

To the General Manager,

I wish to provide submissions in relation to the Planning Proposal Application PP0004/13, and in particular the part of the proposal concerning Sector 5 (as noted in the Application, now known as Sector 501). This proposal intends to increase the density of housing on Sector 5 from 25 dwellings per hectare to 32 dwellings per hectare, and the amendment to Clause 30C of the *Pittwater Local Environmental Plan 1993* as quoted from the Application: “Sector 5 – not more than ~~75~~ 94 or less than ~~65~~ 75 dwellings”.

I would like to note that had I been aware of the rezoning application for Sector 5 lodged several years ago and the original intention for residential development I would have put in submissions regarding those; I was not in a position to do so at the time, however I wish to have my objection noted to even more development being accepted. It has also only been brought to my attention that this proposal was intended from an advertisement provided a week before submissions close, and I have done my best to provide succinct submissions.

I am in a unique position as I am one of the tenants of a house currently situated on Sector 5, in particular on the property known as 8 Forest Road (and also Lot 1 Jubilee Avenue), and have been so for more than two years. As such I have knowledge and awareness of the unusual and, in my view, importance of this section of land. I believe, despite already being partially cleared, it is part of an essential habitat for local native flora and fauna, and should in fact be thoroughly investigated by appropriately trained independent ecological consultants. Living on this property has shown me that there is wildlife found here that is not found in a lot of areas around Sydney and other areas of Australia.

The Border

Firstly, Sector 5 borders on a section of bush which follows down from the Warriewood/Ingleside Escarpment, an environmentally significant reserve owned by Pittwater Council. This reserve is classed as “Environmental Protection A”¹. Although the bushland which is part of the property known as 8 Forest Road does not form part of Sector 5, it does form part of the Escarpment and as Sector 5 borders on this bushland, the border is not a point where wildlife suddenly stops, it does in fact utilise Sector 5 as habitat. I have compiled a table (Appendix 1) which contains a list of species of fauna observed by the occupants of Sector 5, including myself. Each species has been seen on Sector 5 itself and/or on the bush verge. There are also species which have been observed but which could not be correctly named. The table provides an example of the biodiversity present observed in this small area, and I would suggest that if this high number of species is seen here, there are many more which are not immediately obvious.

It is stated in the Plan of Management – Warriewood/Ingleside Escarpment (North) at page 39, in relation to the map on page 38 (Appendix 2) that:-

The categorisation of the greater majority of the Warriewood/Ingleside Escarpment as “Natural Area”, and the further categorisation of these Natural Areas as “Bushland” and “Watercourse” sets the core objectives for the reserve’s management, and subsequent formulation of this (draft) plan of management. The two small areas categorised as “General Community Use” (in vicinity of the car park in Ingleside Park and part of the existing cleared area on the ridge to the north west of the Mater Maria Catholic College site) are also necessary to improve the functionality of the total reserve area.

My submission here would be that if there are cleared areas bordering the Escarpment which are “*necessary to improve the functionality of the total reserve area*”, then indeed a bigger area which is also cleared has similar importance. As the Escarpment is classified as either a “*Natural Area ... bushland ... watercourse*” with management objectives under the *Local Government Act 1993* (as amended), I believe these must also be applied to the land which surrounds the reserve. Developing houses on Sector 5 will limit the areas utilised by the current flora and fauna. Adding yet more houses to this area will reduce it further.

To put it another way, Sector 5 has been classified under the Warriewood Valley Strategic Review Report 2012 as having ‘more’ (8 Forest Road) and ‘moderate’ (4 Forest Road) land capabilities (pages 35 and 36), the whole of Sector 5 immediately abuts onto a large section which has the ‘least’ land capability (the Escarpment). This Review also states 8 Forest Road is classed as ‘Biodiversity B’, and abuts onto an area of land which is ‘Biodiversity C’, being the highest order of ecological significance, containing endangered and vulnerable communities (page 111). I would put to you that a section of land cannot adjoin such a significantly environmentally important area and not have some relation and importance to that area, as I believe the relationship Sector 5 has to the Escarpment. Indeed, the Council has stated in ‘Habitat and Wildlife Corridors – A Conservation Strategy’ that:

“Development controls need to be adopted to conserve habitat values in Warriewood/Ingleside release area ... Large subdivisions or release areas require detailed fauna conservation planning within the site and to cater for movement to and from surrounding habitat.”

Flora and Fauna

The *Threatened Species Conservation Act 1995* promotes “*ecologically sustainable development*” and to make sure that the “*impact of any action affecting threatened species populations and ecological communities is properly assessed*”. It is stated in many reports on the Warriewood/Ingleside Escarpment that a complete and comprehensive list of flora and fauna present has not been achieved. It has been estimated that over 150 bird species are present¹, and since there are 252 bird species in total in Pittwater² this is highly

significant. From just my observations, I have noted four bird species and a mammal species which is listed by Pittwater Council² as 'locally and regionally significant fauna species' (see Appendix 3). Other species noted in Appendix 1 could now probably be added to this list. In total 60 bird species have been spotted by myself or other residents in or on the border of Sector 5. Also noted is the more than 300 indigenous plant species which have been identified, being greater species diversity than any other remnant bushland in Pittwater¹.

I believe the biodiversity needs to be *properly assessed* as to whether increasing housing density in Sector 5 would impact on the immediate area; particularly bird species as they have a greater range. One of the most significant is the Powerful Owl (a vulnerable species under the Threatened Species Conservation Act) which I have heard calling near the house I live in on Sector 5. This was raised as a submission regarding Sector 5 in the Draft Warriewood Valley Strategic Review, and the response was *"that this area is not considered to be the core habitat for the Powerful Owl species, as a large area of core habitat occurs to the west on the escarpment in Ingleside Park/Warriewood Escarpment (owned by Council)"*. However it was also stated in the final report that this impact would have to again be addressed if it was recommended that the housing density be increased in Sector 5. As increased housing density is now proposed, the impact here must be reassessed.

Finally, in the report compiled by Planning Overload Pty Limited entitled "Statement of Environmental Effects – Development Application to Pittwater Council for Subdivision and Re-zoning of Sector 5 – Warriewood Valley Land Release" prepared in January 2005, there is an alarming statement at page 3 from so-called specialists made regarding the status of Sector 5 as follows:

"Fauna evidence was scarce and apart from small birds, there are no significant signs of native animal activity in this area."

I beg to differ.

Effects of a Larger Number of People

Allowing more houses to be developed in Sector 5 will increase the chances of negative threatening processes to take place as outlined in Appendix 4 – "Key Threatening Processes", *Threatened Species Conservation Act 1995*. Of particular concern are the following:

Domestic and feral cats and dogs accessing the Escarpment

Already I have seen a number of different cats straying over the land making up Sector 5 and into the bush during day and night. There are also two brown Kelpie dogs who at regular intervals run unrestricted through the Escarpment and can be heard barking from all areas, occasionally entering the verge of Sector 5. I have seen Swamp Wallabies hurtling

out of the bush in fear from being chased by one of these dogs. Further, recently an occupant from bordering Bert Close development decided they tired of their pet rabbit, and simply let it out to forage for itself in Sector 5. This rabbit has turned out to be a female, not desexed, and has since bred. I submit that more people means more pets to destroy the wildlife in the Escarpment.

More weeds establishing in the Escarpment

Currently there are several areas of weed infestation in the Escarpment, with over 40 species of introduced plants. With more people living on Sector 5, more introduced species will find their way into the Escarpment by human carriers, domestic pet carriers, wind, and water run off. This will add to the weed problem.

Higher frequency fire

With more people comes the need to reduce the fire risk, and hence the Escarpment will be subject to more controlled burn offs. In 2012 we experienced a hazard reduction burn which was the first time the Escarpment had any fire whatsoever since the 1994 bushfires. If this is to suddenly increase, it will mean a loss of biodiversity, as the rate of fires will be more than the natural rate of one every 30 to 100 years.

In addition, there are the following concerns from an increase in housing:-

- More rubbish finding its way to the Escarpment.
- Water use increase and/or pollutants in the creek which runs through Sector 5.
- The possibility of further Aboriginal cultural sites existing in or near Sector 5. There already exist many important sites in and around the Escarpment, and it has been stated that there may have been Aboriginal camps at the base of the Escarpment¹.
- The increase in road kill with an increase in traffic along both Jubilee Avenue and Forest Road. I have seen along Jubilee Avenue various animals having been run over, including Maned Ducks and Brush Tail Possums (including those with young still in the pouch which had not been removed). Although currently not frequent, I would submit that this number would increase with more people using these routes, particularly as public transport is very limited in this area (and as noted in the Council's Proposal PP0004/13 the Department of Health recommends more public transport be established if there is an increase in dwelling density).

I hope the Council will read and consider my submissions carefully. I believe allowing more people to live in Sector 5 will be detrimental to the biodiversity and environment existing in the Warriewood/Ingleside Escarpment which also utilises Sector 5 and the border Sector 5 has with the Escarpment. **Sector 5 is a kind of corridor and buffer between suburban built**

up areas and the bush as it currently exists, and should be protected as much as possible, or even enhanced with further native plantings.

Should any further clarification or discussion be required I am more than happy to be contacted regarding same; my details are included on the page following.

Thank you.



Kristin Zindel

¹ Plan of Management – Warriewood/Ingleside Escarpment (North) - Pittwater Council April 2005 (Gondwana Consulting)

²Habitat and Wildlife Corridors – A Conservation Strategy – Pittwater Council – December 1995

Contact Details

Kristin Zindel
8 Forest Road
Warriewood NSW 2106

Or for Australia Post:
Lot 1 Jubilee Ave
Warriewood NSW 2106

Ph: 0410 687 109

E-mail: kristin_zindel@hotmail.com

Appendix 1

Species	Evidence: Photo (P) Video (V) Heard (H) Seen (S)	Utilising Sector 5 as Habitat? Y – yes N – no	Comments
Birds			
Superb Lyrebird	S, H, P	Y	Seen foraging for food along bush line and in trees along edge of Sector 5. Very frightened of human contact, would retreat further into bush if more humans present
Pheasant Coucal	S, H	Y	Seen foraging in patches of bush along edges and in centre of Sector 5
Powerful Owl	H	Y	Calling for mates at night; remnants of gutted possums found under trees on Sector 5
Brown Goshawk	S, H	Y	Pair nested in 2011 in trees along edge of Sector 5 and hunted for food in Sector 5 cleared land
Black Falcon	S	Y	Seen circling looking for food in Sector 5
Peregrine Falcon	S	Y	Seen circling looking for food in Sector 5
White-bellied Sea Eagle	S	Y	Seen circling looking for food in Sector 5
Grey Heron	S, P	Y	Stalking through grasses in open ground on Sector 5 hunting and seen striking at food
Sacred Kingfisher	S, P	Y	Pair nesting and hunting in hollow trees along edge of Escarpment on Sector 5; utilising existing structures as lookout points
Pacific Heron	S, P	Y	Stalking through grasses in open ground on Sector 5 hunting and seen striking at food
Buff-banded Rail	S	Y	Seen with young chicks near road way through and leading up to Sector 5 and crossing same; would be vulnerable to increased traffic

Maned Duck	S, H, P	Y	Pairs seen nesting in trees along bush line and feeding in grass of Sector 5
Pacific Black Duck	S	Y	Seen foraging for food
Whistling Kite	S	Y	Seen circling looking for food in Sector 5
Black Shouldered Kite	S	Y	Seen circling looking for food in Sector 5
Eastern Yellow Robin	S, H, P	Y	Prolific throughout Sector 5; nesting and feeding
Brush Turkey	S, H, P, V	Y	Prolific throughout Sector 5; nesting and feeding. Nest mounds have been found short distances into the edge of the bush and chicks have been seen along bush line
Superb Fairy Wren	S, H,	Y	Prolific throughout Sector 5; nesting and feeding
Firetail Finch	S, H, P	Y	Prolific throughout Sector 5; nesting and feeding
Rufous Fantail	S, H, P	Y	Seen nearer to bush line
Grey Fantail	S, H, P	Y	Seen nearer to bush line
Welcome Swallow	S	Y	Often seen sitting on wires in Sector 5 and large flocks swooping over open spaces for insects
Kookaburra	S, H, P	Y	Seen nesting and interacting, strong presence
Black-faced Cuckoo Shrike	S, H	Y	Seen in trees along edge of bush
Shining Bronze Cuckoo	S, H	Y	Rather elusive, seen several times in trees on property
Fan-tailed Cuckoo	S, H	Y	Constant caller from all over edge of bush and further in bushland, seen in trees on edge

Magpie	S, H, P	Y	Constantly foraging with and without juveniles in open spaces
White-browed Scrubwren	S, H	Y	Prolific throughout Sector 5; nesting and feeding
Spotted Pardalote	S, H, P	Y	Seen nesting in crevices in large sandstone rock and in vegetation on Sector 5
Silvereye	S, H, P	Y	Seen foraging although less common than other small birds
Willie Wagtail	S, H, P	Y	Prolific population all over Sector 5 utilising all areas
Olive-backed Oreole	S, P	Y	Seen coming to water sources over extreme heat days
Pied Currawong	S, H	Y	Fairly shy, do not like to fly over open areas, seen moving through trees along edge of Sector 5, feed on existing fig trees
Spangled Drongo	S, H, P	Y	Seen high in trees and occasionally further out from bush line
Galah	S, H	Y	As with other parrots seen in trees and foraging on open spaces
Brown Cuckoo Dove	S, H, P	Y	Rather elusive, seen several times in trees on property
Sulphur Crested Cockatoo	S, H, P	Y	Consistently present all over Sector 5, especially in trees and foraging on open spaces
Eastern Rosella	S, H	Y	Quieter than other parrots but seen in pairs or singly in tree canopies
King Parrot	S, H	Y	Seen/heard on a regular basis from edge of bushland in tree canopy
Mud Lark	S	Y	Often seen in pairs in various areas throughout Sector 5
Masked Lapwing	S	Y	Seen in pairs in various areas throughout Sector 5

Eastern Whipbird	S, H, P	Y	Abundant in vegetation along edges of Sector 5
Red Wattle Bird	S, H	Y	Feeding on native shrubs/trees and nesting
Lewin's Honeyeater	S, H, P	Y	Constant presence feeding on vegetation in Sector 5
Eastern Spinebill	S, H, P	Y	Feed on flowering native plants
New Holland Honeyeater	S, H	Y	Feed on surrounding native Banksia species within Sector 5
Brown Quail	S	Y	Seen with chicks in low lying vegetation and travelling through cleared areas in Sector 5
Golden Whistler	S, H	Y	Seen and heard regularly in tall shrubs and trees on bush edge
Dollarbird	S, H	Y	Seen and heard in high branches in trees on edge
Australian Owlet Nightjar	S	Y	Seen hunting native moths around existing buildings on Sector 5
Channel Billed Cuckoo	S, H	Y	Migratory bird coming to Escarpment to breed and feed on fruiting trees and shrubs of Sector 5
Common Koel	S, H	Y	Heard day and night in surrounding bush
Yellow Tailed Black Cockatoo	S, H	Y	Seen in trees on edge of Sector 5
Glossy Black Cockatoo	S, H	Y	Seen in trees on edge of Sector 5
Crested Pigeon	S, H, P	Y	Utilise various different areas of Sector 5, cleared land and bush
Southern Boobook	S	Y	Heard calling at night in bush on edge of Sector 5

Musk Lorikeet	S, H	Y	Seen in high canopies in bush on edge of Sector 5
Rainbow Lorikeet	S, H	Y	In fewer numbers than generally found; nesting in hollows in trees
Little Corella	S, H	Y	Foraging for food in the cleared areas of Sector 5
Wonga Pigeon	S, H, P	Y	Often heard calling and seen around existing dwellings; very frightened of humans and an increase in human population would reduce its habitat
Reptiles			
Diamond Python	S, P, V	Y	Prolific, seen living in and around structures on Sector 5 and hunting/travelling across cleared areas and trees
Red Bellied Black Snake	S	Y	Seen living in and around bush on Sector 5 and hunting/travelling across cleared areas and trees
Brown Tree Snake	S, P	Y	Seen in trees surrounding Sector 5
Green Tree Snake	S, P	Y	Common around existing structures, trees and ground in Sector 5
Eastern Water Skink	S, P	Y	Seen throughout Sector 5 in a variation of habitats including fallen logs and rock faces, prefer damp areas
Heath Goanna	S	Y	Seen on Sector 5 and more wary of humans than the more common Lace Monitors, climbing trees to retreat
Lace Monitor	S, P	Y	Seen around existing structures, frequently looking for food in and around Sector 5
Southern Leaf Tailed Gecko	S, P	Y	Present in existing structures and surrounds of Sector 5
Eastern Water Dragon	S, P	Y	The various streams running through Sector 5 are populated by many Dragons which hunt nearby to these

Invertebrates			
Insects			
Spiders			
Bull Ant	S	Y	Nests seen in several places throughout Sector 5
Huntsman Spider (different species acc to markings)	S	Y	Very prolific in and around existing structures, wood and bush
Brown Stag Beetle	S, P	Y	Found in rotting vegetation in and around Sector 5
Blue Ant (Flower Wasp)	S	Y	Terrestrial species found in and around Sector 5
Australian Brown Scorpion	S, P	Y	Seen in rocky and woody areas in Sector 5
Red-black Spider	S, P	Y	Seen in various spaces throughout Sector 5
Longicorn Beetle	S, P	Y	In vegetation throughout Sector 5
Hawk moths (various sp)	S, P	Y	Prolific, seen around existing vegetation and structures
Common Brown Butterfly	S, P	Y	Utilises vegetation in and around Sector 5
White Stemmed Gum Moth	S	Y	Seen around trees on edge of Sector 5, cocoons seen on existing structures
Mud Wasp	S	Y	Seen nesting on existing structures in Sector 5
Paper Wasp	S	Y	Seen nesting on existing structures in Sector 5

Marsupials and Other Vertebrates			
Echidna	S, P, V	Y	Seen to be utilising vegetation pile in middle of field as a burrow and travelling through open areas of Sector 5
Brush Tail Possum	S, H	Y	Seen in trees and around structures in Sector 5
Ring Tailed Possum	S	Y	Seen in trees and around structures in Sector 5
Swamp Wallaby	S, P, V	Y	Extremely prolific, daily utilise open fields in Sector 5 for feeding, often seen with joeys in pouch, can be seen in large groups (contrary to references of being solitary)
Long-nosed Bandicoot	S	Y	Signs of digging constantly seen throughout Sector 5, can be seen at night
Small size black bats (species unknown)	S	Y	Seen in structures on Sector 5
Flying Fox	S, H	Y	Utilise existing fig trees for feeding
Platypus	S		Unconfirmed sighting in creek bordering property

Appendix 2



APPENDIX 3: LOCALLY AND REGIONALLY SIGNIFICANT FAUNA SPECIES

Species	Habitat	Significance
Amphibia		
Brown Tree Frog	Wetlands	North limit of range
Birds		
Brush Turkey	Rainforest	Southern limit of range
Brown Goshawk	Forest/Woodland	Coastal restriction
Lewins Rail	Swamps, lagoons	Uncommon
Whimbrel	Estuaries, coastal grassland	Southern part of range
Wandering Tattler	Mudflats, rocky shores	Uncommon
Red-rumped Parrot	Grassland	Coastal population declining
Pheasant Coucal	Coastal areas	Near southern limit of range
Noisy Pitta	Rainforest	Near southern limit of range
White-bellied Cuckoo-shrike	Woodland	Uncommon, near southern limit of range
Logrunner	Rainforest	Restricted to rainforest
Tawny Grassbird	Grassland, Heath, Swamp	Uncommon, near southern limit of range
Origma	Sydney sandstone	Restricted to Sydney sandstone
Brown Honeyeater	Forest, Woodland, Heath	Near southern limit of range
Black-chinned Honeyeater		
Crescent Honeyeater	Dense, wet forest	Near northern limit of range
Chestnut-breasted Mannikin	Wet grassland, Reeds	Southern limit of range
White-winged Chough	Woodland, Scrub	Extreme range reduction in Sydney area
Pied Butcherbird	Woodland	Uncommon on coast
Regent Bowerbird	Rainforest	Southern limit of range
Superb Lyrebird	Rainforest Forest	Population declining
Mammals		
Yellow-footed Antechinus	Most	Regionally uncommon
Long-nosed Bandicoot	Scrubby understorey in woodland and forest	Drastic decline in population around Sydney

Species observed from above list:

Brush Turkey
 Brown Goshawk
 Pheasant Coucal
 Superb Lyrebird – **NOTE: Stated population is in decline**
 Long-nosed Bandicoot

APPENDIX 4

*** Those highlighted in grey are applicable to Sector 5*

THREATENED SPECIES CONSERVATION ACT 1995 - SCHEDULE 3

SCHEDULE 3 – Key threatening processes

(Section 8)

Alteration of habitat following subsidence due to longwall mining

Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands (as described in the final determination of the Scientific Committee to list the threatening process)

Anthropogenic Climate Change

Bushrock removal (as described in the final determination of the Scientific Committee to list the threatening process)

Clearing of native vegetation (as defined and described in the final determination of the Scientific Committee to list the key threatening process)

Competition and grazing by the feral European Rabbit, *Oryctolagus cuniculus* (L.)

Competition and habitat degradation by Feral Goats, *Capra hircus* Linnaeus 1758

Competition from feral honey bees, *Apis mellifera* L.

Death or injury to marine species following capture in shark control programs on ocean beaches (as described in the final determination of the Scientific Committee to list the key threatening process)

Entanglement in or ingestion of anthropogenic debris in marine and estuarine environments (as described in the final determination of the Scientific Committee to list the key threatening process)

Forest eucalypt dieback associated with over-abundant psyllids and Bell Miners

Herbivory and environmental degradation caused by feral deer

High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition

Importation of Red Imported Fire Ants *Solenopsis invicta* Buren 1972

Infection by Psittacine Circoviral (beak and feather) Disease affecting endangered psittacine species and populations

Infection of frogs by amphibian chytrid causing the disease chytridiomycosis

Infection of native plants by *Phytophthora cinnamomi*

Introduction and establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae

Introduction of the Large Earth Bumblebee *Bombus terrestris* (L.)

Invasion and establishment of exotic vines and scramblers

Invasion and establishment of Scotch Broom (*Cytisus scoparius*)

Invasion and establishment of the Cane Toad (*Bufo marinus*)

Invasion, establishment and spread of Lantana (*Lantana camara* L. sens. lat)

Invasion of native plant communities by African Olive *Olea europaea* L. subsp. *cuspidata* (Wall ex G. Don Cirferri)

Invasion of native plant communities by *Chrysanthemoides monilifera*

Invasion of native plant communities by exotic perennial grasses

Invasion of the Yellow Crazy Ant, *Anoplolepis gracilipes* (Fr. Smith) into NSW

Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants

Loss of hollow-bearing trees

Loss or degradation (or both) of sites used for hill-topping by butterflies

Predation and hybridisation by Feral Dogs, *Canis lupus familiaris*

Predation by *Gambusia holbrooki* Girard, 1859 (Plague Minnow or Mosquito Fish) (as described in the final determination of the Scientific Committee to list the threatening process)

Predation by the European Red Fox *Vulpes vulpes* (Linnaeus, 1758)

Predation by the Feral Cat *Felis catus* (Linnaeus, 1758)

Predation by the Ship Rat *Rattus rattus* on Lord Howe Island

Predation, habitat degradation, competition and disease transmission by Feral Pigs, *Sus scrofa* Linnaeus 1758

Removal of dead wood and dead trees