Proposed Warkworth Extension Project: Presentation to the Planning Assessment Commission Meeting

10 November 2011 at Singleton, NSW.

My name is Ann Lindsey and I am representing the Hunter Bird Observers Club Inc. (HBOC) for which I am the conservation officer. HBOC has 102 single members, 177 family members and one junior member, a total membership of 280. One of the aims of HBOC is:

> To encourage and further the study and conservation of Australian birds and their habitat.

In order to achieve this, members undertake a range of surveys of birds, the results of which are kept on a database. HBOC also publishes an occasional journal called *The Whistler* which contains articles on the Hunter Region's avifauna and an annual bird report (Copies given to the Assessment Panel). I am here today because HBOC does not believe that the Warkworth Extension Project's documentation shows a clear understanding about the bird species' requirements and their relationship with habitat.

The number of declining species in NSW is unacceptably high. 124 species of birds (almost a quarter of those in NSW) are in a state of decline and are listed under the *NSW Threatened Species Conservation Act 1995* (TSC Act). The Hunter Region's bird list stands at over 400 species of which 74 are listed as threatened. Of these, 49 are resident or regular visitors to the Hunter Region (Roderick & Stuart 2010). Twenty of the threatened species are dedicated woodland species and occur or potentially occur in the woodland at Warkworth. The threatened species list does not end here as many more species are currently being assessed as to their status and will no doubt be added. The high number of acknowledged threatened species is indicative of the serious nature of the decline in bird species.

The NSW Threatened Species Conservation Act is the primary legislation for the protection of threatened species of flora and fauna in NSW.

The purpose of the Act is to:

- conserve biological diversity and promote ecologically sustainable development
- prevent the extinction and promote the recovery of threatened species, populations and ecological communities
- protect the critical habitat of those species, populations and ecological communities that are endangered (Website)

However the application (or lack of application) of this legislation is failing to prevent the continuing decline of flora and fauna towards rarity or extinction.

The Director-General's Environmental Assessment Report barely acknowledges the fact that the Warkworth site supports unknown numbers of birds of 146 species. Their future is dealt with in two sentences. "To minimise the impacts on fauna, Warkworth proposes to implement a range of standard management strategies, including progressive clearing, pre-clearance surveys and habitat augmentation for certain species. These strategies would be complemented by the proposed biodiversity offset strategy". These are merely words on the page. The actual implementation is far more difficult.

I would now like to spend some time discussing why birds are important to us and the reasons for protecting them. Birds are colourful, vocal and charismatic, and hold a special place in our hearts, minds and myths (Wormworth & Sekercioglu 2011, p. 4) and they are beautiful in their own right. **Wild birds provide immense, largely cost free pleasure for people worldwide and provide the basis for a hobby that is of scientific, ethical, physical and aesthetic value.**

They help us understand biodiversity and preserve a valuable and largely unstudied genetic resource. They are an integral part of ecosystems and are indicators of environmental change including climate change. They disperse seeds, which is paramount to the maintenance of vegetation; they pollinate plants; and above all they eat huge quantities of insects.

What do birds need?

First and foremost, different species have different habitat needs and each species lives in a habitat which provides the necessities for its survival. Shelter for breeding and hiding from predators and a steady and readily available food supply. Without these, the long-term maintenance of species is put at risk as is their genetic diversity. The bird communities at Warkworth need woodlands. There is an erroneous assumption that birds will just fly away when their habitat is compromised. Indeed, some might relocate if there is another nearby suitable habitat. But mostly they die of starvation and exhaustion or are taken by a predator. It is estimated that for every 100ha of woodland cleared 1000 to 2000 birds die (State of Australia's Birds 2005, p. 2). Many species of birds are sedentary and live and breed in the same area year after year or if migratory, will return to the same area after travelling long distances – Bar-tailed Godwit for example.

Not all bird species are declining and some species, magpies, ravens, butcherbirds, Galahs will thrive almost anywhere, but not in open-cut coalmines. So why are some species threatened? Many Australian species are specialized and depend on particular habitat attributes. Some species are highly dependent on flowering eucalypts, e.g. Regent Honeyeater, Painted Honeyeater, Black-chinned Honeyeater and Little Lorikeet. You will realize that eucalypts flower at different times in different locations for varying periods of time and that you would need a large area of woodland to sustain a sufficient and ongoing food supply. Some species such as the large forest owls, cockatoos and parrots rely on tree hollows for roosting and breeding and these are found only in mature trees (at least 120-150 years old). Some species such as finches, babblers, robins and treecreepers need a complex forest floor with leaf litter and fallen logs. Many woodland birds feed primarily on insects and spiders in ground debris. Different species have different home ranges – for instance the Hooded Robin has a home range of 3.6 to 8.4 hectares. The Varied Sittella was found to be using an area in excess of 200ha (State of Australia's Birds 2009, p. 14). The Brown Treecreeper is mostly confined to patches of woodland greater that 20ha and has a home range of 1.1 to 10.7ha (TSC Act website). Predators at the top of the food chain such as the raptors, Square-tailed Kite, Little Eagle and Spotted Harrier require large tracts of undisturbed wooded habitat in which to breed; their populations are always highly impacted by large-scale clearing. In other words, different species have different habitat requirements. One size does not fit all. The conservation status of woodland species depends on the overall network of habitats available to support the population.

I looked up the website for the TSC Act and under all of the threatened species land clearance is the first mentioned threat to each of them. In addition there is a large body of peer-reviewed literature acknowledging land clearance as the main threat to biodiversity which includes birds and their habitats. **I will quote just one: "Land clearing remains the single greatest threat to terrestrial biodiversity in Australia It impacts on ecosystems by killing biota and removing habitat, it fragments populations and undermines their long-term viability, and will reduce the resilience of ecosystems to forthcoming climate change" (Gibbons & Lindenmayer 2007, p.26).**

The broad-scale clearing of remaining already fragmented vegetation in the Hunter Valley is leaving small population sizes which are highly vulnerable to events such as wildfire, drought and climate change. Fragmented patches of vegetation are subject to weed infestation and allow introduced and pest species to thrive. Under such circumstances bird populations continue to decline and may disappear even when land clearance ceases. This process leaves an extinction debt which is almost impossible to reverse. This situation is exemplified in the Mt Lofty Ranges in South Australia where 10 species are regionally extinct and another 60 species continue to decline even though land clearance ceased in the 1980s (The State of Australia's Birds 2009, p. 22).

The single most important action we can take to avoid further losses of birds is to stop clearing their habitats.

Daily we hear about new coal mine proposals – in the Hunter Valley, on the Liverpool Plains and in the Blue Mountains, in Queensland the list goes on and on, all of them clearing listed threatened vegetation communities which will end in the death of all or most of the animals living in them. Mining is listed as a key threat to the endangered ecological community known as Warkworth Sands of which only 800ha remain and yet, hard though it is to believe, the NSW government is allowing the Warkworth Extension to clear 22% of this endangered ecological community. The compensatory strategies offered do not guarantee success.

The Warkworth Mine has already cleared 4200 ha of woodland which now has virtually zero flora and fauna value, and it is intended to clear a further 1200 ha, 764 ha of which are specialized woodlands with bird species which are also specialized. For good reason, they are listed as Endangered Ecological Communities (EECs). The Warkworth Mine is surrounded by other mining operations: Wambo, Hunter Valley Operations, Mt Thorley, Bulga, which among them have eliminated further thousands of hectares of woodland.

It is clear to members of HBOC that decision - making bodies are not taking into consideration the cumulative impact of land clearance on biodiversity and on birds in particular in the Hunter Valley. Scientists have been warning about cumulative impacts for several decades now and yet this concept is virtually ignored by the decision makers. In NSW between 1997 and 2005 640,000 ha of native vegetation, i.e. 80,000 ha per year, were cleared. Since that time land clearing has continued more-or-less unabated. In the Hunter Valley 80% of woodland has been cleared leaving only 19% of highly fragmented remnant vegetation and most of this is owned by coal-mining interests and earmarked for broad-scale clearing.
Only a paltry 0.8% of land on the soil-rich valley floor is in public ownership.

If all the land is cleared the birds cannot escape to another suitable habitat and, if and when revegetation comes to maturity, many bird species will long since be locally extinct. If, as in the Hunter Valley, most of the woodland is cleared bird species will not magically reappear in revegetated areas. It takes 100 to 150 years for revegetation to develop the habitat attributes that make it suitable for the more specialized and threatened woodland species, assuming of course the regenerating plants continue to survive. Large intact areas nearby from which birds can recolonise over the decades are vital. It is HBOC's view that "standard management practices" will not cater for the specialized needs of woodland bird species.

The offset proposals for the Warkworth Extension may appear on paper to be impressive packages providing sustainable answers to the habitat destruction. However, what is the real value of offset packages? In this current proposal, most of the Green Offset package agreed to in the 2002 Warkworth Mine DA 300-9-2002-I is to be cleared. In addition, the proponent does not indicate a firm intention to manage the proposed biodiversity areas for conservation for the long term; rather "for the life of the project" which could be only 21 years. Such short-term maintenance of these areas would render them near useless for regional bird conservation, and this, together with the ability of the NSW Government to approve the mining of agreed-to offsets, greatly undermine the credibility of this type of "offsetting" strategy. We are also aware that once Approval for developments is granted, the consent conditions can be changed and modified.

When we compare the existing environment and its avian population with future projections, it is obvious that what we are being offered has little resemblance to the present situation.

The Southern Biodiversity Offset Area (SBOA) contains fairly large areas of like-for-like vegetation, but its value for birds and other wildlife will be reduced by its highly irregular shape (a narrow, elongated southern section is separated from the northern section), the highly fragmented nature of the vegetation communities, and the splitting of the northern section by a major road (Golden Highway). The fragmentation creates long perimeters and would promote undesirable edge effects, including vulnerability of birds to predators and weed invasion. The proposal to also designate most of the SBOA as the Wollombi Brook Cultural Heritage Conservation Area raises the possibility that biodiversity conservation may become a secondary consideration, and the SBOA's habitat values might be compromised by other uses.

The Northern BOA is highly fragmented and consists mostly of grassland.

The Goulburn River, Seven Oaks, Bowditch and Putty Biodiversity Offset Areas are located from 50 to over a 100 km away and are too remote from the proposed extension area to be relevant offsets for that site. Furthermore, they contain none of the EECs occurring in the extension area. In terms of bird species richness and numbers, there is no real measure of the degree to which the "replacement" habitat areas on these remote sites are equivalent to the areas proposed for destruction. HBOC would ask what studies have been done to ascertain the realistic and actual needs of the birds living on the land to be cleared? What studies have been made of the Biodiversity Offset Areas to ensure that the habitat is suitable? Which avian communities do the Biodiversity Offset Areas already support? The additional 750 ha "strategic offset" of "woody vegetation" in an unspecified area within 12 months of approval reflects the government's desperation to push through yet another coal mine. Also, an offset area this large is most unlikely to contain much, if any, vegetation similar to the woodland being destroyed. How many coal mines does the Hunter Valley need and how many can it sustainably support?

It cannot be claimed that the remote biodiversity offset areas have local or district conservation significance for birds or vegetation in the Central Hunter. Whilst the Office of Environment and Heritage (OEH) may be prepared to accept offsets in other areas with vegetation that is not like-for-like, the Hunter Bird Observers Club (and other bird groups) are not prepared to do so. The practice of using remote offset areas with different vegetation communities and no connectivity to the impacted areas must not be allowed. In many cases it will merely tend to facilitate the continuous depletion of already scarce vegetation communities at a local or regional level. These types of threatened communities should be protected where they occur naturally, and not "traded off" to suit developers. The remote biodiversity areas may be regarded as valuable conservation areas in their own right and if so the OEH may wish to investigate their protection, but they do not and cannot provide the existing habitat attributes of the woodlands at the Warkworth site.

Land which would provide an acceptable partial offset is in fact available; this is the Buffer Land west of and adjacent to the Extension site, which has similar ecological attributes including a resident bird population. Cumberland Ecology agrees that this Buffer Land would serve as an area to which the impacted birds could move during clearing to the east. Although not ideal, the refugee community of birds would at least have a fighting chance to relocate. However, the Buffer land is earmarked for future open-cut mining and whilst it may indeed serve as a refuge in the short term, where will the birds go when this is cleared? The narrow adjacent SBOA may not be able to support a new population as bird species are already occupying suitable habitat in that site. In other words, there can only be a large net loss for bird populations from this scenario.

The usefulness for bird conservation of artificial re-established woodland areas on mined areas is not proven and in any case is only in the research stage. It would take many decades for woodland ecosystems to regenerate to a point where they would support bird populations with specialized habitat needs, even assuming these ecosystems develop successfully. This is a very big gamble; threatened ecosystems should not be used as 'guinea pigs' in this process. Alarmingly, there does not seem to be any plan to ensure that the effort to attain genuine woodland revegetation will be sustained by Warkworth over several decades, as would be necessary.

"Trees over grass" areas proposed will only support common bird species but few if any threatened species with specialized needs. Such vegetation cannot be claimed to have significant value for woodland birds, and should not have a place in the proposals. Further, it is well-known that this type of habitat encourages aggressive species such as the Noisy Miner, which chases out its competitors and "sterilizes" areas for smaller birds.

Functional woodland ecosystems will not be "re-created" on mined sites for a very long time, if ever. It seems very over-optimistic, even ludicrous, to suggest that there would be a "net biodiversity gain" from this project in the Hunter-Central Rivers Catchment Management Area.

HBOC has no confidence that bird populations, threatened species and their habitats will be protected under the Warkworth Extension project. This also applies to other developments in the Hunter Valley. We believe that the threat of local extinction of woodland birds in the Central Hunter Valley is a very real prospect. It is clear that the biodiversity offset areas in this case were chosen with little regard to the complex issues of providing habitat

for threatened species and with no consideration for the welfare of the bird communities already in residence. There is almost no knowledge of the bird communities resident in the proposed biodiversity offset areas.

HBOC agrees with Dr Travis Peake's assessment that there are risks to threatened species from this project. Also, that proposed clearing at Warkworth would have a significant impact on the ecological community as a whole (vegetation and fauna) and could put it at increased risk of extinction.

Thank you

References

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