



SUBMISSION TO SINGLETON COUNCIL RE DA 107/2013 – INTENSIVE LIVESTOCK KEEPING ESTABLISHMENT –

DUCK FARM- 5756 PUTTY ROAD, HOWES VALLEY NSW

20th JUNE 2013.

BY THE SECRETARY OF HAWKESBURY ENVIRONMENT NETWORK INC. (HEN)

PO BOX 126 WINDSOR NSW 2756

Introduction:

Hawkesbury Environment Network is an umbrella group of organisations which advocate for the protection of the natural environment of the Hawkesbury region; promotion of sustainable natural resource management practices is a key aim of our organisation.

HEN has been asked to comment on the above DA in respect to its environmental impacts and sustainable practices.

A review of the following documents has been made for this purpose:

- Environmental Impact Assessment
- Flora and Fauna Survey and Assessment
- Threatened Species Habitat Assessment
- Addendum to Environmental Impact Assessment
- Odour Impact Assessment
- Related concept plans and sheets for the above.

Comments:

Overview:

A. LOCATION: HEN is concerned that this development is to be undertaken in a region which at this period has been subjected to very few intensive impacts from development such as extractive industries, intensive agriculture, or population pressures. It is an area of large tracts of mainly undisturbed bushland, and many waterways which are therefore protected by intact vegetation. Rivers arising around this site include the Macdonald River, First Arm River and Howes Creek. The property is within the Macdonald River Management Zone. Consequently, water quality of this subcatchment of the Colo River is most likely pristine and must be considered at risk from such a high nutrient development. Effects off-site due to water extraction, water pollution eg certain chemicals associated with the development, and high nutrient loads must be considered in such a development.

B: RISK MANAGEMENT AND MONITORING: All reports must be considered in the light of impacts, risk minimisation and monitoring rigor on soils, micro flora, ground water, groundwater dependent ecosystems, and runoff into streams. Despite the several letters to Singleton Council in support of the proposal which see no great adverse effects to residents' amenity, the long-term consequences of effects which are less visible are of greater concern. It appears that this issue has

been raised in responses to the consultant in 2010 from Mark Ihlein of Singleton Council; from John Galea of DPI Office of Water in 2012; and from the Director General regarding Commonwealth advice.

C: QUALITY OF REPORTS AND STUDIES: It appears that this proposal has been presented to council on numerous occasions before, and been insufficient on all of those occasions. It has been presented again with an unusual addendum, calling on council to view it as if no current planning guidelines are in place. Council staff applied a detailed critique at the original application period and the response is still not satisfactory in many respects. The consultant report on environmental impacts is enormous, repetitive and amateurish with much rhetoric and an inverse quality of data or scientific fact. As example, in this report on page 62 there is reference to the two consultants Richard Wells of Worldata, and Trevor Hawkeswood as 'both men highly qualified, respected and recognised in the ecological community'. However, neither is certified or an associate of the peak body, the **Ecological Consultants Association of NSW (ECA)** <http://www.ecansw.org.au/> which, according to its website "*was initiated to promote and enhance best practice in ecological assessment, planning and management in accordance with the principles of Ecologically Sustainable Development. Furthermore, professional credibility has become a matter not only of career necessity and personal pride, but a litigation issue. Providing appropriate biodiversity conservation and wildlife management advice to satisfy these demands requires continuous professional training and effective networking.*"

D: EXAMINATION AND COMMENT ON THE REPORTS

1. FLORA AND FAUNA SURVEY AND ASSESSMENT for Part of DP 753770, 5756 Putty Rd, Howes Valley, NSW By T.J. Hawkeswood

Main issues:

a) **Poor scope and rigor of survey area, duration, extent and selection.** This report indicates that a site of radius 40 metres in location of a proposed dam was examined in 2 hours of daytime in 11th October 2011 and again for an unspecified period on 11 March 2012. At the same dates, a transect of approx width 65m along a line approx 850 m supposedly for a power easement was also assessed with 'numerous transects'. (Calculations arrive at 0.5ha for the dam site and 5.5ha for the power easement.) Both sites shown in Fig 1 on page 30 of the report indicate that these transects and survey areas were predominantly cleared and grassy. Figures 2 and 3 agree with this. Figures 4 and 5 show a more scrubby area for the proposed dam. No seasonal or nocturnal or diurnal factors were considered in the survey.

b) **Methodology:** The report style appears to have been simply copied from the many environmental reports (2003-2006) and does not detail sightings adequately.

c) **Research:** Despite 13 pages of reference at the end of the report, there is no current and dated reference to web searches of data for the region. Species which were considered in the report: 13 plants, 25 fauna (2 reptiles, 2 amphibians, 13 birds, and 8 mammals) are all summarily regarded as unlikely to be present.

The conclusion that 'there are no impediments to any proposals for the property'.... ' based on flora or fauna concerns' (quoted extracts)..is a foregone one from such a selective study.

By comparison, research into Atlas of Living Australia records for 5756 Putty Rd within a 1 km radius produces records of 53 species: including 15 birds, 36 plants and one mammal. Within a 5km radius there are 529 species: including 19 mammals, 134 birds, 15 reptiles, 5 amphibians, 332 plants. Of this list, 163 species are listed as State Conservation: Endangered. Of these, 4 are plant species:

- Black Cypress Pine *Callitris endlicheri*
- Twining Glycine *Glycine clandestina*
- Golden Rain Wattle or Gosford Wattle *Acacia prominens*
- Heath Wrinklewort *Rutidosis heterogama* also Listed as Vulnerable at EPBC Act listing status

http://www.environment.gov.au/cqi-bin/sprat/public/publicspecies.pl?taxon_id=13132
<http://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10737>

Fauna records are discussed in the next report .

2. THREATENED SPECIES HABITAT ASSESSMENT by Richard Wells [Worldata EIS Report March 2013].

It is usual for ecological reports to follow defined formats to indicate the strength and rigor of surveys and research. It is considered that for the subject land size of 218 hectares, the detail of on-ground search was very poor. In this report there was an almost total lack of details of mapping, detailed description of time of day or night, date, conditions, transects, and areas searched. Methods appeared to have relied entirely on visual or auditory methods, and results have been reported in a selective way. No equipment such AnaBat systems, cameras, traps appear to have been used. No photographs were included of site conditions. The assessment should include indirect impacts as well as direct impacts, and should have included impacts on terrestrial and aquatic systems such as the Macdonald River and its feeder streams.

The report did contain results of research on the threatened species known from the region, and assessed via 7-part tests as required. **However, the subjectivity of selection of species is in question.**

These were compared with species listed within 5km of the site from the **Atlas of Living Australia** <http://www.ala.org.au> which enables searches by location to within 0.5km of any point. In this case, within a 5km radius, the following endangered faunal species were recorded.

Scientific Name	Vernacular Name	NSW STATUS	ALA RECORDS WITHIN 5KM
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	70
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	V	10
<i>Calyptorhynchus lathami</i>	Glossy Black-Cockatoo	V	4
<i>Chthonicola sagittata</i>	Speckled Warbler	V	14
<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	V	1
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V	7
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	V	1
<i>Egernia whitii</i>	White's Skink		1
<i>Falco hypoleucos</i>	Grey Falcon	E	1
<i>Glossopsitta pusilla</i>	Little Lorikeet	V	1
<i>Hieraaetus morphnoides</i>	Little Eagle	V	1
<i>Neophema pulchella</i>	Turquoise Parrot	V	1
<i>Ninox connivens</i>	Barking Owl	V	1
<i>Petauroides volans</i>	Greater Glider		1
<i>Petaurus australis</i>	Yellow-bellied Glider	V	2
<i>Petroica boodang</i>	Scarlet Robin	V	3
<i>Phascolarctos cinereus</i>	Koala	V	2
<i>Pomatostomus temporalis temporalis</i>	Grey-crowned Babbler (eastern subspecies)	V	2
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	1
<i>Stagonopleura guttata</i>	Diamond Firetail	V	3
<i>Tyto novaehollandiae</i>	Masked Owl	V	1

Three of the small bird species above (**Speckled warbler, Varied Sittella, Grey-crowned Babbler**) were **selectively omitted** from any consideration of habitat, despite having habitat preferences for forests or woodlands with grassy understory, often with a combination of open grassy patches, leaf litter and shrub cover, and fallen branches. Fragmentation of habitat, including removal of dead timber, clearing, degradation by stock and weed invasion, as well as predation by foxes and cats have been causes of decline. More detail is taken from the relevant vulnerable species listing below for each species:

Speckled Warblers: vulnerable species listing

<http://www.environment.nsw.gov.au/determinations/SpeckledWarblerVuSpListing.htm>

The Speckled Warblers inhabit woodlands with a grassy understorey, often on ridges or gullies. The species is sedentary, living in pairs or trios and nests on the ground in grass tussocks, dense litter and fallen branches. They forage on the ground and in the understorey for arthropods and seeds (Ford et al. 1986). Home ranges vary from 6-12 hectares. The preferred foraging habitat of Speckled Warbler is areas with a combination of open grassy patches, leaf litter and shrub cover. This habitat

is susceptible to degradation by stock and weed invasion. Nesting on the ground also makes them vulnerable to predation from exotic mammalian predators such as foxes and cats.

Varied Sittella: vulnerable species listing

<http://www.environment.nsw.gov.au/determinations/variedsittellaFD.htm>

The Varied Sittella is sedentary and inhabits most of mainland Australia except the treeless deserts and open grasslands, with a nearly continuous distribution in NSW from the coast to the far west (Higgins and Peter 2002; Barrett *et al.* 2003). It inhabits eucalypt forests and woodlands, especially rough-barked species and mature smooth-barked gums with dead branches, mallee and *Acacia* woodland. The Varied Sittella feeds on arthropods gleaned from crevices in rough or decorticated bark, dead branches, standing dead trees, and from small branches and twigs in the tree canopy. It builds a cup-shaped nest of plant fibres and cobwebs in an upright tree fork high in the living tree canopy, and often re-uses the same fork or tree in successive years. Generation length is estimated as 5 years (Debus and Soderquist 2008). The apparent decline has been attributed to declining habitat cover and quality (*e.g.* Watson *et al.* 2003). The sedentary nature of the Varied Sittella makes cleared agricultural land a potential barrier to movement. Survival and population viability are sensitive to habitat isolation, reduced patch size and habitat simplification, including reductions in tree species diversity, tree canopy cover, shrub cover, ground cover, logs, fallen branches and litter (Watson *et al.* 2001; Seddon *et al.* 2003). The Varied Sittella is also adversely affected by the dominance of Noisy Miners *Manorina melanocephala* in woodland patches (Olsen *et al.* 2005). Current threats include habitat degradation through small-scale clearing for fencelines and road verges, rural tree decline, loss of paddock trees and connectivity, 'tidying up' on farms, and firewood collection. 'Clearing of native vegetation', 'Loss of hollow-bearing trees', and 'Removal of dead wood and dead trees' are listed as Key Threatening Processes in NSW under the *Threatened Species Conservation Act 1995*.

Grey-crowned Babbler (eastern subspecies): vulnerable species listing

<http://www.environment.nsw.gov.au/determinations/GreycrownedBabblerVulSpListing.htm>

Grey-crowned Babblers occupy open woodlands dominated by mature eucalypts, with regenerating trees, tall shrubs, and an intact ground cover of grass and forbs. The species builds conspicuous dome-shaped nests and breeds co-operatively in sedentary family groups of 2-13 birds (Davidson and Robinson 1992). Grey-crowned Babblers are insectivorous and forage in leaf litter and on bark of trees. The Grey-crowned Babbler is threatened by clearance and the fragmentation of habitat including removal of dead timber. The species occupies woodlands on fertile soils of plains and undulating terrain. Therefore, Grey-crowned Babbler habitat has been disproportionately cleared for agriculture. Isolation of populations in scattered remnants is exacerbated by the apparent reluctance of birds to traverse tracts of cleared land. As reduced family groups, these isolated small populations are vulnerable to extinction via stochastic events and to loss of genetic viability in the long term. Habitat degradation threatens Grey-crowned Babblers, particularly as a result of weed invasion and grazing by stock. In addition, it is likely that increased abundance of competitors, such as Noisy Miners, and nest predators, including the Pied Currawong and Australian Raven (Major *et al.* 1996) threaten Babbler foraging efficiency and breeding success.

Koala habitat assessment : Both TJ Hawkeswood and R Wells appear to easily discount the value of the existence of Eucalyptus punctata as Koala forage tree species, without any data to support this. There were records of 2 koalas within 5km of this site; a distance which is easily covered by this species which can travel long distances along tree corridors in search of food and mates.

<http://www.ehp.qld.gov.au/wildlife/koalas/koala-threats.html>

<http://www.environment.gov.au/biodiversity/threatened/species/pubs/koala.pdf>

Sufficient eucalypt species listed for the 5km area exists to support a Koala Plan of Management:

<http://www.environment.nsw.gov.au/resources/pnf/07361koalahabitat.pdf>

These include

Eucalyptus amplifolia		
subsp. amplifolia	Cabbage gum	1
Eucalyptus bridgesiana	Apple	2
Eucalyptus canaliculata	Grey Gum	2
Eucalyptus michaeliana	Brittle Gum	2
Eucalyptus moluccana	Coastal Grey Box	2
Eucalyptus parramattensis		
subsp. parramattensis	Eucalyptus Parramattensis	1
Eucalyptus punctata	Grey Gum	2
Eucalyptus tereticornis	Forest Red Gum	1
Eucalyptus viminalis	Manna Gum	1

NOTE: 1= primary tree species, 2 = secondary tree species

Finally, off-site effects on flora and fauna must be checked against subcatchments. Eg the Macdonald River itself (instream value) has 1 threatened fish species 6 threatened frog species , 2 threatened macroinvertebrate species ,8 threatened bird species 2 other threatened species 1 endangered ecological communities which may be at risk under extraction. [Macdonald River Management Zone - Report Card 36 of 49]

3. Environmental Impact Assessment

Main Issues:

As previously stated, this is a most repetitive document in which factual material is overlaid with hollow rhetoric. Much of the commentary can only have arisen by consultation with Pepes Ducks as the industry authority. This needs to be balanced against other, possibly independent or international advisers on best practice.

The basis for concerns arises in several aspects:

a) **Number of birds and management.** Such a highly concentrated activity has risks which may affect the environment through waste disposal, contamination of groundwater, elevation of nutrients into natural water ecosystems, disease effects on local avian species populations, use of chemicals toxic to local micro-organisms which support the ecosystems. There is unsatisfactory detail about management, monitoring and auditing of these risks as would be required if the site was an industry of another type eg chemical production.

Questions arise about frequency of removal and replacement of litter, effects of washing down dirt floors and lack of bunding for wash water, numbers of birds likely to be disposed of, what is the disposal treatment after laying, what is planned for the rest of the site, what external body monitors this industry, what comparisons of best practice exist for the industry.

b) Amenity: Duck treatment appears to be all about maximising use of resources such as space, time, water, food, energy, and labour. Ducks become units just as hogs in the US are treated. The use of water nipples as the only water source has been criticised elsewhere due to their need to clean their beaks and face areas after feeding and to remove irritants such as dust. Yet the reason to use nipples is given as a means to keep the floors clean of wet litter and manure; instead of arranging cleaning and litter replacement, it appears this will be allowed to remain on site for as long as possible, thereby saving labour. Build-up of faeces, mites and odour as faeces decay will be intolerable to living birds, especially breeders which are already stressed with competition for space. Water and temperature regulation should be reviewed in light of duck amenity with the range of temperatures in the Valley (Cessnock figures high max of 43.4C to low min of -6.7C on <http://www.weatherzone.com.au/climate/station.jsp?lt=site&lc=61260>) suggest that fans WILL need to be used in summer periods and water for washing and thermoregulation SHOULD be available at all times.

c) Contradictions arise in several areas such as maintaining greater vegetation clearance distances for prevention of biocontamination (transmission of avian disease), then reduction of this distance to decrease dust and odour emission. Bushfire risk requires greater clearance again. Yet there appears to be no introductory meteorology section on the local climate of the region, apart from the wind direction descriptions in the odour and dust report.

CONCLUSION: It is known that there are many more grounds for concern about this proposal than can be examined in this period by HEN. Our conclusion is that this is an unsuitable proposal for the area which will have an adverse effect on its environment including its bushland ecosystems, its waterways and water quality entering the Hawkesbury River. Apart from those considerations, HEN holds great concerns about the sustainability of humane management of livestock under intensive conditions, especially in this remote environment subject to extremes such as wildfire.

Signed



Robin Woods B.Sc. Syd Uni., Dip Ed. Cert IV Conservation and Land Management (Natural Area Restoration)

Contact robin@hen.org.au

0414 672 014