

Supplementary Submission to the Independent Planning Commission. Significance of Central Hunter Valley Eucalypt Forest and Woodland (CHVEFW) in relation to the proposed United Wambo Open Cut Coal Mine Project (SSD 7142)

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14 February 2019

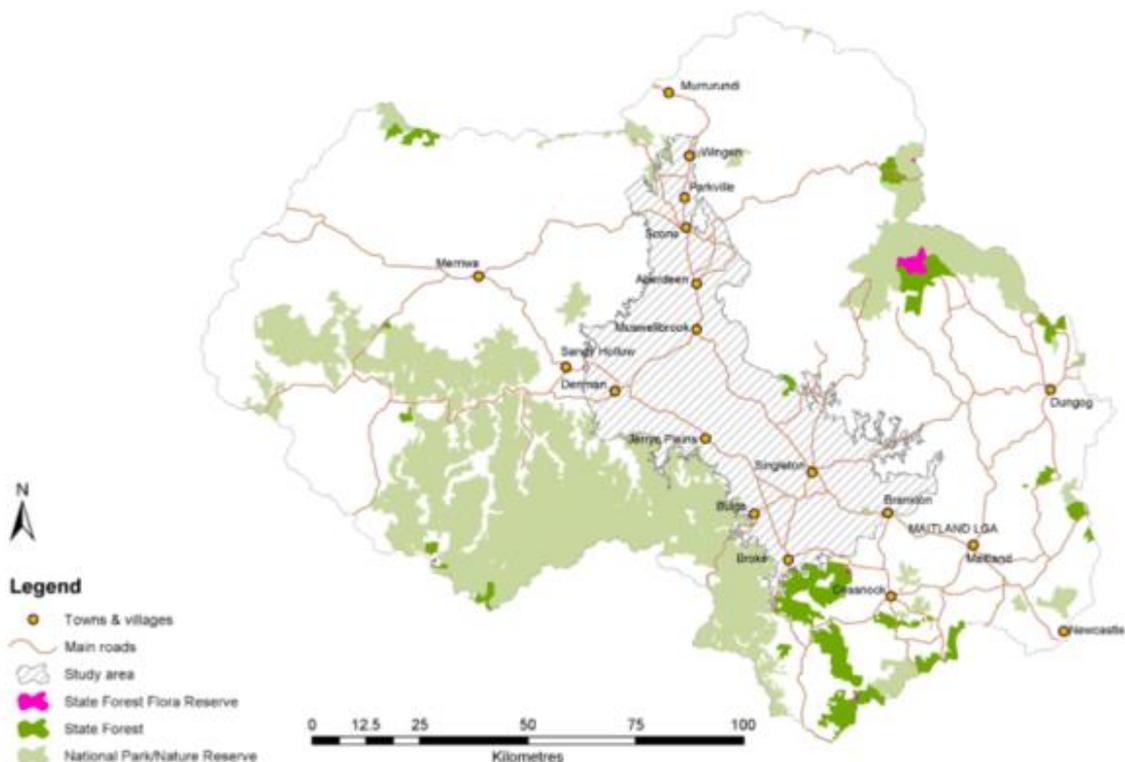


At a meeting held on 5 February 2019 between the Independent Planning Commission (IPC) and independent experts engaged by the Environmental Defenders Office NSW on behalf of the Hunter Environment Lobby to provide advice on the United Wambo Open Cut Coal Mine Project (**Project**) and associated modifications, the IPC requested further information on the current status of the Central Hunter Valley Eucalypt Forest and Woodland (**CHVEFW**). The following information is provided for the IPC's consideration.

Below are some key points regarding the status and significant of the different vegetation communities that fall under the CHVEFW definition (main source: Peake 2006).

1. Overall levels of protection in central Hunter Valley

Only 0.8% (2,600 ha) of the Hunter Valley area is protected (apart from defence lands – a de facto protection). Most areas within national parks lie along the edge of Wollemi and Yengo National Parks across the southern boundary of the Valley and are not representative of lowland communities such as the CHVEFW.



Bell and Russell (1993) stated that 99% of the original valley vegetation has at some point been removed, mainly for agriculture. More recent regrowth has seen this extent of vegetation which is 'similar' to the original cover increase to 13% (Cohn 1994), however much of this is in a poor condition and is 'canopy only' (Peake 2006). Peake identified the following key facts on levels of fragmentation in the valley:

- About 75% of the current valley forest and woodland vegetation has significant levels of regeneration.

- The median remnant size in the valley is 1.6 ha.

2. Extent of component communities of CHVEFW

Central Hunter Ironbark/Grey Box grassy woodland is indicated by Peake (2006) below (blue). The extent has declined since then, with the circled areas showing the location of significant remnants. The Singleton defence lands are dominated by a similar type – Spotted Gum/Grey Box/Ironbark forest (olive) which is also included in the CHVEFW definition. The area of CHVEFW affected by the proposal is ONE OF TWO large remnants (>200ha) left in the valley.

The predominate vegetation types of the CHVEFW using NSW vegetation community types (Peak 2006) are:

- MU 10 Central Hunter Box -Ironbark Woodland (the second most diverse plant community in the valley with 395 species recorded)
- MU 27 Central Hunter Spotted Gum – Ironbark – Grey Box Forest
- MU 24 Hunter Lowlands Red Gum Complex

All are listed as endangered ecological communities under the *Biodiversity Conservation Act 2016*.

- *Central Hunter Grey Box—Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions (corresponding to MU10)*

Peake (2006) mapped the extent of this endangered community in 2006 at over 40,000 ha or 30% of the original extent. The actual extent of this community is now 14,818 ha according to the updated description on the OEH website <https://www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=20126>. Pre-European extent was approximately 146,000 ha, leaving ~10% left. Average patch size is currently about 1-2 ha. Mapped occurrences of the community include 27 remnants greater than 100 ha and more than 1,000 small remnants less than 10 ha indicating a high level of fragmentation (Peake 2006). Mining has significantly diminished the extent of fragmentation of this community since 2006, accounting for over 10,000 ha of CHVEFW (assessed by me through a review of mining approvals in the central Hunter).

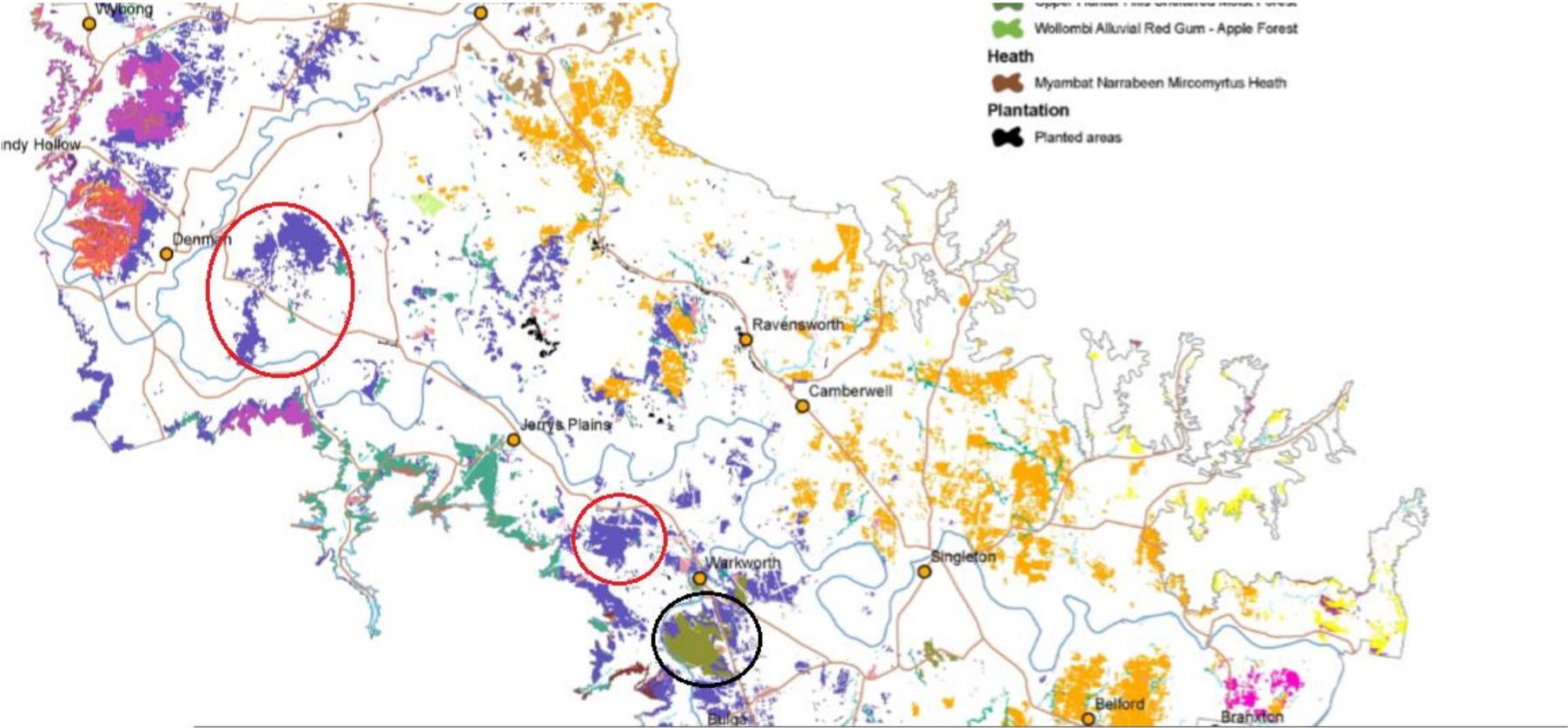
- *Central Hunter Ironbark—Spotted Gum—Grey Box Forest in the New South Wales North Coast and Sydney Basin Bioregions (corresponding to MU27)*

The mapped area of this endangered community is 18,300 ha which is estimated to be 29% of the pre-European distribution (Peake 2006). Mapped occurrences of the community include 34 remnants greater than 100 ha and more than 1000 small remnants less than 10 ha indicating a high level of fragmentation (Peake 2006). Average patch size: 1-2 ha. Largest remnant (>1,000ha) lies within the Singleton Army Base.

- *Hunter Lowland Redgum Forest in the Sydney Basin and New South Wales North Coast Bioregions (corresponding to MU24)*

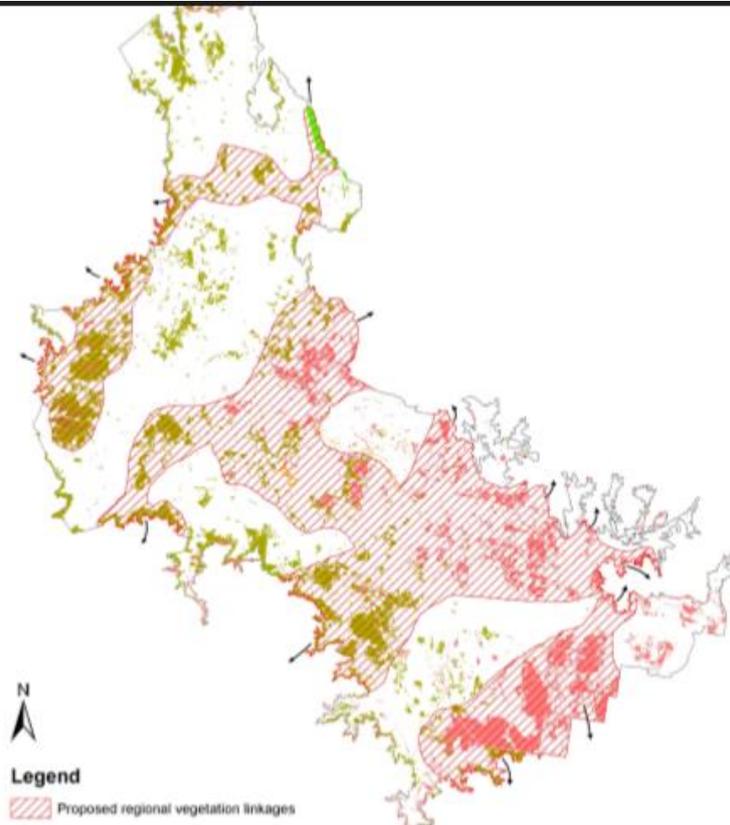
The determination of the Scientific Committee for this endangered community shows that currently, only a small area (less than 2% of total) of the current distribution of Hunter Lowland Redgum Forest in the Sydney Basin and NSW North Coast Bioregions is included in NPWS estate in the Lower Hunter (Wereketa) National Park. The majority of the remainder of the community is not on public land. Much of the pre-1750 extent of the community has been cleared. Only about 27% (less than 500 ha) of the original distribution survives and this is highly fragmented. Although much of the clearing occurred early in European settlement, clearing still continues at a high rate. Between 1988 and 2001 approximately 2,380 ha were approved for clearing (advice from Department of Infrastructure, Planning and Natural Resources August 2001). In addition to clearing and fragmentation other threats include grazing, weed invasion, altered fire frequency and, locally, rubbish dumping.

Map showing extent of CHVEFW communities (from Peake 2006): MU10: Blue; MU 27: Olive; MU13; difficult to discern with very small patch sizes. The two large patches of MU10 are circled in red. The single large patch of MU27 is circled in black (Singleton Army Base). The patch under threat from current mine proposal lies in the middle, between Jerrys Plains and Warkworth. It must be remembered that the remaining extent of these communities has declined, mainly from mining activity.

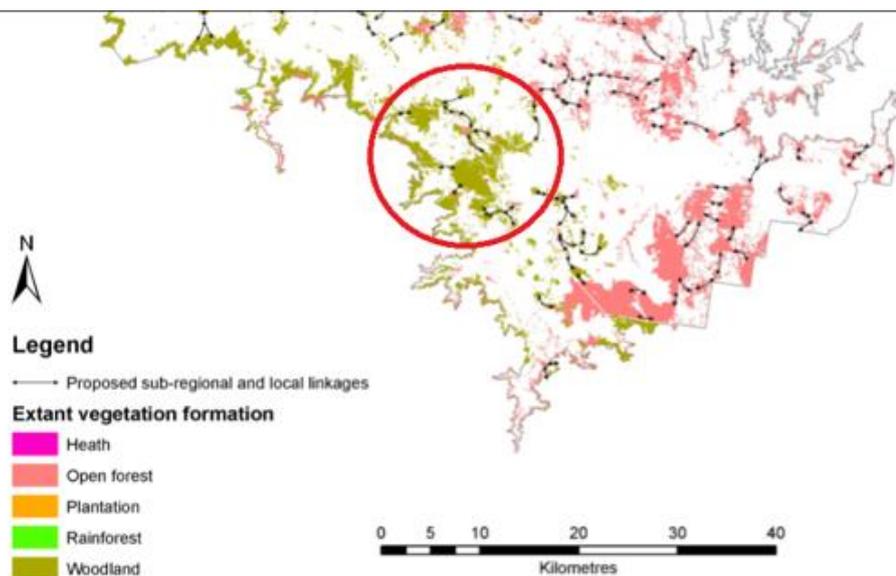


3. Proposed Valley linkages according to Peake (2006)

The Peake study nominated some significant linkages for remnant vegetation in the Hunter Valley. None of this work has been incorporated into existing OEH 'recognised corridors' and does not form part of the Biometric assessment methodology (FBA/BAM). Regional links given below.



The sub-regional linkages identified in Peake 2006 are shown below. Linkages associated with the proposed mine are circled.



References

Bell and Russell 1993. A Brief survey of the vegetation of the Hunter valley floor. Report to NPWS in relation to proposed mining at Ravensworth.

Cohn 1994. Literature Search for the conservation of the natural vegetation remnants of the Hunter Valley floor. Report to Australian Nature Conservation Agency, NPWS.

Peake 2006. The vegetation of the central Hunter Valley of New South Wales. Volume 1 (version 2.2). Report to the Hunter Central Rivers CMA