

BEFORE THE CANTERBURY REGIONAL COUNCIL

In the matter of the Resource Management Act 1991

and

In the matter of Variation 6 to Chapter 4 Water Quality of the Proposed Natural Resources Regional Plan

BRIEF OF EVIDENCE OF MURRAY JAMES FRANCIS

Duncan Cotterill
Solicitor acting: E Chapman
PO Box 5, Christchurch

Phone +64 3 379 2430
Fax +64 3 379 7097
e.chapman@DuncanCotterill.com

1. My full name is Murray James Francis. I am the Managing Director of Road Metals Company Limited but my evidence today is on behalf of Fulton Hogan, Road Metals, Winstones, KB Contracting, Christchurch Ready Mix and Isaac Construction. I have been involved in the quarrying industry for 38 years.
2. The purpose of my evidence is to outline operations, management plans and other controls which ensure that quarrying is undertaken with minimum effect on the environment.

Management /Operational issues

3. Compare, if you will, the high level of operational control associated with our quarries, against the background of other rural land uses.

Quarry Operations	Rural land uses and lifestyle blocks
Perimeter Fencing to limit unauthorised access; Control on access points and limited opening hours	Access subject to owner’s consent; no fencing to control unauthorised personnel
Storage of petroleum products in a fully bunded area in a locked facility	Storage of petroleum products in sheds and outlying buildings – or directly above ground
Workshop areas fully enclosed - all repairs and maintenance to equipment undertaken by qualified mechanics within bunded areas	Unlikely that workshops are bunded – while less intense, repairs can occur over the whole of the property
Employee/Contractor access only – limited to worked areas at any given time: Much of land in fallow either pre or post excavation	All land available for vehicle access and no ability to place management controls on “operational areas”
In the event of an unauthorised spill large scale equipment on site to achieve full clean up	No suitable equipment to clean up spill
Limited use of sprays and pesticides –	Sprays pesticides, drench and stock health

principally to control weeds on banded areas	products – stored on site – not subject to formal inspection or control
Quarries subject to Industry Guidelines; Company environmental policies; Occupational Health and Safety in Employment Act; Consent and Council inspections for Cleanfill operations; RM operational requirements and inspections	Farming subject to few formal review procedures; subject to the practices of individual farmers.

4. The purpose of this table is not to convey that rural lifestyle units and broader scale farming operations are necessarily poor in relation to their management of groundwater issues, but simply to illustrate the degree of supervision and control which operates in the quarry environment. It is accepted that there are both good and bad operators in the region – but the onsite and independent scrutiny of quarrying operations offers a high degree of comfort to the Regional Council that the quality of the groundwater will not be compromised.
5. This has been consistent with the quarry operations from my perspective since the establishment of our Yaldhurst operations in the 1990's.
6. It is accepted that quarries do work closer to the groundwater resource – because of the below ground excavation – but there are only ever one or two individuals working at the quarry face undertaking the excavations; they are trained operators; they work within a very confined area leaving much of our overall land area untouched for years either awaiting extraction or following completion of extraction in a particular area – always within a fully fenced; security monitored area.

Cleanfill

7. Quarry operations are heavily controlled by both consent conditions and industry regulations and controls.
8. In the past there was a risk that the material used as backfill could potentially be contaminated. The Officer's report does not seem to recognise that the industry

has changed drastically over the last 20 years. Most quarries are also consented cleanfills and are subject to the Christchurch City Council Cleanfill Bylaw which lists all approved materials which can go into our cleanfills. The Bylaw minimises the risk that material which could cause contamination will come into contact with groundwater if that water rises into pits. We also have our own internal procedures to ensure that the Bylaw is complied with. For example, Road Metals takes the following approach:

- 8.1 All of our clients seeking to dump cleanfill material on the site are made aware of the Bylaw and charges relating to the dumping of cleanfill.
 - 8.2 Upon arrival at the weighbridge, a video camera inspection is carried out by the weighbridge operator from a video camera mounted on the roof of the weighbridge.
 - 8.3 Any material not meeting the cleanfill standards is rejected at this point.
 - 8.4 We have bins available for the deposit of any green waste in cleanfill loads.
 - 8.5 Following acceptance, the cleanfill material is dumped on the edge of a restoration area.
 - 8.6 A further visible inspection is carried out at this point by the loader driver to ensure standards are met.
 - 8.7 The load is finally pushed over the edge into the restoration area and compacted where necessary.
9. One of the conditions of our cleanfill consents requires groundwater quality monitoring from bores both upstream and downstream of the site. To my knowledge none of the quarries operating in the Miners Road area have ever had any groundwater test results which have caused concern.

Quarrying

10. It is difficult to understand where the perception comes from that quarrying is a significant risk to the groundwater resource. We maintain our equipment in the best mechanical condition possible. We undertake regular maintenance checks to ensure that any equipment in need of servicing or repair is seen to.

11. Fuels and other hazardous substances are stored on site in accordance with the relevant plans and regulations. Bunds are used to ensure that even if there is a spill or damage occurs to a container the hazardous substance is contained and can be appropriately disposed of.
12. The only source of contaminant that I can think of is if a fuel line or a brake cable bursts on a loader and this could easily be dealt with by a spill kit or simply scooping up the contaminated material and disposing of it at an appropriate off site location. The amount of fuel we are talking about is so insignificant in the scheme of things it is difficult to see how it would cause contamination of Christchurch's drinking water supply.

Management Plans

13. We use management plans as a tool to ensure the best procedures are adopted. For example, our management approach to quarrying a new area is as follows:
 - 13.1 Always have sufficient pit space available so that there is no requirement to expose topsoil irrespective of the weather conditions.
 - 13.2 Ground cover and topsoil is only removed when weather conditions and forecasts show that wind speeds are likely to be below 10 metres per second.
 - 13.3 Water cart facilities are to be available to dampen down areas following the removal of ground cover where necessary.
 - 13.4 Stockpiling of material for the bunds is completed as swiftly as possible. Again, using a water cart to form a "crust" on the developed bund.
 - 13.5 Re-grassing to occur when sections of the bund are completed and weather conditions are acceptable.

Rehabilitation

14. Obviously, as part of quarrying a large amount of the material protecting the groundwater resource is removed. The topsoil and silt layers are stripped off and then the aggregate and shingle which lie beneath is quarried. The degree to which consents require operators to rehabilitate their sites is dealt with on a case by case basis.
15. For example Isaac recently obtained consent to extend its existing quarry operation over a total area of 360 hectares at up to 20 hectares at a time. The rehabilitation of the excavated areas is to be undertaken progressively. No more than two non-contiguous areas can be excavated at any one time. When two non-contiguous areas are excavated at the same time, the original area must be rehabilitated within 6 months of excavation commencing in the new area.
16. The consents require that the site area is rehabilitated within the duration of the consent which expires in 2044 by:
 - 16.1 shaping of the quarry walls to form a 1V:3H slope;
 - 16.2 spreading soil material across the quarry floor, to an average depth of not less than 0.3 metres;
 - 16.3 spreading of uncontaminated soil material across the quarry walls; and
 - 16.4 seeding all areas of exposed soil with grass.
17. The long term use of the site is non-intensive grazing, indigenous plants and recreational use.
18. Road Metals obtained consent in 2007 to expand its existing operation at West Coast Road onto an adjacent area of 4.5 hectares. This area was zoned Rural 2. Consent conditions required that once excavation was completed the site was to be rehabilitated by:
 - 18.1 covering the excavated area with a uniform layer of silt to a depth of 500mm thick;
 - 18.2 reconfiguring the quarry walls to provide a slope of 1V:3H;

18.3 covering the pit floor and sides with topsoil to a minimum thickness of 0.3 metres; and

18.4 re-grassing within 60 days of the placement of the topsoil.

Murray James Francis