Enviroseer
Strategic Environmental Consultancy

24th November 2008

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Re: 081113 BATHURST INTERMODAL TERMINAL
Email: Paul Godsell 13 November 2008 17:02

Dear Paul,

Enviroseer trades as Central West Envirotech.

Regarding potential environmental issues arising from the proposed modification to the Concept Plan Approval (No: 05.0047) for the Bathurst Intermodal Terminal, now referred to as the Gateway Enterprise Park, we have examined the concept plan (Crawford Architects drawing MA.002), .and report as follows

Preliminary environmental investigation reports were submitted 23rd June and 2nd July 2005, included in the Part 3(a) Major Projects Application, EA annexures 10 &11, respectively.

Reedy's Orchard (9.55 ha: Annexure 11), was assessed for pesticides and heavy metals. None of the soil samples collected from 32 test pits was contaminated. Most of the site was characterized by shallow sandy soil overlying weathered granite. The Modification Application Concept Plan appears to have little bearing on the original state of this part of the site.

Muldoon's Quarry (19.7 ha: Annexure 10), had minimal contamination north and east of the bisecting seasonal creek. South of the creek, two potential contamination issues relate to the proposed modification:

1. Asbestos – Test pits 5, 6, 7 12 and 14 corresponding to Lots K, L and M
2. Groundwater – Bore at the former Ingersole's corresponding to Lot F

Issue 1: Asbestos
Asbestos-containing material was identified in 2005 at test pits located at the south east of the site in the locality of the proposed lots K, L and M. The area included the highly modified north-sloping batter of the ridge abutting with the railway line. This would be significant if any cut to the batter was proposed by the design. Excavation of soil in this locality could generate dust containing asbestos fibres. Therefore, it is important that further cut of the former quarry at the south east of the site be limited, to weathered granite in its native state. The revised layout retaining the original design levels of the EA, based on maximum rail siding gradient requirements proposes only additional fill to the existing topography within this part of the site.

Recommendation: Weathered granite be sourced from high ground at the north east portion of the proposed development, east and south of proposed Lot 9.

Issue 2: Groundwater
A well was located at the site of the former Ingersole's Abattoir. The Abattoir was situated centrally on Muldoon's quarry block, on the south bank of the creek in the vicinity of test pit 26 (see attached map). No analysis of the groundwater was conducted nor was standing water level determined at the time. A bore search was conducted, showing four registered bores within 1km of the former quarry. The nearest bore, 500 m to the north had a standing water level (SWL) of 4.6 m. Two more distant bores had SWLs of 18 and 31 m and a pumping rate of 2.5L/s.

Soil implicated by higher than average salinity in the region of the former abattoir was shallow and underlain by heavy clay subsoil atop weathered granite. The heavy clay would likely provide protection against infiltration of nutrients to groundwater. Conversely, the well represents a potential conduit to the underlying aquifer. Modification Application MA-006 Stormwater Management (preliminary) includes a stormwater quality pond in the vicinity of the former abattoir well. There is potential for retained runoff to impact groundwater, should the former well be broached by the pond, or the heavy clay subsoil be cut away to expose the underlying weathered granite, thereby enabling lateral transfer to the presumably now filled in well.

Recommendations: Consider utilizing native heavy reddish brown clay subsoil from cutting of native weathered granite for sealing of the pond.

Yours Faithfully

James Milson

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