

To whom it may concern

SSD-14082938

Lot 2 DP 809106 Arizona
Road, Charmhaven

prelude – I personally found *Angophora inopina* and worked with Ken Hill, RBGS to describe and publish it. I then had it state listed as vulnerable. Currently there is an application to the NSW Scientific committee for upgrading due to major loss of the species in recent illegal clearing, and in approved developments in Central Coast and Lake Macquarie LGA's.

I personally found *Genoplesium insigne*, worked with ORG / CSIRO to have it described, then I listed it fed and state as critical.

I personally found *Corunastylis* sp charmhaven, now published as *Corunastylis branwhiteorum*, and listed it as critical. I have over 30 yrs experience on that proposed development land.

This land contains the last *E. haemastoma* scribbly gum forested community in the shire, the threatened *Angophora inopina*, critically endangered orchids and Swift Parrots and Regent Honeyeaters (both threatened) have been seen feeding on trees (swamp mahoganies) in the land. It's also the only *haemastoma inopina* bloodwood forest in the world. It has the criteria to be nominated to the NSW scientific committee as an endangered ecological community.

The area is home to many endangered species such as critically listed *Genoplesium insignis* [red listed] [my find] and *Corunastylis Branwhiteorum*, critically endangered [my find], and is highly likely to contain *Patersonia rosea*, [my find], a new species currently under the precautionary principle, nominated for critically endangered with the NSW Scientific committee. This property contains the largest concentration of *Genoplesium ruppia* (a rare plant) in the shire, possibly in the state, and eligible for listing.

This area is the last major green forest area in Charmhaven. It lies between Chelmsford Road and Wallarah creek. Platypuses have been seen in Wallarah creek. Sea eagles have been seen roosting in there. If rezoning is allowed for this school, then there is an adjoining 100 acre property waiting on the rezoning so that they can put in houses. If both of these developments are approved, there would be essentially no environmental buffer zone at Charmhaven.

Additionally, a new school in Charmhaven would lead to increased traffic volumes on Pacific Highway, and Sparks Road. These roads already become congested during school times, and a new school at Charmhaven would not help the issue.

The dale part is nonsensical, being that the school will be located right next to an emergency helipad - noise from regular use of the refuelling and training depot is not a suitable environment for dale schools. We have been in there whilst the rescue helicopter was doing training, and it was so noisy we had to leave. There would be no way of avoiding noise in the classrooms. The study linked below goes through the effects of noise on children and schools. Further study required.
[precautionary principle]

<https://pubmed.ncbi.nlm.nih.gov/26897139/>

I have been in there whilst training exercises were happening - the noise covers the whole site - I had to leave due to decibels [pers ob]- it's a training depot and during training the chopper can hover for extended periods of time, doing rope stretcher removal etc - noise levels during these training exercises is excessive. I am not sure how far from the bushfire brigade site that the P.F.A.S.

contamination has effected, but I have seen foam on the proposed building site from wind blown overflow.

During the late 90s and early 2000s, the site was being used by car thieves and regular car fires caused the bushfire brigade to put an access gate on the eastern fenceline of the depot. This saved driving almost a kilometer to gain access to the site via Depot rd, allowing faster access to the fire. When this gate and track were put in, the roadfill was applied over a population of about 20 *Genoplesium insigne*. [pers ob] They did not recover.

I have seen foam on some of these burnt out wrecks when assessing orchid and inopina damage by the resulting fires. [pers ob]

This paper analyses the treatment of ESD in New South Wales legislation and in the more significant Australian cases, and briefly traces the background of its evolution in international and national instruments

ECOLOGICALLY SUSTAINABLE DEVELOPMENT IN NEW SOUTH WALES

Justice Peter Biscoe,

Judge of the Land and Environment Court of New South Wales.

Discussion on precautionary principle

https://www.leg.nsw.gov.au/documents/speeches-and-papers/biscoe_esdns.pdf?fbclid=IwAR1Rkrx60hEgFt61looqOhtOjVeHkFjPIFx56xiTTyqE7AkMpwhqItDQe1A

The precautionary principle is important with this proposal

Wendy Grimm, Dr Peter Bernhardt, Dr Ren did a *Genoplesium* study on a major *G. ruppii* population on the site in 2016.

This population is thought to be the largest in NSW. This population appears to fulfill the qualifications for an endangered population. [precautionary principle]

One population of *Genoplesium insigne* is known to remain on the site. [pers ob] [found by ANOS conservation officer] The site has never had an official survey for this critically endangered species. Nearby properties contain this species, and two populations have been located on the site, one deceased. A dedicated survey for this species is required. [precautionary principle]

Two populations of *Corunastylis branwhiteorum* [critically endangered] are known on the site. [pers ob]. The site has never had an official survey for this critically endangered species. Nearby properties contain this species,. A dedicated survey for this species is required. [precautionary principle]

Species nova *Patersonia rosea* has been located on an adjoining property. It is under nomination with the NSW scientific committee for critically endangered status. No survey has been done on this property for this new species. [precautionary principle]
publication link below.

file:///C:/Users/user/Downloads/6474201c9e73b-2.pdf

Terrestrial orchids on this site include:

- Arrthrochilus prolixus
- Caladenia catenata
- Caladenia var warnervalensis undescribed [precautionary principle]
- Caladenia alata
- Calochilus robertsonii
- Calochilus aff campestris csiro working on dna determination for this species. [precautionary principle]
- Corunastylis branwhiteorum critically endangered [precautionary principle]
- Leafless Tongue Orchid (Cryptostylis hunteriana)
- Cryptostylis erecta
- Cryptostylis subulata
- Diuris aurea
- Diuris aff alba dna being done, possible new species. [precautionary principle]
- Genoplesium [Corunastylis] insigne critically endangered nsw and federal [precautionary principle]
- Genoplesium fimbriatum
- Thelymitra ixioides
- Thelymitra carnea
- Thelymitra parviflora
- Thelymitra truncata
- Thelymitra atrax
- Thelymitra sp yellowtop undescribed/undetermined [precautionary principle]
- Prasopphyllum elatum

This is a significant Terrestrial orchid site and under Central Coast Council development regulations, a dedicated orchid survey is required.

Terrestrial orchids found on neighbouring properties include:

- Thelymitra branwhitei unpublished species nova, will be nominated for critically endangered once data and dna is complete [precautionary principle]
- Prassopphyllum brevillabre
- Genoplesium insigne critically endangered [precautionary principle]
- Corunastylis branwhiteorum critically endangered [precautionary principle]
- Chiloglottis formicifera

Other threatened plants on neighbouring properties include:

- Grevillia parviflora var parviflora [precautionary principle]
- Wyong daisy, Rutidosis heterogama [vulnerable] is found on the property.[pers ob]

comments on development application

Appendix G 18 fails to mention results of decibel levels on the site during emergency services helicopter practice and general noise of refuelling missions to the depot.

Appendix 14

2.1.7 much of the area is of outstanding biodiversity value.

Table 2 Kincumber scribbly gum is a different species – *racemosa*, not *haemastoma* like this remnant forest type.

VZ5 Orchid rich in undisturbed areas, including *Genoplesium insigne* [pers obs], *inopina* is not isolated but throughout the community.

Table 6 *Corunastylis* [sp charmhaven] *branwhiteorum* – 2 populations have been located on site [pers obs], *Rutidosia heterogamma* is on the site, [pers obs], *Uperoleia mahonyi* has been heard on the site [pers obs].

5.4 flora survey – there is a historical record on the site for *Cryptostylis hunteriana* [Dr Col Bower, John Riley] – a few yrs ago an ecological consultant friend told me he was with his family, pulled up at Kams Restaurant [pacific hwy] for food, ducked across the road to relieve himself and nearly urinated on *C.hunteriana* just outside the property on the Pacific Hwy side.

Table 7 too short a survey window for orchids, they do not flower every year, are notoriously difficult to identify by leaf, flowering at variable times and tend to flower 6 weeks after rain.

6.5 vehicle strikes – during the 2000 fires, road kill on pacific hwy was excessive. Reduction of established habitat by clearing is likely to produce more road kill.

7 Threatened Species – any *inopina* removal is significant due to reduced numbers within its overall population – over 200 acres have been recently illegally cleared. The *inopina* footprint on this block is significant and should not be added to further ecocidal activity.

EPBC likelihood of occurrence – *Corunastylis branwhiteorum*, *Cryptostylis hunteriana*, *Genoplesium insigne* and *Rutidosia heterogamma* are not unlikely to be on the site, they definitely are.

The terrestrial orchid part of the survey has not been efficient enough to portray an accurate assessment of the sites orchidacea, and should be conducted by expert terrestrial orchid consultants.

Submission by b branwhite
wyong terrestrial orchid research
pob 115 toukley 2263
bbtemp2009@yahoo.com.au