

Airly Mine Extension Proposal

[REDACTED] Public Officer Capertee Valley Alliance ("CVA") and resident at [REDACTED] submission to Planning Assessment Commission ("PAC") Public Hearing- 27 October 2016-10-13

Key points RE Airly mine extension for regent honeyeaters.

I object to the proposed extension to the Airly mine. This is because I feel that the potential for the mine extension to cause a significant impact, as defined by state and federal legislation, on the critically endangered regent honeyeater population, has not been evaluated sufficiently. Reports commissioned by the mine conclude that the mine extension proposal will not have a significant impact upon the regent honeyeater population. This conclusion is substantially inaccurate and has been reached based on poor scientific justification. I will now explain how the impact assessment commissioned for the Airly mine extension is inadequate in relation not only to the federal *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act), but also the requirements of the Director General's Requirements and therefore the Environmental Planning and Assessment Act 1979 (EP&A Act).

Firstly, the assessment process undertaken on behalf of Centennial Airly Pty has not specified or acknowledged that the population status of the regent honeyeater has been up-listed to critically endangered under the federal EPBC Act, since the report was submitted. This up-listing is in response to an ongoing population decline. The global population estimate for the regent honeyeater is 350 individuals, with an effective population size based on recent DNA evidence of 100 pairs (Kvistad et al. 2015). The Capertee Valley is widely known to be the single most important river catchment system for the persistence of the species in the wild. Ongoing intensive scientific research has estimated that 70-100 birds regularly occupy the valley. This represents a minimum 25-35% of the global population estimate.

Riparian corridors within the Capertee Valley are known to be critical breeding habitat for the regent honeyeater. The impact assessment commissioned by Centennial and undertaken by RPS accurately states that "In the Capertee Valley, breeding generally commences with the flowering of Needle-leaf [REDACTED]

Mistletoe; this is used extensively in the early stages of the breeding season, but birds often switch to Yellow Box when it begins flowering later in the season. Nests usually constructed in eucalypts, casuarinas or mistletoes. Forages for nectar and arthropods.”

However, the report does not state that these habitats are used on an annual basis in the Capertee Valley. In the past 5 years, over 30 nests have been recorded in riparian habitat on Coco Creek and the Capertee River. This represents more than 25 % of all regent honeyeater nesting attempts recorded nationally during this period.

Table 14 of the impact assessment; “Assessment of Likelihood of Occurrence of Threatened Species and Communities and Assessment of Potential Impacts” concludes for the regent honeyeater that “The Project involves clearing that may have an impact upon this species” and “Therefore, a 7-part Test of significance (TSC Act) has been applied to this species in Appendix.” While the project does indeed involve clearing that may impact the regent honeyeater, this is an incorrect justification for the implementation of the 7 part test of the impact of the mine extension on the regent honeyeater population. Rather, the 7 part test should have been based upon the effects of both a drop in the water table and a reduction in the quality of the water on the persistence, extent and quality of critical breeding habitat for the regent honeyeater, not only inside the development area but also in riparian zones downstream of the development area.

Indeed, the impact assessment by RPS acknowledges that “Due to the shallow depths of these aquifers, it is reasonable to deduce that phreatophytes (groundwater dependent terrestrial plants) would be utilising these water resources. Therefore, Groundwater Dependent Ecosystems are likely to occur within these shallow aquifer zones.” “As defined by Eamus (2009) GDEs are; ‘ecosystems whose current composition, structure and function are reliant on a supply of groundwater. This reliance might be expressed every day of the year, or only for a few months every few years, but the reliance becomes apparent when the supply of groundwater is removed for a sufficient length of time that changes in plant function (typically rates of water use decline first) are observable’.”

Based on this definition, it is an undeniable fact that the Capertee-Wolgan riparian habitat; specifically the river she-oak *Casuarina cunninghamii* and the

needle leaf-mistletoe *Amyaema cambageii* that the she-oaks support, should be defined as a Groundwater Dependent Ecosystem.

We refer to recent peer-reviewed scientific research by Dr Sebastian Pfautsch, from the Hawkesbury Institute of the Environment and colleagues. Pfautsch and colleagues published their research, titled 'Assessing the impact of large-scale water table modifications on riparian trees: a case study from Australia' in the international journal *Ecohydrology*. Dr Pfautsch states that "the tight connection between water use and the growth of trees implies that a reduction in water use will lead to a reduction in growth. In extreme cases, trees die of thirst."

The following photographs taken just yesterday show river oaks and their associated needle-leaf mistletoe on both Coco Creek and the Capertee River; both critical sections of regent honeyeater breeding habitat downstream, and well within the water catchment, of the proposed mine extension site. As can be clearly seen, the photographs demonstrate that substantial sections of riparian habitat - both the she-oaks and their mistletoe, are already suffering from water stress. The ultimate cause of water stress has not been proven, but our observations suggest that mining activities already undertaken at Airly are likely to be to blame:

(Refer here to river flow photos). Also refer to the poor reliability of hydrological models. Are there any confidence intervals?

This process is already impacting upon the availability of critical breeding habitat for the regent honeyeater. Indeed, ongoing research into the ecology and conservation of the regent honeyeater in the valley by scientists at one of Australia's leading universities, has shown that key breeding habitat has been lost even since this time last year, through the death of needle-leaf mistletoe within the river system. It is highly likely that the death and degradation of these riparian habitats is caused by a reduction in the capacity of the trees to access sufficient water, particularly during increasingly-frequent drought conditions.

Consequently, it is highly likely that any further reduction in the level of groundwater or the quality and quantity of water flows within the catchment will lead to further death of river oaks and their associated mistletoe. Crucially, the potential occurrence and magnitude of this highly likely effect on the availability of breeding habitat and subsequently, the population trajectory of

the regent has not been considered by Centennial Coal and RPS. Therefore, to conclude that the mine extension will have no significant impact upon the regent honeyeater under the EPBC Act or the 7-part-test is comprehensively unjustified based on a lack of a thorough assessment of the available scientific evidence.

I am of the strong opinion that, should this assessment be re-evaluated with a full consultation of scientific experts, the mine extension proposal would indeed be likely to have a significant impact upon the regent honeyeater. I agree with Mr Michael Roderick, a regent honeyeater expert from BirdLife Australia, who states that "The survival of the mature river oaks and associated needle-leaf mistletoe in the riparian systems of the Capertee River catchment to a large extent underpin the survival of the entire regent honeyeater population. Any impact on the availability and quality of water in or underlying these systems, and the vegetation therein (particularly the mature river oaks, which would be highly susceptible to the impacts of drawdown in these drainage lines), must be viewed as having a significant impact upon this critically endangered species."

The Director General's Requirements for environmental assessment for the mine extension, under section 78a (8a) of the EP&A Act require that, under biodiversity, the following requirements are met:

Measures that would be taken to avoid, reduce or mitigate impacts on biodiversity- accurate estimates of direct impacts, such as clearing and subsidence and indirect impacts such as edge effects.

With respect to these estimates, we are of the firm opinion that the subsidence, and indirect impacts of the mine development, specifically death or damage to downstream riparian habitats, have not been evaluated accurately or sufficiently.

A detailed assessment of potential impacts of the development on any 1) terrestrial or aquatic threatened species or 2) populations and their habitats, endangered ecological communities, groundwater dependent ecosystems and 3) regionally significant remnant vegetation or vegetation corridors.

As mentioned, it is uncontested that river oaks and their associated mistletoes are a groundwater dependent ecosystem. Therefore, the impact assessment does not meet the Director General's Requirements with respect to this section of the legislation.

As noted previously, the 7-part test for the regent honeyeater in the impact assessment concludes; "The Regent Honeyeater is listed as Endangered under the EPBC Act." This is now incorrect, as the regent honeyeater has been up-listed to critically endangered.

"Regent Honeyeaters are endemic to South-east Australia, extending from south-east Queensland to central Victoria." Regent honeyeaters are extremely rare in central Victoria. The Capertee Valley undoubtedly represents the core of the species range, which is still contracting with an ongoing population decline. This comment therefore overestimates the breeding area of occupancy of the regent honeyeater, downplaying the vital importance of the valley to the birds.

"The Regent Honeyeater is well known as occurring in the Capertee area, individuals are recorded in more easterly habitat, particularly in areas characterised by winter-flowering *Eucalyptus* ssp. when westerly habitats are experiencing extended dry periods." We assume here that they are referring to white box. In this instance, this statement is incorrect. Intensive monitoring over the past 2 seasons has demonstrated that breeding activities in the spring and summer are associated with concurrent flowering of yellow box and needle leaf mistletoe, in close association with water. Indeed, the regent honeyeaters are often informally called the 'water honeyeater'. Recent scientific monitoring suggests that birds breeding in association with yellow box are fundamentally dependent upon access to water, as the birds become covered in pollen when foraging in flowering yellow box. Thus, even birds that do not use mistletoe when breeding, are still very dependent upon water during breeding. To highlight my point, none of 53 nests located by researchers within the past 2 years have been located more than 300m from a water source.

The assessment is based entirely on the loss of habitat within the development area, whereas the real potential impact is upon the downstream habitat via effects on hydrology. This has failed to be considered and ought to have been considered.

I make the following comments in relation to the EPBC assessment provided in the EIS

- a) Lead to a long-term decrease in the size of a population

Loss of habitat does not take into account the proportion of total habitat that is actually viable breeding habitat within each season, based on a) the small proportion of available habitat that is in flower at any one time and b) the small proportion of flowering habitat that regent honeyeaters can access without being excluded by larger competitors. Refer to Matt Webb's ongoing research on Swift Parrots as a case in point here.

b) Reduce the area of occupancy of the species

The assessment implies that because the species is highly mobile that it can 'avoid' areas of impact. This is false. See Runge et al 2015 'conserving mobile species', which comprehensively reviews why the exact opposite situation is true.

c) Fragment an existing population into two or more populations

Again, impact entirely assessed within site boundaries is not complete when considering the highly likely impact on downstream hydrology

d) Adversely affect habitat critical to the survival of a species

N/A

e) Disrupt the breeding cycle of a population

As above for a,b,c,d

f)

g) Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat

N/A

h) Introduce disease that may cause the species to decline

N/A

i) Interfere with the recovery of the species

Absolutely will interfere with the recovery of the species.

Offset strategy: clearly quantified, to ensure the development maintains or improves the terrestrial and aquatic biodiversity values of the region in the medium to long term.

Offsets are not a viable option because no alternative habitat is available in the short term. As such, medium to long term benefits are irrelevant for the regent honeyeater, given the species' perilous population status. Should the mine proceed and the effects we predict to occur unfold, there is a high probability that the regent honeyeater will be extinct in the wild by the 'medium term.' Plus, water tables cannot be offset! We refer to recent research by Professor Martine Maron and Dr Megan Barnes relating to counterfactual failings in

offset policy. For critically endangered species severely lacking in available habitat, the 'no net loss' aim of offsetting is simply not achievable

Assistance was received from one of Australia's top Universities in the preparation of this submission.

Donna Upton





Capertee River at Genowlan Road Glen Alice.



Mistletoe

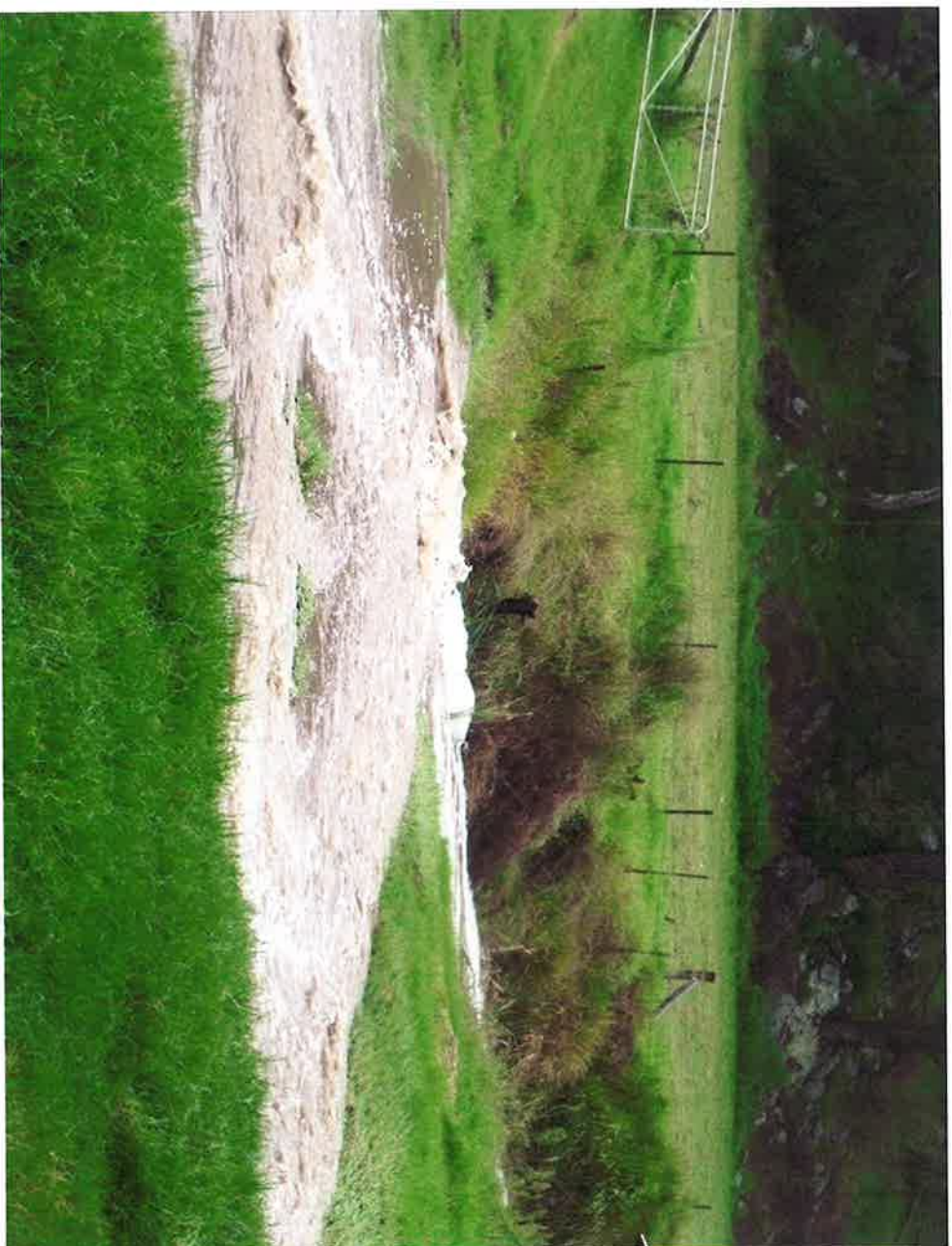


Dead She Oak



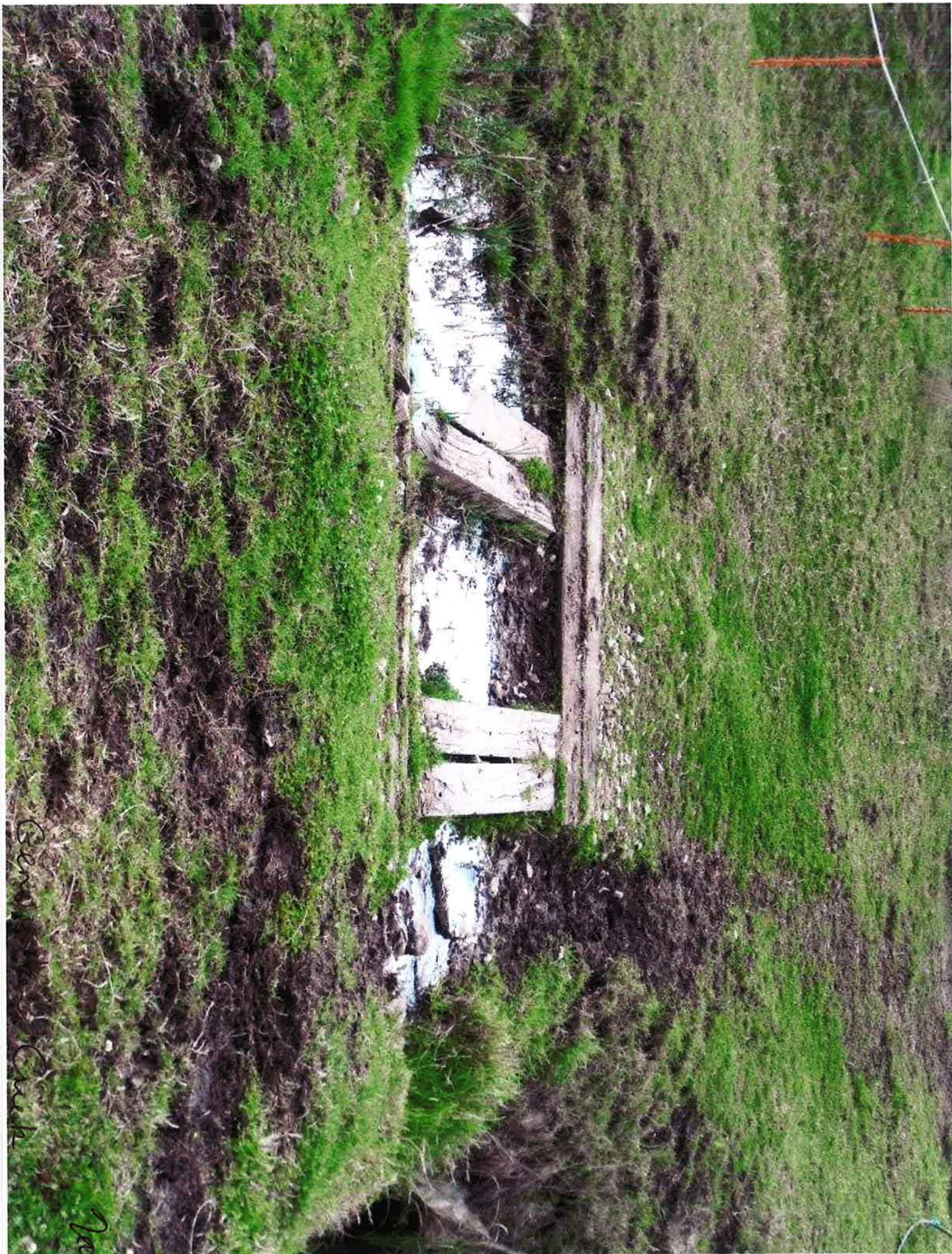
Upstream from Genowlan Bridge

20/10/2016



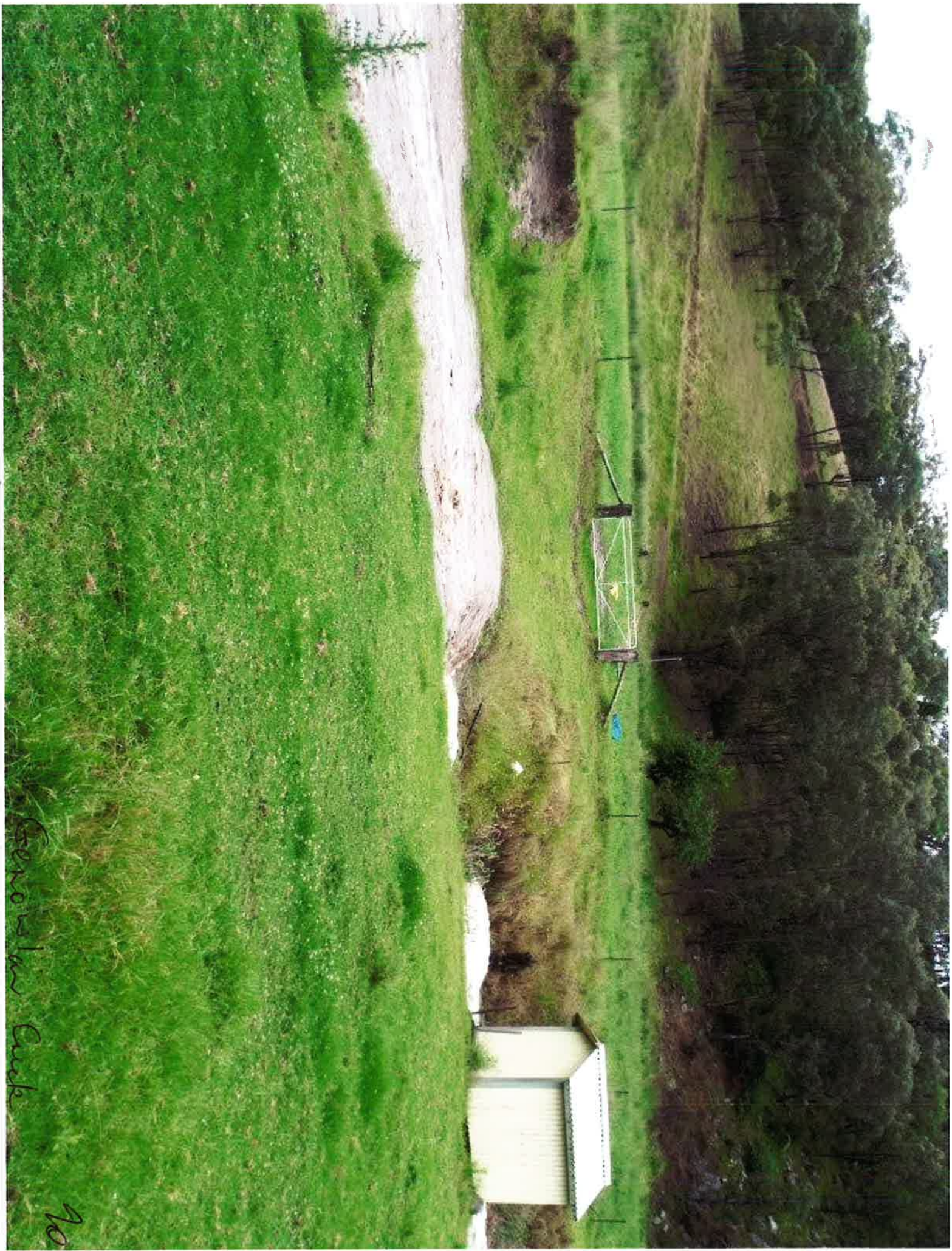
Genowla Creek.

9/12



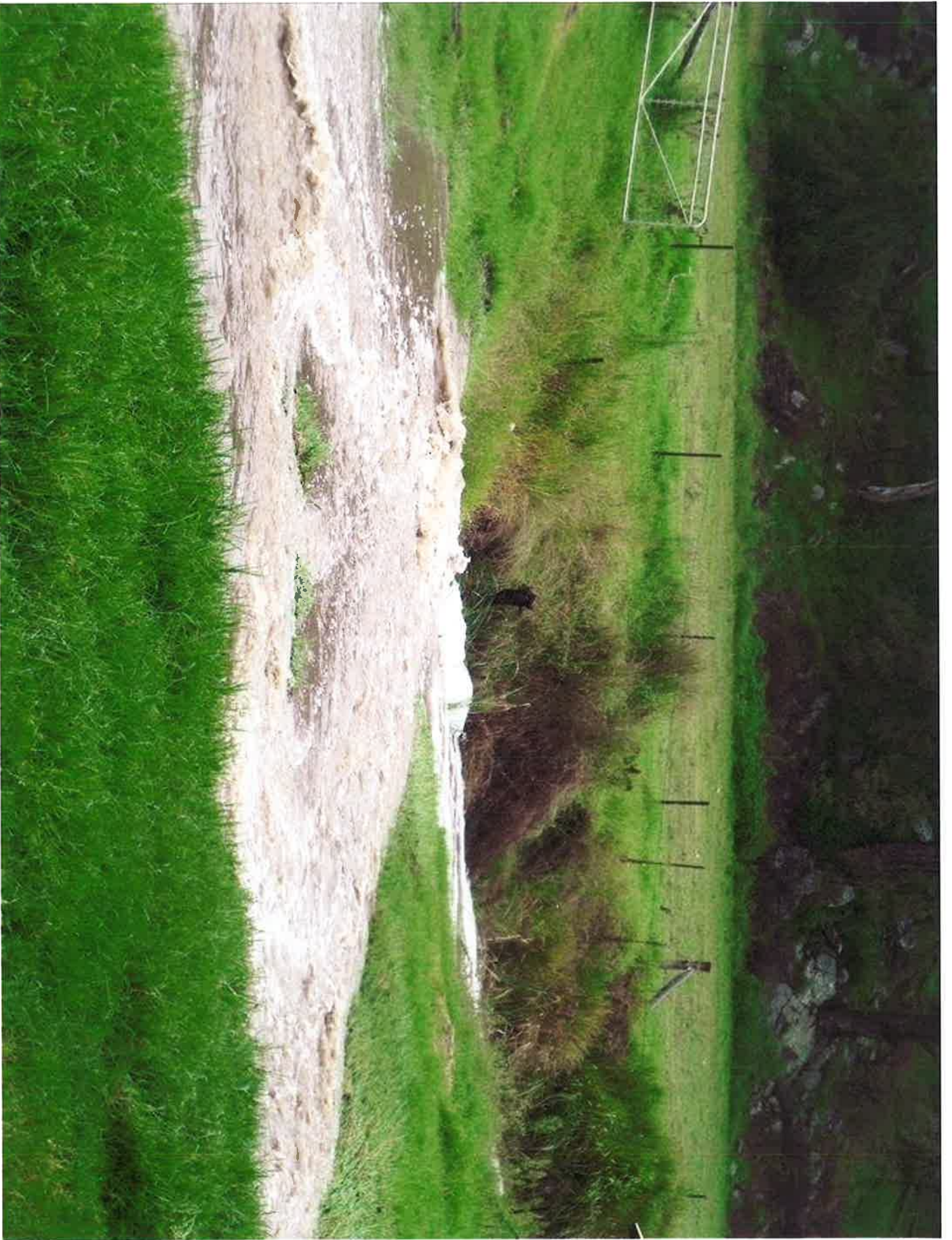
Green Valley Creek

2010



General Creek

20/10



Genowlan Creek

2017



Green on Lane Creek

20/16

From: [REDACTED]
To: [REDACTED]
Subject: FW: Submission Details for company BirdLife Australia (org_object)
Date: Monday, 3 November 2014 9:27:31 AM

EIS
H

Colin Phillips
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Department of Planning and Environment
P: 92286483 colin.phillips@planning.nsw.gov.au

From: [REDACTED]
Sent: Friday, 31 October 2014 4:54 PM
To: Colin Phillips
Subject: Submission Details for company BirdLife Australia (org_object)

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation: no

Name: [REDACTED]

Organisation: [REDACTED]

Govt. Agency: no

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Content:

To whom it may concern,

RE: Submission on behalf of BirdLife Southern NSW Conservation Subcommittee

BirdLife Australia is Australia's peak bird conservation organisation. We represent over 65,000 supporters across the country. We are dedicated to providing a voice for Australia's birds.

The BirdLife Southern NSW Branch conservation subcommittee thank you for the opportunity to comment on the Planning Assessment Commission (PAC) review of the proposal to extend the operations of the Centennial Coal Airly Mine. Our comments follow below:

1. The Capertee Valley has been designated by BirdLife International as an Important Bird Area (IBA no. 24546). This designation was granted based on the extraordinary diversity of bird species found in the valley; there are at least 216 species present within the IBA. The Project Application Area falls within the Capertee Valley IBA and has potential to impact upon this area.

2. The Capertee Valley is the world's most important breeding area for the Regent Honeyeater which is

listed as endangered under the EPBC Act and critically endangered under the TSC Act and internationally under IUCN. A minimum of 55.28 ha of the Project Application Area is considered critical habitat for the species, but the actual area of impact upon Regent Honeyeater habitat is likely to exceed this.

3. The Project Application Area also supports 16 other bird species that are listed as vulnerable on either the TSC Act or EPBC Act.

4. The Project Application Area encompasses a total area of 3,982 ha. While most of this is underground disturbance, surface facilities will permanently remove 39.09 ha of vegetation. This area will not be restored for at least 20 years. This represents a substantial, long-term loss of primary habitat for many endangered bird species.

5. BirdLife commends the decision to avoid removal of mature Box-Gum woodland from proposed Reject Emplacement Area 1 (REA1) by proposing Reject Emplacement Area 2 (REA2). However impacts to threatened bird habitat will not be entirely avoided by doing this. Section 7.1.1 states "The scattered trees are not considered to comprise woodland as their distance and lack of contiguous understorey does not provide sufficient habitat to be considered anything more than dispersed paddock trees." This statement is negligent. It is a known fact that isolated paddock trees contribute some of the most important remaining foraging habitat for the Regent Honeyeater and the TSC Act and EPBC Act listed Endangered Swift Parrot (*Lathamus discolor*) as well as the Vulnerable honeyeaters, Painted Honeyeater (*Grantiella picta*) and Black-chinned Honeyeater (*Melithreptus gularis gularis*). This is because of the abundance of mistletoe (*Amyema* spp.) and high nectar flows from flowers in these large trees. Paddock trees also tend to occur in lower elevation areas soil nutrients are higher leading to enhanced nectar supply. The loss of any large native paddock trees will have impact to local populations of these threatened species by further depleting scarce food supplies

6. BirdLife is not entirely convinced that the mapping of the vegetation in REA2 is correct. The field inspection by Roget Lembit on the 18th June 2014 is inadequate as it occurred during winter when native grasses have died off and seed-head is mostly undetectable (making grass species diversity and accurate species identification questionable). During the winter months, native herbage has usually dried-out or grazed by herbivores at this time and annual exotics come to dominate. During this period, it is impossible to get an accurate representation of the native grass and herb assemblages in order to determine whether the grassland community qualifies as the Endangered Ecological Community (EEC) "Box-Gum woodland derived native grassland (DNG)". Early spring is the recognised time to undertake surveys of grassland assemblages to determine presence of Box-gum woodland DNG. Failing this, surveys may be conducted in autumn but only after sufficient rains. All other times are inadequate for making decisions on the presence of the DNG form of this EEC.

7. The loss of tree hollows is a listed 'Key Threatening Process' under the TSC Act and likely to impact on a larger number of threatened birds including the Vulnerable Brown Treecreeper (*Climacteris picumnus victoriae*). BirdLife maintain that the direct removal of any tree hollows should be avoided, and if unavoidable should be offset irrespective of whether such hollows occur in historically cleared, or woodland environments. The proposal will result in the direct loss of at least seven small (2 - 10 cm) hollows, one medium (11 - 20 cm) hollow and two large (>20 cm) and many additional hollow-bearing trees from within the surface disturbance areas.

8. The habitat contained within the Project Application Area currently provides connectivity between the Capertee National Park to the north and the Gardens of Stone National Park to the south. The fragmentation or loss of any of this habitat through building of roads, access tracks and other surface facilities will affect habitat and the movement of avifauna species across the landscape.

9. The Project Application Area contains four major creek systems; Airly-Coco Creek, Emu Swamp Creek, Gap-Genowlan Creek and Torbane-Oaky Creek. Genowlan Creek is the most important single

location for breeding by the Regent Honeyeater in Australia. Regent Honeyeaters in the Capertee Valley primarily nest in Needle-leaf Mistletoe (*Amyema cambagei*) growing in River Oak (*Casuarina cunninghamii*), this habitat is dominant along the lowland areas of Genowland Creek and is also present along Coco and Airly Creeks.

10. Centennial Coal and RPS have provided no proof or scientific backing to show that that subsidence-related effects (a section of Genowland Creek is predicted to have a groundwater drawdown of up to 1.1m) on natural drainage will not permanently affect vital Regent Honeyeater streamside breeding habitat which could potentially contribute to the Regent Honeyeater's extinction.

11. All of the listed creeks provide important water sources and habitat for the threatened woodland bird species discussed. All of these creeks are threatened with accidental mine water discharge. The number of cases of environmental spills from inadequate waste water management and poor storm water holding capacity is alarming and enough to suggest that a spill will one day occur as a result of the proposed expansion of Airly Mine.

12. The lack of mention of Needle-leaf Mistletoe (*Amyema cambagei*) in the total flora species list for the entire Project Application Area, or mention of 'Needle-leaf Mistletoe in River Oak Forest' as important habitat for the Regent Honeyeater is cause for concern as this is the most crucial habitat for Regent Honeyeater in the Capertee Valley. The omission of this brings BirdLife to question the rigour and validity of background research undertaken for the entire Flora and Fauna Appendix Report (Appendix H).

13. There is no suitable explanation as to how RPS and Centennial Coal determined that MU 20 (Capertee Rough-barked Apple - Redgum - Yellow Box Grassy Woodlands) is the only 'Critical Habitat' for the Regent Honeyeater in the Project Application Area.

14. The term 'Critical Habitat' is officially only given to habitat which has been declared under the OEHS 'Critical Habitat Register'. Only four species have been allocated 'Critical Habitat' under this process to date, the Regent Honeyeater is not one of them. However, this must not detract from the reality that much habitat within the Project Application Area is considered extremely important and critical to the survival of the Critically Endangered Regent Honeyeater.

15. Any vegetation community which contains the important feed trees, White Box (*Eucalyptus albens*), Yellow Box (*E.melliodora*), Blakely's Red Gum (*E.blakelyi*) and the breeding/feeding resource Needle-leaf Mistletoe (*Amyema cambagei*) and its host River Oak (*Casuarina cunninghamii*) that occurs in the vicinity of the Capertee Valley is crucial to the survival of the Regent Honeyeater. This means that all tracts of MU 54 (Capertee - Wilgan Riparian Rough-barked Apple - River Oak Riparian Forest), MU 42 (Capertee White Box - Tumbledown Red Gum - Ironbark - Callitris Shrubby Woodland), MU 38 (Capertee Grey Gum - Narrow-leaved Stringybark - Scribbly Gum - Callitris -Ironbark Shrubby Open Forest)and MU 21 (21 Capertee - Wolgan Slopes Red Box -Grey Gum - Stringybark Grassy Open Forest) should be included in the RPS 'Critical Habitat' map for the Regent Honeyeater across the Project Application Area (see Page Ixiv in Appendix H). This means the area of 'Critical Habitat' for Regent Honeyeater in the Project Application Area will greatly exceed the initial (unrealistic) calculation of 55.28 ha.

16. Further targeted survey of Regent Honeyeater during the breeding season and non-breeding (foraging) seasons should be carried-out across the Project Application Areas, ideally using both observational survey methods and passive acoustic devices (e.g. SongMeters). This will assist in establishing where birds are present and possibly breeding across the Project Application Area.

17. Impacts of subsidence on vegetation and bird habitat (e.g. through dieback caused by the shearing of tree roots, or alteration of tree root access to ground water) is overlooked in this report and not addressed

adequately enough to provide any satisfaction that impacts will not be significant.

18. Subsidence will cause the collapse of pagoda formations, cliff lines, overhangs and other outcropping sandstone formations. This may cause direct impact to roosting Sooty Owl (*Tyto tenebricosa*) listed as Vulnerable under the TSC Act, and breeding habitat of the rare Rockwarbler (*Origma solitaria*) which is the only species of bird that is endemic to NSW.

19. BirdLife recommends that subsidence risk be audited by environmental agencies that are impartial (e.g. not employed by Centennial Coal). Any potential impacts upon native vegetation should be adequately documented, released to the public and addressed by Centennial Coal.

20. BirdLife maintains that offsets are rarely an appropriate response to proposed biodiversity or native vegetation loss

<http://www.birdlife.org.au/documents/POL-Offsets-Policy.pdf>

Any consideration of offsets should address all surface area disturbance vegetation losses (including derived native grasslands) and any subsidence or other mine-related vegetation dieback at like for like ratios or more. Offsets must comply with both Commonwealth (EPBC Act) and State (Biobanking or an adequate Conservation Agreement).

We appreciate this chance to comment on issues that we are most passionate about and we look forward to being informed of the final decisions of the PAC process.

Yours sincerely,

Birdlife Southern New South Wales
Conservation Subcommittee

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Submission: Online Submission from company BirdLife Australia (org_object)

https://majorprojects.affinitylive.com/?action=view_activity&id=111740

Submission for Job: #5581 Airly Mine Extension Project

https://majorprojects.affinitylive.com/?action=view_job&id=5581

Site: #2032 Airly Mine

https://majorprojects.affinitylive.com/?action=view_site&id=2032

BirdLife Australia Company

