

Dear Officer in Charge

On behalf of the Threatened Species Conservation Society Inc, I wish to submit the following recommendations for inclusion in the NSW Koala Strategy which we believe are necessary to save the Tweed Coast koalas from extinction, and could also be applied to other vulnerable or endangered koala populations in New South Wales.

- The focus of koala recovery should be on maintaining koala residency and on gap-filling in existing koala habitat in order to create large habitat blocks to form a buffer from human-related disturbance.
- In areas where existing koala habitat meets the urban interface, native trees (but not koala food trees) should be planted on the edges in order to form a buffer from human-related disturbance.
- The \$10 million recently allocated by the state government for revegetation of land adjacent to national parks should also include areas which will strengthen koala corridors and create large habitat blocks which are not necessarily adjacent to national parks..
- Funding should be allocated to replace koala crossing signage with underpasses or overpasses and koala fencing on major roads which sever koala corridors.
- Incentives should be implemented to encourage members of the community to become citizen scientists to provide on-ground research and monitoring of koala sub-populations and impactive activities which are causing them harm.

## **Gap in koala corridor at Pottsville**

At Pottsville the Black Rocks sports field is located within and at the junction of three koala linkage corridors (which is an unprecedented location for a sports field) [refer Wildlife Corridor Map APPENDIX 1]. All the primary koala habitat adjacent to the sports field and access road and the majority of koala movement are between the eastern portion of the sports field and the Black Rocks by the Sea residential estate at the southern end of Pottsville [refer Updated Habitat Map, APPENDIX 2]. As identified in the Black Rocks Koala Plan of Management 2004 [BRKPoM], this portion forms the direct north-south linkage pathway to Wooyung/Billinudgel Nature Reserves to the south.

The sports field is connected to the Black Rocks by the Sea residential estate to the east by a 300 metre access road. Primary koala food trees (Swamp Mahogany) line the northern edge of the access road, and there is a significant stand of primary koala habitat on the southern side.

There is an established koala home range east of the sports field between two breeding areas (one either side of the access road and the other 250 metres north-

east of the sports field) [refer APPENDIX 2]. A daytime breeding event on 8/11/2013 was evidenced and reported adjacent to the access road, involving at least two koalas including a koala crossing the access road.

The sports field and access road are located at a central hub that facilitates east-west and north-south koala movement, which is ideally located at the southern end of the Tweed Coast corridor for dispersal of gene diversity [refer APPENDIX 1]. Pottsville Wetlands-Black Rocks is home to one of three koala source populations on the Tweed Coast. According to Sandy Pimm (Ecologist and Senior Environmental Planner, City of Gold Coast and former Tweed Shire Council ecologist), *'the Black Rocks / Pottsville Wetlands koala sub-population is critical to the survival of the koala on the Tweed Coast'*.

The bushland surrounding this site is classified as core koala habitat, has a resident koala population and supports endangered ecological communities. These characteristics triggered the BRKPoM 2004. Since then this bushland has naturally regenerated with significant stands of primary koala food trees [refer APPENDIX 2].

The bushland adjacent to the south-east corner of the sports field has a significant concentration of evidenced and reported koala activity. Two koalas suffering from the stress-related disease Chlamydia were sighted in this area (one was captured and later euthanased). Primary koala food trees (Swamp Mahogany) line the northern and eastern edges and the eastern portion of the southern edge of the sports field. Between October 2011 and December 2015 103 koala sightings [including breeding activity, 4 individuals sighted concurrently on several occasions and koalas crossing the access road during the day between preferred habitat] have been evidenced and logged into the *OEH Bionet Wildlife Atlas* and reported to the Tweed Shire Council. Planit Consulting Pty Ltd have documented koala sightings south of the sports field and access road in the Dunloe Sands mining operation Rehabilitation Zone 1.

According to the Tweed Coast Koala Habitat Study 2011, there were an estimated 144 koalas left on the Tweed Coast, with a 50% population decline (mainly due to fire) over the previous decade. TCKHS 2011 estimated that there were 35 koalas in the Pottsville Wetlands (which includes Black Rocks). The updated 2015 koala study reveals that significant koala activity sites on the Tweed Coast have halved between 2010 and 2015.

In 2014 prior to the Christmas Day Pottsville Wetlands bush fire, koala expert and leading ecologist Dr Steve Phillips announced that there were an estimated 100-110 koalas left on the Tweed Coast. At this rate of decline he stated that we can expect koalas to be extinct on the Tweed Coast by 2025-2030. According to TCKHS 2011, the minimum viable koala population size is considered to be 170. Dr Phillips has estimated that 30-50% of Pottsville Wetlands koalas perished in the 2014 fire.

The rate of koala death in the Black Rocks area from stress-related disease and other causes is 3 times what the TCKHS 2011 states will facilitate decline towards extinction. Since 2014 there have been 9 known Black Rocks / Pottsville Wetlands koala deaths. Another koala was released after successful treatment for early stages of stress-related disease. Her mother, who has more advanced symptoms of

disease, remains uncaptured and untreated [see ATTACHMENT 3: Known koala disease and/or death, Pottsville Wetlands].

Because of its isolated location, the sports field has been subject to ongoing illegal and/or koala impactive activities. Even though no dogs, motor bikes or golf practice are allowed, the sports field is regularly used for these purposes. There have been many incidents of hooning at the site through the middle of an established koala breeding area. The site is also regularly used for model aeroplane flying (including noisy petrol-powered planes) with planes flying close to and over koala food/habitat trees and operators often having to retrieve them when they crash in the bush. There have been fire-lighting events adjacent to the bush and bullet holes in Council infrastructure and signage. Koalas (which have been evidenced in branches overhanging the sports field and access road) are stressed and disturbed by loud slashers, brush-cutters, whipper snippers and pruning machines used by Council workers to maintain the site. I have recorded the noise levels 3 metres from the slasher at 99 decibels.

On 10/6/2015 ecologist John Callaghan said: *'If the Tweed Coast koala population is to be afforded a realistic chance for survival and recovery over the longer term, a precautionary approach will be necessary and the future of each remaining koala will be critical.'*

On 27 April 2016 the koala population between the Tweed and Brunswick Rivers east of the Pacific Highway was listed as ENDANGERED by the NSW Scientific Committee.

## **Ecologists recommend revegetation of the gap in the corridor created by the Black Rocks sports field**

In 2002 the National Parks and Wildlife Service recommended that the *'Black Rocks sports field be located outside of the subject site. This is to maintain the integrity of the wildlife corridor and significant koala habitat which would be severed by the proposed access road and infrastructure to the proposed sports field. It would also create human disturbance in this area where it currently does not exist.'* [refer Council Agenda Item 16, 6/11/2002]

At the 7/3/2015 koala information afternoon at the Pottsville Community Hall Dr Phillips said: *'As a playing field within the landscape everything is wrong with that sports field (Black Rocks) area. It is a gap in an otherwise vegetated landscape. It has a long winding road to this sports field which is not effectively integrated into the developed landscape. So according to ecological first principle planning processes it is actually in the wrong position'*.

In June 2014 the Threatened Species Conservation Society Inc launched a campaign for revegetation of the Black Rocks sports field after receiving advice from Dr Phillips on 13/11/2013 which stated: *'The area (Black Rocks sports field) is in the middle of an identified koala corridor and breeding animals are already using the available habitat. Increasing the potential for use of the area by humans/domestic dogs is not a good outcome and council will not be able to police a "no dogs" rule. Hence I am supportive of the area being identified/included in some form of*

*koala habitat rehabilitation strategy.'*

On 21/3/2016 Dr Steve Phillips said: *'One of the strong arguments for revegetation of the Black Rocks sports field goes to issues of habitat fragmentation, patch size and the associated edge to area ratio. More specifically, the current location of the sports field puts it within a regenerating habitat block, the importance of which is readily apparent as a connectivity hub through which koala recruitment/dispersal to the south-east, south-west and north can theoretically occur. Yet despite its importance the sports field (including the road reserve) offers an edge of approximately 1600m that is exposed to ongoing disturbance events and the depredations of domestic dogs. The small koala population that now survives in the habitat surrounding the sports field certainly does not need more disturbance, it needs to be left in peace, nurtured and allowed (or even assisted) to recover to more sustainable levels. Revegetating the sports field will remove that 1600m edge and create an ecologically important habitat block that will make a meaningful contribution to the recovery needs of the Tweed Coast koala population.'*

[NOTE: Dr Phillips is a renowned Koala expert, Managing Director/Principal Ecologist of Biolink Ecological Consultants and Principal Ecologist of the Tweed Coast Koala Habitat Study 2011.]

**Recommendation: THE NSW KOALA STRATEGY SHOULD INCLUDE REVEGETATION OF THE BLACK ROCKS SPORTS FIELD AS A MATTER OF HIGH PRIORITY.**

## **Proposal to relocate Black Rocks sports field to Dunloe Park urban development** [see ATTACHMENTS 4 and 5]

Under the gateway process the Office of Environment and Heritage can provide recommendations regarding conditions of consent for the Dunloe Park urban development.

**Recommendation: THE NSW KOALA STRATEGY SHOULD INCLUDE A RECOMMENDATION BY THE OEH FOR THIS PROPOSAL TO BE ADOPTED.**

## **Planting out edges of koala habitat with native trees which do not attract koalas**

At the Black Rocks by the Sea estate (which is adjacent to the Pottsville Wetlands koala corridor) there is a 30 metre fire protection zone. However, according to fire regulations, only 22 metres is required. There are many primary koala food trees growing on the edges where koalas are impacted by human-related disturbance.

**Recommendation: THE NSW KOALA STRATEGY SHOULD INCLUDE FUNDING FOR REVEGETATION OF THE 8m WIDE STRIP NOT REQUIRED FOR FIRE PROTECTION WITH NATIVE TREES WHICH ARE NOT KOALA FOOD TREES.**

## Replacement of koala crossing signage with underpasses or overpasses and koala fencing

The Tweed Coast koala corridor is currently severed by Clothiers Creek Road, Round Mountain Road and Coronation Avenue. This corridor is set to be severed by Kellehers Road when the proposed Dunloe Park urban development (with an estimated 6,000 people) proceeds west of Pottsville and an approved major road to service the new Kings Forest urban development (with an estimated 11,000 people) proceeds west of Casuarina. According to the TCKHS 2011 koalas are extinct at the northern end of the corridor where there is a large concentration of urban development. The most significant koala decline identified in the 2015 koala study was north of Koala Beach.

Koala crossing signage was recently installed in Clothiers Creek Road and Coronation Avenue. At a community talk in Pottsville on 7 March 2015, Dr Phillips said: *'The science is very strong on this. Signs don't work. We can't even get people to slow down at school crossings for our kids let alone stop at signs which say 'Please slow down for koalas'.* At a Threatened Species Conservation Society meeting, he recommended that the only way to stop koala road kill at Clothiers Creek Road is with underpasses and koala fencing. He estimated that 8 underpasses @ \$50,000 each would be needed, ie an underpass every 250m (minimum 1.8m wide) for a length of 2km. Exclusion fencing would cost \$120 per metre. Koala grids would also need to be installed at private driveways.

At Coronation Avenue an underpass was set to be installed as an offset for koala habitat trees which had been removed to accommodate a new medical centre in Pottsville. However, Council went with the cheaper koala signage option, even after I had a meeting with Council to prove that an underpass would work. They were not prepared to stop roadworks already in progress.

**Recommendation: THE NSW KOALA STRATEGY SHOULD INCLUDE FUNDING FOR UNDERPASSES AND KOALA-PROOF FENCING AT CLOTHIERS CREEK ROAD AND CORONATION AVENUE.**

NOTE: It is my understanding that underpasses and koala-proof fencing will be installed at the Kings Forest and Dunloe Park major access roads as a condition of consent for development approval.

Kind regards  
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