

**ASSESSMENT OF THE ECONOMIC EFFECTS OF THE TE KUHA MINE PROJECT**

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## Table of Contents

<b>1. INTRODUCTION</b>	<b>3</b>
Background to Project	3
Report Objective and Format	3
<b>2. ECONOMICS, THE RMA AND THE CMA</b>	<b>4</b>
The RMA - Community Economic Wellbeing	4
The RMA - Economic Efficiency	4
The RMA – Economic Growth and Employment	5
The CMA – Net Direct Economic and Other Benefits	6
Viewpoint	6
Economic Rationale for Land Use Controls	7
Non-economic Effects	9
<b>3. THE BULLER DISTRICT AND WEST COAST REGIONAL ECONOMIES</b>	<b>10</b>
<b>4. ECONOMIC BENEFITS OF THE TE KUHA MINE PROJECT</b>	<b>14</b>
Increased Economic Activity during Project Construction	14
Increased Economic Activity during Project Operation	16
Economic Benefits from Increased Economic Activity	17
Other Economic Benefits	18
<b>5. POTENTIAL ECONOMIC COSTS OF THE TE KUHA MINE PROJECT</b>	<b>19</b>
Displaced Economic Activity	19
Utilities	19
<b>6. CONCLUSIONS</b>	<b>20</b>

## **INTRODUCTION**

### **Background to the Project**

- 1.1** Te Kuha Limited Partnership (TKLP) is a joint venture between Stevenson Group Limited (Stevenson) and Wi Pere Holdings Limited (Wi Pere), who hold Mining Permit 41-289, which covers the area known as the Te Kuha Deposit located on top of the Paparoa Ranges, approximately 12 kilometres south east of Westport in the Buller District. Stevenson is responsible for obtaining all necessary approvals for the Te Kuha Mine Project (the Project) including land access agreements and resource consents.
- 1.2** The Te Kuha Deposit is predominantly located on an area of Buller District Council (BDC) water conservation reserve with a small area (approximately 13 hectares) on Department of Conservation (DOC) 'stewardship' land. It is anticipated that the Project will involve the recovery of around 4 million tonnes of high grade coal over a mine life of 16 years – i.e. 250,000 tonnes will be mined per annum. Prior to coal recovery, there will be a 12 month construction phase. At the end of the mine's life there will be a 1 to 2 year land rehabilitation phase.

### **Report Objective and Format**

- 1.3** The objective of this report is to provide an assessment of the economic effects of the proposed Te Kuha Mine Project. The report is divided into five parts (in addition to this introductory section). These cover:
- (a) The relevance of economic effects under and the Resource Management Act 1991 (RMA) and the Crown Minerals Act (CMA);
  - (b) The key economic drivers of the Buller District and West Coast regional economies;
  - (c) The local district and regional economic effects of the Project during its construction and operation;

- (d) Potential economic costs of the Project; and
- (e) The report's conclusions.

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

### **The RMA - Community Economic Wellbeing**

- 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.
- 2.3** The Project will generate additional expenditure, employment and incomes within the local Westport, Buller and West Coast regional economies. It will contribute to the economic and social wellbeing of residents and businesses in the local community. This is discussed later in this report.

### **The RMA - Economic Efficiency**

- 2.4** 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>1</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>2</sup>.*

**2.5** More generally economic efficiency can be considered in terms of:

- (a) Maximising the value of outputs divided by the cost of inputs;
- (b) Maximising the value of outputs for a given cost of inputs;
- (c) Minimising the cost of inputs for a given value of outputs;
- (d) Improving the utilisation of existing assets; and
- (e) Minimising waste.

**2.6** The Project in contributing to the retention of economic activity and population in Westport and the Buller region will help maintain a level of “critical mass” for the local community giving rise to economic efficiency benefits. These are discussed later in this report.

## **The RMA - Economic Growth and Employment**

**2.7** Section 32A 2(a) of the RMA requires reports prepared under the Act to:

*“Identify and assess the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the provision, including the opportunities for:*

*Economic growth that are anticipated to be provided or reduced; and*

*Employment that are anticipated to be provided or reduced.”*

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<sup>1</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>2</sup> Pass, Christopher and Lowes, Bryan, 1993, *Collins Dictionary of Economics* (2<sup>nd</sup> edition), Harper Collins, page 148.

- 2.8** This section of the RMA again highlights that economic costs and benefits and economic growth and employment effects are relevant under the RMA.

### **The CMA – Net Direct Economic and Other Benefits**

- 2.9** The Crown Minerals Act at section 61(2) contains a list of matters which the appropriate Minister must have regard to in considering whether to agree to an access arrangement in respect of Crown land. The Crown Minerals Amendment Act 2013 added to this list:

*“(da) the direct net economic and other benefits of the proposed activity in relation to which the access arrangement is sought;”*

The Project requires access to DOC land and hence there is a requirement for an assessment of “the direct net economic and other benefits” of the proposed mining activity. These are discussed later in this report.

### **Viewpoint**

- 2.10** An essential first step in carrying out an evaluation of the positive and negative economic effects of a development project 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.
- 2.11** For the Te Kuha Mine Project, it is appropriate to consider Buller District and West Coast Regional economic viewpoints given that the most significant economic impacts will be on local residents and businesses. However in terms of economic efficiency effects, the project generates district, regional and national economic benefits. In particular at the national level the Project will contribute royalty and other payments to the Government.
- 2.12** There are also private or financial costs and benefits associated with the proposed activities. If the access to Crown land and resource consents granted, and the joint venture partners give effect to these, then it can be assumed that the private or financial costs and benefits have been responsibly and properly analysed and that

from the viewpoint of those with money at risk, the expected financial benefits exceed the expected costs. Accountability for accuracy of the financial analysis clearly rests with the joint venture partners and ultimately the net financial benefits they might receive from the proposal are not directly relevant to the assessment of effects under the RMA and CMA. Also Environment Courts and Hearing Panels are generally not well equipped to evaluate the financial costs and benefits of projects and this is best left to those whose funds are to be invested in the projects.

- 2.13** However, the financial viability of an activity such as the Project requiring access to DoC “stewardship land” may be relevant if subsequent to a start being made on the Project, the Project, or the entity undertaking the Project (in this case the TKLP joint venture between Stevenson and Wi Pere) fails and the Project, and in particular the 1 to 2 year rehabilitation phase, is not completed. In such circumstances New Zealand and the local community would potentially be left with environmental degradation that would need public resources to rectify.
- 2.14** To avoid such a situation eventuating, the TKLP will be required to enter into bond arrangements to ensure such an outcome does not occur. This will form part of the access arrangement and resource consent requirements.
- 2.15** Therefore the focus of this report is on the wider economic effects on parties other than the joint venture partners and its customers. Economists refer to such effects as “externalities”<sup>3</sup>.

### **Economic Rationale for Land Use Controls**

- 2.16** Over the past thirty years or so, there has been a growing acceptance in New Zealand and other countries that economic efficiency is maximised when investment decisions are left to individual entrepreneurs or firms, without intervention from Government. The reason for this is that a perfectly competitive market achieves an efficient allocation of resources. Accordingly, the efficient use of resources (and therefore “sustainable management”) occurs through the creation of a climate where

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<sup>3</sup> Defined as the side effects of the production or use of a good or service, which affects third parties, other than just the buyer and seller.

the market enables people to make investment decisions “to provide for their economic well-being”.

- 2.17** Despite this, markets are not “perfect”, and the presence of “externalities” affects the working of the market and the results that could be expected from a totally unregulated system of resource allocation. Externalities arise because the actions of individuals or firms sometimes create positive or negative impacts on others.
- 2.18** It is also unrealistic to assume that development of particular forms of economic activity and/or the location of that economic activity will avoid the imposition of costs on the community in general. Where the developer, and/or those engaged in the various forms of economic activity at the site do not face the incidence of these costs, externalities arise and intervention of some form may be justified. In other words, the development may create costs or benefits for parties other than those commercially involved in the development.
- 2.19** Externalities may be in the form of environmental effects such as visual, noise, water or air pollution effects. Externalities in an economic context may relate to the provision of infrastructure where a strict user pays system is not in place; to traffic congestion and road accident effects; and to the so called agglomeration economies and public amenity benefits, which relate to the beneficial effects for businesses, customers and residents in concentrating particular forms of economic activity within confined areas.
- 2.20** It is the presence of externalities (economic and non economic) which justify land use constraints because if externalities are not present, the market can be left to itself to optimise resource use efficiency. However the existence of externality costs *per se* does not justify intervention.
- 2.21** Firstly, intervention is not costless in that it prevents a market determined outcome, maximising producer and consumer choice. Preventing the joint venture partners from best meeting the needs of its customers will have economic efficiency costs for the joint venture partners and Government (or taxpayers) as a recipient of royalty



payments. Incurring these costs is only justified if significant economic (or non-economic) externality costs are associated with the proposed Project.<sup>4</sup>

**2.22** Secondly, there may be externality benefits from the proposed new mine that outweigh any externality costs which may result from it. Therefore a range of economic externalities (both positive and negative) arising from the proposed Project are discussed later in this report.

### **Non-economic Effects**

**2.23** This report addresses the economic effects<sup>5</sup> of the Project. Non-economic effects (i.e. the environmental, social and cultural effects) are covered in the evidence of other technical reports that will be provided with the Resource Consent application.

**2.24** In economics, 'intangible' costs and benefits are defined as those which cannot be quantified in monetary terms. Sometimes attempts can be made to estimate monetary values for 'intangible' non-economic costs and benefits using techniques such as willingness to pay surveys or inferring values on the basis of differences in property values. Once quantified in monetary terms, these effects can supposedly be considered as part of the assessment of economic effects.

**2.25** However, such techniques are frequently subject to uncertainty and criticism. It is generally better to not attempt to estimate monetary values for these effects but to leave them to be assessed by appropriately qualified experts (e.g. landscape, ecological and Maori cultural experts, whose reports form part of the AEE) and for their assessments to form part of the application of the relevant legal test.

**2.26** This also avoids the danger of 'double-counting' – i.e. including them within a quantified measure of economic wellbeing or efficiency and treating them as a separate consideration.<sup>6</sup>

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<sup>4</sup> Granting access to Crown land and resource consents for the Project would not constitute a completely "free market" outcome. It will still be subject to the constraints which already exist in the District and Regional Plans and any additional constraints imposed when access to the Crown land and resource consents are granted. These access and consenting constraints may have the effect of addressing externalities which would otherwise arise. Also the Project operator will be subject to various regulatory constraints other than those imposed under the access agreement and resource consents – for example, occupational safety and health regulations.

<sup>5</sup> Sometimes economic effects can have a social dimension – e.g. employment and income effects.

### 3. THE BULLER DISTRICT AND WEST COAST REGIONAL ECONOMIES

- 3.1** Statistics New Zealand data indicate that the resident population in Buller declined from 10,700 in 1996 to 9,900 in 2001, was steady at around this level through to 2006 and is estimated at 10,350 in 2015, down from 10,550 in 2014.<sup>7</sup> Statistics New Zealand's medium projection is for the population to grow to 11,350 by 2043, implying an average annual rate of growth of 0.3% per annum.<sup>8</sup>
- 3.2** For the West Coast Region as a whole, the population fell from 33,200 in 1996 to 31,100 in 2001. Since then, the population has increased to 32,100 in 2006 and to an estimated 32,700 in 2015, down from 32,800 in 2014. Statistics New Zealand's medium projection is for the population to grow to 33,200 by 2043, implying an average annual rate of growth of 0.05% per annum. This compares with a medium projection average growth rate for New Zealand's total population of 0.7% per annum.
- 3.3** Employment in the Buller District increased from 3,130 persons employed in 2000 to 5,020 persons employed in 2012, but has since fallen back to 4,320 in 2015 – i.e. a loss of 700 jobs (13.9%) in the 3 years 2012-15. For the West Coast region, employment has grown from 11,800 persons employed in 2000 to 15,680 persons employed in 2012, but has since reduced to 15,090 in 2015 – i.e. a loss of 590 jobs (3.8%) in the 3 years 2012-15. During this same 2012-15 period, employment in New Zealand has grown by 6.0%.<sup>9</sup>
- 3.4** The mainstays and major growth sectors for Buller and the West Coast economies have been mining, tourism and agriculture<sup>10</sup>. In Buller, mining accounted for 720 or 16.7% of all jobs in 2015. In 2000 there were only 210 mining jobs in the District and

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<sup>6</sup> For a further discussion of valuing intangibles see: New Zealand Journal of Environmental Law; Volume 17, 2013; Valuation of Natural Assets Under the Resource Management Act; Mark Christensen..

<sup>7</sup> Source: Statistics New Zealand [www.stats.govt.nz](http://www.stats.govt.nz); NZ.Stat; Sub-national Population Estimates, (data extracted 24 April, 2016).

<sup>8</sup> Source: Statistics New Zealand [www.stats.govt.nz](http://www.stats.govt.nz); NZ.Stat; Area Unit Population Projections by Territorial Local Authority; (data extracted 24 April, 2016).

<sup>9</sup> Source: Statistics New Zealand [www.stats.govt.nz](http://www.stats.govt.nz); NZ.Stat; Detailed industry by region – (ANZSIC 06) 2000 – 2015; 24 April 2016.

<sup>10</sup> Including milk products manufacture for the West Coast regional economy, and which is undertaken at Westland Milk Product's plant at Hokitika.

this was also the case in 2006. Since 2006, mining jobs in the District initially grew rapidly to peak at 1160 mining jobs in 2013. However since then there has been a major contraction with mining jobs falling by 37.9% in 2 years. For the West Coast, there were 870 mining jobs in 2015 or 5.6% of all jobs, down from 1,600 in 2012 reflecting the closures of the Pike River and Spring Creek mines and the contraction of Solid Energy's operations in Buller.<sup>11</sup>

**3.5** Employment in tourism<sup>12</sup> grew rapidly in Buller and on the West Coast between 2000 and 2006, but has since declined. In Buller in 2000 there were 340 jobs in accommodation and food services and this had grown to 530 by 2007. However by 2015 there were only 420 jobs in this sector – i.e. a decline of 20.8%. For the West Coast in 2000, there were 1,440 jobs in accommodation and food services and this had grown to 2,120 by 2007. By 2015, the number had reduced to 1,920, (12.2% of total employment), a decline of 9.4% since 2007. However jobs in this sector grew by 6.7% between 2014 and 2015.

**3.6** Similar trends are shown from an analysis of guest nights in commercial premises in Buller and on the West Coast. For Buller, there were 171,920 guest nights recorded for the year ending December 2000. This had risen to 245,686 guest nights for the year ending December 2006 (i.e. a rise of 42.9%). However for the year ending December 2013, guest nights had fallen to 200,125 (i.e. a fall of 18.5%). In 2015 guest nights in Buller had rebounded to 224,260 (i.e. a rise of 12.1%) but still down on guest nights in 2006. For the West Coast, guest nights for the year ended December 2000 were 871,932 and had risen to 1,223,664 for the year ended December 2006 (i.e. a rise of 40.3%). For the year ended December 2013, these had fallen to 1,080,483 (i.e. a fall of 11.7%). In 2015, guest nights for the West Coast region (i.e. for Buller, Grey and Westland Districts) stood at 1,279,068 (i.e. an

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<sup>11</sup> Statistics New Zealand data for mining exclude on-site employees engaged in mineral processing, construction and site preparation activities. Therefore they understate the importance of the mining industry to Buller and the West Coast. A 2010 Berl report (Potential Contribution of Mining to the West Coast Region; report prepared for Development West Coast; November 2010) estimates the extent of this understatement is around 50% - i.e. the mining industry accounts for around 25% of all jobs in Buller and 8% of all jobs on the West Coast.

<sup>12</sup> As represented by the Accommodation and Food Services group. This is only a proxy for tourism since accommodation and food services will also be used by non-tourists. For example, the downturn in mining activity in Buller and on the West Coast will have led to fewer mining industry visitors. Also tourism related activities will also be covered by other industry groups – e.g. retail trade, arts and recreation services and other services.

increase of 18.4% since 2013). Guest nights on the West Coast are dominated by those in the Westland District having (in 2015) 60.7% of the region's guest nights. The Grey District and Buller District's had (in 2015) 21.8% and 17.5% respectively.<sup>13</sup>

- 3.7** Agricultural employment in Buller and the West Coast also grew rapidly between 2000 and 2006. Since 2006, there has been continued but less spectacular growth. For Buller in 2000, there were 260 agricultural jobs, growing to 410 jobs in 2006. By 2015, the number of agricultural jobs in Buller had grown to 460. For the West Coast region, agricultural jobs in 2000 were 540, growing to 930 in 2006. By 2015 they had increased to 1,020, an increase of 9.7% since 2006.
- 3.8** Holcim (New Zealand) Ltd's cement plant near Westport has been a significant employer providing around 120 jobs. However the plant is to close in the second half of 2016.
- 3.9** In summary, for both the Buller District and the West Coast region, employment growth since 2000 has resulted from increased activity in the agricultural<sup>14</sup>, mining and tourism sectors. Between 2000 and 2006, the agricultural and tourism sectors were the dominant growth sectors, but between 2006 and 2012 increased mining activity was the main source of economic growth. The contraction in the mining industry since 2013 has seen a loss of mining employment, only partially offset by increases in tourism and agricultural employment.
- 3.10** Future economic growth for the Buller and West Coast economies is also likely to depend on the three key economic drivers of agriculture, mining and tourism. Future growth in agriculture employment is likely to be limited by reduced scope for dairy farm conversions, whilst growth in tourism will be affected by a number of factors including economic conditions in overseas and local markets, exchange rates, changes in tourist destination preferences and local and national tourism promotional initiatives.
- 3.11** A 2010 Berl Economics report states:

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<sup>13</sup> Source: Commercial Accommodation Monitor Pivot Tables; Ministry of Economic Development ([www.tourismresearch.govt.nz](http://www.tourismresearch.govt.nz)); 28 April, 2016.

<sup>14</sup> Including milk processing, but for the West Coast this is all done at Westland Milk Products dairy factory at Hokitika in the Westland District.

*“Our assessment of the West Coast economy is that the Buller District will rise and fall with the mining sector. Westland District will rise and fall with tourism and dairy. As the main service centre for the West Coast region, Greymouth District’s growth is better spread across industries (with a bias toward mining) but is heavily dependent upon the fortunes of Buller and Westland.*

*Growth in dairy appears to have eased off, and additional gains are likely to be from productivity or product improvements rather than volume increases. Tourism is a growth industry, although growth will be incremental and there are issues around infrastructure, sustainability and environmental impacts. Mining appears to provide the greatest step change potential for the Region with the opportunity to positively affect growth in the regional economy.”*

- 3.12** However, since the Berl report was prepared the Pike River and Spring Creek mines in the Grey District have closed, the new Escarpment Mine in Buller proposed by Buller Coal Limited (a subsidiary of Bathurst Resources) although having been granted consents is on hold, international prices for coal and gold have fallen (leading to the “mothballing” of OceanaGold’s Globe Mine at Reefton in late 2015 <sup>15</sup>) and the outlook for significant expansion of the mining industry on the West Coast is less certain.
- 3.13** The contraction of coal mining on the West Coast, the closure of Holcim’s Westport cement plant and the “mothballing” of OceanaGold’s gold mine at Reefton has led to a decline in the level of employment on the West Coast, but especially within the Buller District.

#### **4. ECONOMIC BENEFITS OF THE TE KUHA MINE PROJECT**

##### **Increased Economic Activity during Project Construction<sup>16</sup>**

- 4.1** Prior to the mining operation commencing there will be a 12 month mine construction phase. This will involve the employment of an estimated 30 full time equivalent (FTE) employees on site and in Westport, with wages and salaries of

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<sup>15</sup> See Contractor Q&M (New Zealand Civil Contracting Industry magazine), 22 February, 2016.

<sup>16</sup> Unless stated otherwise data in this section provided by Stevenson Group Limited.

\$2.0 million. The construction activities, like the proposed mining activities, would be undertaken on a 5 day week basis, resulting in the workforce being largely domiciled within the Buller District during this 12 month construction period.

- 4.2** In addition the Project would involve construction expenditure estimated at \$40 million. Of this around 50% (\$20 million) would be spent with local Buller District businesses supplying goods and services to the Project and a further 33% (\$13 million) would be spent with businesses elsewhere in New Zealand. It is assumed only 10% of this expenditure (\$1.3 million) would be spent with West Coast businesses outside of Buller.
- 4.3** These are the direct economic impacts for the Buller District and West Coast regional economies from mine construction. However in addition to these direct economic impacts, there are indirect<sup>17</sup> impacts arising from:
- (a) The effects on suppliers of goods and services provided to the site from within the District and Region (i.e. the “forward and backward linkage” effects); and
  - (b) The supply of goods and services to employees at the site 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 for employees of supermarkets, restaurants and bars as a consequence of the additional expenditure by employees directly involved in the mine’s construction at the site and living within Buller and elsewhere on the West Coast.
- 4.4** District and regional multipliers 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 district and region are self-sufficient in the provision of a full range of goods and services and the district or region’s proximity to alternative sources of supply. For the Buller

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<sup>17</sup> The CMA at section 61(2) refers to the appropriate Minister having regard to “*the direct net economic and other benefits of the proposed activity in relation to which the access arrangement is sought*.” It is unclear whether this wording is intended to differentiate between direct and indirect economic benefits as defined by economists. However, in any case indirect (or “multiplier”) economic benefits could be considered within “other benefits”. Also under the RMA there is no indication that a distinction is made between direct or indirect economic effects. With respect to the term “net”, later in the report it is argued that the Project will not lead to a reduction in any alternative economic activity so there is no need to deduct economic benefits from those generated by the Project.

District, multipliers have been estimated for coal mining of 1.23 for output, 1.86 for employment and 1.47 for wages and salaries<sup>18</sup>. These imply total impacts (i.e. direct plus indirect impacts) for the Buller District economy over the 12 month construction period of:

- (a) Increased expenditure of \$24.6 million;
- (b) 56 additional jobs; and
- (c) \$2.9 million in additional wages and salaries.

**4.5** For the West Coast region, the corresponding multipliers are for output 1.26, for employment 2.04 and for wages and salaries 1.53.<sup>19</sup> These multipliers are slightly higher than for the Buller District reflecting the region's higher level of self-sufficiency (i.e. less reliance on imports of goods and services from outside the local economy). The total impacts (i.e. direct plus indirect impacts) for the West Coast regional economy over the 12 month construction period are therefore:

- (a) Increased expenditure of \$26.8 million;
- (b) 61 additional FTE jobs; and
- (c) \$3.1 million in additional wages and salaries.

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<sup>18</sup> Taken from the evidence of Mr Geoffrey Butcher in relation to an application for resource consents to mine coal on the Denniston Plateau, June 2011. An earlier report by Mr Butcher for Solid Energy estimated higher Buller District multiplier values – for output 1.48, for employment 2.28, and for wages and salaries 2.02. (See Butcher Partners Limited. November 2004. *Regional and District-Wide Economic Impacts of the Cypress Mine*). The analysis to assess the Te Kuha Mine Project's economic impacts has used the same multipliers for mine construction as for mining. Buller District multipliers produced by Mr Butcher for construction of Meridian Energy Limited's proposed Mokihinui Hydro Project were of similar magnitude – 1.30 for expenditure, 1.50 for employment and 1.44 for wages and salaries (see Statement of Evidence of Michael Campbell Copeland for Meridian Energy Limited, 28 September, 2011; ENV-2010-CHC-115, 123, 124 and 135).

<sup>19</sup> Taken from the evidence of Mr Geoffrey Butcher in relation to an application for resource consents to mine coal on the Denniston Plateau, June 2011. An earlier report by Mr Butcher for Solid Energy estimated higher West Coast region multiplier values – for output 1.69, for employment 2.69, and for wages and salaries 2.42. (See Butcher Partners Limited. November 2004. *Regional and District-Wide Economic Impacts of the Cypress Mine*). West Coast regional multipliers produced by Mr Butcher for construction of Meridian Energy Limited's proposed Mokihinui Hydro Project were of similar magnitude – 1.40 for expenditure, 1.67 for employment and 1.65 for wages and salaries (see Statement of Evidence of Michael Campbell Copeland for Meridian Energy Limited, 28 September, 2011; ENV-2010-CHC-115, 123, 124 and 135).

## Increased Economic Activity during Project Operation <sup>20</sup>

- 4.6** Following the construction phase, the mine is expected to produce around 4 million tonnes of coal over its estimated 16 year mine life – i.e. an average of 250,000 tonnes per annum. The value of the coal produced is estimated to be around \$65 million per annum.<sup>21</sup>
- 4.7** The mining operation is expected to provide employment on site or within Westport for 58 FTE staff on a 5 day working week basis. Wages and salaries for these staff are estimated at \$5.8 million per annum. Other expenditure during the Project's operation is estimated at \$28 million per annum, with 46% (\$13 million per annum) spent with Buller District businesses and a further 22% (\$6 million per annum) spent elsewhere on the West Coast.
- 4.8** As explained in the previous section of this report, there are additional expenditure, employment and income effects as a consequence of the additional goods and services required by the local suppliers of goods and services to the Project and the Project employees. These are the so called "indirect" economic impacts. Using the same multipliers as used in the previous section, the total (i.e. direct plus indirect) economic impacts of the Project for the Buller District, during its 16 year operation, are therefore:
- (a) Increased expenditure of \$16.0 million per annum;
  - (b) 108 additional FTE jobs; and
  - (c) \$8.5 million per annum in additional wages and salaries.
- 4.9** For the West Coast region, the total (i.e. direct plus indirect) economic impacts of the Project during its 16 year operation are therefore:
- (a) Increased expenditure of \$23.9 million per annum;
  - (b) 118 additional FTE jobs; and

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<sup>20</sup> Unless stated otherwise data in this section provided by Stevenson Group Limited.

<sup>21</sup> At railhead.



(c) \$8.9 million per annum in additional wages and salaries.

**4.10** At the conclusion of the mine's economic life (estimated to be 16 years) there will be a 1 to 2 year land rehabilitation period. This will provide reduced ongoing employment for an estimated 6 FTE staff. During this period there will also be some additional expenditure with local businesses and again there will be associated direct plus indirect expenditure, employment and income effects, but at lower levels than during the mine's operation.

### **Economic Benefits from Increased Economic Activity**

**4.11** As indicators of levels of economic activity, economic impacts in terms of increased expenditure, employment and incomes within the Buller District and West Coast regional economies are not in themselves measures of improvements in economic welfare or economic wellbeing. 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>22</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 underutilized resources within the local economy at the time and the match of resource

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<sup>22</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.

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

**4.12** It is reasonable that increasing economic activity (i.e. expenditures, incomes and employment) within the Buller and West Coast economies as a consequence of the proposed mining activities will give rise to one or more of these four welfare enhancing economic benefits for the local community. For example, increases in (or the retention of) population in the District will help underpin existing school rolls.

#### **Other Economic Benefits**

**4.13** On current estimates, the Project is expected to pay royalties of around \$0.5 million per annum to the Crown each year during the mine's 16 year operating life – total royalty payments over the life of the Project are estimated to be about \$9.0 million. There will also be site access payments to the Buller District Council and DOC which are still in the process of being negotiated.

**4.14** The mine operator (Stevenson), in recognising it has a responsibility to the communities in which it operates, will bring to the Buller District an additional major corporate to assist in the support of local infrastructure and activities which generate greater social, cultural, educational, environmental and economic benefits. The Project is proposing specific offset activities relating to pest control, land preservation and the funding for the restoration of a mining heritage site, Charming Creek. In addition the Project will also contribute to the "social fabric" of the Buller District community via staff 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 Project staff and their families will help provide the critical mass to underpin these organizations' ongoing sustainability.

## 5. POTENTIAL ECONOMIC COSTS OF THE TE KUHA MINE PROJECT

### Displaced Economic Activity

- 5.1 From an economic perspective, the Project will not displace activities whose expenditure, employment and wages and salaries need to be deducted from the estimated additional economic activity generated by the new coal mining activities proposed. The location of the Te Kuha Deposit, 12 kilometres south east of Westport, and the transportation of the coal by rail will have minimal impacts on tourism in the Buller District and on the West Coast. Indeed as has occurred previously at Solid Energy's Stockton mining operation and OceanaGold's Globe mine at Reefton, tours to view the Te Kuha mine's operation could potentially be developed as a tourist attraction for visitors to the Buller District. Also, the construction and operation of the new mine is likely to lead to an increase in the number of business visitors to Westport and the site, and who will increase visitor spending in the District on locally provided accommodation and hospitality.

### Utilities

- 5.2 Externality costs can arise when utilities provided by central or local government (e.g. roads, water supply, storm water and flood control systems and wastewater disposal) are not appropriately priced. In this case, no such externality costs will arise.
- 5.3 The Project will not require any public road improvements<sup>23</sup> to be undertaken, with the exception of an upgrade to Nine Mile Road where a ford crosses this road. The mine operator will be required to meet the costs of this upgrade. The site will be self-sufficient with respect to other utility services.

## 6. CONCLUSIONS

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<sup>23</sup>On-site road construction costs will be fully internalised within the joint venture's cost structure and are therefore not externality costs.

- 6.1** The Buller District and West Coast regional economies have experienced limited economic growth in recent years, with employment in mining, agriculture and tourism levelling off or falling. The mining sector has suffering from the closure of the Pike River and Spring Creek mines, Solid Energy’s contraction of its West Coast operations, Buller Coal’s Escarpment mine being placed “on hold”, the “mothballing” in 2015 of OceanaGold’s Globe mine at Reefton and lower international prices for coal and gold making existing and future mine developments uncertain. The Buller District also faces the imminent closure of Holcim’s cement plant near Westport.
- 6.2** The Te Kuha Mine Project’s construction, operation and rehabilitation activities will provide a much needed stimulus to the local Buller District and West Coast economies. The Project will generate net economic benefits and enhance the economic wellbeing of the Buller and West Coast communities by increasing expenditure, employment and incomes in the respective local economies. Over the 16 year mine operating period, it is estimated that the Project will result in additional direct total expenditure within the Buller District averaging \$16 million per annum (\$256 million in total), additional direct employment of 58 FTE staff and additional wages and salaries for these employees of \$5.8 million per annum. Including indirect impacts, the proposal will generate within the Buller District, increased expenditure of \$23.9 million per annum, 108 additional FTE jobs and \$8.5 million per annum in additional wages and salaries.
- 6.3** For the West Coast region over the 16 year mine operating period, it is estimated that the Project will result in additional total expenditure of \$23.9 million per annum, 118 additional jobs and \$8.9 million per annum in additional wages and salaries (including both direct and indirect impacts).
- 6.4** There will also be increased expenditure, employment and incomes for the Buller District and West Coast Regional economies from the Project during its 12 month construction period prior to mining commencing and its 1 to 2 year land rehabilitation phase at the conclusion of the mine’s operating life.
- 6.5** Importantly, the Project’s mining activities will be based on a 5 day working week encouraging mine staff to be permanently resident in, or near, the Buller District. The Project will help to underpin the local population base with economic efficiency

benefits in terms of increased economies of scale, greater competition, reduced unemployment (or underemployment) and retention of central government provided services.

- 6.6** The Project via royalties and access payments will make significant financial contributions to central Government and the Buller District Council. The mine operator and its staff will contribute to the “social fabric” of the local Buller District community. The Project will help sustain the financial viability of KiwiRail’s Midland Line for freight and passenger services to and from the West Coast.
- 6.7** The Project will not give rise to economic externality costs.