

## **SUBMISSION – DRAFT REVIEW OF ENVIRONMENTAL FACTORS FOR ILLAWARRA ESCARPMENT MOUNTAIN BIKE PROJECT (MT KEMBLA-MT KEIRA TRACKS ONLY)**

*The Illawarra Escarpment Alliance (EscA) is an alliance of like-minded community-based organisations and individuals who aim to protect the Illawarra Escarpment's cultural and environmental heritage.*

EscA welcomes the opportunity to comment on the Draft Review of Environmental Factors (REF) for one part of the Illawarra Escarpment Mountain Bike Project (the Project), namely a network of formal mountain bike (MTB) tracks between Mt Kembla and Mt Keira, in the Illawarra Escarpment State Conservation Area (IESCA) and on adjacent other lands.

EscA members have a range of views on how best to protect the Illawarra Escarpment's cultural and environmental heritage values. This submission represents our consensus view on the *minimum changes* that we would all like to see in the Draft REF currently on public exhibition.

### **1. To ensure consistency with the Environmental Assessment and Planning Regulations 2021, the Draft REF needs to cover the impact of the entire Project, not just the impact of proposed formal MTB tracks between Mt Kembla and Mt Keira**

- The impacts of the Project are greater than just the tracks covered in this REF, because the Project also includes ancillary infrastructure (parking, toilets etc) on Wollongong City Council land, and a track network for the Balgownie area of the IESCA. *Assessing the Project's impacts requires consideration of all these components in a single REF.*
- It is a legislated provision of the Environmental Planning and Assessment Regulation 2021, that the REF for a project consider the "cumulative environmental effect with other existing and likely future activities" (EPA Regulation 2021, clause 171 (2) (o)). REFs need to show substantial compliance with legislative requirements; not considering the cumulative environmental impact is a significant non-compliance.
- The cumulative impacts of a Project are taken to include existing activities, in this case the many hundreds of kilometres of illegal MTB tracks. *Without a plan to address the illegal tracks, the Project's impacts should be assessed as additional to those tracks.*

### **2. The REF must include a credible plan to address illegal MTB construction and use**

- The Draft REF states that formal tracks are needed in order to close illegal tracks but it doesn't offer a credible plan for how illegal tracks will be closed and kept shut, or how new illegal track construction will be prevented. Without this plan, it's not possible to tell if the Project will reduce or increase the total damage caused by mountain bike riding.
- *To ensure that the tracks proposed are demonstrably part of an overall net positive outcome for the Project, the REF needs to provide a detailed strategy covering costing, resourcing, timing, education and compliance efforts needed to close, remediate and keep closed illegal tracks across the entire IESCA.<sup>1</sup>*

<sup>1</sup> The Social Impact Comment recommends developing a framework for track closure (pp.23-4) and suggests that models that work well include dedicated track maintenance staff (p.18), but these are not included in the REF.

### **3. The REF needs to include more detailed and stringent provisions to avoid negative impacts on the environment**

- The proposed MTB tracks run through every patch of Illawarra Subtropical Rainforest recorded in the study area;<sup>2</sup> this is an ecological community that is critically endangered under federal environment law.<sup>3</sup> The project will also permanently clear over 0.5 hectares of this ecological community, resulting in internal fragmentation, in an area where it is formally protected (the IESCA), but suggests this is not a significant impact.<sup>4</sup>
- The impacts of the tracks on Illawarra Subtropical Rainforest (and threatened fauna) are considered not to be significant on the basis that it consists of narrow linear tracks.<sup>5</sup> This claim is not supported with evidence. Internal fragmentation is one of the documented effects of both formal and informal bike tracks.<sup>6</sup> *The Project should avoid tracks through subtropical rainforest, both in the area between Mt Kembla and Mt Keira and in the Balgownie area.*
- The REF does not adhere to the Conservation Advice for Illawarra-Subtropical Rainforest under the Commonwealth's Environment Protection and Biodiversity Conservation Act, which says 'In addition to the patch itself, a minimum buffer zone that extends 100 m beyond the canopy of the outermost trees in the patch is essential to assist in the conservation of the patch'.<sup>7</sup> *The Draft REF should be altered to be consistent with the Conservation Advice for Illawarra Subtropical Rainforest.*
- The proposed MTB tracks run through thickly vegetated gullies that the Illawarra Birders have identified as habitat for the vulnerable Powerful Owl and Sooty Owl. A Powerful Owl was recorded during surveying for the Ecological Assessment. These species are easily disturbed by humans, particularly when nesting and roosting.<sup>8</sup> Proposed management arrangements (annual surveying for nesting birds within 100m of the tracks and closing tracks from May-July if required) look implausible, particularly in light of other compliance challenges identified by NPWS, such as the difficulty of preventing track use at night.
- The measures to stop spread of Dieback (*Phytophthora cinnamomi*), amphibian chytrid fungus and Myrtle Rust (pathogens in the order *Pucciniales*) from spreading are cursory/inadequate.<sup>9</sup> Dieback is already recorded in the northern area of the IESCA,

<sup>2</sup> See Attachment C of the REF (Ecological assessment report), Figure 5 (p.47).

<sup>3</sup> See <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/148-conservation-advice.pdf>.

<sup>4</sup> See Attachment C (Ecological assessment report), pp.75-76 and pp.104-105. The claims made on these pages include 'Areas of [Illawarra Subtropical Rainforest] have largely been avoided' which is not correct. The federal Conservation Advice for Illawarra Subtropical Rainforest also notes that only around 8.8% of the remaining extent of the ecological community is in conservation reserves (Conservation Advice (<http://www.environment.gov.au/biodiversity/threatened/communities/pubs/148-conservation-advice.pdf> p.26).

<sup>5</sup> See Attachment C (Ecological assessment report), for example p.33, p.84.

<sup>6</sup> Literature on internal fragmentation is limited, but includes publications such as Ballantyne, M., Pickering, C.M. and Gudes, O. (2014) How formal and informal mountain biking trails result in the reduction, degradation and fragmentation of endangered urban forest remnants. 7<sup>th</sup> International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, August 20-23, Tallinn, Estonia, pp.155-157, and Newsome, D., and Davies, C. (2009). A case study in estimating informal track development and associated impacts caused by mountain biking activity in John Forrest National Park, Western Australia. *Journal of Ecotourism*, 8, 237-253.

<sup>7</sup> See Conservation Advice (<http://www.environment.gov.au/biodiversity/threatened/communities/pubs/148-conservation-advice.pdf>), p.22.

<sup>8</sup> See Protecting Powerful Owls in Urban Areas (<https://www.step.org.au/images/STEPimages/PDFdownloads/Popweb.pdf>), which recommends siting any tracks at least 100m away from actual and potential nesting or roosting sites, and avoiding making noise near nesting sites from early May to late October. This report also recommends maintaining and enhancing native vegetation structure, e.g. by not damaging or altering the root environment of actual and potential nesting trees (p.14).

<sup>9</sup> See Attachment C (Ecological assessment report), pp30-31.

and washdown facilities are unlikely to be effective, as witnessed by the ongoing spread of Dieback across many parts of Australia. The same goes for chytrid fungus. The mitigation for Myrtle Rust is not described, but there are substantial risks in increasing human activities in Myrtaceae-dominated vegetation, particularly in opening up new areas to tracks.<sup>10</sup> *Control effectiveness needs to be carefully considered.*

**4. The REF needs to provide more assurance that impacts on Aboriginal cultural heritage have been appropriately assessed and taken into account.**

- It is not possible to tell if the REF adequately assesses impacts on cultural heritage as the Aboriginal Cultural Heritage Assessment (Attachment A) was not released. There is no information provided within the REF regarding the omission of this report or if the Registered Aboriginal Parties (RAPs) and contributing knowledge holders were made aware of or requested this absence. Furthermore, there is no information regarding the extent of consultation, input or objections to providing such information.
- There is no information on how the survey was undertaken, if information was sought generally or if those participating were fully informed of the proposal.
- There is no reassurance that the contributing individuals and organisations have been given adequate opportunity and any support required to appropriately review the REF in line with this culturally sensitive information to verify appropriate inclusion or consideration of that information. There is no reassurance that those knowledge holders and RAPs who objected or refused to participate, were not approached or did not respond, were given culturally appropriate opportunities and support to review the REF and provide feedback.
- The Social Impact Comment says that the project presents risks to the Djembla Djeera Cultural Landscape that need to be managed (p.20). However, without access to the Aboriginal Cultural Heritage Assessment, it's not possible to tell whether the REF proposes mitigation measures that will adequately address impacts on cultural heritage, particularly the Djembla Djeera Cultural Landscape.
- There is no reassurance that adequate precautions or mitigations concerning impacts on cultural heritage have been incorporated in the REF, particularly in the likely absence of disclosure/input from some knowledge holders in the area.
- *Risks to the Djembla Djeera Cultural Landscape need to be further assessed and managed/mitigated in conjunction with Aboriginal cultural knowledge holders.*

**5. The REF needs to more comprehensively document social impacts and consult further with the affected communities regarding appropriate mitigations**

- The Draft REF lacks details on critical aspects of the project's impact on local residents in the Mount Kembla and Kembla Heights areas. These include details of how MTB track users will access the trails, such as planned access points, car parking arrangements, anticipated traffic volumes, noise associated with increased traffic and car parking in residential areas at trail access points, and other ancillary infrastructure such as toilets. Safety of residents is not addressed, and the challenges and costs associated with rider injury and rescue are not considered. Without these details, the social impacts of the MTB track network cannot be properly assessed.<sup>11</sup>

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<sup>10</sup> See Attachment C (Ecological assessment report), Table 16 (p.30).

<sup>11</sup> See Attachment B (Social Impact Comment), p.18.

- The Social Impact Comment identifies ‘high perceived negative social impact’ to communities in Mount Kembla and Kembla Heights.<sup>12</sup> Without detailed information about how the project will impact residents in these areas, mitigation measures cannot be designed, let alone assessed for effectiveness.
- *As part of the REF process, the proponents need to undertake a thorough independent risk analysis/safety audit of shared paths and public spaces where MTB users interact with members of the public. The REF needs to ensure that shared paths and mountain bike crossing points are built to an appropriate standard (for example the one established by NSW Transport), and that all identified risks are fully mitigated.*

## **6. The REF needs to provide more detail and better mitigation regarding soils, geotechnical stability and erosion**

- The Geotechnical Risk Assessment says that trails will be constructed to contain runoff and sediment movement.<sup>13</sup> However, on examination this statement is not supported with detailed modelling, plans or other evidence. For example:
  - The Draft REF does not factor in the impact of climate change on rainfall levels or intensity; rainfall intensity is predicted to increase by 20% by 2030 as a result of climate change.<sup>14</sup>
  - The Geotechnical Risk Assessment and track design work was completed without any input from stormwater engineers.
- There’s no apparent provision for cross-trail drainage interception, a fundamental principle in trail drainage design.<sup>15</sup> More detailed trail designs should be included in the REF to provide assurance that drainage arrangements have been designed to be appropriate to the context.
- The high-to-severe erosion and scour hazards identified in the geotechnical report are not factored into the REF’s risk analysis, even though they will negatively impact the environment in the escarpment and erosion is a known negative impact from formal as well as informal tracks.<sup>16</sup> The rainfall levels referenced in the REF are for Bellambi, where the average annual rainfall is around 36% lower than on the escarpment at Mount Kembla.<sup>17</sup>
- The two main site walkovers for the geotechnical risk assessment were completed in 2021, with a third visit in January 2022. This was well before the heavy rains of autumn 2022 (~1200mm) and the intense, perhaps unprecedented, rainfall of 1-5 July 2022 (~500mm). Significant landslip has occurred during the autumn and winter of 2022,

<sup>12</sup> See Attachment B (Social Impact Comment), section 4.5, p.25.

<sup>13</sup> Review of Environmental Factors p.62, p.85.

<sup>14</sup> See the Allans Creek Flood Study from 2019, which estimates a 20% increase in rainfall intensity due to climate change impacts (<https://flooodata.ses.nsw.gov.au/related-dataset/report-and-mapping/resource/9e88b95f-bcb6-416f-a8cc-95df67f383aa>) p.x. See also the Illawarra Climate Change Snapshot (<https://www.climatechange.environment.nsw.gov.au/sites/default/files/2021-06/Illawarra%20climate%20change%20snapshot.pdf>) particularly p.12 on rainfall.

<sup>15</sup> See for example Track Stabilisation and Erosion Control Manual -Sydney Water Catchment Management Authority; or Marshall,C (ed) (1995). [Guidelines for the Planning, Construction and Maintenance of Tracks](#). Soil Conservation Service of NSW. Dept Land and Water Conservation.

<sup>16</sup> See for example Olive, N.D. and Marion, J.L. (2009). The influence of use-related, environmental and managerial factors on soil loss from recreational trails. *Journal of Environmental Management* 90: 1483-1493; White, D., Waskey, M.T., Brodehl, G.P. and Foti, P.E. (2006). A comparative study of mountain bike impacts in five common ecological regions of Southwestern US. *Journal of Park and Recreation Administration* 24: 21-41; or Chiu, L. and Kriwoken, L. (2003). Managing recreational mountain biking in Wellington park, Tasmania. *Annals of Leisure Research*, 6: 336-361.

<sup>17</sup> Bureau of Meteorology – Historical Weather Observations and Statistics ([www.bom.gov.au/nsw](http://www.bom.gov.au/nsw)).

closing walking tracks, management tracks and roads across the Illawarra escarpment, that needs to be factored in to the Geotechnical Assessment and the REF.

- Notwithstanding the Geotechnical Report's finding that no specific hazards necessitated a realignment of the trails at the time of the last walkover inspection in Jan 2022, the prevailing wet weather conditions since that time warrant further close onsite trail alignment investigation and risk assessment prior to final trail design and construction.
- The Geotechnical Report concluded that scour/erosion would be commonplace particularly after heavy rainfall events yet simply downplayed it as an 'environmental' hazard and not a 'geotechnical' hazard despite the fact there is a direct nexus between severe erosion and potential landscape instability when relevant 'trigger' factors, including steep slope gradients, prevail.
- As noted at 2 above, the REF provides no detail on a defined plan to decommission the illegal trails. Consequently, the runoff generated by an additional 29km of new trails will be significantly increased with subsequent flows entering the existing catchments' watercourses resulting in greater flow volumes and velocities at source and downstream residential stormwater systems. Illegal trails must be decommissioned and rehabilitated at the same time and rate that new trails are constructed.
- *The geotechnical risk assessment should be updated following to incorporate climate change predictions on rainfall intensity and to factor in the findings of further site visits.*

**7. The Draft REF is a complex, confusing and at times internally inconsistent document that does not provide the reader with a clear picture of the impacts of the MTB tracks under consideration.**

- The Draft REF is internally inconsistent and hard to interpret.<sup>18</sup> For example:
  - The REF says Koalas are 'considered to be relatively uncommon in the project area,'<sup>19</sup> despite the sharp increase in sightings in the IESCA in recent years, and the fact that there are three Koala records in the project area itself.<sup>20</sup>
  - The attachments contain many recommended impact mitigations that are not listed in the main REF, leaving uncertainty about whether they will be actioned.<sup>21</sup>
  - As noted above, the REF says that tracks largely avoid areas of Illawarra Subtropical Rainforest, but this is not correct as every mapped area of this ecological community has proposed tracks running through it.
- Ecological surveys only covered a strip 10m either side of the proposed track route, but the REF also acknowledges that trails within 100m of nesting Powerful Owls will disturb them during the breeding period.<sup>22</sup> The rationale for only considering 10m either side of the track route is not explained in the REF, and other recent NPWS REFs applied different parameters, such as a 15m-wide strip for the Light to Light Walk, suggesting that the 10m option is arbitrary. If a threatened species such as Powerful Owl known to use the area might be disturbed if breeding within 100m of a track, then the survey area ought to have been 100m either side of the track.

<sup>18</sup> For example, the main REF document lists fifteen threatened species that are considered to have a moderate or high likelihood of occurring in the project area (p.15), but the Ecological Assessment lists seventeen, plus three migratory species e.g. it adds Gang-gang Cockatoo and Sooty Owl (p.70).

<sup>19</sup> See Attachment C (Ecological assessment report), section 1.7.7 (p.12).

<sup>20</sup> See Attachment C (Ecological assessment report), Figure 7 (p.49).

<sup>21</sup> This includes the recommendations in the Social Impact Comment around understanding the social impacts of ancillary infrastructure on the community in the Mt Kembla and Kembla Heights areas.

<sup>22</sup> Attachment C (Ecological assessment), p. 37.

- Operational arrangements are unclear or unspecified. For example, user numbers are not specified. Whether tracks can be ridden at night is also not specified, although night riding would substantially increase the impact of the Project. How could the ecological assessment confidently determine the ecological impact on threatened species if the hours of operation of the network and numbers of users were not known? A permit is required for spotlighting wildlife in forests in research projects, because of the potential adverse impacts;<sup>23</sup> night riding may have unintended adverse impacts.
- The REF provides no detail on the interaction of existing and proposed trails with the network of existing electricity and other utilities easements throughout the study area.

These are just a few examples of gaps and inconsistencies in the REF which make it difficult for readers to understand how the track network will operate or what its impacts will be.

*The REF needs to be revised to address gaps and inconsistencies including those listed above.*

We hope that concerns will be addressed in the final REF.

Illawarra Escarpment Alliance, 17 July 2022

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<sup>23</sup> See <https://www.seed.nsw.gov.au/citizen-science-hub-project-guide/create-your-plan/consider-approvals-permissions-and-licensing>.