

20/8/2012

To whom it may concern

The following is a submission which serves to highlight the significant difficulties which will be experienced if a proposal is undertaken to log a portion of the Mount Rae Forest for firewood and undertake a Private Native Forestry Operation (PNF) in the habitat of a nationally listed terrestrial orchid species

General: I regularly visit an 80 ha property at Mt. Rae and have knowledge of 18 individuals on that property. I am aware logging is already underway but a PNF operation may leave these 18, currently protected by an environmental covenant on the property plus the few on a similar neighbouring property, as the last remaining individuals of a previously much greater Mt. Rae population.

I was recently invited to contribute to the OEH Priority Action Statement program and one of the 15 species to which I contributed was *Diuris aequalis* but in light of this proposal I feel my time and that of the OEH staff may well be rendered ineffective.

In 2008 the Upper Lachlan Shire Council (ULSC) refused a similar proposal, however this was rejected by the state government of the day and it seems there is to be no change with the current proposal. In addition to this the ULSC provides no follow-up, control or signage of what conditions have been imposed on current logging operations, mainly for the provision of firewood.

The species: *Diuris aequalis* is a terrestrial orchid species which is listed as Vulnerable under the Commonwealth *Environmental Protection Biodiversity Conservation Act 1999* (EPBC Act) and as Endangered under the New South Wales *Threatened Species Conservation Act 1995* (TSC Act).

Habitat: The habitat range of *D. aequalis* is listed as being from the Blue Mountains (Kanangra-Boyd) to Braidwood from 100-1000 mts. It is highly localised and grows in shallow gravelly soils on slopes and level ground in montane forests, often among coarse grass tussocks. Southern Tablelands Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions has been accepted by the NSW Scientific Committee as an Endangered Ecological Community (EEC) in Part 3 of Schedule 1 of the Act on 28-12-2007 and the property proposed for logging and other surrounding properties where I have located *D. aequalis* match the EEC habitat description.

Populations: *Diuris aequalis* numbers are estimated to be no greater than 200 individuals and are usually seen as such, as this species does not form colonies as per many other species in the genus.

Flowering: The flowering period is from October to November but this varies with existing seasonal conditions and frequently orchids are only seen for brief periods of no greater than two weeks.

Background to proposal: The Mount Rae forest consists of approximately 850 hectares between Taralga and Crookwell in the Upper Lachlan Shire and contains two threatened species listed under the EPBC Act and six listed under the TSC Act. In the Mount Rae forest there are over 170 species of *flora* and *fauna*. The Roslyn Landcare Group has been the recipient of almost \$300,000 which has been spent to establish a network of vegetation corridors to improve the long-term survival prospects of the forest.

During the establishment of the Department of Environment Conservation Climate Change and Water (DECCW) (formerly DEC) a Private Native Forestry operation was approved by managers unfamiliar with the implications of their decisions. This decision was made despite opposition from the previous Threatened Species section of the National Parks and Wildlife Service. Approvals for PNF come with "biodiversity certification" from the minister and as such are exempt from the TSC Act and the Native Vegetation Act.

The Upper Lachlan Shire Council (ULSC) has previously rejected the decision to log this forest for firewood and is one of a few councils which require consent for forestry operations. The ULSC also requested environmental surveys following the failure by the DECCW to request the same. The current Local Environment Plan of the ULSC still insists on surveys for forestry operations. However a proposal initiated by the Farm Forestry Network Group currently before the NSW Parliament may overturn the need for Council consent.

Surveys to date: One targeted survey only has been undertaken for *Diuris aequalis* in the area where logging is proposed. The survey was limited to a single season and this is completely inadequate. Such a very limited and restrictive survey can give a false impression of plant numbers, which vary according to seasonal conditions and as such further surveys must be conducted. If no additional surveys are undertaken how will any person be aware of what environmental values are contained within any section of any forest or area proposed for such a development?

Critical data: *Diuris aequalis* is currently listed as endangered under the TSC Act but indications as to population size and distribution are that it should receive a higher level of protection than currently exists. Fragmentation of populations is significant in that a low number of plants have formal security within a national park or reserve and many exist on private property and road verges.

The logging operation proposed for a section of the Mount Rae forest will have a significant adverse impact on the population as currently exists, irrespective of whether the method of firewood harvesting is selective or random. The NSW Scientific Committee requirements for an Endangered Species nomination is <2,500 mature individuals and <250 mature individuals for a Critically Endangered listing (IUCN Criterion C).

Points which must be considered are:

1. The inadequacy of a one-off survey, which may have missed early or late flowering plants and the problems associated with seasonal conditions at the time, which may not be relative to a good or poor season. To properly survey for *D. aequalis* or any other terrestrial orchid species, only an honest and very detailed survey will suffice. Anything less is insufficient.
2. The property for logging is grazed by stock and shows signs of trampling and wear. These features will result in a loss of general vegetative biodiversity and possibly lead to a dominance of vegetation, which if allowed to become monotypic, could further lead to a suppression of orchid growth, through loss of *mycorrhiza*. A large number of listed terrestrial species have a significant to total reliance on *mycorrhiza* for survival. As no scientific studies have been undertaken to ascertain the precise fungal requirements of *D. aequalis*, any proposal to log its habitat must be considered to be a significant threat to its survival.
3. This and other properties in the Mt. Rae area are also used as recreational facilities for trail bikes and motor vehicles. This will cause great soil surface disintegration and changes to the hydrology of the area, a significant feature of terrestrial orchid loss.
4. The likelihood of the introduction of weeds and pathogens must be seriously considered. *Phytophthora cinnamomi* and *Echium plantagineum* are but two of a number of serious pests which have the ability to destroy a large number of orchids of all types. If the proposal gains approval will there be any requirement for any persons or vehicles accessing the area, to be suitably prepared in necessary preventive hygiene measures?
5. The harvesting of trees for firewood is to be undertaken using a bulldozer and whether the machinery used has rubber tyres or the normal metal treads, the physical damage to the soil surface will be significant. The soil type is shallow and the groundcover easily disrupted by light and heavy machinery, making erosion a distinct possibility from either rain or strong wind.
6. The indicated loss of small shrub species and grasses will result in a loss of pollinator habitat and lead to a slow but certain loss of orchid numbers. The precise pollinator is unknown, indications of a native bee or hoverfly are imprecise and the risk of the loss of a most important feature of the lifestyle of *D. aequalis* must not be left to chance. These shrubs in the *Fabaceae* genus act as a mimic for the orchid pollinator and if destroyed through the logging process will result in no pollinator activity and no orchid pollination.
7. Estimation of the overall population of *D. aequalis* is not possible as no access is permitted to the site proposed for firewood logging. However, two sites known to contain *D. aequalis* situated to the north and south of the logging site have been investigated and both contain approximately six plants. As the total population of *D. aequalis* is estimated to be approximately 200 individuals it is significant to mention these plants are spread over an

area approximately 200 km apart in a direct line. Therefore the population density must be regarded as extremely light.

8. Within the EPA Draft PNF document I note the intention to provide an exclusion zone of 50 metres around any endangered flora species, however if this is enacted as it should be, then logging will be, as it should, excluded from any area inhabited by threatened flora.

Conclusions: I note the proposal for a PNF operation specifically mentions the need to log the forest but no mention of replanting can be found in the development application.

The statement that *D. aequalis* will benefit from opening of the forest canopy by allowing a greater degree of light on to the forest floor is incorrect and the scientific advice which led to this statement is easily refuted by the fact that *D. aequalis* has survived for millennia without the interference and artificial aid of humankind. It is pertinent to note the occurrence of *D. aequalis* is limited to areas of natural existing forest on the two properties to the north and south of the property proposed for logging. Few plants have been located on road verges or open areas as is the case with numerous other orchid species but these are subject to the inadequacies of local council controls. Opening the forest canopy to a greater degree of light will only result in weed invasion (E.g. stinging nettles & lantana), as has been proved to be the case in most operations of this type in Australia for over 100 years. This fact is further evidenced by the need for governments across Australia to spend approximately five billion dollars per annum in an effort to control (not rid) our country of the myriad of *flora* and *fauna* pests, some of which have been introduced as sport. A few of these are rabbits, foxes, Bitou Bush, Lantana and Cane Toads. Many of these introduced pests have already led to the demise of many species of native *flora* and *fauna*.

If the practise of canopy opening was a proven fact, forests across Australia would be subject to a policy of manual adjustment to improve the conditions for all manner of orchids and other terrestrial species. However, as this is not the case and is also not the policy of the federal government or any state government, I suggest it should not be introduced into the proposal to log an Endangered Ecological Community for the purposes of a commercial firewood industry. Not only will the logging operation seriously threaten the existence of *D. aequalis* but many other orchid species. One of these is the recently named *Stegostyla moschata* (*The Orchadian* June 2008, Vol 15 No 12), once considered conspecific with *S. cucullata*. Much of the remaining forested areas in NSW exist on slopes as steep as 18°-30° and this fact alone must be alarming in terms of erosion and the likelihood of contamination of waterways, considered so precious in these times of Climate Change and water shortages. These forests must not be recognised as degraded remnants but as forests of great conservation significance.

“The object of this Private Native Forestry Code of Practice (the code) is to ensure that a regular supply of timber products can be maintained indefinitely for present and future generations from privately owned forests and Crown land that is not Crown-timber land within the meaning of the Forestry Act 1916, while at the same time maintaining non-wood values at or above target levels considered necessary by society to prevent environmental harm and provide environmental services for the common good.”

The above paragraph is the introduction to the EPA Draft Private Native Forestry Code of Practice but if the process continues as is, then any hope of either preventing harm or providing environmental services for the common good will be lost.

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