

Comment on ‘The Economic Impacts of the possible Weston Cement Plant’

Introduction

I have been appointed by the Waitaki District Council to peer review a report called the Economic Impact of the Possible Weston Cement Plant, dated 13 November 2006, prepared for Holcim (New Zealand) Limited by Brown, Copeland & Co Ltd in support of Holcim's resource consent applications to establish a cement manufacturing plant and associated quarries and pits. I have read the report and my comments on it are below.

The stated purpose of the Brown Copeland report is to provide an assessment of the economic impacts of a proposed project to build a new cement manufacturing plant near Weston. As well as the construction of a new cement plant, three quarries - limestone, siltstone and tuff - will provide raw materials for cement production. The project will also involve establishment of:

- A lignite coal mine at Ngapara
- A silica sand quarry at Windsor
- A rail link from Weston to Timaru or Dunedin and shipping facilities at Port of Timaru or Port Chalmers.

Economic impact assessment of a project typically involves estimation of the effects a project is projected to have on the local or regional economy as measured by changes in output, revenue, expenditures, incomes, employment. Regional Input Output models are widely used in economic impact assessment studies as they provide means to estimate regional multipliers. These multipliers allow calculation of the likely changes in income, output, employment in a region as a consequence of a shock such as construction and operation of a new cement plant.

Regional multipliers are derived from Input Output models of a regional economy. The methodology typically makes several assumptions including technology used in production is unchanging, resources including labour will be available to allow additional economic activity in a region if a project commences, there are no other independent or offsetting shocks to the regional economy. In reality economies are dynamic and technologies change over time, other sectors such as tourism may enjoy growth spurts or decline, but those possibilities are typically not included in input output analyses of a specific project.

Economic impact assessment differs from Benefit Cost analyses as the latter attempt to measure the effects of a project (positive and negative) on the well being of citizens in a region as measured by willingness to pay and can include items such as additional consumption opportunities, costs imposed on citizens by air pollution, visual amenity degradation, increased congestion on roads. A national Benefit Cost analysis could also measure the effects of a new cement project on citizens of one region and the effects on citizens of another region where an existing cement plant is to be closed. An economic impact assessment for one region does not study environmental effects or the effects on citizens in a second region. However, it is to be noted that the economic impact report did not set out to provide a Benefit Costs analysis. I understand that assessments of the environmental effects of the proposed project have been carried out by several specialist reports on topics such as

transportation, landscape, etc, wherein mitigation conditions, remedies and avoidance of adverse impacts are discussed. I understand the economic impact assessment report will be considered together with those other specialist reports to allow comprehensive consideration of the proposed project.

The Brown Copeland report solely investigates economic impact on the Waitaki District. It does not evaluate environmental effects. The report is narrowly focused on employment, income and expenditure changes projected to occur in the Waitaki District as a consequence of the cement plant, associated quarrying and transport operations proceeding. It uses regional multipliers estimated for the report by an acknowledged New Zealand specialist in regional input output analysis. The regional multipliers used in Brown Copeland are as below:

During construction

overall employment multiplier - 1.58

overall household income - 1.53

Operational phase

local district employment - 1.78 rising to 1.93

household income - 1.46 rising to 1.56

The magnitude of regional multipliers can be influenced by several factors including the strength of the linkages forwards and backwards between the project and the regional economy, the level of self sufficiency of the regional economy, the amount of direct employment in the project per \$ million of output. A low amount of direct employment in the cement project (a capital intensive activity) is likely to result in a larger total district multiplier as the initial amount of employment is modest.

Expert advice is that for employment / \$m turnover the total (direct at cement plant + flow-on) is approximately 1.6 FTEs / \$1 million of turnover. For other manufacturing sectors in Waitaki district the total employment multiplier is between 4 and 10 total FTEs / \$m.

Conclusions a – h of the Brown Copeland Report p.12 paint a plausible outline of increased economic activity, jobs and household income in the region as a consequence of a major new project and industry in Waitaki District. Those conclusions are derived from calculations that use the regional multipliers with their strong ceteris paribus assumptions mentioned above. If some of the assumptions are not met in practice the outcomes will be different from those projected. A downturn in New Zealand building and construction activity for example would reduce the domestic demand for cement and conclusions b-d then overstate the effects of the project on the economic wellbeing of the Waitaki community. However, if there is a downturn in the construction industry and hence reduced cement production, it may not necessarily mean a commensurate reduction of employment at the plant, given that production from the plant may be exported instead of sold on the New Zealand market.



Ross Cullen