



Environmental Defenders Office

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Dr Kate Newman
Acting Senior Team Leader, BAM Operations
On behalf of Louisa Mamouny Director, BOS Branch
Biodiversity and Conservation Division
Department of Planning, Industry and Environment

By email: kate.newman@environment.nsw.gov.au

Dear Dr Newman,

Draft Mine Rehabilitation Ancillary Rules under the Biodiversity Offsets Scheme

Thank you for the opportunity to comment on the draft Mine Rehabilitation Ancillary Rules under the Biodiversity Offsets Scheme (**Mine Rehabilitation Rules**). EDO reiterates its opposition to the use of mine rehabilitation as an offset but recognising that s 6.5(2) of the *Biodiversity Conservation Regulation 2017* permits the creation of ancillary rules that may “set out standards for the ecological rehabilitation of sites impacted by the carrying out of mining under a mining lease and the credit value of any such rehabilitation”, we provide the following comments on the draft Mine Rehabilitation Rules.

At the outset, we note that the limited stakeholder consultation being undertaken is inconsistent with our previous recommendation that further public consultation is undertaken on the rehabilitation objectives, completion criteria and performance indicators. We also note that the covering email regarding this consultation stated “*The draft rules have recently been revised by a working group of technical experts to consider previous feedback, incorporate recent research findings about appropriate mine ecological rehabilitation performance indicators, and to align with the current NSW Resources Regulator rehabilitation reforms*”. However, no information has been provided on who constituted the working group of technical experts, or their experience with biodiversity offsets and mine site rehabilitation, or the specific feedback provided. It is also unclear whether there has been any field testing of the proposed methods. Without this information, the community cannot have confidence in the quality or appropriateness of advice being received by government.

Overarching Comments

The background to the draft Mine Rehabilitation Rules claim (p 6) “*Allowing mine site rehabilitation to contribute to meeting an offset obligation incentivises mining proponents to commit to a high standard of ecological rehabilitation and develop innovative ecological restoration approaches.*” There is no evidence that the proposed system will deliver this outcome. In contrast, the fact that mine rehabilitation does not have to demonstrate successful outcomes for 20 years post mining and even then can simply be offset in other ways, allows mining companies to simply delay any

offset for environmental harm for over 40 years¹ with no guarantee that a biodiversity outcome will be delivered. In light of the changes to the biodiversity management regime over the last 40 years, the suggestion that the Biodiversity Conservation Trust will exist and be able to source meaningful biodiversity offsets in 40 years for species and ecological community that are being harmed today is hypothetical at best.

The draft Mine Rehabilitation Rules state “*The method for calculating the credit value of the proposed ecological rehabilitation set out in the ancillary rules is based on the Biodiversity Assessment Method. The Biodiversity Assessment Method has been designed to assess gain in biodiversity where active restoration is proposed to improve biodiversity on low condition sites. For mine site ecological rehabilitation, it is assumed the rehabilitation is being undertaken on a cleared site.*” However, even assuming that the post mining area is a cleared site is over-estimating the restoration potential of the land. Rather than an intact soil profile and soil microbiome, a mine rehabilitation area is a completely re-created ecosystem. As such, it cannot be expected to respond in the same way that an intact soil structure and microbiome would. The suggestion that re-creating ecological community in this way should be considered to meet the like-for-like test is inappropriate.² Further discounting should be applied above that which is applied to biodiversity offset credit generation on cleared land.

EDO maintains its view that all land that is used as biodiversity offset must be protected in perpetuity, not simply managed under the *Local Land Services Act 2013*, which may allow clearing as an allowable activity or with approval. Failure to provide in perpetuity protection for offsets undermines one of the fundamental principles of offsetting and such land should be not considered an offset at all.

Overall, the introduction of the Mine Rehabilitation Rules continues the government's trend of reducing environmental standards and protections for the most environmentally damaging projects being undertaken in the state.

Defining ecological rehabilitation

The proposed definition of ecological rehabilitation, namely “*the rehabilitation must create recognisable and self-sustaining native plant community types and habitat that supports self-sustaining threatened species populations (where threatened species or their habitat have been identified previously as likely to be present)*” contains important rehabilitation concepts but is inconsistent with the timelines in which rehabilitation can be signed-off. For the majority of plant community types, demonstrating self-sustaining populations that include all necessary habitat features (including tree hollows) will take significantly longer than 20 years. The definition also fails to include important concepts such as genetic diversity.

Section 3.2.1 of the draft Mine Rehabilitation Rules seeks to draw linkages between the *Biodiversity Conservation Act 2016 (BC Act)* and the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. The requirement that where a community is listed under both Acts, rehabilitation should focus on ecological communities as defined under both Acts suggests an inappropriate application of the offset requirements under the EPBC Act which have a stronger focus on direct like-for-like offsets.

¹ Assuming 20 years of mining and a further 20 years to demonstrate offsets are being achieved.

² *Biodiversity Conservation Regulation 2017* s. 6(2)(2)(d)

Requirements for use of ecological rehabilitation to meet an offset obligation

General Requirements

General requirement 5(h) requires that all ecological rehabilitation objectives described in part B, section 5 of the ancillary rules must be assessed to have been met by the NSW Resources Regulator. The NSW Resources Regulator is not the appropriate agency to determine whether ecological objectives have been met. Such a determination should be done by an agency with experience in these issues, such as the Biodiversity Conservation Trust.

The proposal to allow variation of the completion criteria because they “*do not represent current rehabilitation best practice, or are not the most appropriate for the site*” is inappropriate as the discretion is far too broad. It is irrelevant if current best practice is insufficient for achieving the completion criteria – the appropriate response is to accept that the rehabilitation cannot be used as offsets, rather than change the completion criteria. Similarly, if the criteria are not appropriate for the site, it should be recognised that the required offset will not be delivered. If this proposal is maintained in the final Mine Rehabilitation Rules, the discretion should be significantly constrained and limited to only allowing changes that maintain or improve the standard of ecological outcomes achieved by the completion criteria.

Requirements for EIS

Information on the reference site as outlined in criteria 7 is insufficient. There appears to be an assumption in the criteria that a reference site will be maintained at an equal or better standard for the life of the mine and the subsequent rehabilitation period thus allowing for ongoing comparison. In the absence of a requirement on the proponent to ensure this maintenance, more information on the nature of the target reference site must be maintained so that any decline in quality of the reference site does not lead to a decline in the standard of the completion criteria.

Ongoing monitoring (section 4.1) relates to target plant community types and reference ecosystems using reference sites or data. This is likely to be problematic in places like the Hunter Valley where only small areas of a number of endangered and critically endangered ecological communities remain. This makes it questionable whether it will be possible to identify an appropriate reference site. There is also no indication in the draft Mine Rehabilitation Rules on how past disturbance should be considered in relation to reference sites where the only remaining potential reference sites have had some level of historical disturbance.

Demonstrating feasibility and likelihood of success

It is concerning that the measures by which an application can demonstrate feasibility and likelihood of success of mine rehabilitation remain entirely theoretical. As we have stated previously, there is no independent scientific evidence that mine rehabilitation can achieve self-sustaining plant community types of particular kind.

Ecological rehabilitation objectives, completion criteria and performance indicators

As stated above, it would be appropriate for the NSW Government to consult a broader range of stakeholders on the proposed ecological rehabilitation objectives, completion criteria and performance indicators. In the absence of such a consultation we provide the following brief comments on Table 2 and Table 3 in the draft Mine Rehabilitation Rules:

- The use of plots to measure habitat types does not supply sufficient guidance, e.g. the proportion of the site that must constitute the specified plant community type (**PCT**). Further guidance on how to select monitoring plots to avoid bias in the data should also be specified, e.g. the number of sites that are required to be assessed per hectare should be specified, and sites should be selected randomly prior to visiting a site.
- The use of “trending towards” in the discussion of vegetation structure is inappropriate, and a reflection of the fact that, particularly for wooded target PCTs, 20 years is insufficient to determine whether a PCT community type has been re-created. The term “trending towards” should not be used in the ecological rehabilitation objectives.
- The use of “the 10th-90th percentile variation range of reference sites/ data approved by the consent authority” provides far too broad a range for completion criteria and can provide no confidence that the ecological rehabilitation objectives.
- Objective 3 should not permit “Evidence of plant regeneration from 0.04 hectare fixed monitoring plots or a walk over of the ecological rehabilitation area”. Walk overs are not an appropriate way to measure the standard of regeneration required when being assessed in this broad sense.
- Completion criteria for Objective 4 and Objective 6 relating to demonstrating the 10th-90th percentile variation range of the area fails to deliver the objective of the habitat in hectares being present. These completion criteria should require that the necessary number of hectares is present, as a minimum.
- For Objective 4 the size of monitoring plots or how monitoring plots are to be selected based on target species should also be specified.
- The mere presence of habitat for key indicator is insufficient. The quality of habitat must also be assessed.
- It is unclear how the system is intended to deal with prolonged drought or wet periods or impacts arising from bushfire. Such factors will clearly impact how an area responds and whether measurements are appropriately representative.

Glossary

As noted in our previous submissions we do not support the definition of like-for-like as it does not reflect ecological equivalency.

If you require further information or would like to discuss this submission further, please contact Dr Megan Kessler, Scientific Director EDO NSW or myself on (02) 9262 6989.

Yours sincerely,

Environmental Defenders Office



Rachel Walmsley

Head of Policy & Law Reform