

**IN THE ENVIRONMENT COURT
CHRISTCHURCH REGISTRY
I MUA I TE KOOTI TAIAO O AOTEAROA**

ENV-2017-CHC-090

Under the Resource Management Act 1991

In the matter of an appeal pursuant to section 120 of the Act

**Between THE ROYAL FOREST AND BIRD PROTECTION SOCIETY
OF NEW ZEALAND INCORPORATED
Appellant**

**And WEST COAST REGIONAL COUNCIL AND BULLER
DISTRICT COUNCIL
Respondents**

**And STEVENSON MINING LIMITED
Applicant**

**UPDATED AND REVISED EVIDENCE OF MICHAEL CAMPBELL
COPELAND FOR STEVENSON MINING**

20 August 2021

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QUALIFICATIONS AND EXPERIENCE

- 1 My full name is Michael Campbell Copeland.
- 2 I hold a Bachelor of Science degree in mathematics and a Master of Commerce degree in economics.
- 3 I am a consulting economist and managing director of Brown, Copeland and Company Limited, a firm of consulting economists which has undertaken a wide range of studies for public and private sector clients in New Zealand and overseas. I have over 40 years' experience in the application of economics to various areas of business, including resource management matters. During the period 1990 to 1994, I was also a member of the Commerce Commission and during the period 2002 to 2008, I was a lay member of the High Court under the Commerce Act. Prior to establishing Brown, Copeland and Company Limited in 1982, I spent six years at the New Zealand Institute of Economic Research and three years at the Confederation of British Industry. A summary of my curriculum vitae is **attached** as **Appendix 1**.
- 4 I have prepared and presented evidence in Council hearings and before the Environment Court on behalf of clients covering a number of development projects and policies (or similar). A selection of these is listed at the end of my curriculum vitae in **Appendix 1**.
- 5 I am the author of the Technical Report entitled "Assessment of the Economic Effects of the Te Kuha Mine Project" and attached as Appendix 3 to the Application for Resource Consents and the Assessment of Environmental Effects. I also prepared and presented evidence dated 24 August, 2017 for the hearing before Commissioners appointed by the West Coast Regional Council and the Buller District Council.

- 6 This is an updated and revised statement of primary evidence from my original statement of evidence dated 4 May 2018. In preparing this evidence I have:
- (a) Taken part in caucusing of economic witnesses and am a signatory to the Joint Witness Statement (Economics) dated 22 March 2018 (JWS Economics);
 - (b) Considered the evidence of Mr Kevin Counsell dated 18 May 2018;
 - (c) Reviewed draft revised statements of evidence of Barry Bragg and Anne Brewster; and
 - (d) Considered the economic evidence presented to the Environment Court in the Escarpment Mine hearing by Geoff Butcher (dated 6 June 2012 and 10 October 2012) and Peter Clough (dated 7 September 2012 and 17 October 2012), together with the Court's first interim decision on the Escarpment application [2013] NZEnvC 047.
- 7 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note. This evidence has been prepared in accordance with it and I agree to comply with it. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

- 8 Following a summary, my evidence covers the following:
- (a) The background to the Te Kuha Mine Project (the Project);
 - (b) The relevance of economic effects under the Resource Management Act 1991 (RMA);
 - (c) The key economic drivers of the Buller District and West Coast regional economies;

- (d) The local district and regional economic benefits of the Project during its construction and operation;
- (e) Potential economic costs of the Project;
- (f) Implications of volatility in coal prices; and
- (g) The conclusions of my evidence.

SUMMARY OF EVIDENCE

- 9 My evidence considers the economic effects of the proposed Te Kuha Mine Project, which will involve the recovery of around 4 million tonnes of high grade coal over a mine life of 16 years. Prior to coal recovery, there will be a 12 month construction phase. At the end of the mine's life there will be a further 10-year period to complete post-mining rehabilitation.
- 10 Community economic and social well-being, the efficient use and development of resources and the creation of economic growth and employment opportunities are relevant considerations under the RMA.
- 11 The West Coast region has suffered from declining population and employment in recent years, especially in the Buller District, with employment in mining, agriculture and tourism levelling off or falling. In the last 8 years (2012 to 2020¹) employment in the Buller District has fallen by 28.4% and on the West Coast by 7.0%. The mining sector has suffered from the closure of the Pike River and Spring Creek mines, Solid Energy's (Bathurst's) contraction of its West Coast operations, Buller Coal's Escarpment mine being placed "on hold", and the "mothballing"

¹The 2020 employment data used in my evidence is as at February and therefore precedes the effects of the Covid-19 pandemic.

in 2015 and eventual closure of OceanaGold's Globe mine at Reefton. The Buller District has also had to cope with the closure of Holcim's cement plant near Westport.

- 12 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 \$13 million per annum, additional direct employment of 58 full-time equivalent (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 \$16.0 million per annum (\$256 million in total), 108 additional FTE jobs and \$8.5 million per annum in additional wages and salaries.
- 13 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).
- 14 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 10-year rehabilitation phase at the conclusion of the mine's operating life.
- 15 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 benefits in terms of increased economies of scale, greater competition, reduced unemployment (or underemployment) and retention of central government provided services.

- 16 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 “critical mass” and “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 (including the Tranz Alpine service) to and from the West Coast. The Project will help sustain tourism and other industries on the West Coast.
- 17 The Project will not give rise to economic externality costs.
- 18 Provided the project proceeds (which will depend on Stevenson perceiving a sufficient return on its investment), economic and social benefits will accrue to the Buller District and West Coast region. Fluctuations in coal prices are, in my opinion, of limited interest in the context of economic effects.
- 19 The Project is consistent with community economic and social wellbeing and the efficient use and development of resources and will provide opportunities for economic growth and employment.
- 20 The net economic effects of the Project are positive and significant.

BACKGROUND TO THE TE KUHA MINE PROJECT

- 21 The Project is described in Ms Brewster’s evidence.
- 22 The Project will involve the recovery of around 4 million tonnes of high grade coal over a mine life of 16 years – i.e. an average of

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 further 10-year period to complete post-mining rehabilitation and aftercare of the site to a 'closure' condition. Rehabilitation will also be carried out progressively during the 16-year mining period.

ECONOMICS AND THE RMA

Community Economic Well-being

- 23 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.
- 24 As well as indicating the relevance of economic effects in considerations under the RMA, this section also refers to "*people and communities*", 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.
- 25 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. These impacts are discussed later in my evidence.

Economic Efficiency

- 26 Part 2 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 efficiency². 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”³.

- 27 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.
- 28 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

²See, 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.

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

rise to economic efficiency benefits. These are discussed later in my evidence.

Economic Growth and Employment

- 29 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.”

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

Viewpoint

- 31 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.
- 32 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.

33 Mr Counsell⁴ argues that the economic effects of the Te Kuha Mine Project should be assessed from a national perspective and not a regional or district perspective. I disagree with Mr Counsell because:

- a. Section 5(2) of Part 2 refers to “people and communities”. This I consider means that a local focus and not just a national viewpoint is relevant;
- b. Generally a project’s negative externalities (e.g. road congestion, noise and visual effects) will impact more on a local community than residents and businesses throughout New Zealand. In such circumstances it is appropriate to have regard to the distributional impacts of a project and local economic benefits (e.g. increases in business turnover, employment and incomes) become relevant considerations even if they are only transfers from another part of New Zealand to another;
- c. A negative environmental externality arising from a project will not be ignored if it is simply transferred from another location. For example, a new processing plant at a particular locality may lead to noise effects for residents close to that locality. This effect will not be ignored if without the project there will be similar noise effects for residents near a plant at another locality in New Zealand; and
- d. As for the Te Kuha Mine Project, resource consent applications will be generally first heard by a Hearings Panel

⁴MrCounsell’s May 2018 evidence, paragraph 96

appointed by local district and regional councils. This infers to me that a local district and/or regional viewpoint in their deliberations is quite appropriate.

- 34 That is not to say that national economic (and other) effects might not also be relevant – for example, in my view the Te Kuha Mine royalties paid to central government are a relevant consideration, although Mr Counsell does not agree with me on this (see later in my evidence).
- 35 I understand that Mr Counsell considers a full cost benefit analysis (CBA) is necessary⁵. I have never been involved in an Environment Court process where a full CBA was either required or provided. In my experience, an economic effects assessment is not assisted by consideration of:
- (a) The financial viability of the project. This is the domain of the applicant. The Environment Court is not equipped to do this. Also, in a free market economy we expect the investor to be responsible for this and we can assume the project is profitable to both the company ("producer surplus") and provides benefits to consumers ("consumer surplus"). These benefits do not need to be quantified. Later in my evidence I discuss concerns raised about the risk of financial difficulties/viability resulting in environmental effects which cannot be addressed; and
 - (b) The non-economic effects (or non-economic externalities) - these are covered by the appropriately qualified technical experts in their technical reports

⁵Section 2.2 JWS Economics March 2018 and Mr Counsell's May 2018 evidence, paragraphs 85-94 (environmental externalities) and 80-110 (cost benefit analysis).

and evidence. The Environment Court will use that material to make its overall findings. I discuss this later in my evidence under the heading “Non-economic effects”.

- 36 I consider the net financial returns (or “producers’ surplus”) to the joint venture partners from the Te Kuha Mine Project are largely irrelevant in assessing economic effects under the RMA. This is because these are private financial returns rather than economic returns to the broader community. I accept that having regard to “the efficient use and development of natural and physical resources” suggests net returns to private sector investors could have some relevance but in my experience the quantum of such returns is seldom a consideration in RMA decisions. For example, when a supermarket is seeking permission to be located outside existing town centres, the net returns to the supermarket owner are not assessed against any existing centre lost amenity values, traffic congestion effects or visual effects. Positive net returns to the applicant are taken as a given and it is only the economic and other effects on the broader community that are evaluated.
- 37 Mr Counsell refers⁶ to recommendations by Treasury to conduct national cost benefit analyses to evaluate the economic effects of projects. However, Treasury’s interest is in the investment of public funds and rightly this requires evaluating whether a satisfactory return can be achieved on those public funds. There are no public funds involved in the Te Kuha Mine Project and therefore I do not consider the returns to the joint venture partners to be relevant⁷.

⁶Mr Counsell’s evidence paragraphs 15 and 97.

⁷There are some specific situations where the quantum of returns to an investor in a development project may be considered under the RMA. For example, the net returns to an investor owned by a local authority (e.g. a port or airport company) might be relevant insofar as

- 38 It is important to distinguish between the Project's financial benefits to the company, and economic and social benefits to the Buller District and West Coast region. The net present value (NPV) or rate of return resulting from an analysis of the financial returns and costs of the Project identifies the returns to the company and its shareholders. It does not identify the economic benefits to the Buller District and West Coast region. The price of coal affects the profitability to the company but does not greatly affect the economic benefits to the Buller District and West Coast region.
- 39 Provided the Project proceeds (which will depend on Stevenson perceiving a satisfactory return on its investment), there will be economic and social benefits for the Buller District and West Coast region. Changes in coal prices are, in my opinion, of very limited relevance in the context of regional and district level economic effects. If the international coal price drops to a level where Stevenson decides not to proceed, there would be no environmental effects unless they occurred prior to cessation (and, if that were to occur, I consider that can be adequately addressed by an appropriate bond). If, on the other hand, the international coal price supports commencement and/or continuation of the Project, it would proceed, and the economic and social benefits for the District and region would be realised. If it is sufficiently high, the same or greater economic and social benefits will occur, and Stevenson Mining will make a profit.

the community in general (i.e. ratepayers) directly benefits from increased returns to the investor. Returns to a co-operative (e.g. Fonterra) may be relevant in that a significant percentage of the local community (e.g. dairy farmers) may benefit directly from net returns from the project. The NZ Transport Agency evaluates transport project improvements using cost benefit analysis and the results of its analysis of such projects may be relevant under the RMA in that the benefits evaluated are those to road users generally and are not the financial returns to the Agency itself. However none of these situations arise with respect to the Te Kuha Mine Project.

- 40 Notwithstanding this, I address the implications of the volatility in coal prices later in my evidence.

Economic Rationale for Land Use Controls

- 41 In a theoretical sense economic efficiency is maximised when investment decisions are left to individual entrepreneurs or firms, without intervention from Government. The efficient use of resources (and therefore “sustainable management”) occurs through the creation of a climate where the market enables people to make investment decisions “to provide for their economic well-being”.
- 42 However, 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.
- 43 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.
- 44 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.

- 45 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.
- 46 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.⁸
- 47 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 evidence.

⁸Granting 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.

Non-economic Effects

- 48 My evidence addresses the economic effects⁹ of the Project. Non-economic effects (i.e. the environmental, social and cultural effects) are covered in the evidence of other technical experts and in the technical reports that were provided with the Resource Consent application.
- 49 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.
- 50 However, such techniques are frequently subject to uncertainty and criticism. In my opinion 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) and for their assessments to form part of the application of the relevant legal test.
- 51 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.¹⁰

⁹Sometimes economic effects can have a social dimension – e.g. employment and income effects.

¹⁰For 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.

52 Mr Counsell believes environmental effects should form part of the assessment of economic well-being and economic efficiency¹¹, whereas I do not. I disagree for the following reasons:

- a. As stated above, I do not believe economists have the appropriate expertise to assess environmental effects and such effects should be evaluated by the Court having considered the evidence and argument from appropriately qualified technical experts; and
- b. My understanding of the language in the RMA is that economic well-being and the efficient use and development of resources are quite distinct from other relevant effects. For example:
 - (i). Section 5(2) of Part 2 refers not just to “economic well-being” but to “social, economic and cultural well-being” and people and communities’ “health and safety”. Also sub-clauses (a) to (c) of this section of the Act separately cover environmental effects; and
 - (ii) Section 7 of Part 2 of the RMA, in addition to sub-clause (b) referring to the efficient use and development of resources, contains 10 other sub-clauses covering matters which I considered to be other than economic effects.

53 However, even if economic well-being and resource use efficiency are to be interpreted to be all encompassing as Mr Counsell argues, I consider that attempting to put an economic value on environmental effects is fraught with difficulty and risks double-counting.

¹¹Eg, Mr Counsell’s evidence paragraphs 85 to 94.

THE BULLER DISTRICT AND WEST COAST REGIONAL ECONOMIES

- 54 The Buller District and West Coast regional economies have both suffered from declining population and employment in recent years. The contraction of coal mining on the West Coast, the closure of Holcim's Westport cement plant and the "mothballing" and eventual closure of OceanaGold's gold mine at Reefton have led to a decline in the level of employment on the West Coast, but especially within the Buller District.
- 55 Population in the Buller District was estimated at 10,650 in 2012, but since then has fallen steadily to 9,610 in 2020 – i.e. a fall of 9.8% in the last 8 years. Population in the West Coast Region was estimated at 33,100 in 2012, but since then has fallen to 32,400 in 2020 – i.e. a fall of 2.1% over the last 8 years¹².
- 56 Total employment in the Buller District in 2012 was 5,100, but since then the number of jobs have fallen to 3,650 in 2020. This is a reduction of 1,450 jobs or 28.4% in 8 years. For the West Coast total employment in 2012 was 15,800, but had fallen to 14,700 in 2020, a reduction of 1,100 jobs or 7.0%.
- 57 Previously the major growth sectors for the Buller and West Coast economies have been mining, tourism and agriculture. In Buller, mining accounted for 410 or 11.2% of all jobs in 2020. In 2000 there were 210 mining jobs in the District and this grew to 1,200 mining jobs in 2012 but since then mining employment has fallen sharply with a reduction of 790 jobs (65.8%) over the 8 years 2012 to 2020. For the West Coast, there were 550 mining jobs in 2020 or 3.7% of all jobs down from 1,700 in 2012 (i.e. a

¹²Population and employment trends up until 2017 are covered under Issues 1.1 and 1.2 of the JWS Economics March 2018

contraction of 1,150 jobs or 67.6% over 8 years), reflecting the closures of the Pike River and Spring Creek mines, the “mothballing” and eventual closure of OceanaGold’s Globe Mine at Reefton and the contraction of Solid Energy’s operations in Buller.

- 58 Employment in tourism grew rapidly in Buller and on the West Coast between 2000 and 2012 but has since declined in Buller and only grown slowly on the West Coast. In Buller in 2000 there were 340 jobs in accommodation and food services and this had grown to 520 by 2012. However, by 2020 there were only 430 jobs in this sector (11.8% of total employment) – i.e. a decline of 90 jobs or 17.3%. For the West Coast in 2000, there were 1,450 jobs in accommodation and food services and this had grown to 1,950 jobs by 2012. By 2020, accommodation and food services employment had grown slightly to 2,050 jobs (13.9% of total employment) – i.e. an increase of 100 jobs or 5.1% over 8 years.
- 59 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 2012, guest nights had fallen to 209,524 (i.e. a fall of 14.7%). For the year ended December 2016 guest nights in Buller had rebounded to 251,601 (i.e. a rise of 20.0%) and for the year ended September 2019¹³ guest nights in Buller were 251,125 (a small decline of 0.2%). For the West Coast (i.e. for Buller, Grey and Westland Districts), guest nights for the year ended December 2000 were 871,932 and had risen

¹³The latest year for which statistics are available. Statistics New Zealand has ceased collecting this data.

to 1,223,664 for the year ended December 2006 (i.e. a rise of 40.3%). For the year ended December 2012, these had fallen to 1,106,391 (i.e. a fall of 9.6%). For the year ended December 2016, guest nights for the West Coast region stood at 1,377,504 (i.e. an increase of 24.5% since 2012) and for the year ended September 2019 guest nights were 1,317,904 (a decrease of 4.3%).

- 60 Guests' nights are a better indicator of tourism activity than employment data in that the accommodation and food sector is only a proxy for the tourism sector. This sector provides goods and services to tourists as well as non-tourists whilst tourists will also make purchases from other sectors. It would seem growth in tourism activity in the Buller District has been insufficient to offset the effects of reductions in non tourism activity on the accommodation and food sector. Also, the Covid-19 pandemic has highlighted the risks for an economy overly reliant on the tourism sector.
- 61 Guest nights on the West Coast are dominated by those in the Westland District having (in the year ending September 2019) 62.9% of the region's guest nights. The Buller District and Grey District's had (in the year ending September 2019) 19.1% and 18.0% respectively. It is emphasised that the tourism employment and guest night data presented here precede the effects of Covid-19. Therefore even if a post pandemic world eventually leads to before Covid-19 "business as usual" for West Coast tourism, the Buller District and West Coast regional economies cannot rely on tourism to replace lost mining activity.
- 62 Agricultural employment (including agriculture support services) in Buller grew from 276 jobs in 2000 to 502 jobs in 2012 but has since fallen back to 491 jobs (13.5% of the total workforce) in 2020. For the West Coast region agricultural employment (including agriculture support services) grew from 666 jobs in

2000 to 1,180 jobs in 2012 but fell back to 1,128 jobs (7.7% of the total workforce) in 2020.

- 63 Holcim (New Zealand) Ltd's cement plant near Westport had been a significant employer in the Buller District providing around 120 jobs. However the plant closed in the second half of 2016.
- 64 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.

ECONOMIC BENEFITS OF THE TE KUHA MINE PROJECT

- 65 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, especially in the short to medium term. This is important given the considerable reduction in employment in the Buller District (especially) and the West Coast region in recent years and other initiatives (e.g. from the Tai Poutini West Coast Economic Development Plan) to expand employment in Buller and on the West Coast are unlikely to fill the immediate void.

Increased Economic Activity during Project Construction¹⁴

- 66 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 \$2.1 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.
- 67 Mr Counsell refers to a study based on 2013 census data showing the majority of coal mining communities in New Zealand had lower median incomes, higher unemployment and lower percentages of full-time employees than their surrounding district/region¹⁵.
- 68 With respect to the Te Kuha Mine Project, Stevenson Mining has indicated average salary levels for employees of \$70,000 per annum during the Project's one year construction phase and \$100,000 per annum during its 16-year operational phase. This compares with median and average earnings for the Nelson/Tasman/Marlborough/West Coast of \$54,548 per annum and \$49,868 per annum respectively.¹⁶ Therefore, the Project will increase rather than suppress median and average incomes in the Buller District.¹⁷

¹⁴Unless stated otherwise data in this section provided by Stevenson Group Limited.

¹⁵At paragraph 78 of his May 2018 evidence

¹⁶For 2020. Source: Statistics New Zealand; NZ Stat; Earnings from Wages and Salaries by region, sex, age, gender and ethnic group.

¹⁷Further I would expect the additional economic activity generated by the Project to raise incomes of business owner through greater capacity utilization and economies of scale, reduce unemployment and provide more fulltime employment positions in non-mining sectors of the Buller District economy.

- 69 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.
- 70 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 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.
- 71 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 District, multipliers have been estimated for coal mining of 1.23 for output, 1.86 for employment and 1.47 for

wages and salaries¹⁸. 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) \$3.1 million in additional wages and salaries.

72 For the West Coast region, the corresponding multipliers are for output 1.26, for employment 2.04 and for wages and salaries 1.53.¹⁹ 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) \$3.2 million in additional wages and salaries.

¹⁸Taken 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).

¹⁹Taken 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).

The use of district and regional multipliers

- 73 Mr Counsell is critical of the application by me of multipliers based on input-output analysis because of limitations of that analysis to determine these multipliers²⁰.
- 74 I am aware of the limitations associated with the estimation of multipliers and that sometimes general equilibrium computerised models are used to better estimate “the ripple effect on to other businesses” from the spending and employment by one business²¹. However, I am unaware of such a model being available for the Buller District or West Coast regional economies that quantifies “the ripple effect” from a project such as the Te Kuha Mine Project.
- 75 In my opinion, the use of multipliers or general equilibrium computerised models are illustrative only of the ripple effects, which I consider will be significant in the case of the Te Kuha Mine Project. My use of the multipliers which had been derived by Mr Butcher for the Denniston Plateau coal mine project was because they were specifically derived for coal mining in the Buller District. Although they are based on dated information, I see no reason for structural changes in the local economy to suggest they would not give a reasonable estimate for the multiplier effect.
- 76 I note that in a recent study²² BERL estimated multipliers of a similar magnitude for GBC Winstonecement plant and quarrying activities in the Northland region. Also the NZ Institute of

²⁰In paragraph 37 of his May 2018 evidence.

²¹Paragraph 37 of Mr Counsell’s May 2018 evidence.

²²GBC Winstone Cement and Quarrying operations; an economic Impact Assessment. BERL; June, 2016. The report estimated an employment multiplier of 2.0, a GDP multiplier of 1.5 and an expenditure multiplier of 1.6.

Economic Research in a recent publication for the New Zealand dairy industry²³ states under the heading “Dairy flow on impacts”:

“As well as its direct impacts on export growth, employment and income generation, the dairy sector also plays an important role in supporting activity in other parts of the New Zealand economy.

.... Farmers spent \$711 million on fertilisers and agro chemicals, \$393 million on forage crops and bought over \$190 million of agricultural equipment.

Farmers also spent a huge amount on services to support their operations: \$914 million on agricultural services, \$432 million on financial services and \$197 million on accounting and tax services.

This analysis does not consider the additional spending by farmers out of their \$5.7 billion surpluses (i.e. not on inputs to production) on discretionary items such as entertainment, clothing, holidays, etc.

*However it can be seen that the dairy farming sector injects revenue into a wide range of services across rural economies, and also likely directly into cities too, given that most services firms tend to be located in urban centres. As we noted in our 2010 report, “**when dairy farmers are smiling, the whole region smiles**”. (Emphasis from original report)*

- 77 In my view these reports are consistent with my attempting to take into account the “forward and backward linkage effects” and the “induced effects” of the Te Kuha Mine Project I describe earlier in my evidence. They are also consistent with the falls in other sector employment that has occurred over the period 2012 to

²³Dairy Trades Economic Contribution to New Zealand; NZ Institute of Economic Research for Dairy Companies Association of New Zealand; February, 2017.

2020 in the Buller District as a consequence of reduced agricultural, mining and manufacturing employment in the District covered in the previous section of my evidence. The direct and indirect economic impacts of the Te Kuha Mine Project will help reverse this trend.

- 78 Mr Counsell on the other hand argues that instead the Project will take resources away from other sectors with no net gain in economic activity within the District and region. I consider this to be at odds not only with the BERL and NZIER reports I have referred to above, but also the continual efforts by central government (e.g. via the provincial growth fund) and all district and regional governments throughout New Zealand to encourage new businesses and events in their districts and regions.

Increased Economic Activity during Project Operation ²⁴

- 79 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 average \$57 million per annum.²⁵
- 80 The mining operation is expected to provide employment on site or within Westport for 58 FTE staff on a 5 day working week basis.²⁶ 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,²⁷ with 46% (\$13

²⁴Unless stated otherwise data in this section provided by Stevenson Group Limited.

²⁵Free on board (FOB) at Lyttelton Port.

²⁶Any Saturday operations at the mine would generally be confined to maintenance work and coal stockpile movements. Mining of coal on Saturdays would be to make up lost weekday production and would be the exception rather than the norm. (Source; personal communication, Stevenson Group Limited)

²⁷Approximately \$2 million per annum of this will be to manage environmental works (see the evidence of Ms Anne Brewster, paragraph 61).

million per annum) spent with Buller District businesses and a further 22% (\$6 million per annum) spent elsewhere on the West Coast.

81 As explained earlier in my evidence, 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 previously, 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 (\$256 million in total over the 16 year mine life);
- (b) 108 additional FTE jobs; and
- (c) \$8.5 million per annum in additional wages and salaries.

82 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
- (c) \$8.9 million per annum in additional wages and salaries.

83 At the conclusion of the mine’s economic life (estimated to be 16 years) there will be a 10-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

84 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 underemployment²⁸ 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 requirements of a project and those resources

²⁸Underemployment 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.

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.

85 Given the reductions in population and employment, especially in the Buller District, 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 regional economies. 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 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.

86 In his evidence, Mr Counsell disagrees with my evidence about the benefits from increased economic activity. Mr Counsell considers my claimed economies of scale benefits from the Project to be speculative, with little detail or supporting evidence as to why they will occur²⁹. In my view economies of scale benefits are one of the primary reasons why central, regional and local government seek to generate increases in economic activity and the Te Kuha Mine Project will generate increased economic activity for the Buller and West Coast economies.

²⁹At paragraph 113 of his May 2018 evidence

- 87 Specific firms and organisations that will receive economies of scale benefits from the increased economic activity generated by the Te Kuha Mine Project include KiwiRail, the Buller District Council, Buller Electricity (from increased sales within the District generally rather than to the mine itself), retail businesses and accommodation and food services businesses.
- 88 Mr Counsell says³⁰ when a business with fixed costs is able to spread these over a greater range of output its average costs will reduce but it will not benefit because its total costs have not decreased. In my view if a firm's average costs have decreased and it increases sales while maintaining the same price levels its profits will increase thereby producing economic benefits to the business owner. If prices fall (perhaps because of competition) consumers benefit. Economies of scale are a major reason why businesses and local councils benefit from increases in economic activity within their local economy.
- 89 Mr Counsell lists a number of factors that would need to occur for competition to increase in a market³¹. I agree but consider that as a general rule a greater number of firms will exist in a market and therefore there will be a greater level of competition when the market is expanded. In the case of the Te Kuha Mine, it is more likely that the increased business activity it will generate may help retain existing levels of competition. Statistics New Zealand data indicate the number of business units within the Buller District has reduced from 1,188 in 2012 to 1,113 in 2020 – i.e. a fall of 75 business units or 6.3%. I expect the Te Kuha Mine Project to help arrest the decline in business units within the District and therefore help prevent a reduction in competition.

³⁰At paragraph 115

³¹At paragraph 116

- 90 Mr Counsell considers unemployment and underemployment in the region is at relatively low levels³². On the basis of the contraction that has occurred in job numbers in the Buller District over the last 8 years I consider it likely that the Te Kuha Mine Project will attract some workers back into full and part-time employment and at higher wage rates. Also, I consider it likely many businesses within the District have spare capacity which can be utilized to meet the increased demand for goods and services generated by the Project.
- 91 Mr Counsell does not accept that an increase in population would improve central government provided services³³. He also argues that an increase in population would place pressure on some central government provided services, which may result in a reduction in the quality of these services.
- 92 It is my experience that education and health care are two areas where population can improve the level of services provided to residents. In the recent past it appears the Buller District has lost hospital services (hospital employment has decreased from 160 in 2012 to 100 in 2020 and medical and other healthcare services employment has fallen from 65 to 55). There has also been a reduction in employment in education from 300 in 2012 to 260 in 2020. To the extent that the Project helps arrest the falling population in the District it will assist in at least maintaining the current level of health and educational services in the District.

Other Economic Benefits

- 93 On current estimates, the Project is expected to pay royalties of around \$0.5 million per annum to the Crown each year during the

³²At paragraph 117

³³At paragraph 118

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 would be agreed as part of the Access Arrangements.

- 94 Mr Counsell states that a royalty payment is not a national economic benefit but only a transfer from Stevenson Mining to central government³⁴. I agree with this in strict national cost benefit framework terms. However because central government (i.e. taxpayers generally) receive a flow of revenue they would not receive without the Project, people and communities' economic well-being is enhanced. Whilst there is a private cost to Stevenson Mining, it is willing to forego this royalty revenue because of the overall net positive financial benefits to them from the Project. In economics terminology the government is able to share in part of the producers' surplus generated by the Project.
- 95 Similarly increases in site access payments and rates income to DoC and the District Council as a consequence of the Project (to the extent they exceed increases in Project related costs to them) will lead to improvements in people and communities' economic well-being.
- 96 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 biodiversity enhancement activities relating to ecosystem management

³⁴At paragraph 119

(estimated to cost about \$3.5 million) and funding of the mining heritage project at Charming Creek (estimated to cost between \$60,000 and \$100,000).³⁵ 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.

- 97 By contributing to the fixed costs, the Project will help sustain the financial viability of KiwiRail’s Midland Line for freight and passenger services (including the Tranz Alpine service) to and from the West Coast. The Project therefore will help sustain tourism and other industries on the West Coast.

POTENTIAL ECONOMIC COSTS OF THE TE KUHA MINE PROJECT

- 98 The Project will not give rise to economic externality costs. 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.
- 99 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 (Bathurst’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

³⁵See letter to Department of Conservation from Ms Anne Brewster, dated 7 July, 2017.

- Buller District. Such tours could be extended, or additional tours developed, to cover the land rehabilitation activities at the mine.
- 100 Stevenson's proposed funding of the ecosystem management and the Charming Creek mining heritage site project is likely to positively impact tourism activity in the Buller District and as noted in the previous section of my evidence, the Project, by contributing to the fixed costs associated with the Midland Line rail services, will help sustain tourism and other industries on the West Coast.
- 101 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. In addition the Project's stimulus to local economic activity is likely to enhance, or at least retain, the range of goods and services available to tourists. The Project will not result in reduced tourism in the Buller District and on the West Coast but will in fact complement initiatives in tourism (and other industries) to expand local economic activity.
- 102 The Project will not require any public road improvements 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.
- 103 Mr Counsell's opinion is that rather than generate the economic benefits I identify, the Te Kuha Mine Project will take resources away from other activities within the Buller District³⁶. If this were the case however, I would have expected, as the corollary of this,

³⁶JWS Economics, paragraph 2.3.2

that the District's contractions in coal mining, agriculture and manufacturing (with the closure of the Holcim cement plant) over the period 2012 to 2020 would have led to growth in other activities within the District. This has not been the case. I set out below the changes in employment in other sectors in the Buller District over the period 2012 to 2020:³⁷

	2012	2020
Fishing	6	0
Manufacturing	360	220
Electricity, Gas, Water & Waste		
Services	45	50
Construction	440	350
Wholesale Trade	90	90
Retail Trade	440	340
Accommodation & Food Services	520	430
Transport, Postal & Warehousing	230	90
Information, Media &		
Telecommunications	30	60
Financial & Insurance Services	35	21
Rental, Hiring & Real Estate		
Services	35	21
Professional, Scientific & Technical		
Services	240	110
Administration & Support Services	18	80
Public Administration & Safety	80	140
Education & Training	300	260
Healthcare & Social Services	340	290
Arts & Recreation Services	110	130
Other Services	70	50

³⁷Data from Statistics NZ. NZ Stat. Business Demographic Tables; Employment by industry group and area unit 2000-20.

- 104 Apart from small increases in the Electricity, Gas, Water & Wastewater, Information, Media and Telecommunications, Administration and Support Services and Arts & Recreation Services sectors, all other sectors rather than take up the labour resources made available with the contraction in the mining, agriculture and manufacturing sectors have shown declines in employment. In a number of sectors these declines in employment have been substantial.
- 105 In my opinion, increases in expenditure, employment and incomes generated by the Te Kuha Mine Project will not decrease economic activity in other sectors of the Buller District economy – indeed quite the reverse will be true.
- 106 Mr Counsell quotes several overseas studies to suggest that the Te Kuha Mine will crowd out local tourism and entrepreneurial activity and will actually lead to lower employment in the local economy³⁸. With respect to the Buller District and the West Coast region I see no reason as to why this should occur. Earlier in my evidence I have explained why I believe the Te Kuha Mine Project may be complementary to growth in the tourism sector on the West Coast.
- 107 New initiatives from the Tai Poutini West Coast Economic Development Plan or the Government's provincial growth fund will at best provide medium term solutions. The Te Kuha Mine Project provides the opportunity for an immediate boost to economic activity and possibly something of a transition period before other yet to be identified entrepreneurial activities help support the District and regional economies. Importantly the Te

³⁸At paragraphs 74 to 77 of his May 2018 evidence

Kuha Mine Project does not require central or local government financial support.

- 108 Further based on Mr Counsell's argument that the Te Kuha Mine Project will simply displace other economic activity within the District and region, new initiatives from the Tai Poutini West Coast Economic Development Plan or the Government's provincial growth fund also will displace other forms of economic activity within the District and region. I find this counter-intuitive. It suggests there is nothing that can be done to stimulate growth within a district, region or indeed a country. If new tourism and entrepreneurial activities can have positive effects on economic growth, then so too can new mining ventures.
- 109 Mr Counsell suggests there may be a cost to local residents if the Te Kuha Mine Project increases employment in the District and region and this in turn pushes up rents for housing, where landlords are predominantly non-residents³⁹. Whilst I agree this may occur and would be a net cost to the District and region if landlords are predominantly non-residents, I would see it reflecting more people wishing to live and work in the Buller District and the West Coast region and a greater likelihood that the fall in population in both can be arrested. This would equate to an improvement in the economic and social well-being for both new and existing residents as a consequence of the Project.
- 110 I consider the Te Kuha Mine Project will lead to overall net positive economic effects if it leads to increased economic activity, greater employment opportunities and a rising population in the Buller District and the West Coast region, even if a by-product of these outcomes is rising house prices and rents.

³⁹At paragraph 123 of his evidence

IMPLICATIONS OF VOLATILITY IN COAL PRICES

111 This is an issue which was considered by the Environment Court in the Escarpment case. From the perspective on assessing economic effects on the Buller and West Coast economies, I agree with the Environment Court's comment in its decision⁴⁰:

[126] In the bigger picture, we consider that it is important to distinguish between economic benefit to the company, and economic benefit to the West Coast and to New Zealand. The net present value resulting from a benefit/cost analysis is the economic benefit to the company and its shareholders. It is not the economic benefit to New Zealand. ... The price of coal affects the profitability to the company that does not greatly affect the economic benefit to New Zealand other than (mainly) in relation to royalties.

112 However, to the extent that it assists the Court, it is important to distinguish between Te Kuha coal and much of that available from other mines on the West Coast. Te Kuha coal has a higher market value than coal produced from other mines and has several different marketing opportunities⁴¹. This means the financial viability of the Project is considerably less susceptible to commodity price volatility than lower quality coking coal mining projects. Therefore, Stevenson is confident in the financial viability of the Project and this is reflected in the considerable resources it has already been prepared to commit to bringing the Project to this stage.

113 Further, with respect to the financial viability of the Project I am informed by Stevenson that:

⁴⁰Paragraph [126].

⁴¹See evidence of Barry Bragg

- (a) The Te Kuha coal is a small deposit which is concentrated and has a low 'strip ratio', making the costs of mining comparatively low;
- (b) It is usual practice (and Stevenson Mining's expectation here) to de-risk mining ventures such as the Project, using contracts covering significant proportions of the annual quantities of coal and length of life of the Project; and
- (c) Had the Project commenced at the same time as the Escarpment Mine commenced, despite the lower than anticipated prices for coking coal between 2014 and the present time it would have continued in profitable operation, even if no long-term contracts were in place – i.e. even during a period of depressed international coal prices, actual prices for Te Kuha type coal (and exchange rates) have been such that the Project would have remained profitable.

114 Mr Bragg and Ms Brewster discuss these issues in more detail in their evidence.

CONCLUSIONS

115 The Project:

- (a) Will enable the residents and businesses of the Buller District and West Coast region *“to provide for their ... economic ... well being”*;
- (b) Is consistent with *“the efficient use and development of natural and physical resources”*; and
- (c) Will provide opportunities for economic growth and employment.

116 The net economic effects of the Project are positive and significant.

Michael Campbell Copeland

20 August 2021

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4. Statistics New Zealand www.stats.govt.nz; NZ.Stat; Earnings from Wages and Salaries by region, sex, age, gender and ethnic group.
5. Statistics New Zealand www.stats.govt.nz; Commercial Accommodation Monitor Pivot Tables.
6. BERL; GBC Winstone Cement and Quarrying Operations; An Economic Impact Assessment; June 2016.
7. NZ Institute of Economic Research for Dairy Companies Association of New Zealand; Dairy Trades Economic Contribution to New Zealand; February, 2017.

APPENDIX 1**CURRICULUM VITAE OF MICHAEL CAMPBELL COPELAND****DATE OF BIRTH** 3 October 1950**NATIONALITY** New Zealand**EDUCATIONAL QUALIFICATIONS** Bachelor of Science (Mathematics) 1971
Master of Commerce (Economics) 1972**PRESENT POSITIONS**

(Since 1982) Economic Consultant, Brown, Copeland & Co Ltd

(Since 2017) Trustee, Trade Aid (Kapiti)

PREVIOUS EXPERIENCE

1978-82	NZ Institute of Economic Research Contracts Manager/Senior Economist
1975-78	Confederation of British Industry Industrial Economist
1972-75	NZ Institute of Economic Research Research Economist
1990-94	Member, Commerce Commission
2001-06	West Coast Regional Council Trustee, West Coast Development Trust
2002-08	Lay Member of the High Court under the Commerce Act 1986
2003-11	Director, Wellington Rugby Union
2010-13	Director, Southern Pastures
2010-17	Director, Healthcare New Zealand Holdings Limited

GEOGRAPHICAL EXPERIENCE

- New Zealand
- Australia
- Asia (Cambodia, India, Indonesia, Kazakhstan, Malaysia, Nepal, Pakistan, People's Republic of China, Philippines, Tajikistan, Sri Lanka, Uzbekistan, Viet Nam)
- South Pacific (Cook Islands, Fiji, Kiribati, Tokelau, Tonga, Tuvalu, Vanuatu, Western Samoa)
- United Kingdom

AREAS OF PRIMARY EXPERTISE

- Agriculture and Resource Use Economics (including Resource Management Act)
- Commercial Law and Economics (including Commerce Act)
- Development Programme Management
- Energy Economics
- Industry Economics
- Transport Economics

RESOURCE MANAGEMENT ACT SPECIFIC PROJECTS

- Port storage facilities at Westport;
- The proposed Clifford Bay ferry terminal;
- The proposed pipeline and related facilities to utilise water from the Waikato River for metropolitan Auckland;
- A container terminal expansion by the Ports of Auckland;
- The proposed Variation No. 8 to the Wellington City District Plan covering height and other controls on development of the airspace above the Wellington railway yards;
- Proposed expansion of Paraparaumu town centre within the Kapiti Coast District;
- Wellington City Council's heritage preservation policy;
- Solid Energy's proposed West Coast Coal Terminal at Granity;
- Solid Energy's Mt William North coal mine at Stockton in the Buller District;
- The proposed Waimakariri Employment Park;
- The designation of land for a proposed motorway extension in the Hawke's Bay;
- The Hastings District Council's Ocean Outfall – two consent renewal applications;
- A proposed new shopping and entertainment centre in Upper Hutt;
- Rezoning of land in Upper Hutt from Business Industrial to Residential;
- New regional correctional facilities in Northland, South Auckland, Waikato and Otago;
- Proposed controls on wake generation by vessels travelling within the waterways of the Marlborough Sounds;
- The expansion of marina facilities within the Marlborough Sounds;
- Southern Capital's proposed new township at Pegasus Bay, north of Christchurch;
- Renewal of water resource consents for the Tongariro Power Development Scheme;

- Economic analysis inputs to a Section 32 report for the Waitaki Water Allocation Board;
- The imposition of land use restrictions within noise contours surrounding Christchurch International Airport;
- The expansion of the Whangaripo Quarry in Rodney District;
- The economic significance of Winstone's proposed quarry at Wainui, in the north of Auckland City;
- A proposed five star hotel development for Wanaka;
- Holcim's proposed new cement plant near Weston in the Waitaki District;
- TrustPower's proposed new wind farm at Mahinerangi in Central Otago;
- TrustPower's proposed new Arnold hydroelectric power scheme on the West Coast;
- McCallum Bros and Sea Tow Limited's appeal before the Environment Court regarding extraction of sand from the Mangawhai-Pakiri embayment north of Auckland;
- The development of the Symonds Hill pit at Winstones' Hunua Quarry;
- The rezoning of land for residential development at Peninsula Bay, Wanaka;
- The rezoning of land for more intensive residential development at PekaPeka on the Kapiti Coast;
- A gondola development for the Treble Cone skifield;
- A gondola development for the Snow Farm and Snow Park skiing and snowboarding facilities;
- The extraction of gravel from the bed of the Shotover River;
- The proposed Hilton hotel development on Wellington's Queen's Wharf;
- Land use restrictions in relation to the Runway Extension Protection Areas for Christchurch International Airport;
- A new residential and commercial development by Apple Fields at Belfast on the outskirts of Christchurch;
- A proposed business park development on land at Paraparaumu Airport;
- The proposed redevelopment of Wellington's Overseas Passenger Terminal;
- The proposed Central Plains irrigation scheme in Canterbury;
- The staging of residential and business development at Silverdale North in the Rodney District;
- The redevelopment of the Johnsonville Shopping Centre;

- A Plan Change enabling the relocation of existing development rights for a residential and commercial development on Mount Cardrona Station in the Queenstown Lakes District;
- A new Pak'n Save supermarket at Rangiora;
- New supermarkets at Kaiapoi, Whitby, Silverstream and Havelock North;
- The extension of the Te Rere Hau wind farm in the Tararua District;
- MainPower's proposed new wind farm at Mount Cass;
- Fonterra's proposed new milk processing plant at Darfield and its subsequent expansion;
- Fonterra Pahiatua milk powder plant expansion;
- Fonterra's Studholme milk processing plant expansion;
- Renewal of resource consents at Fonterra's Edgecumbe, Edendale, Te Rapa and Te Awamutu milk processing plants;
- Fonterra's proposed new coal mine in the Waikato District;
- Assessment of the economic significance of ANZCO's Canterbury operations to the Canterbury regional economy;
- Resource consent extensions for Oceana Gold (New Zealand) Limited's gold mining operations at Macraes Flat in north-east Otago, the Globe Mine at Reefton and a proposed underground gold mine at Blackwater on the West Coast;
- Designation of land for NZTA's Waterview motorway project in Auckland;
- Designation of land and resource consents for NZTA's Transmission Gully motorway project in Wellington;
- Designation of land and resource consents for NZTA's MacKays to PekaPeka Expressway;
- Designation of land and resource consents for NZTA's PekaPeka to Otaki Expressway;
- Resource consents for NZTA's Basin Reserve Bridge Project;
- Resource consents for NZTA's Puhoi to Warkworth motorway extension;
- Assessment of the economic effects of a Queenstown Airport Corporation's proposed Notice of Requirement for the designation of additional land for aerodrome purposes;
- Assessment of the retail effects of proposed Plan Change 19 to the Queenstown Lakes District's District Plan;
- Assessment of the regional and national economic significance of Lyttelton Port;

- The economic benefits of utilising a Recovery Plan under the Canterbury Earthquake Recovery Act for the rehabilitation and enhancement of facilities at Lyttelton Port;
- The economic effects of the Lyttelton Port Company's Capital Dredging Project;
- Meridian's proposed new Mokihinui hydro scheme;
- Assessment of the economic effects of alternative wreck recovery options for the MV Rena and preparation of evidence for Environment Court hearing;
- Assessment of the economic benefits and costs of Transpower's corridor management approach to giving effect to the National Policy Statement on Electricity Transmission in District and City Plans;
- Assessment of economic effects of a proposed extension to Arrowtown's urban boundary;
- Assessment of the economic benefits of overhead deployment of ultrafast broadband infrastructure;
- Assessment of the economic benefits of the proposed Ruataniwha Water Storage Scheme;
- Preparation of evidence for Transpower in relation to the proposed Ruakura development on the outskirts of Hamilton City;
- Preparation of two reports reviewing the economic benefits of the Hobbiton movie set at Matamata;
- Assessment of the economic benefits of renewal of a water discharge consent for Silver Fern Farm's Belfast meat processing plant;
- Assessment of the economic effects of renewal of consents for the Alliance Group's Lorneville meat processing plant;
- Preparation of evidence for Winstone Aggregates in relation to the proposed extension of the Otaki quarry;
- An assessment of the economic benefits of NZTA's Waitarere Beach Road Curves Project, north of Levin;
- Preparation of evidence for Transpower in relation to the Proposed Auckland Unitary Plan;
- Preparation of evidence for Transpower, Ngāi Tahu Property Limited, the Lyttelton Port Company, Canterbury International Airport Limited, Tailorspace Limited, Church Property Trustees, the Roman Catholic Bishop of the Diocese of Christchurch, Pacific Park Limited, Fulton Hogan and the Christchurch Aggregates Producers Group in relation to the Proposed Christchurch Replacement District Plan;

- Preparation of evidence for Darby Planning LP, Soho Ski Area Limited, Treble Cone Investments, Lake Hayes Ltd, Lake Hayes Cellar Ltd and Mount Christina Limited in relation to economic issues concerning the Rural and Rural Recreation and Rural Lifestyle Chapters of the Proposed Queenstown Lakes District Plan;
- Preparation of evidence for Coastlands Shoppingtown Limited in relation to the proposed Kapiti Coast District Plan;
- Preparation of evidence for Tinline Properties Limited in relation to a proposed plan change to enable the establishment of an out of centre supermarket;
- The assessment of the economic effects of a proposed Plan Change for safeguarding the future efficient operations of the Rangiora Airfield;
- The assessment of the economic effects of proposed changes to Queenstown Lakes District Plan covering the Jack's Point resort area;
- The assessment of the economic benefits of the development of a marquee golf course in Christchurch;
- Economic assessment of Waitemata Harbour Crossing Project alternatives.
- Assessment of economic effects of proposed State Highway 3 Mount Messenger upgrade project.
- Assessment of economic effects of the proposed options for disposal of overburden from GBC Winstone's Otaika Quarry in Northland.
- Assessment of economic effects of Road Metals proposed extension of its Yaldhurst Quarry.
- Assessment of the economic benefits from the continued operation of the Barracks Road quarry in Marlborough.
- Assessment of the economic effects of the Bay of Plenty Regional Council's proposed Plan Change 10 restricting the nutrient runoff into Lake Rotorua.
- Assessment of the economic effects of Fulton Hogan's proposed new Roydon Quarry at Templeton, Selwyn District.
- Assessment of the economic effects of the proposed Twin Rivers residential development adjacent to the Highlands Motorsports Park in Cromwell;
- Assessment of the economic effects of the Te Awa Lakes residential development adjacent to Fonterra's Te Rapa milk processing plant.