. The key indicators of economic impact include gross state product/ gross regional product (GSP/ GRP) and employment. GSP or GRP is a measure of the net contribution of an activity to the regional economy and is calculated as value of output less the cost of goods and services used in producing the output. Employment is a measure of the number of employees in the region in terms of the number of full-time equivalent (FTE) jobs.

### ***Input-Output Multiplier***

The constructed regional I-O models can be used to calculate industry multipliers which in turn can be applied to estimate regional economic impacts of various change scenarios. A multiplier is essentially a measurement of the impact of an economic stimulus. In the case of I-O multipliers the stimulus is assumed to be a change of one dollar in sales to final demand by an industry sector.

Gross state/ regional product and employment multipliers refer to changes in gross state/ regional product per initial change in output and changes in employment per initial change in output. These multipliers are expressed as 'per unit' measurement and described as Type I and Type II multipliers. For example, with respect to gross state product:

**Type I gross state product multiplier = [initial + production induced]/initial**

And

**Type II gross state product multiplier = [initial + production induced + consumption induced]/initial**



### ***Impact Factor Analysis***

The economic impact in terms of contribution to gross state/ regional product and employment can be identified in terms of direct, flow-on (indirect) and total impacts.

The dollar change in a sector's final demand is the stimulus or the cause of the impacts. Direct or initial impacts refer to the impact of the assumed dollar change in sales directly in the sector.

Associated directly with this dollar change in output is an own-sector change in household income (wages and salaries, drawings by owner operators etc.) used in the production. Household income together with other value added, provide the total GSP from the production of that dollar of output. Also associated is own-sector increase in employment, represented by the size of the employment coefficient. The employment coefficient represents an employment/output ratio and is usually calculated as 'employment per million dollars of output'.

Flow-on or indirect impacts are the sum of production-induced impacts and consumption-induced impacts. Production-induced impacts are the sum of first-round impacts and industrial support impacts. The first-round impact refers to the effect of the first round of purchases by the sector. Industrial-support impacts are the second and subsequent round effects as successive waves of output changes occur in the economy to provide industrial support, as a response to the original dollar change in sales to final demand, excluding any changes caused by increased household consumption. Consumption-induced impacts are defined as those induced by increased household income associated with the original dollar stimulus in output.

Total impacts are the sum of direct and flow-on impacts.

### ***Model Assumptions***

There are a number of important assumptions that underpin the use of I-O models, these must be considered in interpreting the predicted impacts. They include:

- Industries in the region response to changes in demand with constant proportions (no significant price adjustments occur);
- Industries have a linear production function, which implies constant returns to scale and fixed input proportions;
- Firms within a sector are homogeneous, which implies they produce a fixed set of products that are not produced by any other sector and that the input structure of the firms are the same; and
- These models are static that do not take account of the dynamic processes involved in the adjustment to an external change.

## Appendix C: Summary tables of aggregate and average annual economic impact for state and selected council areas, 2011 to 2019

Table 25: Summary of Aggregate Economic Impact for Selected Small Areas - Aggregate Impact, 2011-2019

Region	SA	Eyre and Western Region			Murray and Mallee		Yorke and Mid North				Limestone Coast	Other SA (inc Adelaide)
LGA		Port Lincoln	Ceduna	Lower Eyre Peninsula	Coorong	Loxton Waikerie	Copper Coast	Northern Areas	Wakefield	Yorke Peninsula	Tatiara	
<b>Total Expenditure (\$m)</b>	<b>2562.1</b>	<b>86.2</b>	<b>27.7</b>	<b>25.4</b>	<b>25.3</b>	<b>14.0</b>	<b>59.6</b>	<b>24.2</b>	<b>38.6</b>	<b>55.8</b>	<b>33.7</b>	<b>2163.3</b>
<b>Operating Expenditure Impact</b>												
<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	2,435.0	194.0	65.2	60.4	62.9	34.4	145.2	58.8	94.6	143.9	79.7	1495.9
Induced	1,972.5	30.9	9.6	6.7	6.9	4.4	21.6	8.2	12.8	17.6	9.9	1843.9
<i>Total</i>	<i>4,407.5</i>	<i>224.9</i>	<i>74.8</i>	<i>67.2</i>	<i>69.8</i>	<i>38.8</i>	<i>166.8</i>	<i>67.0</i>	<i>107.5</i>	<i>161.5</i>	<i>89.6</i>	<i>3339.8</i>
<b>Employment Impact (FTE's)</b>												
Viterra	8,486	752	253	234	244	133	562	227	367	557	309	4,848
Induced	12,696	247	78	55	115	41	192	73	108	158	87	11,592
<i>Total</i>	<i>18,831</i>	<i>881</i>	<i>279</i>	<i>263</i>	<i>309</i>	<i>160</i>	<i>663</i>	<i>262</i>	<i>389</i>	<i>628</i>	<i>337</i>	<i>14,704</i>
<b>Capital Expenditure Impact</b>												
<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	410.7	22.0	9.8	4.9	9.0	2.9	16.8	7.2	17.1	17.6	11.4	291.8
Induced	68.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	67.7
<i>Total</i>	<i>491.4</i>	<i>23.2</i>	<i>10.0</i>	<i>5.1</i>	<i>9.1</i>	<i>3.0</i>	<i>17.2</i>	<i>7.3</i>	<i>17.5</i>	<i>18.0</i>	<i>12.1</i>	<i>369.0</i>
<b>Employment Impact (FTE's)</b>												
Viterra	893	0	0	0	0	0	0	0	0	0	0	893
Induced	2,241	135	38	42	189	26	100	40	45	93	49	1,630
<i>Total</i>	<i>3,023</i>	<i>25</i>	<i>5</i>	<i>4</i>	<i>153</i>	<i>4</i>	<i>14</i>	<i>5</i>	<i>6</i>	<i>10</i>	<i>8</i>	<i>2,937</i>
<b>Total Impact</b>												



<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	2,435.0	194.0	65.2	60.4	62.9	34.4	145.2	58.8	94.6	143.9	79.7	1495.9
Induced	2,206.9	33.4	10.0	6.8	7.0	4.6	21.7	8.3	12.9	18.0	10.3	2073.9
<i>Total</i>	<i>4,641.8</i>	<i>227.5</i>	<i>75.2</i>	<i>67.2</i>	<i>69.9</i>	<i>38.9</i>	<i>166.9</i>	<i>67.0</i>	<i>107.5</i>	<i>161.9</i>	<i>90.1</i>	<i>3569.8</i>
<b>Household Income - \$m</b>												
Viterra	835	67	22	21	22	12	50	20	32	49	27	517
Induced	1,313	21	6	4	6	3	14	5	8	11	6	1,230
<i>Total</i>	<i>2,148</i>	<i>88</i>	<i>29</i>	<i>25</i>	<i>27</i>	<i>15</i>	<i>64</i>	<i>25</i>	<i>40</i>	<i>61</i>	<i>34</i>	<i>1,746</i>
<b>Gross Operating Surplus - \$m</b>												
Viterra	1,599.9	127.5	42.8	39.7	41.3	22.6	95.4	38.6	62.1	94.5	52.4	979.0
Induced	893.8	12.3	3.7	2.6	1.3	1.6	7.8	3.1	5.1	6.6	4.1	844.4
<i>Total</i>	<i>2,493.7</i>	<i>139.8</i>	<i>46.5</i>	<i>42.3</i>	<i>42.7</i>	<i>24.2</i>	<i>103.2</i>	<i>41.7</i>	<i>67.2</i>	<i>101.1</i>	<i>56.4</i>	<i>1823.4</i>
<b>Employment Impact (FTE's)</b>												
Viterra	8,486	752	253	234	244	133	562	227	367	557	309	4,848
Induced	14,430	270	81	55	115	43	193	73	108	162	91	13,289
<i>Total</i>	<i>22,916</i>	<i>1,021</i>	<i>334</i>	<i>289</i>	<i>359</i>	<i>176</i>	<i>755</i>	<i>300</i>	<i>475</i>	<i>720</i>	<i>400</i>	<i>18,137</i>
<b>Proportional Contribution by Viterra to Economy of Region</b>	<b>0.3%</b>	<b>1.9%</b>	<b>3.5%</b>	<b>2.2%</b>	<b>2.7%</b>	<b>0.2%</b>	<b>1.6%</b>	<b>1.4%</b>	<b>3.0%</b>	<b>2.2%</b>	<b>1.6%</b>	<b>0.2%</b>

Region		Eyre and Western Region			Murray and Mallee		Yorke and Mid North				Limestone Coast	Other SA (inc Adelaide)
LGA	SA	Port Lincoln	Ceduna	Lower Eyre Peninsula	Coorong	Loxton Waikerie	Copper Coast	Northern Areas	Wakefield	Yorke Peninsula	Tatiara	
<b>Total Expenditure (\$m)</b>	<b>2562.1</b>	<b>86.2</b>	<b>27.7</b>	<b>25.4</b>	<b>25.3</b>	<b>14.0</b>	<b>59.6</b>	<b>24.2</b>	<b>38.6</b>	<b>55.8</b>	<b>33.7</b>	<b>2163.3</b>
<b>Operating Expenditure Impact</b>												
<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	2,435.0	194.0	65.2	60.4	62.9	34.4	145.2	58.8	94.6	143.9	79.7	1495.9
Induced	1,972.5	30.9	9.6	6.7	6.9	4.4	21.6	8.2	12.8	17.6	9.9	1843.9
<i>Total</i>	<i>4,407.5</i>	<i>224.9</i>	<i>74.8</i>	<i>67.2</i>	<i>69.8</i>	<i>38.8</i>	<i>166.8</i>	<i>67.0</i>	<i>107.5</i>	<i>161.5</i>	<i>89.6</i>	<i>3339.8</i>
<b>Employment Impact (FTE's)</b>												
Viterra	8,486	752	253	234	244	133	562	227	367	557	309	4,848
Induced	12,696	247	78	55	115	41	192	73	108	158	87	11,592
<i>Total</i>	<i>18,831</i>	<i>881</i>	<i>279</i>	<i>263</i>	<i>309</i>	<i>160</i>	<i>663</i>	<i>262</i>	<i>389</i>	<i>628</i>	<i>337</i>	<i>14,704</i>

<b>Capital Expenditure Impact</b>												
<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	410.7	22.0	9.8	4.9	9.0	2.9	16.8	7.2	17.1	17.6	11.4	291.8
Induced	68.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	67.7
Total	491.4	23.2	10.0	5.1	9.1	3.0	17.2	7.3	17.5	18.0	12.1	369.0
<b>Employment Impact (FTE's)</b>												
Viterra	893	0	0	0	0	0	0	0	0	0	0	893
Induced	2,241	135	38	42	189	26	100	40	45	93	49	1,630
Total	3,023	25	5	4	153	4	14	5	6	10	8	2,937
<b>Total Impact</b>												
<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	2,435.0	194.0	65.2	60.4	62.9	34.4	145.2	58.8	94.6	143.9	79.7	1495.9
Induced	2,206.9	33.4	10.0	6.8	7.0	4.6	21.7	8.3	12.9	18.0	10.3	2073.9
Total	4,641.8	227.5	75.2	67.2	69.9	38.9	166.9	67.0	107.5	161.9	90.1	3569.8
<b>Household Income - \$m</b>												
Viterra	835	67	22	21	22	12	50	20	32	49	27	517
Induced	1,313	21	6	4	6	3	14	5	8	11	6	1,230
Total	2,148	88	29	25	27	15	64	25	40	61	34	1,746
<b>Gross Operating Surplus - \$m</b>												
Viterra	1,599.9	127.5	42.8	39.7	41.3	22.6	95.4	38.6	62.1	94.5	52.4	979.0
Induced	893.8	12.3	3.7	2.6	1.3	1.6	7.8	3.1	5.1	6.6	4.1	844.4
Total	2,493.7	139.8	46.5	42.3	42.7	24.2	103.2	41.7	67.2	101.1	56.4	1823.4
<b>Employment Impact (FTE's)</b>												
Viterra	8,486	752	253	234	244	133	562	227	367	557	309	4,848
Induced	14,430	270	81	55	115	43	193	73	108	162	91	13,289
Total	22,916	1,021	334	289	359	176	755	300	475	720	400	18,137
<b>Proportional Contribution by Viterra to Economy of Region</b>												
	<b>0.3%</b>	<b>1.9%</b>	<b>3.5%</b>	<b>2.2%</b>	<b>2.7%</b>	<b>0.2%</b>	<b>1.6%</b>	<b>1.4%</b>	<b>3.0%</b>	<b>2.2%</b>	<b>1.6%</b>	<b>0.2%</b>



Region	SA	Eyre and Western Region			Murray and Mallee		Yorke and Mid North				Limestone Coast	Other SA (inc Adelaide)
LGA		Port Lincoln	Ceduna	Lower Eyre Peninsula	Coorong	Loxton Waikerie	Copper Coast	Northern Areas	Wakefield	Yorke Peninsula	Tatiara	
<b>Total Expenditure (\$m)</b>	<b>2562.1</b>	<b>86.2</b>	<b>27.7</b>	<b>25.4</b>	<b>25.3</b>	<b>14.0</b>	<b>59.6</b>	<b>24.2</b>	<b>38.6</b>	<b>55.8</b>	<b>33.7</b>	<b>2163.3</b>
<b>Operating Expenditure Impact</b>												
<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	2,435.0	194.0	65.2	60.4	62.9	34.4	145.2	58.8	94.6	143.9	79.7	1495.9
Induced	1,972.5	30.9	9.6	6.7	6.9	4.4	21.6	8.2	12.8	17.6	9.9	1843.9
<i>Total</i>	<i>4,407.5</i>	<i>224.9</i>	<i>74.8</i>	<i>67.2</i>	<i>69.8</i>	<i>38.8</i>	<i>166.8</i>	<i>67.0</i>	<i>107.5</i>	<i>161.5</i>	<i>89.6</i>	<i>3339.8</i>
<b>Employment Impact (FTE's)</b>												
Viterra	8,486	752	253	234	244	133	562	227	367	557	309	4,848
Induced	12,696	247	78	55	115	41	192	73	108	158	87	11,592
<i>Total</i>	<i>18,831</i>	<i>881</i>	<i>279</i>	<i>263</i>	<i>309</i>	<i>160</i>	<i>663</i>	<i>262</i>	<i>389</i>	<i>628</i>	<i>337</i>	<i>14,704</i>
<b>Capital Expenditure Impact</b>												
<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	410.7	22.0	9.8	4.9	9.0	2.9	16.8	7.2	17.1	17.6	11.4	291.8
Induced	68.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	67.7
<i>Total</i>	<i>491.4</i>	<i>23.2</i>	<i>10.0</i>	<i>5.1</i>	<i>9.1</i>	<i>3.0</i>	<i>17.2</i>	<i>7.3</i>	<i>17.5</i>	<i>18.0</i>	<i>12.1</i>	<i>369.0</i>
<b>Employment Impact (FTE's)</b>												
Viterra	893	0	0	0	0	0	0	0	0	0	0	893
Induced	2,241	135	38	42	189	26	100	40	45	93	49	1,630
<i>Total</i>	<i>3,023</i>	<i>25</i>	<i>5</i>	<i>4</i>	<i>153</i>	<i>4</i>	<i>14</i>	<i>5</i>	<i>6</i>	<i>10</i>	<i>8</i>	<i>2,937</i>
<b>Total Impact</b>												
<b>Value Added (GRP/GSP) - \$m</b>												
Viterra	2,435.0	194.0	65.2	60.4	62.9	34.4	145.2	58.8	94.6	143.9	79.7	1495.9
Induced	2,206.9	33.4	10.0	6.8	7.0	4.6	21.7	8.3	12.9	18.0	10.3	2073.9
<i>Total</i>	<i>4,641.8</i>	<i>227.5</i>	<i>75.2</i>	<i>67.2</i>	<i>69.9</i>	<i>38.9</i>	<i>166.9</i>	<i>67.0</i>	<i>107.5</i>	<i>161.9</i>	<i>90.1</i>	<i>3569.8</i>
<b>Household Income - \$m</b>												
Viterra	835	67	22	21	22	12	50	20	32	49	27	517
Induced	1,313	21	6	4	6	3	14	5	8	11	6	1,230
<i>Total</i>	<i>2,148</i>	<i>88</i>	<i>29</i>	<i>25</i>	<i>27</i>	<i>15</i>	<i>64</i>	<i>25</i>	<i>40</i>	<i>61</i>	<i>34</i>	<i>1,746</i>

<b>Gross Operating Surplus - \$m</b>												
Viterra	1,599.9	127.5	42.8	39.7	41.3	22.6	95.4	38.6	62.1	94.5	52.4	979.0
Induced	893.8	12.3	3.7	2.6	1.3	1.6	7.8	3.1	5.1	6.6	4.1	844.4
<i>Total</i>	2,493.7	139.8	46.5	42.3	42.7	24.2	103.2	41.7	67.2	101.1	56.4	1823.4
<b>Employment Impact (FTE's)</b>												
Viterra	8,486	752	253	234	244	133	562	227	367	557	309	4,848
Induced	14,430	270	81	55	115	43	193	73	108	162	91	13,289
<i>Total</i>	22,916	1,021	334	289	359	176	755	300	475	720	400	18,137
<b>Proportional Contribution by Viterra to Economy of Region</b>	<b>0.3%</b>	<b>1.9%</b>	<b>3.5%</b>	<b>2.2%</b>	<b>2.7%</b>	<b>0.2%</b>	<b>1.6%</b>	<b>1.4%</b>	<b>3.0%</b>	<b>2.2%</b>	<b>1.6%</b>	<b>0.2%</b>





**Table 26: Summary of aggregate economic impact for state and selected council areas – average annual impact, 2011-2019**

Region	SA	Eyre and Western Region			Murray and Mallee		Yorke and Mid North				Limestone Coast	Other SA (inc Adelaide)
LGA		Port Lincoln	Ceduna	Lower Eyre Peninsula	Coorong	Loxton Waikerie	Copper Coast	Northern Areas	Wakefield	Yorke Peninsula	Tatiara	
<b>Total Expenditure (\$m)</b>	<b>284.7</b>	<b>9.6</b>	<b>3.1</b>	<b>2.8</b>	<b>2.8</b>	<b>1.6</b>	<b>6.6</b>	<b>2.7</b>	<b>4.3</b>	<b>6.2</b>	<b>3.7</b>	<b>240.4</b>
<b>Operating Expenditure Impact</b>												
Value Added (GRP/GSP) - \$m												
Viterra	270.6	21.6	7.2	6.7	7.0	3.8	16.1	6.5	10.5	16.0	8.9	166.2
Induced	219.2	3.4	1.1	0.7	0.8	0.5	2.4	0.9	1.4	2.0	1.1	204.9
Total	489.7	25.0	8.3	7.5	7.8	4.3	18.5	7.4	11.9	17.9	10.0	371.1
Employment Impact (FTE's)												
Viterra	943	84	28	26	27	15	62	25	41	62	34	539
Induced	1,411	27	9	6	13	5	21	8	12	18	10	1,288
Total	2,092	98	31	29	34	18	74	29	43	70	37	1,634
<b>Capital Expenditure Impact</b>												
Value Added (GRP/GSP) - \$m												
Viterra	45.6	2.4	1.1	0.5	1.0	0.3	1.9	0.8	1.9	2.0	1.3	32.4
Induced	7.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
Total	54.6	2.6	1.1	0.6	1.0	0.3	1.9	0.8	1.9	2.0	1.3	41.0
Employment Impact (FTE's)												
Viterra	99	0	0	0	0	0	0	0	0	0	0	99
Induced	249	15	4	5	21	3	11	4	5	10	5	181
Total	336	3	1	0	17	0	2	1	1	1	1	326
<b>Total Impact</b>												
Value Added (GRP/GSP) - \$m												
Viterra	270.6	21.6	7.2	6.7	7.0	3.8	16.1	6.5	10.5	16.0	8.9	166.2
Induced	245.2	3.7	1.1	0.8	0.8	0.5	2.4	0.9	1.4	2.0	1.1	230.4

Household Income - \$m	Total	515.8	25.3	8.4	7.5	7.8	4.3	18.5	7.4	11.9	18.0	10.0	396.6
	Viterra	93	7	2	2	2	1	6	2	4	5	3	57
	Induced	146	2	1	0	1	0	2	1	1	1	1	137
Gross Operating Surplus - \$m	Total	239	10	3	3	3	2	7	3	4	7	4	194
	Viterra	177.8	14.2	4.8	4.4	4.6	2.5	10.6	4.3	6.9	10.5	5.8	108.8
	Induced	99.3	1.4	0.4	0.3	0.1	0.2	0.9	0.3	0.6	0.7	0.5	93.8
Employment Impact (FTE's)	Total	277.1	15.5	5.2	4.7	4.7	2.7	11.5	4.6	7.5	11.2	6.3	202.6
	Viterra	943	84	28	26	27	15	62	25	41	62	34	539
	Induced	1,603	30	9	6	13	5	21	8	12	18	10	1,477
<b>Proportional Contribution by Viterra to Economy of Region</b>	Total	2,546	113	37	32	40	20	84	33	53	80	44	2,015
		<b>0.3%</b>	<b>1.9%</b>	<b>3.5%</b>	<b>2.2%</b>	<b>2.7%</b>	<b>0.2%</b>	<b>1.6%</b>	<b>1.4%</b>	<b>3.0%</b>	<b>2.2%</b>	<b>1.6%</b>	<b>0.2%</b>



## Appendix D: Methodology and Assumptions in Modelling

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1. Viterra provided expenditure estimates for each of the ten selected Council areas by category of expenditure and estimated the proportion of expenditure in each category that occurs within the Council area, and the proportion that occurs outside.
2. These expenditures have been distributed to the relevant industry sectors in the input output tables, including a break down to allow for multi-sector contribution (converting expenditures to basic values by allowing for margins).
3. Small area input output models have been produced for this study for each of the Councils under evaluation using a mathematical interpolation method (location quotient). To estimate the direct regional FTE equivalent for employment, it has been assumed that the average salary in the regional areas is 85% of the average Viterra salary.
4. The industry sector expenditure, and the average consumption patterns of wages, has been traced through the respective input output tables to provide estimates of direct and flow on economic impacts for each region.

## Appendix E: Viterra's economic impact by wider region

Table 27: Viterra's economic impact by wider region, 2011 – 2019

	Operating Expenditure in Region	GSP/GRP Impact (\$m)	HH Income (\$m)	Employment (Person years)	Operating Expenditure	GSP/GRP Impact (\$m)	HH Income (\$m)	Employment (FTE's)
<i>Metropolitan Adelaide</i>	1,677.70	2,884.29	1,482.99	14,998.60	186.41	320.48	164.78	1,667
<b>Modelled LGA's</b>								
City of Port Lincoln	82.1	227.5	87.7	1,021	9.13	25.27	9.75	113
District Council of Ceduna	27.0	75.2	28.6	334	2.99	8.35	3.18	37
District Council of Lower Eyre Peninsula	25.0	67.2	24.9	289	2.77	7.47	2.77	32
Coorong District Council	25.2	69.9	26.0	359	2.80	7.77	2.89	40
District Council of Loxton Waikerie	13.6	38.9	14.7	176	1.52	4.33	1.64	20
District Council of Copper Coast	59.4	166.9	63.7	755	6.60	18.54	7.08	84
Northern Areas Council	24.2	67.0	25.3	300	2.69	7.45	2.81	33
Wakefield Regional Council	38.5	107.5	40.2	475	4.28	11.94	4.47	53
Yorke Peninsula Council	54.9	161.9	60.8	720	6.10	17.99	6.76	80
Tatiara District Council	32.9	90.1	33.6	400	3.66	10.01	3.74	44
<i>Total of modelled LGA's</i>	382.88	1,072.04	405.70	4,829.09	42.54	119.12	45.08	537
<b>Other Regional LGA's</b>								
Adelaide Plains Council	27.93	78.19	29.59	352	3.10	8.69	3.29	39
Alexandrina Council	1.47	4.13	1.56	19	0.16	0.46	0.17	2
Clare and Gilbert Valleys Council	9.91	27.76	10.50	125	1.10	3.08	1.17	14
District Council of Barunga West	0.94	2.64	1.00	12	0.10	0.29	0.11	1
District Council of Cleve	21.92	61.39	23.23	277	2.44	6.82	2.58	31
District Council of Elliston	13.10	36.68	13.88	165	1.46	4.08	1.54	18
District Council of Franklin Harbour	3.20	8.97	3.39	40	0.36	1.00	0.38	4
District Council of Karoonda East Murray	8.47	23.71	8.97	107	0.94	2.63	1.00	12
District Council of Kimba	18.91	52.96	20.04	239	2.10	5.88	2.23	27
District Council of Mount Remarkable	4.36	12.21	4.62	55	0.48	1.36	0.51	6
District Council of Ororoo Carrieton	0.43	1.19	0.45	5	0.05	0.13	0.05	1
District Council of Peterborough	0.21	0.60	0.23	3	0.02	0.07	0.03	0
District Council of Streaky Bay	14.67	41.07	15.54	185	1.63	4.56	1.73	21
District Council of Tumby Bay	19.35	54.19	20.51	244	2.15	6.02	2.28	27
Kangaroo Island Council	0.17	0.47	0.18	2	0.02	0.05	0.02	0
Light Regional Council	23.17	64.87	24.55	292	2.57	7.21	2.73	32
Mid Murray Council	4.78	13.37	5.06	60	0.53	1.49	0.56	7
Naracoorte Lucindale Council	2.39	6.70	2.54	30	0.27	0.74	0.28	3
Outback Communities Authority	0.96	2.68	1.01	12	0.11	0.30	0.11	1
Port Pirie Regional Council	23.00	64.41	24.37	290	2.56	7.16	2.71	32
Regional Council of Goyder	2.95	8.26	3.13	37	0.33	0.92	0.35	4
Renmark Paringa Council	0.19	0.53	0.20	2	0.02	0.06	0.02	0
Rural City of Mildura	5.51	15.44	5.84	70	0.61	1.72	0.65	8
Rural City of Murray Bridge	1.54	4.32	1.64	19	0.17	0.48	0.18	2
Southern Mallee District Council	13.97	39.11	14.80	176	1.55	4.35	1.64	20
The Barossa Council	0.55	1.55	0.59	7	0.06	0.17	0.07	1
The Flinders Ranges Council	0.14	0.39	0.15	2	0.02	0.04	0.02	0
Wattle Range Council	2.69	7.52	2.85	34	0.30	0.84	0.32	4
Wudinna District Council	17.94	50.22	19.01	226	1.99	5.58	2.11	25
<i>Total of other regional LGA's</i>	244.84	685.52	259.42	3,087.98	27.20	76.17	28.82	343
<b>Grand Total</b>	<b>2,305.41</b>	<b>4641.84</b>	<b>2148.12</b>	<b>22,916</b>	<b>256.16</b>	<b>515.76</b>	<b>238.68</b>	<b>2,546</b>

Note, rounding errors may occur



## References

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Australian Bureau of Statistics. (2019). *Australian National Accounts: Input-Output Tables - 2016-17, Table 5. Industry by Industry Flow Table (Cat No. 5215.0.55.001)*.

Australian Bureau of Statistics. (2019). *Australian National Accounts: State Accounts, Table 5. Expenditure, Income and Industry Components of Gross State Product, South Australia, Chain volume measures and current prices. (Cat No. 5220.0)*

Australian Bureau of Statistics. (2019). *Consumer Price Index, Australia, Dec 2019, Table 9. CPI: Group, Sub-group and Expenditure Class, Index Numbers by Capital City (Cat No. 6401.0)*.

Australian Bureau of Statistics. (2020). *Labour Force, Australia, Detailed, Quarterly, Nov 2019, Table 5. Employed persons by State, Territory and Industry division of main job (Cat No. 6291.0.55.003)*.

Econsearch (2013) *Input-Output Tables for South Australia and its Regions, 2011/12 Update: Technical Report*. Department of Premier and Cabinet, Adelaide.

Grain Producers SA *Grain Facts* Accessed 1 May 2019.

<http://grainproducerssa.com.au/about/grain-facts/>

Grain Producers SA (2018) south Australian Grain Industry Overview Submission: ESCOSA Grain Supply Chain Cost Inquiry, 16 May 2017.