

28th April 2014.



THE DIRECTORS

UPPER HUNTER HOLDINGS P/L

PO BOX 69

DENMAN.NSW. 2328

Dear Directors,

**PRELIMINARY AGRICULTURAL APPRAISAL of
“DOLWENDEE” DENMAN
PROPOSED RIDGE GRAVEL EXTRACTION.**

This report is to confirm that I, Ross Watson, Consulting Agronomist, Ross Watson Agriculture P/L of Scone inspected the property known as “Dolwendee” at Denman, NSW, in August and December 2013 to provide an initial agricultural appraisal of the site and assess the potential impacts of a gravel quarry on the agricultural land and the environment.

Property Description.

The proposed gravel quarry is located on the property now known as “Dolwendee”, Denman, which is owned by Upper Hunter Holdings.

“Dolwendee” occupies Lots 1,2,3 and 4 in DP 1160936 . The property covers a total area of some 163 ha. Lot 1 is 40.3 ha, Lot 2 is 41.53 ha, Lot 3 is 40.62 ha and Lot 4 is 40.58 ha. (See Fig 5)

The proposed quarry is to be located wholly on the property known as “Dolwendee” and in particular on Lot 2 with a haul road from the quarry to the Golden Highway crossing Lots 3 and 4 within an existing right of carriageway. (See reference property maps Fig 5 showing allotments).

The proposed gravel extraction site is located on Lot 2, on the north eastern section of the property known as “Dolwendee ” Denman. See Fig 5.

The property “Dolwende” is located approximately 8.5 km NW of Denman along the Golden Highway.

The property Dolwende covers an estimated area of some 163 ha

I have estimated that the property consists of the following agricultural land classes

Table 1. Estimated Agricultural Land Profile “Dolwende” Denman.

Agricultural Land Class	Description	Dolwende 163 ha	
		Estimated Area	% of Farm area
Class 1	Arable land suited to continuous cultivation for uses such as intensive horticulture and field crops. Constraints to sustained high levels of production are absent or minor	0	0
Class 2	Arable land suited to regular cultivation for such as intensive horticulture and field crops. Constraints to sustained levels of production are minor to moderate.	0	0
Class 3	Land suited to occasional cropping but not continuous cropping. Best sown to perennial sub tropical pastures. Production risks managed through a pasture phase, conservation tillage and or no till farming. Constraints to sustained levels of production are moderate	20	12
Class 4	Land suited to grazing but not cultivation. Agriculture is based on native pastures and or improved pastures established using minimum tillage techniques. Overall level of production is comparatively low due to major environmental constraints.	91	56
Class 5	Land not suited to agriculture or only light grazing. Agricultural production, if any is low due to major environmental constraints	52	32

From Table 1, it can be seen that, in my opinion, the major agricultural land class on “Dolwende” , the site of the proposed gravel quarry is considered to meet the guidelines of Class 4 + 5 agricultural land, which has a low overall agricultural production potential.

“Dolwende” is estimated to be 12% Class 3 , 56 % Class 4 and 32% Class 5 Ag Land. The overwhelming majority, of the property, some 88% of the property meets the guidelines of low productivity Class 4+ 5 Agricultural Land . No prime (Class 1+2) agricultural land is contained on Dolwende. .

The gravel extraction quarry, on Dolwende ,will be confined to entirely Class 4 Agricultural land some Class 5, Non Agricultural land. See Fig 6 showing Agricultural Land Classes on Dolwende.

Figures 1-4 provide images of the typical site presentation at the proposed quarry site.

Fig 1. Typical Site presentation at Proposed Gravel Quarry Site on Dolwendee. Class 4 Ag Land in foreground, Class 5 Ag Land in background.



Fig 2. Typical Class 4/5 Ag land in the proposed quarry area on Dolwendee.

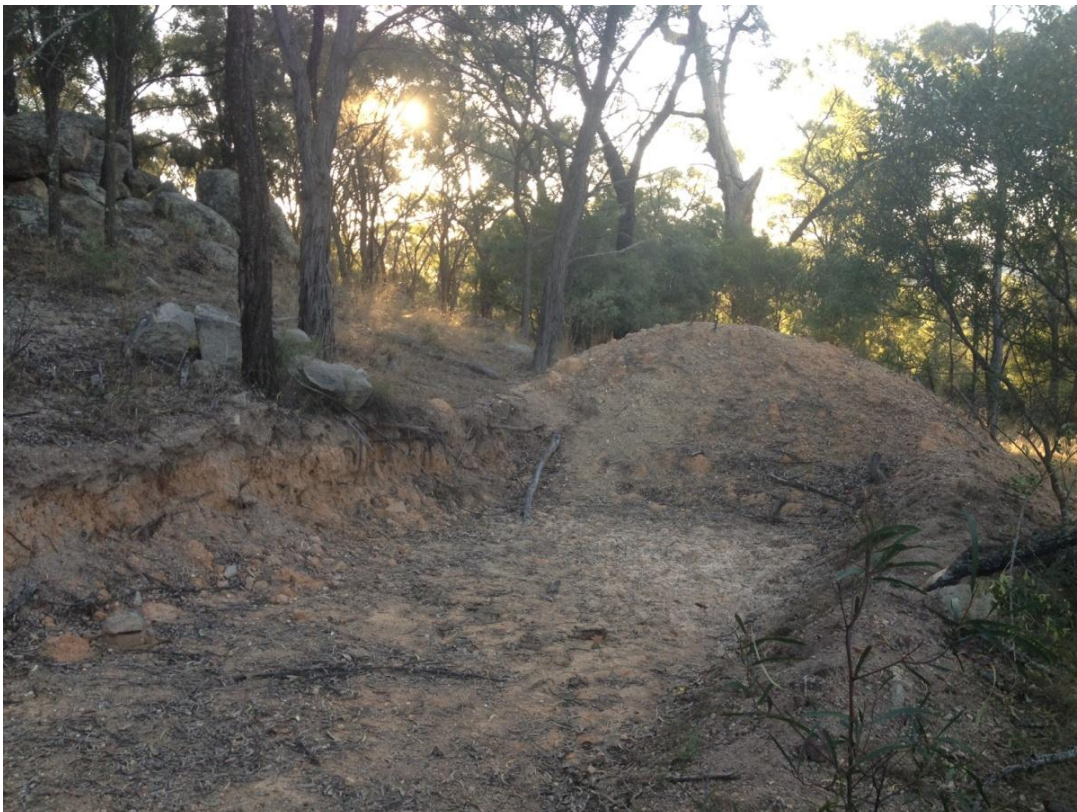


Fig 3. Typical Class 4/5 Ag land in the proposed quarry area on Dolwendee.

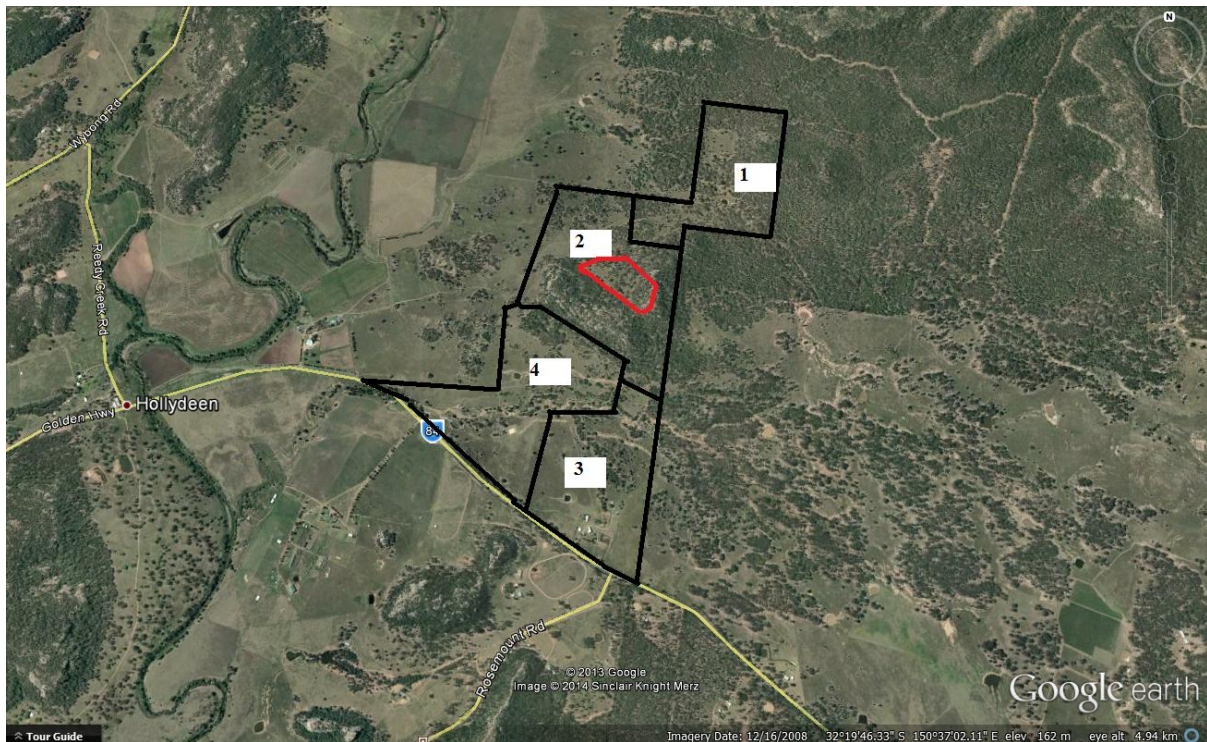


Fig 4. Typical general landscape presentation at Proposed Gravel Quarry Site on Dolwendee.

Note: Class 4 Ag Land in foreground, Class 5 Ag Land in background at Dolwendee.

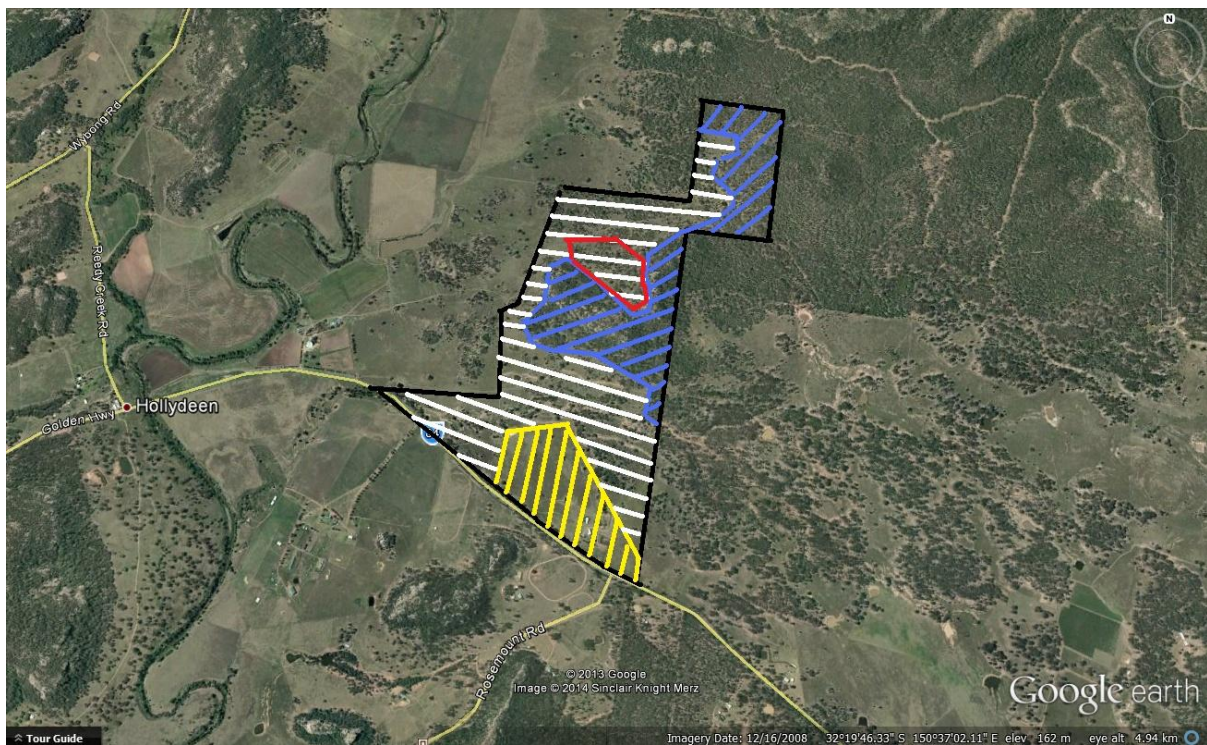


Fig 5. Allotments on “Dolwende” Denman. NSW.



Prepared by Ross Watson Agriculture P/L Scone. April 2014.

Fig 6. Agricultural Land Classes and Proposed Quarry Location on “Dolwende” Denman.



Key Agricultural Land Classes- Class 3- Yellow : Class 4 - White : Class 5 Blue.

Red line is proposed quarry area.

“Dolwendee” Gravel Quarry Extraction Site

Gravel Extraction Quarry covers an measured area of 10.7 ha. This site occupies in my opinion, an estimated 9 ha of Class 4 Agricultural land and 1.7 ha of Class 5 Non Agricultural land.

The proposed extraction area represents less than 7 % of the Dolwendee property area and does not include any prime or good agricultural land.

The soils of the proposed gravel extraction area are of low agricultural value. (See Fig 1-4.) They are solodic soils /sedimentary deposits, gravelly textured . Top soils are moderately to strongly acidic with the sub soil being slightly acidic to neutral in pH. The soils are very deficient in major and minor plant nutrients, have low water holding capacity, are imperfectly drained, are loose to hard setting and moderately permeable. The topsoil is weakly structured gravelly loam textured overlaying a reddish, yellow or brown medium clay subsoil.

They have a moderate to high erosion hazard and propensity to structural breakdown once disturbed. They are a soil with medium to low shrink swell characteristics.

Soils with these features have limited agricultural value .

The native vegetation over the site is dominated by narrow leaved ironbark, cypress pine, narrow leaf apple and native grasses. (See Fig 1-4.) This vegetation is not unique or limited in existence in this region. It is typical of the vegetation on this lower class agricultural or non agricultural land in the area.

Potential Impacts on Environment and Agricultural Land Use .

The following issues are highlighted.

Agricultural Land Use: This nominated area of the proposed gravel quarry has a low to very low agricultural production potential and would therefore not significantly lower the overall agricultural productivity potential of this property or the surrounding district.

No highly productive agricultural areas are involved in this proposed development. Current or future agricultural activities, (such as livestock grazing on native pastures) although of limited value and potential, could continue to be conducted on the remaining area on the property. The property Dolwendee has limited agricultural production potential.

Nominated important Land Use areas : Based on the broad scale Regional Maps provided by Muswellbrook Shire Council and NSW Primary Industries, this proposed development **does not** appear to be located on any “*Important Equine Land*” or “*Important viticultural land area*”.

In my opinion, the land on Dolwendee, which is predominately Class 4 and 5 Ag land , is not suitable for equine or viticultural development.

It should also be emphasized that this proposed gravel extraction activity will not directly involve or impact on any prime or good agricultural land ie Class 1,2 or 3 agricultural land, which may be considered for equine or viticultural usage.

No prime or good agricultural land would be alienated by the proposed gravel excavation area on Dolwendee. The nominated boundaries of this development are confined to Class 4 and 5 agricultural land , and only represent less than 7 % of the total property area.

Protection of Wybong Creek. The proposed development is located 1000-1500 metres from the Wybong Creek. *At this distance, and with an effective grassland buffer zone dense native pasture and timber regrowth surrounding the site over this distance , there is no perceived risk of soil sediment entering or contaminating this creek from this proposed quarry.* This dense vegetation zone surrounding the proposed quarry should act as a very effective sediment trap and buffer zone. The natural soil sediment would not pose any contamination risk to the vegetated land surrounding the site. The suitable construction of run off dams , silt traps and vegetation buffer zones would be recommended to prevent unwanted or excessive silt/soil movement off site. The progressive and permanent revegetation of the site after extraction is completed will also be needed to stabilise, revegetate and protect the previously disturbed area and prevent unwanted weed invasion.

Visual Impacts: The visual amenity of the area should be considered . It would appear that the proposed quarry would be largely be obscured from view from the main traffic and tourism flow along the Golden Highway between Denman and Sandy Hollow, due to the visual protection that will be provided by the heavily timbered sandstone escarpment and ridge located in the eastern area of the property. The proposed quarry would be located on the northern side of this natural barrier. The visual amenity of the area could be reduced when viewed from the minor traffic route of Reedy Creek Road.

Dust and Noise Impacts: It is conceivable that these proposed activities may generate some impacts outside the site. It is expected that this activity may generate on occasions some noise and dust impacts on surrounding land holders and nearby equine or agricultural activities , as a result of truck movements and machinery operations, in the process of excavating , loading and delivering such soil/gravel based material. Detailed studies as required under an EIS would clarify the potential impacts of these events.

Equine Establishment nearby: The equine establishment is located approximately in a 1.0 to 2.0 km radius, in a south westerly direction from central area of the proposed gravel quarry. At this stage there is no perceived direct impacts, on this equine operation, from this proposal. Some consultation with these nearby landholders should be undertaken to gain an appreciation of their level of concerns , if any.

It is expected that any impacts could be minimised and managed to prevent adverse impacts on surrounding activities or land holders .This would need to be addressed in their development consent to prevent direct impacts on existing and future agricultural or equine activities or development.

Coal Mining Land Adjoins: It should be noted that the land surrounding this property on the eastern, northern and western boundaries of the this property ,is currently owned by Mangoola Coal is now approved to extract 10 mtpa of coal . The potential impacts of this type of development are likely to be more significant than those potentially created from this development proposal.

I trust that this information and report is of some assistance in the consideration of your development application.

Regards

Ross Watson

Consulting Agronomist

Ross Watson Agriculture P/L Scone.