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Ecology * Aboriginal Heritage * Biodiversity * Bushfire

Date: 1/2/18

To Alex Irwin
RW Corkery & Co Pty Limited

From: Danny O'Brien

Re: Confirmation of Plant Community Type (PCT) for a proposed quarry extension to the Middle Creek Quarries operation located at Lot 2, DP 1112479, Sewells Creek Road at Oberon within the Oberon Local Government Area (LGA) (DA 10.2016.38.1).

Reference is made to the PCT (Plant Community Type) to the vegetation community present as remnant vegetation within the Middle Creek Quarries operation located at Lot 2, DP 1112479, Sewells Creek Road at Oberon within the Oberon Local Government Area. The Office of Environment & Heritage (OEH) requires that a Plant Community Type (PCT) be assigned to the existing vegetation present within the above-mentioned study area.

Based on a review of the vegetation data collected from plots and transects of the study area, the vegetation community most closely conforms to PCT ID:963 - Narrow-leaved Peppermint - Mountain Gum - Brown Barrel moist open forest on high altitude ranges, northern South Eastern Highlands Bioregion. This assessment is supported by Ms. Danielle Murphy (Environmental Scientist within the OEH Native Vegetation Information Science Division) when queried regarding the application of the BioNet Vegetation Classification application). Two EECs are listed as being equivalent to PCT:963 viz: the *Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions*, TSC Act, (Equivalent) and *Mount Gibraltar Forest in the Sydney Basin Bioregion*, EPBC Act (Equivalent). I have reviewed the OEH Profiles to the above EECs and confirm that the vegetation present within the study area is, as I had initially identified, 'Montane Woodland' as described by Keith & Benson (1988) / MU6-Montane Sheltered Narrow-leaved Peppermint Forest' by DEC (2006) and not either Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions EEC or Mount Gibraltar Forest in the Sydney Basin Bioregion-EEC.

Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions EEC:

The *Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions EEC* occurs at an altitude spanning between 600m to 900m ASL (OEH, ***Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions-Profile, 1/2/18).*** This altitudinal range variation defines this community's altitudinal range and parameters with 900m ASL being its maximum altitude. The study area's two vegetation remnants (Remnant Vegetation Area #1 and Remnant Vegetation Area #2) are situated well above the maximum altitudinal range of 900m ASL assigned to the *Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions EEC*. The lowest point of Remnant Vegetation Area #1is at 1,153m ASL with its highest point of 1,156m ASL. The lowest point of Remnant Vegetation Area #2is at 1,140m ASL with its highest point of 1,157m ASL. The lowest point of the Remnant Vegetation Areas combined is 1,140m ASL which is 240m ASL above the maximum altitudinal height range of 900m ASL of the *Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions EEC*.

Therefore, based on the above altitudinal differences alone, the study area's vegetation community does not qualify as *Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions EEC* in this instance.

Mount Gibraltar Forest in the Sydney Basin Bioregion-EPBC Act (Equivalent):

The Mount Gibraltar Forest in the Sydney Basin Bioregion- (Equivalent)-EEC is confined to a small number of pockets in the Southern Highlands region with the main occurrence on Mount Gibraltar near Bowral and Mittagong but may occur elsewhere in the Sydney Basin (OEH, Mount Gibraltar Forest in the Sydney Basin Bioregion-Profile, 1/2/18). This EEC is restricted to clay soils on microsyenite intrusions in the central parts of the Southern Highlands (OEH, Op cit).

The study area (near at Oberon in Central West of NSW) is not located in the vicinity of Mount Gibraltar of the Southern Highlands region. Although this EEC shares one floristic element with the vegetation community present within the study area at Oberon viz: the Narrow-leaved Peppermint *Eucalyptus radiata*; the other dominant tree species associated with the Mount Gibraltar Forest in the Sydney Basin Bioregion (Equivalent) EEC include *Eucalyptus piperita*, *E. smithii*, *E. fastigata* and *E. viminalis* (OEH, Mount Gibraltar Forest in the Sydney Basin Bioregion- Profile). None of the above listed eucalypts (either as dominants or co-dominants) were recorded within the study area at Oberon. Based on the above factors, it is considered that the Mount Gibraltar Forest in the Sydney Basin Bioregion- (Equivalent) EEC is not present within the study area at Oberon and that the Montane Woodland / MU6-Montane Sheltered Narrow-leaved Peppermint Forest vegetation community present within the study area also does not qualify as Mount Gibraltar Forest in the Sydney Basin Bioregion (Equivalent) EEC.

Therefore, although the above EECs might share a similar or equivalent PCT to the vegetation community present within the study area, the study area's vegetation do not qualify as either of the above EECs in this instance. It is reiterated that DEC (2006) state that Montane Sheltered Narrow-leaved Peppermint Forest is considered a very common vegetation community within the wider locality of the Oberon Plateau area and environs. The elevation the community occupies is between 700m ASL and 1,200m ASL which reflects the altitudinal range of the study area. It is a tall, open, grassy forest with *Eucalyptus radiata* and *Eucalyptus dalrympleana* ssp. *dalrympleana* being the dominant tree species (DEC, 2006). This vegetation community is well protected within the current reserve system (35-55% of the original extent) (DEC Op cit). The above DEC (2006) descriptions of the vegetation community precisely reflects the remaining indigenous vegetation community present within the study area.

Should you have any further queries regarding any aspect of the above, then please do not hesitate to contact me my mobile on 0405 585 557 or email on environmental@ozemail.com.au

Danny O'Brien
Director
Environmental Assessments P/L

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