

Before a joint hearing of the

Dunedin City Council
Otago Regional Council
Waitaki District Council

**LUC-2016-230 and LUC-2013-225/A
RM16.138
201.2016.779 and 201.2013.360-1**

Under the Resource Management Act 1991

In the matter of applications by Oceana Gold (New Zealand) Limited for
resource consents for the Coronation North Project

Statement of evidence of Andrew Carr for Oceana Gold (New Zealand) Limited

14 October 2016

Applicant's solicitors:

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**anderson
lloyd.**

Qualifications and experience

- 1 My name is Andrew (Andy) David Carr.
- 2 I am a Chartered Professional Engineer and an International Professional Engineer (New Zealand section of the register). I hold a Masters degree in Transport Engineering and Operations and also a Masters degree in Business Administration.
- 3 I am a member of the national committee of the Resource Management Law Association and a past Chair of the Canterbury branch of the organisation. I am also a Member of the Institution of Professional Engineers New Zealand and its specialist Transportation sub-group, and an Associate Member of the New Zealand Planning Institute.
- 4 I have more than 27 years' experience in traffic engineering, over which time I have been responsible for investigating and evaluating the traffic and transportation impacts of a wide range of land use developments, both in New Zealand and the United Kingdom.
- 5 I am presently a director of Carriageway Consulting Ltd, a specialist traffic engineering and transport planning consultancy which I founded in early 2014. My role primarily involves undertaking and reviewing traffic analyses for both resource consent applications and proposed plan changes for a variety of different development types, for both local authorities and private organisations.
- 6 I am also a Hearings Commissioner and have acted in that role for Greater Wellington Regional Council, Ashburton District Council, Waimakariri District Council and Christchurch City Council.
- 7 Prior to forming Carriageway Consulting Ltd, I was employed by traffic engineering consultancies where I had senior roles in developing the business, undertaking technical work and supervising project teams primarily within the South Island.
- 8 Over the past ten years I have been involved in a number of commissions which have involved assessing the transportation-related effects of activities which predominantly generate heavy vehicles. These have included new and upgraded facilities for Fonterra, a new cement processing plant for Holcim, a concrete batching plant in Frankton, a lime processing plant in Inangahua, and the Escarpment Mine project in Denniston. I have also provided advice for the construction of two large wind farms and a hydro-electric scheme for Meridian Energy Limited. I previously provided advice to Oceana Gold (New Zealand) Limited in respect of the consents for the expansion of the Macraes mine.

- 9 I have also provided advice for private plan changes seeking to rezone land for commercial and / or industrial activities, including Queenstown Lakes District Plan Change 46 (Ballantyne Road Industrial and Residential Extension) and Ashburton District Plan Change 2 (North East Industrial Park).
- 10 As a result of my experience, I am very familiar with the particular matters which arise from land use activities that generate heavy vehicle movements.
- 11 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note (2014). This evidence has been prepared in accordance with it and I agree to comply with it. I confirm that the issues addressed in this statement of evidence are within my area of expertise except where I state I am relying on what I have been told by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

Scope of evidence

- 12 In this matter, I have been asked by Oceana Gold (New Zealand) Limited to review the Section 42A Report produced by the Councils consultant planner, Andrew Purves, which makes a number of comments in respect of traffic matters. My evidence sets out each matter raised by Mr Purves and my evaluation of it.

Matter raised in paragraph 95: examination of the local roads

- 13 Mr Purves notes that the traffic flows on the roads affected by traffic generated by the proposal are low, but suggests that it would be useful if a more thorough examination of these roads was carried out to determine whether any require additional maintenance.
- 14 By way of background, in the event that a road is poorly maintained, the passage of heavy vehicles can significantly exacerbate the deficiency because the axle weight is greater and hence the potential for damage to the road is correspondingly larger. Equally though, in my experience truck operators generally seek to avoid poorly-maintained roads because this increases the amount of maintenance that is required for their vehicles and increases costs. It is therefore in all parties' interests for the roads affected by the proposal to be suitably maintained.
- 15 The passage of a small number of light vehicles does not typically give rise to the same scale of effects as for heavy vehicles but nevertheless, deficiencies in the roads can arise over time.
- 16 In this instance, the effects of the proposal will be to change the numbers of light vehicles on the local roads as heavy vehicles will use the haul road. As such, I

do not consider that there is a significant risk to the deterioration of the local roads.

- 17 However, from previous commissions on which I have been involved, the generic approach which has been commonly used to address maintenance issues on roads is as follows:
- (a) Prior to the activity commencing, a condition report is prepared for the affected roads (including those which will be used by an increased number of light vehicles), which includes existing pavement / surface conditions, and specifies any potential remedial works that are required;
 - (b) The identified works are then carried out prior to the activity commencing;
 - (c) While the activity is taking place:
 - (i) The appropriate safety plans include a requirement for staff and contract drivers to report any deficiencies in the road network which they observe;
 - (ii) The management plans make provision for the recording of any deficiencies that are reported by members of the public;
 - (iii) An inspection of the affected roads is carried out once every 6 to 12 months to identify any issues; and
 - (iv) A process is agreed between the applicant and the road controlling authority whereby any deficiencies can be addressed promptly.
 - (d) After the activity ceases, a final report is prepared regarding the condition of the affected roads, and (if necessary) the roads are reinstated to a suitable condition.
- 18 In my view, there is no reason why such a methodology could not also be adopted in this case, and I consider that it would address the concern raised by Mr Purves. It is my experience that this procedure is typically included within a management plan for the activity.

Matter raised in paragraph 96: school bus

- 19 Mr Purves highlights that the applicant has agreed to ensure that staff and contractors are informed of the school bus route and hours via its safety plans. In my experience, this sort of provision within a safety plan is relatively common and I have been involved in other commissions where such provision was made (for example, a wind farm in the Hurunui district for Meridian). I support the inclusion of this matter within the relevant safety plans.

Matter raised in paragraphs 97 to 111: Golden Point Road

- 20 Mr Purves describes in some detail the changes to the roading network that would arise if the current application is approved. Of particular note is the matter which he raises of the potential for the construction of a public road parallel to the haul road, although he considers this to be an "unreasonable imposition" and (in paragraph 175) that the closure of the formed road is *"unlikely to be detrimental to the local transportation network... and there are alternatives to get to the Golden Point Historic Reserve"*.
- 21 I confirm my understanding that the existing alignment of the part of Golden Point Road between Horse Flat Road and the Golden Point Historic Reserve is not within the legal road reserve but sits to one side of it. In my experience, this is not an unusual circumstance in regions such as Otago, Southland and the West Coast and where (in many cases), the road reserves were historically determined through a desktop exercise and oftentimes without knowledge of the prevailing landforms and topography.
- 22 I agree with Mr Purves that the formation of a parallel route to the haul road in this case is not necessary. My Transportation Assessment which accompanied the resource consent application set out that traffic flows on the existing Golden Point Road (near Horse Flat Road) were in the order of just 10 vehicles per day, and at this volume, any additional construction works would be highly uneconomic (by way of example, I have recently been involved in a project where it was identified that traffic flows of 2,000 vehicles per day were insufficient for a bypass road to be economic). Moreover, in this instance, Horse Flat Road provides an alternative route which is not inconvenient and which is already formed to a standard that is able to accommodate the expected small number of additional vehicles.
- 23 Moreover I am advised that the applicant does enable public vehicles to travel along the haul road to the reserve under appropriate safety related traffic management controls, and that this arrangement will continue. The Standard Operating Procedure 'Sentry Duties Coronation / Deep Dell' specifies the steps to be taken if the public require access to travel along the haul road (Steps 7 to 13).

Conclusion

- 24 Overall, I support the comments of Mr Purves in respect of transportation matters. I concur that an assessment should be carried out of the roads affected by the proposal (including those roads where an increase in light vehicles would arise), and in my view this can be appropriately managed through specifying the procedure to be followed within a management plan. I also support the inclusion of the school bus route and operating times within safety plans.

25 I remain of the view that temporarily restricting public access to part of Golden Point Road would not result in significant adverse effects on the roading network. The formation of a parallel route would in my view be highly uneconomic, since the road presently carries just 10 vehicles per day, and Horse Flat Road provides a suitable alternative route. Additionally, the applicant presently enables public vehicles to travel along the haul road to the reserve under appropriate safety related traffic management controls, and I understand that this arrangement will continue.

Andy Carr

14 October 2016