Preliminary Contamination Appraisal - Oban St, Guyra



AWTM Pty Ltd ATF Witherby Family Trust (ABN 50 285 185 541) T/A Wakefield Planning E: armidale@wakefieldplanning.com.au W: www.wakefieldplanning.com.au

Proposed Rural Residential Rezoning Oban Street, Guyra NSW

Preliminary Site Assessment Under Contaminated Land Planning Guidelines

Client: Mr Robert Saunders

PO Box 5450 Mordialloc VIC 3195 P 03 9588 1998 F 03 9588 0038 E melbourne@wakefieldplanning.com.au W wakefieldplanning.com.au



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Angus Witherby FPIA, BA (Geog, Econ); GDURP

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1 Executive Summary

This report reviews historic land uses of the site to assess the likelihood of contamination occurring on the site given its current zoning as industrial and its previous use for agricultural purposes (grazing). The work involved a review of historic topographic maps, historic aerial photographs, and interviews with the previous owners.

No evidence was identified that suggests any significant risks of contamination that would render the land unsuitable for use for rural residential purposes.

2 Scope of Work

An area of industrial land in Oban Street, Guyra, is being proposed for rezoning to rural residential. The land has not been developed for industrial purposes, although one industrial use has been approved on part of the land. The land is currently predominantly used for grazing purposes. This report has been prepared to address information required under SEPP 55.

The following tasks were undertaken:

- Oral history from existing owner
- Oral history from previous owner before that
- Historical aerial photograph review
- Historical map review

3 Site Identification

The site is identified as shown on the plan below. It is located South East of the intersection of Oban Street and Tuckeys Lane. The site has an area of some 8.9 ha.



Figure 1 - Area proposed rezoning





Figure 2 Recent aerial image of site (Source: SIX viewer)

4 Site History

4.1 Zoning

The land is presently zoned industrial, and was previously zoned rural. The land is currently proposed for rezoning to rural residential.

4.2 Land Use

The land is currently used predominantly for pasture and grazing purposes, and has been in this use since its purchase by the current owners in 2007. The previous owners, the Faulkner family, owned the property for some 50 years previously. During that period the land was used as a hobby farm running a few sheep. No dipping or other similar activities took place that would have led to any contamination. A house and shed were recently erected on the land. No fuel is stored on site.

An aerial photograph was able to be sourced from 1965 of which an extract is reproduced below:





Fig 1 – 1965 Aerial Photo

This shows the land to the west of the ephemeral watercourse as cleared, with woodland to the east of the ephemeral watercourse.

This has been compared with topographic map records. The relevant map records are reproduced below:



Fig 2 – Topographic Map 1974







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The aerial photograph from 1965 shows a higher level of clearing than the 1970's topographic map; noting these were often based on considerably older aerial photography with limited ground truthing. The current map accords with the current aerial photo evidence.

Of importance is that the older topographic map and the aerial photograph do not indicate any yards, dips or similar features. This accords with information from historical owners.

4.3 Summary of Council Records

Council's Contaminated Land Register has no information on the subject property.

Council has identified the following prior approvals:

- House and shed
- Industrial use (plastics factory)

The house and shed have been constructed, although the plastics factory did not proceed.

4.4 Chronological List of Site Uses

- Late 1800's-1960's Rural property
- 1960's 2007- Hobby farm
- 2007 present Hobby farm

4.5 Site Photographs

The following photos were taken of the site, showing its use as grazing land.



Photo 1 - The land from Tuckeys Lane/Oban Street intersection looking South East



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Photo 2 – The land looking east from Oban Street



Photo 3 – Existing entry to the land.

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4.6 Details and Locations of Current and Former Fuel Storage Tanks

No evidence of fuel storage tanks has been detected from site inspection and review of aerial photography and previous land uses. It is considered unlikely that an on-farm fuel tank would have been utilised in the past.

4.7 Disposal Locations

No disposal locations have been identified on the site.

4.8 Local Site Knowledge – Owners / Former Owners

The most recent past owner, Mrs Barbara Campbell, was interviewed about her knowledge of the site. Following are the questions asked and answers offered.

- 1. How long did you have the land? 50 years. When did you buy it? 1960's.
- 2. What activities have you undertaken? Used as a hobby farm
- 3. Do you know whether any horticulture or orcharding has ever taken place? None known.
- 4. Are you aware of any old dip sites (e.g. for cattle ticks)? No.
- 5. Are there/were there any sheds or outbuildings on the land? No.
- 6. Do you know who owned the land before you? Can't recall
- 7. Do you know what they did on the land? Has always been rural land.

4.9 Summary of Local Literature about the Site

A Google search on the history of Guyra did not identify any materials of relevance to the site.

4.10 Historical Use of Adjacent Land

From an inspection of current and previous topographic maps (Topographic maps (1970-97) - © Lands 2006 provided on Six Viewer - <u>http://imagery.maps.nsw.gov.au/</u>), and inspection of current aerial photography, the lands immediately surrounding the subject site are presently in rural use being used for agricultural purposes (grazing and, possibly, animal feed crops).

5 Site Condition and Surrounding Environment

5.1 Topography

The general area is flat to gently undulating. The site itself has an average slope of about 1-2 percent, with fall to the south west. An ephemeral drainage line traverses the land, which connects into a dendritic stream system downstream. The ephemeral drainage line collects water from rural uses in the vicinity of the site.

5.2 Visible signs of contamination

A visual inspection of the site revealed no visible signs of contamination.



5.3 Visible signs of plant stress

No visible signs of plant stress were observed during the visual inspection.

5.4 Odours

No odours indicative of contamination were detected during the site inspection.

5.5 Condition of buildings and roads

The buildings are new and in excellent condition. The access track has recently been constructed and is in good order.

5.6 Flood potential

Due to the sites elevation relative to nearby drainage lines and the small catchment area above the site, the site would not be subject to significant flooding. The only inundation that could occur would be from surface runoff during an intense rainfall event, which would concentrate in the ephemeral drainage lines.

5.7 Any local sensitive environment

There are no sensitive environments in the immediate vicinity of the development site.

6 Geology and Hydrogeology

The 1:250,000 Geological Map of Dorrigo indicates the area is underlain by Tertiary tholeiitic and alkaline basalt with minor trachyte and dolerite. The soils are weathered basalt derived soils. Soils are moderately to poorly drained with poor drainage evident in areas of the site traversed by the ephemeral drainage line.

7 Sampling and Analysis

No sampling or analysis was undertaken for this report, on the basis of the review of historical uses of the land.

8 Site Characterisation

8.1 Assessment of type of all environmental contamination

There are a range of potential forms of environmental contamination often associated with former rural uses of land. These include: ground contamination from former machinery sheds (hydrocarbons and, potentially, agricultural chemicals); residues from chemical applications to crops, in particular horticulture and orcharding; dip sites; stockyards; watercourse contamination from dumping areas (domestic refuse, used chemical drums and the like); and septic systems.

The site has previously been used for grazing and no direct evidence is available of the carrying out of horticulture or orcharding.



No evidence is available to suggest that the development site contained a dip site. Yards are shown adjoining the North-East corner of the site, however these appeared to have been used solely for loading of sheep onto vehicles.

Overall the risks of contamination associated with the previous uses are considered to be minimal.

8.2 Assessment of extent of soil and groundwater contamination, including off-site effects

As this is a preliminary investigation, and no indicators of likely contamination "triggers" have been identified. No off-site effects are anticipated from previous site uses.

8.3 Assessment of possible exposure routes and exposed populations

No possible exposure routes or exposed populations have been identified in this preliminary review.

9 Conclusions and Recommendations

No evidence of contamination on or in the immediate vicinity of the site has been found.

Whereas the historical use has included agriculture, which is a use listed as potentially contaminating, no evidence can be found that any actual contamination has occurred.

It is concluded that there is no basis to assess the risk of site contamination as being at a level that would preclude development for the purposes of rural residential development.