

# **SILVER FERNS FARMS LIMITED'S PAREORA MEAT PROCESSING PLANT**

## **ASSESSMENT OF ECONOMIC IMPACTS**

**Mike Copeland**

**Brown, Copeland & Co Ltd**

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### **1. INTRODUCTION**

#### **Background**

- 1.1** Silver Fern Farms Limited (Silver Fern Farms) is a locally owned farmer co-operative and New Zealand's largest procurer of livestock and processor and marketer of meat products. Among the twenty-three meat processing facilities it operates throughout New Zealand is the Pareora Meat Processing Plant located near the mouth of the Pareora River, 13 kilometres to the south of Timaru.
- 1.2** The Pareora Catchment Environmental Flow and Water Allocation Regional Plan (the Plan) was publically notified by the Canterbury Regional Council on 21 January 2012 following the consideration of submissions and evidence on a draft plan during 2010 and 2011. Silver Fern Farms lodged submissions and evidence on the draft plan. These submissions and evidence highlighted:

- (a) The economic importance of the Pareora Meat Processing Plant to the local Pareora community and wider South Canterbury sub-region<sup>1</sup>; and
- (b) The reliance of these facilities on Silver Ferns Farms' existing water take from an infiltration gallery within the Pareora River catchment.

**1.3** However the Plan notified by the Canterbury Regional Council in January of this year did not safeguard Silver Fern Farms' existing water take thereby threatening the plant's continued operations. Silver Fern Farms has appealed to the High Court against the decisions of the Canterbury Regional Council in relation to the Plan's impact on the future operations of the Pareora Meat Processing Plant.

### **Report Objective and Format**

**1.4** The purpose of this report is to provide material on the economic significance of the Pareora Meat Processing Plant. The report is divided into 5 parts (in addition to this introductory section). These are:

- (a) a consideration of the relevance of economic effects under the Resource Management Act (RMA);
- (b) a description of the key economic drivers of the South Canterbury sub-region and the Canterbury region;
- (c) the economic significance of Silver Fern Farms' Pareora Meat Processing Plant;
- (d) the economic implications of restricting water supply to Silver Fern Farms' Pareora Meat Processing Plant; and
- (e) some overall conclusions.

## **2. ECONOMICS AND THE RMA**

### **Community Economic Wellbeing**

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<sup>1</sup> Silver Fern Farms' Pareora Meat Processing Plant is located within the Timaru District. However stock are procured for the plant from as far south as Southland and as far north as Marlborough, depending upon the time of year. Employees are drawn from the Timaru, Mackenzie, Waimate and Waitaki Districts. However the major impacts in terms of stock procurement and staff employment are in the Timaru, Mackenzie and Waimate Districts. Therefore for the purposes of this report a South Canterbury sub-region is defined to include these three Districts.

- 2.1** Economic considerations are intertwined with the concept of the sustainable management of natural and physical resources, which is embodied in the RMA. In particular, Part II section 5(2) refers to enabling “*people and communities to provide for their ... economic ... well being*” as a part of the meaning of “*sustainable management*”, the promotion of which is the purpose of the RMA.
- 2.2** As well as indicating the relevance of economic effects in considerations under the RMA, this section also refers to “*people and communities*” (emphasis added), which highlights that in assessing the impacts of a proposal it is the impacts on the community and not just the applicant or particular individuals or organisations, that must be taken into account. This is underpinned by the definition of “*environment*” which also extends to include people and communities.

### **Economic Efficiency**

- 2.3** Part II section 7(b) of the RMA notes that in achieving the purpose of the Act, all persons “*shall have particular regard to ... the efficient use and development of natural and physical resources*” which include the economic concept of efficiency<sup>2</sup>. Economic efficiency can be defined as:

*“the effectiveness of resource allocation in the economy as a whole such that outputs of goods and services fully reflect consumer preferences for these goods and services as well as individual goods and services being produced at minimum cost through appropriate mixes of factor inputs”<sup>3</sup>.*

- 2.4** More generally economic efficiency can be considered in terms of:
- Maximising the value of outputs divided by the cost of inputs;
  - Maximising the value of outputs for a given cost of inputs;
  - Minimising the cost of inputs for a given value of outputs;
  - Improving the utilisation of existing assets; and
  - Minimising waste.

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<sup>2</sup> See, for example, in *Marlborough Ridge Ltd v Marlborough District Council* [1998] NZRMA 73, the Court noted that all aspects of efficiency are “*economic*” by definition because economics is about the use of resources generally.

<sup>3</sup> Pass, Christopher and Lowes, Bryan, 1993, *Collins Dictionary of Economics* (2<sup>nd</sup> edition), Harper Collins, page 148.

## **Viewpoint**

- 2.5** An essential first step in carrying out an assessment of the economic significance of the Silver Ferns Farms' Meat Processing Plant is to define the appropriate viewpoint that is to be adopted. This helps to define which economic effects are relevant to the analysis. Typically a district or wider regional viewpoint is adopted and sometimes even a nationwide viewpoint might be considered appropriate<sup>4</sup>.
- 2.6** In terms of expenditure, employment and incomes, Silver Fern Farms' Pareora Meat Processing Plant has most impact on residents and businesses of Pareora and Timaru. However its operation also impacts on farms, residents and businesses in the wider catchment area for stock supplied to the plant. Therefore this report considers the economic impacts of the plant and possible restrictions on its operations in the context of the South Canterbury sub-region (defined to include Timaru, Mackenzie and Waimate Districts, as well as the wider Canterbury region).

### **3. BACKGROUND TO THE SOUTH CANTERBURY SUB-REGIONAL AND CANTERBURY REGIONAL ECONOMIES<sup>5</sup>**

#### **South Canterbury Sub-Regional Economy**

- 3.1** Statistics New Zealand's June 2011 population estimate for the South Canterbury sub-region is 56,380 or 10.1% of Canterbury's population and 1.3% of New Zealand's total population. In 2006 population in the South Canterbury sub-region was 55,080 persons, which represented 10.2% of Canterbury's population. The South Canterbury sub-region's population over the period 2006 to 2011 has grown by 2.4%, as compared to growth of 3.8% for the Canterbury region and 5.3% for New Zealand as whole.
- 3.2** Statistics New Zealand's 'medium' population projections<sup>6</sup> have South Canterbury's population declining at an average rate of 0.1% per annum over the

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<sup>4</sup> For example, there was an inference that the consideration of "Project Aqua" and other Waitaki River water allocation cases by a central government appointed body was to broaden the viewpoint from a local district or regional level to a wider national level.

<sup>5</sup> Data in this section from Statistics New Zealand.

period 2001-31, compared to an average rate of growth for the Canterbury region and New Zealand of 0.8% per annum.

- 3.3** Employment data highlight the dependence of the South Canterbury sub-regional economy on agriculture and agricultural product processing. In November 2011, 3,370 jobs (13.5%) of South Canterbury's 24,970 jobs were in the agriculture, forestry and fishing industry group, with most (an estimated 2,985 jobs or 88%) being agricultural jobs. The manufacturing sector accounted for 4,255 jobs or 17.0% of total employment, with 2,985 jobs in food manufacturing – meat and meat product manufacturing engaging 1,422 persons and dairy product manufacturing engaging 755 persons. Other important sectors are health care and social assistance (2,710 jobs or 10.9% of all jobs), retail trade (2,590 jobs or 10.4% of total employment), education and training (1,810 jobs or 7.3% of total employment) and accommodation and food services (1,780 jobs or 7.1% of total employment).
- 3.4** Apart from tourism which accounts for some but not all<sup>7</sup> of the jobs created in the retail trade and accommodation and food services sectors, the key economic drivers of the South Canterbury economy are agriculture and agricultural product processing. Employment in other sectors is to a large extent driven by the demand for goods and services by these industries and their employees with the so called “multiplier” effects<sup>8</sup> creating additional jobs for the sub-region's economy.

### **Canterbury Regional Economy**

- 3.5** Statistics New Zealand's June 2011 population estimate for the Canterbury region is 560,700 or 12.7% of New Zealand's total population. It is the second largest region in New Zealand in terms of population. The Canterbury region's population is estimated to have declined between June 2010 and June 2011 by 0.9% due to Christchurch City's population falling by 8,900 (2.4%) after the earthquakes and

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<sup>6</sup> Statistics New Zealand prepare three sets of projections – high, medium and low – according to natural population change (i.e. the net effect of birth and death rate assumptions) and net migration assumptions. These projections do not explicitly incorporate assumptions about different rates of economic development. Also the projections have not been updated since the Christchurch City earthquakes.

<sup>7</sup> Employment in tourism is difficult to identify from official statistics since the relevant sectors such as retail trade and accommodation and food services for which data is collected meet the needs of domestic and international visitors, business travellers and local residents and businesses.

<sup>8</sup> These are discussed in greater detail in the next section of the report.

only some of the consequent out-migration relocating to neighbouring districts within the Canterbury region.

- 3.6** Statistics New Zealand estimates total employment in the Canterbury region in November 2011 at 252,170, which represents 13.2% of the total persons employed in New Zealand. The agriculture, forestry and fishing industry group employed 14,020 persons of which 10,950 were engaged in agriculture. Other significant sectors are manufacturing employing 34,170 (of which the most significant subsectors are food products manufacture (11,370)<sup>9</sup>, machinery and equipment manufacture (5,380), fabricated metal products manufacture (2,870) and transport equipment manufacture (2,680)), health care and social assistance (29,540), retail trade (26,750), education and training (21,410) accommodation and food services (17,300), construction (16,080) and professional, scientific and technical services (15,730).
- 3.7** Apart from the tourism related aspects of sectors such as retail trade, education and training and accommodation and food services, the key drivers of the Canterbury economy remain largely agriculture and manufacturing.
- 3.8** Future employment growth and associated economic well being for the Canterbury region is also likely to be largely associated with the three key economic drivers of agriculture, manufacturing (including agricultural product processing) and tourism, although in the short to medium term at least disruptions due to the 2010 and particularly 2011 earthquakes in and around Christchurch City will impede tourism growth.

#### **4. THE ECONOMIC SIGNIFICANCE OF THE PAREORA MEAT PROCESSING PLANT<sup>10</sup>**

##### **Increased Economic Activity**

- 4.1** Silver Fern Farms is involved in the processing of lambs, sheep, cattle, deer and other livestock at plants in New Zealand and the marketing of red meat and other animal products throughout the world. In the year ending 30 September 2011, Silver Fern Farms earned total income of \$2,098.7 million, of which 87% was

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<sup>9</sup> Including meat and meat products (5,200), seafood (1,280) and dairy products (1,220).

<sup>10</sup> Unless stated otherwise data in this section provided by Silver Fern Farms.

overseas export income, employed over 7,000 persons at the peak of the season and paid \$263 million in wages and salaries to its employees.<sup>11</sup> The company is co-operatively owned by 27,000 farmer shareholders, who are predominantly family owned entities.

- 4.2** Silver Ferns Farms Pareora Meat Processing Plant covers 11.3 hectares on the south side of the Pareora River and was established in 1904. It has a current replacement value of \$93 million and much of this value is sunk – i.e. it could not be recovered if the plant was forced to downsize, close or be relocated.
- 4.3** In 2010-11, the Pareora Meat Processing Plant processed approximately 1.1 million sheep and lambs and 22,000 cattle. Sheep and lamb numbers through the plant have fallen in recent years due to lower capital stock numbers, whereas cattle numbers have increased. Future projections are for lamb and sheep numbers to be steady and the decline of recent years to be abated and for cattle numbers to continue increasing. In terms of total carcass weight the total tonnage processed in 2010/11 was 24,665.8 tonnes, representing 15% of total carcass weight processed within the Canterbury region. Future projections are for this to increase to 28,261.3 tonnes in 2021/22, representing 17% of total carcass weight tonnage processed in Canterbury.
- 4.4** The annual value of meat and other animal products produced in 2010-11 from the Pareora Meat Plant was \$167 million<sup>12</sup>. Of this \$156 million (94%) was sold in export markets. Payments to (principally South Canterbury) farmers supplying the plant with livestock in 2010-11 were \$112 million.
- 4.5** The Plant employs up to 750 staff on-site in the peak of the season which is estimated to equate to around 510 fulltime equivalent (FTE) staff. The wage and salary payments to these staff are around \$25.2 million per annum. In addition, Silver Fern Farms in 2010/11 spent around \$12 million<sup>13</sup> in the South Canterbury economy for contractors and other local suppliers of goods and services. Local firms engaged to provide goods and services to the Pareora Meat Processing Plant include engineers, fabricators, riggers, scaffolders, electricians, cleaners,

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<sup>11</sup> Data taken from Silver Fern Farms 2011 Annual Report.

<sup>12</sup> Valued at the plant door.

<sup>13</sup> In 2010/11, \$15.4 million was spent on project work and maintenance utilising local and national contractors and suppliers. It is estimated 75% is spent with local South Canterbury based firms.

caterers, harvesting operators, painters, plasterers, cartage contractors and MAF and AsureQuality staff. In other words, the direct injection of expenditure into the local South Canterbury sub-regional economy from Pareora Meat Processing Plant totals around \$149 million per annum (i.e. payments to farmers, plant staff wages and salaries and payments to contractors and other local suppliers of goods and services to the Plant).

**4.6** However, in addition to these direct economic impacts there are indirect impacts arising from:

- (a) The effects on suppliers of goods and services provided to the Plant from within the region (i.e. the “forward and backward linkage” effects); and
- (b) The supply of goods and services to employees at the Plant and to those engaged in supplying goods and services to the site (i.e. the “induced” effects). For example, there will be additional jobs and incomes in the South Canterbury retail sector to meet the needs of supplier farmers and their staff, Pareora Meat Processing Plant employees and other employees of local firms providing goods and services to the Plant.

**4.7** Regional multipliers for expenditure, employment, and wages and salaries can be estimated to gauge the size of these indirect effects. The size of the multipliers is a function of the extent to which a region’s economy is self-sufficient in the provision of goods and services and the region’s proximity to alternative sources of supply. Also, in the case of a meat processing plant, the multipliers for employment and wages and salaries are high relative to other activities because of the significant number of on-farm employees and their wages and salaries for farms supplying livestock to the plant (i.e. the significant “backward linkage” effects).

**4.8** Work undertaken for the Christchurch City Council and the Canterbury Regional Council<sup>14</sup> by Mr Geoffrey Butcher estimated employment and household income (i.e. wages and salaries) multipliers for the Canterbury region of around 4.

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<sup>14</sup> See Appendix 8 of evidence of Mr. Geoffrey Butcher (dated 27 August 2010) for the Christchurch City Council and for the Canterbury Regional Council Regional Council, in the matter of appeals pursuant to Clause 14 of the First Schedule to the RMA in relation to Proposed Change 1 to the Canterbury Regional Policy Statement.



Assuming multipliers of 3.5 for the smaller South Canterbury sub-region implies estimated total economic impacts (i.e. direct plus indirect impacts) of:

- (a) \$ 521 million per annum expenditure in the South Canterbury economy;
- (b) 1,785 jobs for local South Canterbury residents; and
- (c) \$ 88.2 million per annum in additional wages and salaries for local South Canterbury residents.

**4.9** Economic impacts in terms of increased expenditure, incomes, and employment within the South Canterbury economy are indicators of economic activity. They are not in themselves measures of improvements in economic welfare or economic well-being. However, there are economic welfare enhancing benefits associated with increased levels of economic activity. These relate to one or more of:

- (a) Increased economies of scale: Businesses and public sector agencies are able to provide increased amounts of outputs with lower unit costs, hence increasing profitability or lowering prices;
- (b) Increased competition: Increases in the demand for goods and services allow a greater number of providers of goods and services to enter markets and there are efficiency benefits from increased levels of competition;
- (c) Reduced unemployment and underemployment<sup>15</sup> of resources: To the extent resources (including labour) would be otherwise unemployed or underemployed, increases in economic activity can bring efficiency benefits when there is a reduction in unemployment and underemployment. The extent of such gains is of course a function of the extent of underutilised resources within the local economy at the time and the match of resource requirements of a project and those resources unemployed or underemployed within the local economy; and
- (d) Increased quality of central government provided services: Sometimes the quality of services provided by central government such as education and health care are a function of population levels and the quality of such

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<sup>15</sup> Underemployment differs from unemployment in that resources are employed but not at their maximum worth; e.g. in the case of labour, it can be employed at a higher skill and/or productivity level, reflected in higher wage rates.

services in a community can be increased if increased economic activity maintains or enhances population levels.

- 4.10** Increases in economic activity (i.e. ongoing expenditures, incomes and employment) within the South Canterbury sub-regional economy as a consequence of Pareora Meat Processing Plant will contribute to these four welfare enhancing economic benefits for the local community.

#### **Increased Economic Diversity**

- 4.11** Although the South Canterbury sub-region<sup>16</sup> is heavily reliant on both agriculture and agricultural product processing, the Pareora Meat Processing Plant provides the South Canterbury economy with greater resilience against cyclical variations in agricultural product prices. Whilst lower agricultural product prices lowers returns to farmers, their livestock still need to be processed and therefore processing capacity within the local economy helps cushion the effects of cyclical downturns in agricultural product prices. If processing capacity within South Canterbury was reduced, the local economy would be more sensitive to changes in farm profitability.
- 4.12** Also the Canterbury region's agricultural sector and agricultural product processing capacity outside of Christchurch has significantly contributed to the ongoing prosperity of the whole Canterbury regional economy in the face of the 2010 and 2011 earthquakes. For example, in the year ending 30 June 2011 Lyttelton Port (the largest port in the South Island and the third largest in New Zealand) moved 9.6 million tonnes of cargo, only slightly down from the 9.8 million tonnes moved in the previous year despite the disruptions caused by the earthquakes.<sup>17</sup>
- 4.13** With respect to the container trade which includes exports of meat and other animal products, 290,842 twenty-foot container equivalent units (TEUs) were moved through the Lyttelton Port, an increase of 6.2% on the previous year. The first quarter of the 2011/12 financial year has seen a further increase in Lyttelton

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<sup>16</sup> And Canterbury region.

<sup>17</sup> Data from 2011 Annual Report for Lyttelton Port.

Port container volumes, which are 14.1% higher than for the July to September quarter in 2010/11.<sup>18</sup>

- 4.14** In the year ending 30 June 2011, cargo moved through PrimePort (Timaru) also increased over the previous year tonnages. Non-containerised cargo handled through the port was the equivalent of 989,000 tonnes, 108,000 tonnes up on the previous year. Containers handled through the port increased from 44,800 TEUs to 49,100 TEUs.<sup>19</sup>
- 4.15** This data on port tonnages and container movements highlights that Canterbury's farming and agricultural product processing industries in the region's rural and provincial areas (including the Pareora Meat Processing Plant) have helped sustain the Canterbury region's economy in the face of significant disruption to businesses and residents within metropolitan Christchurch as a result of the 2010 and 2011 earthquakes.

#### **Increased Rates Revenue for the Timaru District Council**

- 4.16** In 2010/2011 rates paid by Silver Fern Farms to the Timaru District Council totalled \$89,600 (excluding GST). Because of economies of scale it is likely that the rates paid by Silver Fern Farms will be greater than the increase in Council's costs as a consequence of the Pareora Meat Processing Plant being on the site as compared to pastoral farming – the most likely alternative use. From the perspective of the Timaru District Council and other ratepayers in the District, this broadening of the rating base provides the opportunity for a greater range of Council provided services or a reduction in the rates burden for other ratepayers.

#### **Community Involvement**

- 4.17** Silver Fern Farms supports the local Pareora Rugby Club through sponsorship and owning the local sports ground which is used for rugby and other sports. The company sponsors the St Andrews Golf Club and other community initiatives such as road safety workbooks for rural schools. The plant is also recognised as an

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<sup>18</sup> Data from 2011 Annual Report for Lyttelton Port and Chairman's Address from Lyttelton Port Company's Annual Meeting, 3 November, 2011.

<sup>19</sup> Data from 2011 Annual Report for PrimePort.

employer of volunteers, specifically volunteer firemen and army reserve personnel.

**4.18** The Pareora Meat Processing Plant contributes to the “social fabric” of the local Pareora and Timaru communities via staff, contractors and their families belonging to service clubs, sports clubs and other voluntary organizations. As well as fulfilling leadership roles and making other contributions within the community the plant’s staff, contractors and their families, help provide the critical mass to underpin these organizations’ ongoing sustainability.

## **5. THE ECONOMIC IMPLICATIONS OF RESTRICTING WATER SUPPLY TO SILVER FERN FARMS PAREORA MEAT PROCESSING PLANT**

### **Retention of Expenditure, Employment and Incomes**

**5.1** Without an exemption from the Plan’s proposed restrictions on taking water from the Pareora River catchment, Silver Fern Farms faces the prospect of having to restrict its processing of livestock at its Pareora Meat Processing Plant. Water use at the Plant is largely subject to seasonal and climatic changes when stock are available for processing. Peak water requirements are therefore linked to the peak in processing requirements, generally occurring in the summer period each year.

**5.2** The diversion of stock to other plants<sup>20</sup> (most likely to Silver Fern Farms’ Fairton Plant near Ashburton to the north and the Mosgiel and Finegand (Balclutha) Plants to the south) will firstly result in a reduction in South Canterbury expenditure, employment and incomes as a result of the direct and indirect (multiplier) effects of reduced processing of livestock at the Pareora Plant.

**5.3** Secondly, the increased transport costs and animal health related costs for South Canterbury farmers having to truck their stock further distances would result in reduced returns from the sale of their livestock. This will result in lower farm incomes and this together with the indirect (multiplier) effects will reduce expenditure, employment and incomes in the local South Canterbury economy.

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<sup>20</sup> The Plant at Pareora also processes products such as blood from other Silver Fern Farms’ plants in the South Island. Should the Pareora Meat Processing Plant’s operation be restricted this will require relocation of these activities at higher cost and therefore reduced efficiency.

- 5.4** These two sets of direct and indirect economic effects will be particularly significant if restrictions in water supply force Silver Fern Farms to close the Pareora Plant or relocate it outside of South Canterbury.

### **Other Economic Effects**

- 5.5** Reductions in livestock processed at the Pareora Meat Processing Plant or closure of the Pareora Plant, will reduce the diversity of the local South Canterbury economy, reduce the Timaru District Council's rates revenue and reduce the contributions from Silver Fern Farms and Plant employees to the local Pareora and Timaru communities.

## **6. CONCLUSIONS**

- 6.1** The Pareora Meat Processing Plant enhances the economic well being of South Canterbury and Canterbury residents and businesses by:
- (i) Increasing expenditure, employment and incomes in the local and regional economies;
  - (ii) Increasing population in the District, thereby increasing or maintaining the quality of some central government provided services;
  - (iii) Providing the local and regional economies with greater diversity and resilience;
  - (iv) Helping to underpin the Canterbury regional economy following the major Greater Christchurch earthquakes of September 2010, February 2011 and June 2011 and ongoing aftershocks;
  - (v) Providing greater employment choice for local residents;
  - (vi) Broadening the rating base of the Timaru District Council; and

- (vii) Silver Fern Farms' and the Pareora Meat Processing Plant's employees contributing to the Pareora and Timaru communities.

**6.2** The Pareora Meat Processing Plant improves resource use efficiency by:

- (i) Increasing economic activity and population in South Canterbury, enabling increased economies of scale in the local provision of goods and services;
- (ii) Reducing livestock transport costs; and
- (iii) Reducing externality costs associated with road transport including road accident costs, road transport pollution costs and travel time costs for other road users.

**6.3** Restrictions on the Pareora Meat Processing Plant's water take from the Pareora River catchment will reduce the quantity of livestock that can be processed at the Plant, possibly undermining the Plant's financial viability leading to its closure or relocation. Reductions in livestock processed at the Plant or the closure or relocation of the Plant will result in reduced economic efficiency and reduced economic wellbeing for South Canterbury residents and businesses.