



To the EPBC Referral Unit

Dept of the Environment

Canberra, ACT 1000

EPBC Reference Number: 2016 / 7710

Title of Referral: KUR-World Integrated Eco-resort

Submission from Kuranda EnviroCare Inc in response to EPBC referral 2016 / 7710

Invitation to comment placed 30 May 2016

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About Kuranda EnviroCare Inc

Kuranda EnviroCare Inc. is the largest environmental group in Mareeba Shire, and has been working for more than 17 years on lobbying for wildlife corridors to connect the sections of the Wet Tropics World Heritage Area north and south of Kuranda. This has been recognized in the former Mareeba Shire Planning Scheme, where map V1, Significant Vegetation Overlay, identifies Wildlife corridors (as Category B). Our organization has also worked consistently over the past years, on growing local native rainforest trees and using them to revegetate degraded areas of the corridor. To date we have spent in excess of \$300,000 re-vegetating rainforest on the south bank of the Barron River and within the Envirolink corridor. We also supply trees to, and worked with, the Green Corridor Project of BRICMA, a catchment group working to revegetate the entire length of the Barron River, improving water quality as it flows to the Great Barrier Reef. All these corridors provide vital restoration and connectivity of habitat with transit rainforest cover and food supply for the southern cassowary and other wildlife.

As well as revegetation activities, Envirocare has received Federal government grants (Caring for our Country and Biodiversity Fund grants) and private grants through Landcare Australia and Mobile Muster for the enhancement of the habitat for our endemic critically endangered *Litoria myola* and other endangered frogs present in the area. A bird monitoring grant has enabled recording of the “return of the birds” to the degraded and now revegetated riparian corridor along the Barron river from the Fairyland corridor to the Enviroink corridor.

In addition we have received an International grant from the Mohammed bin Zayed Foundation to monitor frogs in multiple creek breeding sites within the Myola drainage basin. Our frog monitoring has been in progress for 3 years now and we have undertaken baseline water quality monitoring in these creeks also. This proposed development impacts some 25% of the entire habitat and population of the frog species, *Litoria myola*.

General Overview

EPBC referral documentation

Section 2.7 states that this referral covers both Stages 1 and 2 of the development. From a review of the documentation provided , there is insufficient or no detailed information on which the Federal government could reasonably make any assessment of the impacts of stormwater and sewerage treatment. This is of major concern as within the development, these are the two major elements affecting the water quality within the Owens creek catchment. This information would normally be available when an EPBC referral is submitted after a Development Approval is approved, when all relevant design details are available for review under EPBC.

Recommendation:

Notwithstanding that this development will be required to undertake an Environmental Impact Statement (EIS), if it is accepted as a State coordinated project by the QLD Coordinator General , this development should be referred back to the Federal EPBC agency after the Development Approval is issued so that the development can be appropriately conditioned under the EPBC Act, based on the actual design rather than this master plan containing insufficient detail. The Federal agency, not the State, is ultimately responsible for all threatened species. As such the federal agency must give final approval, given the expected direct impact that residential based development will have on the watershed water quality and habitat of the critically endangered *Litoria myola*. In addition there are concerns regarding the compromises which may be obtained by the proponent via State and Local government agencies..

Specific comment on elements of the referral

1. Erosion and Sediment Control

Section 3.1(a) of the Referral states that Best Practice erosion and sediment control will be implemented.

Best practice stormwater management in our tropical environment requires a no net change from the developed area, according to the FNQROC manuals adopted by the Far North Queensland Region Of Local Councils. No net change means no lesser storm water quality should exit the developed area than currently flows from the undeveloped area and no net change in the rate at which storm water flows from the developed area, compared to the

existing undeveloped area, during and after a rain event. Reviewing the sketched elements of the proponents Masterplan, there will be significant areas changed from pasture area to hard surfaces due to building roof areas, driveways, pathways and roadways. This will increase the rate of water flow and concentrate the flows, all adding to the erosive potential of the water flow. Ground water infiltration will also be lost and this will affect the sub aquifer recharge and will impact downstream water flows (see Referral 3.3(b)).

Best practice management requires the management of stormwater be designed in at the concept stage. On a development of this size (nearly 1000 dwelling units) there would need to be significant structures incorporated to manage stormwater. These should promote ground water recharge, slow the outflow of water and filter pollutants reasonable assumption and concern that only lip service is being paid to the phrase *best practice*.

Evidence on the ground to date

Best practice has not been displayed on the ground to date.

Unpermitted construction of a dam on an unnamed tributary of Owens Creek in late 2015 resulted in sedimentation downstream to the Barron River and hence to the Barrier Reef and probable destruction of *Litoria myola* habitat (EPBC Endangered) (Hoskins, April 2016. Attachment E to the Referral).

Construction of site access from the adjoining property has resulted in high sediment loads in waters of Warril Creek in late 2015. Warril Creek also provides habitat for *L.myola* and has been identified as potential habitat of *Litoria dayi* (EPBC Endangered) (Hoskins, April 2016. Attachment E). This evidence is directly counter to the statement in 3.1 (d) Frogs paragraphs on likely impact.

Many knowledgeable contractors are distancing themselves from this development as the proponent and their contractors are undertaking works without due regard to the EPBC law and quantums apart from best practice

While the proponent's representative Stuart Ricketts argued in a radio interview (June 13, 2016) that the rain event in late 2015 caused the sediment controls to be breached because of the size of the rain event, this event was not an unusual occurrence for this Wet Tropics area. It happens at least once per wet season and is considered small when compared to a cyclonic rain event. This comment and actions on the ground demonstrates a lack of suitable experience and expertise by the proponent's contractors and contract management.

Recommendation

- An Erosion and Sediment Control Plan (ESCP) be prepared prior to any earthworks including currently permitted clearing of regrowth vegetation. The ESCP should nominate standards to be achieved (sediment loads during construction and operation). The ESCP should be certified and implementation supervised by a Certified Practitioner in Erosion and Sediment Control (CPESCP) or equivalent.

2. Stormwater and Wastewater

The referral contains no details regarding management of stormwater and wastewater quality. A key issue in relation to maintaining habitat of listed frog species is management of nutrients, metals and toxins in wastewater and entrained pollutants in stormwater, neither of

these key issues are addressed. The referral provides no commitment to maintaining water quality (with exception of quality in relation to erosion).

Recommendation

- A Stormwater Quality Management Plan (SWQMP) be prepared containing details of treatment of stormwater prior to release from site. The SWQMP should nominate standards (nutrient and pollutant loading) to be achieved during operation.
- Details of how waste water will be treated must be provided including location of facilities (away from creek lines) and contingency plans (for example secondary containment) in event of an emergency.

3. Presence of *Litoria myola* (EPBC Endangered) *Archontophoenix myolensis* (EPBC Endangered) and potential habitat of *L dayi* and *L rheocola* (EPBC Endangered)

Setbacks

Section 3.1(d) of the Referral states that habitat of the Litoria species will be confirmed and set aside from development but the Masterplan (Attachment L) ignores existing information on habitat.

Hoskins (May 2016, Attachment E) found that the Owens and Haren Creek populations of *L myola* were the third highest breeding population of the species recorded to date. Hoskins also stated that, based on experience, females use rainforest areas up to 100m from streams. He thus recommended 100m buffers to each side of streams and mapped these in his report. Prior to Hoskins work, Astrebla Ecological Services (November 2015, Attachment J) stated that a 60 m buffer from all creek lines would be maintained (as detected on ground, not as mapped in any publicly available mapping) to protect habitat utilised by *L myola*. The Masterplan (Attachment L) dated May 2016, refers to 50 m riparian buffers each side of creeks. Section 2 of the of the Masterplan (Land Use Strategy) refers to 100m buffer zones in the north west of the site (where *L myola* habitat is located) but the concepts provided do not reflect this.

Recommendation

- Hoskins restricts his recommendation to buffers on habitat of *L myola* however, it would seem appropriate to apply the same measures to potential habitat of *L dayi*. That is, to Warril Creek as well as Owens and Haren Creeks.
- Buffers of 50 m from creeks (outside *L myola* and *L dayi* habitat areas) is good practice but the method of defining this needs to be stated. Normal practice is to measure setback from the top of the high bank (that is, not from the creek centre line). This practice should be adopted and the Masterplan amended accordingly.
- The Masterplan needs to be amended to reflect 100 m buffers in *L myola* and *L dayi* habitat and any cleared areas within these buffered areas should be revegetated to strengthen habitat values.

Impacts on habitat

The Referral outlines a large scale and intensive development. Section 4 (MNES) states that there will be no net loss of habitat for *L myola*, *L dayi* and *L rheocola* yet the concept outlined in the Masterplan appears to include habitat in the development envelope. Section 4 also states that water quality will not be reduced below current baseline levels. However, baseline

conditions in the Owens Creek and Warril Creek systems (the main site drainage systems) have already been degraded (by unauthorised work prior to this application).

Wastewater and stormwater management are significant issues associated with this development yet Section 5 (Measures) does not mention measures to prevent impacts on water quality from sporting facilities such as golf courses (nutrients, herbicides and insecticide entrained in runoff) and large scale residential and urban development (nutrients, metals and toxins in wastewater and stormwater). In addition, the Masterplan shows a “natural lagoon” upstream of *L. myola* habitat on Owens Creek disregarding any commitment to protect habitat values downstream. This is in spite of the referral acknowledging that development is a controlled action due to “*potential to affect habitat qualitythrough changes to water quality*”.

The Masterplan also appears to show nondescript sporting activities upstream of *L myola* habitat on Owens Creek. However, section 4 (MNES) and section 5 (measures) do not address how the risk of introduction/spread of chytrid fungus will be managed, for example hygiene measures to be employed or how access to creek lines will be managed.

The proposal of a water quality monitoring and reporting program for the life of the project does not recognise that the impacts of water quality will likely increase beyond the construction phase of the project with human habitation and must therefore be considered in the ongoing management plans for the resort and conditions applying to any future development stages.

Recommendation

- Development or related activities should not occur upstream of frog habitat areas and the Masterplan should be amended accordingly.
- A Frog Management Plan should be prepared outlining how habitat of frog species will be protected and enhanced by the development, hygiene practices to be adopted during construction and operation, monitoring to manage risk of chytrid fungus and other pathogens and research programs to assist in recovery of listed frog species whose habitat occurs on site.

4. Southern Cassowary Habitat

Section 3.1(d) of the Referral states that the Southern Cassowary (*Casuarius casuarius johnsonii*, EPBC Endangered) is not believed to access the site anymore and the site’s main value in conservation of the species is in maintaining a western habitat corridor.

Historical records and recent records show cassowary have been sighted in the vicinity of the development site. Recent sightings include in 2011, 2011 and 2012 on the Barron River corridor, near the district school, last year crossing Myola road near Christensen road entrance heading towards the development site and on Kingfisher Drive which adjoins the development site. Whilst the site may provide corridor values, the site also provides habitat in itself. This habitat allows for dispersal of juvenile and sub-adult into new territory and for expansion of individual home range during resource poor periods of the year. This value will improve over time (as revegetation complexity increases) and needs to be acknowledged in the project planning.

Recommendation

The value of onsite habitat for extending the individual home range of the Southern Cassowary should be acknowledged and the Masterplan amended accordingly.

Habitat values in general should also be improved by landscaping/revegetation works on site.

There should be conditioning of any residential development with a strict no predatory domesticated animals (cats and dogs) requirement and a requirement for “traffic calming”. Dogs and traffic are a major threat to cassowary.

Cats are a major threat to frogs, small birds and other small wildlife where ever urban development is placed within a corridor habitat. They should also be excluded from residential development

Fencing is also a major issue for free flow wildlife movement and again development should be conditioned with “wildlife corridor “ designation, restricting fencing

In conclusion

No decision has yet been made by the Queensland government about how to assess this proposal, so it is too early for the proponents to make a decision about how this proposal should be assessed and whether the Commonwealth can rely on the State assessment process.

We consider that this proposal is a controlled action that requires approval under the EPBC Act. The reasons we consider this to be a controlled action is because it is likely to have a significant impact on the listed species; frogs and cassowary, and on World heritage values.