

3 May 2015

The Chief Executive Officer

Western Downs Regional Council

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Attention: Ms Kate Swepson.

RE: DEVELOPMENT PERMIT FOR MATERIAL CHANGE OF USE EXTRACTIVE INDUSTRY (SAND QUARRY UP TO 100,000 TONNES PER ANNUM) & ENVIRONMENTALLY RELEVANT ACTIVITY - ERA 16(1)(B), 16(2)(A) & ERA 16(3)(A) LOT 5 ON RP135939 ON RAVENS ROAD, WIEAMBILLA

APPLICATION NO: 030.2014.1165.001

ON THE GROUNDS OF HEALTH, I STRONGLY OBJECT TO DEVELOPMENT APPLICATION (030.2014.1165.001) FOR A MATERIAL CHANGE OF USE TO ESTABLISH AN EXTRACTIVE INDUSTRY (SAND QUARRY - UP TO 100,000t PER ANNUM) AND ENVIRONMENTALLY RELEVANT ACTIVITY 16 (1)(b) ON LAND DESCRIBED AS LOT 5 ON RP135939, SITUATED AT RAVENS ROAD, WIEAMBILLA

“The proposed quarry will be operated by Asset Minerals Pty Ltd and it is anticipated that up to 100,000 Metric tonnes (Mt) of sand will be extracted from and transported off of the Subject Site annually. It is proposed that materials from the quarry will be loaded into standard trucks (single or double carriage) onsite as required. Access to and from the quarry will be via the single cross-over to Ravens Road.”

“The proposed operation will involve the extraction of raw sand material from within the subject site which will then be processed on site to produce a fracking sand material (and by products). The fracking sand will be produced through on site processing which will involve the use of settlement ponds and production equipment.”

From a health point of view it is entirely inappropriate to mine and process silica (fracking sand) in, and to transport silica through, a residential estate.

To quote directly from the United States Department of Labor, Occupational Safety and Health Administration¹ regarding the health effects of crystalline silica:

“Inhalation of respirable crystalline silica particles has long been known to cause silicosis, a disabling, non-reversible and sometimes fatal lung disease. Respirable crystalline silica also causes lung cancer. The International Agency for Research on Cancer has designated crystalline silica as carcinogenic to humans, and the U.S. National Toxicology Program has concluded that respirable crystalline silica is known to be a human carcinogen. The National Institute for Occupational Safety and Health (NIOSH) has also recommended that respirable crystalline silica be considered a potential occupational carcinogen. In addition, exposure to respirable crystalline silica has been associated with other respiratory diseases, such as chronic obstructive pulmonary disease (including bronchitis and emphysema), as well as kidney and immune system diseases.”

As well as silica exposure, other health hazards associated with this development are fine particulate matter and diesel fumes from the machinery and truck movements. Both diesel fumes and particulate matter are carcinogenic. In 2013 the World Health Organisation² defined outdoor air pollution as a class I carcinogen. Diesel fumes, benzene, particulate matter all cause cancer. The health danger of particulate matter is well understood. Particles, if small enough, can be absorbed from the lungs directly into the bloodstream causing damage to multiple organs. This include lung damage, strokes, heart attacks, kidney damage, diabetes, hypertension. With particulate matter, as with benzene, there is no safe level of exposure³ or a threshold below which no adverse health effects occur.

It is unrealistic to suppose that air pollution from the proposed quarry would be locally contained. A recent peer reviewed study⁴ has shown that air pollution can travel hundreds of kilometres. This means that the health status of the resident population within the estates and further afar would be imperiled should this development be permitted.

A further health hazard associated with this proposed development for both workers and residents is the risk of developing Non Tuberculous Mycobacterium (NTM). In a recent study⁵, clusters of NTM have been identified in the central Queensland region overlying the Surat Basin. The main route of transmission to humans is considered to be from the environment. There are several potential explanations for the significantly higher relative incidence of *M. kansasii* in the Yuleba and Clifford areas. Yuleba is a small town and the site of a major processing facility for silica deposits. Silicosis has been identified as a host susceptibility factor for *M. kansasii*.

In summary silica mining is an entirely inappropriate activity at this location and this application should be rejected.

Dr GERALYN McCARRON,
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1. https://www.osha.gov/dsg/topics/silicacrystalline/health_effects_silica.html
2. International Agency for Research on Cancer, press release no 221 17 Oct 2013
http://www.iarc.fr/en/mediacentre/iarcnews/pdf/pr221_E.pdf
3. Review of evidence on health impacts of air pollution REVIHAAP project, WHO 2013,
http://www.iarc.fr/en/media-centre/iarcnews/pdf/pr221_E.pdf
4. Regional air quality impacts of hydraulic fracturing and shale natural gas activity: Evidence from ambient VOC observations Timothy Vinciguerra a , Simon Yao a , Joseph Dadzie a , Alexa Chittams a , Thomas Deskins a , Sheryl Ehrman a , * , Russell R. Dickerson b Atmospheric Environment 110 (2015) 144e150
5. A spatial epidemiological analysis of nontuberculous mycobacterial infections in Queensland, Australia. Michael P Chou, Archie CA Clements and Rachel M Thomson.