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Your ref: SSD-9505

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Dear Mandana

McPhillamys Gold Project (Mine Site and Water Supply Pipeline) – Response to Submissions

Thank you for your email dated 8 September 2020 to the Biodiversity, Conservation and Science Directorate (BCS) inviting comments on the Response to Submissions (RTS) for the McPhillamys Gold Project.

BCS notes that the assessment presented as part of the RTS is substantially different to what was presented at exhibition. It is understood that both the mine site and the water supply pipeline are now both being assessed through the Biodiversity Assessment Method (BAM).

The amended BDAR has adequately addressed most of the issues that BSC raised during exhibition stage (provided to Planning & Assessment Group on 23 October 2019); however, given the substantial changes since exhibition BCS have done a full review of the amended BDAR and our recommendations and detailed comments for both the mine site and the water supply pipeline are provided in **Attachment A** and **Attachment B**.

If you require any further information regarding this matter, please contact either David Geering via david.geering@environment.nsw.gov.au or 6883 5335, or Michelle Howarth via michelle.howarth@environment.nsw.gov.au or 6883 5339

Yours sincerely

A handwritten signature in dark ink, appearing to read 'Sarah Carr'.

Sarah Carr
Director North West
Biodiversity, Conservation and Science Directorate

13 October 2020

Enclosure: Attachments A and B

BCS's recommendations

McPhillamys Gold Project – Response to Submissions

Acronyms

BSC	Biodiversity, Conservation and Science Directorate (Formerly OEH)
OEH	Office of Environment and Heritage
BC Act	Biodiversity Conservation Act 2016
FBA	Framework for Biodiversity Assessment
BAR	Biodiversity Assessment Report
BBAM	BioBanking Assessment Methodology
BAM	Biodiversity Assessment Methodology
BDAR	Biodiversity Development Assessment Report
TBDC	Threatened Biodiversity Data Collection
PCT	Plant Community Type
IBRA	Interim Biogeographic Regionalisation for Australia

Recommendations

- 1.1 Ensure that the correct data set is entered into the BAM calculator for all plots and that it reflects the data in the BDAR.
- 2.1 The proponent should note that the final credit obligation included in the consent must be satisfied prior to commencing any on-ground works that impact on biodiversity values.
- 3.1 The accredited assessor should note the correct process for removing ecosystem species from the predicted list.
- 4.1 All plots across all vegetation zones should be checked in the calculator to ensure all data has been entered accurately.
- 4.2. Where plots are not representative of the vegetation zone the assessor should consider whether duplicating of plots would give a more representative VI score.
- 5.1 Review table 6.11 of the BDAR and ensure that the data presented in the BDAR and the data in the calculator are consistent
- 6.1. Determine the correct sizes of the polygons for each species and ensure the correct data is presented in the BDAR and calculator.

BCD's detailed comments

McPhillamys Gold Project – Response to Submissions

The following comments apply to both the Mine Site and the Water Supply Pipeline assessment.

1. There are inconsistencies between the field data sheets and the data entered into the BAM calculator

There are a number of inconsistencies between the field data sheets and the data that has been entered into the calculator, for both the Mine Site and the Water Supply Pipeline assessments. BCS has reviewed a number of plots at random against the data in the calculator and found inconsistencies, one example is provided below. The data provided in the report must be consistent with the data entered into the calculator, any errors in the calculator can have an impact on the final credit liability for the project.

Example 1: Plot ID: MAC05		
Data	Field Data Sheet	Calculator (Assessment 20212)
Composition: Shrubs	4	5
Composition: Grasses	6	4
Composition: Forbs	4	3
Structure: Shrub	15.6	16.1
Structure: Grasses	20.9	20.3
Structure: Forbs	1.2	0.7
High Threat Weed	0.6	0.5

Recommendation

- 1.1 Ensure that the correct data set is entered into the BAM calculator for all plots and that it reflects the data in the BDAR.

The following comments apply to the Water Supply Pipeline assessment only.

2. Changes to offset calculations post consent

Section 6.8 of the BDAR states '*Following detailed design and construction Regis proposes to recalculate the ecosystem and species credit requirements for the pipeline development, in consultation with DPIE*'. It should be noted that if consent is granted the final credit obligation included in the consent must be satisfied prior to commencing any on-ground works that impact on biodiversity values. Therefore, recalculating the credit obligation during the construction phase is not an option.

Recommendation

- 2.1 The proponent should note that the final credit obligation included in the consent must be satisfied prior to commencing any on-ground works that impact on biodiversity values.

3. Removal of ecosystem credit species from the predicted list must be consistent with the assessment requirements of the BAM

A number of species have been removed from the predicted list (ecosystem credits) generated from the BAM calculator (BAM-C). The removal of these species is either not consistent with the assessment requirements set out in steps 2 and 3 of chapter 6 of the BAM or adequate justification has not been provided. A species can only be removed from the list if the species:

- a) has habitat constraints listed in the TBDC and none of these constraints are present on the site. Documentation in the BDAR should reflect the TBDC information and evidence that the features are not present (field data); **or**
- b) where habitat constraints are not listed in the TBDC and the assessor proposes to remove the species based on absence of habitat constraints or known microhabitats that the species requires to persist, the assessor must provide adequate justification in the BDAR. As a minimum, the justification must include;
 - i. the specific habitat constraint(s) or microhabitat missing from the vegetation zone; **and**
 - ii. a description of the field technique used to assess the presence of the constraint or microhabitat (e.g. the survey effort and technique used to assess hollow-bearing trees) and any other data or information used to make the decision; **or**
- c) has geographic limitations listed in the species' NSW profile and the site is outside of the defined geographic area (note listed geographic limitations may be specific to IBRA sub regions); **or**
- d) is vagrant to the area. Vagrancy is taken as the record being well outside the species range or natural distribution. The suspect record will need to be reviewed against the species known distribution and the assessor will need to confirm with species experts that it is likely to be a vagrant. If agreed by experts the assessor should contact BCS to have the record quarantined from BioNet Atlas and re-labelled as vagrant. The BDAR will need to contain supporting information such as who was contacted, when, their credentials and the resultant response from BCS.

The following species do not have habitat constraints or geographic limitations listed in the TBDC or NSW profile and are not considered vagrant and therefore if the assessor proposes to exclude these species adequate justification must be provided in the BDAR as per (b) above;

- Regent Honeyeater (*Anthochaera phrygia*)
- Gang-gang Cockatoo (*Callocephalon fimbriatum fimbriatum*)
- Brown treecreeper (eastern subspecies) (*Climacteris picumnus victoriae*)
- Varied sittella (*Daphoenositta chrysoptera*)
- Eastern False Pipistrelle (*Falsistrellus tasmaniensis*)
- Little lorikeet (*Glossopsitta pusilla*)
- Little Eagle (*Hieraaetus morphnoides*)
- Swift parrot (foraging) (*Lathamus discolor*)
- Square-tailed Kite (*Lophoictinia isura*)
- Black-chinned honeyeater (eastern subspecies) (*Melithreptus gularis gularis*)
- Large bent-winged bat (*Miniopterus orianae oceanensis*)
- Turquoise Parrot (*Neophema pulchella*)
- Barking Owl (*Ninox connivens*)
- Powerful Owl (*Ninox strenua*)
- Yellow-Bellied Glider (*Petaurus australis*)
- Koala (*Phascolarctos cinereus*)
- Superb Parrot (*Polytelis swainsonii*)
- Grey-crowned Babbler (eastern subspecies) (*Pomatostomus temporalis temporalis*)

- Grey-headed flying-fox (foraging) (*Pteropus poliocephalus*)
- Greater Broad-nosed Bat (*Scoteanax rueppellii*)
- Masked Owl (*Tyto novaehollandiae*)

The following species have habitat constraints listed in the TBDC therefore if the assessor proposes to exclude these species it should be based on the absence of the listed constraints.

- Painted Honeyeater (*Grantiella picta*)
- White-bellied Sea-Eagle (*Haliaeetus leucogaster*)

Where species have been removed in the calculator the assessor must tick the correct box in tab 4 to demonstrate the reason for removal.

The biodiversity risk weighting for determining the credit requirement for ecosystem credits is based on the sensitivity to loss of either the listed TEC or the PCT identified at the site, and the highest sensitivity to gain ranking for the ecosystem credit species associated with that TEC or PCT.

The 23 species that have been removed from various vegetation zones all have biodiversity risk weightings that are equal to or smaller than the biodiversity risk weighting that has been applied to the respective PCT. As such, including them in the predicted list will cause no change to the offset obligation for the PCT's that they are associated with; however, the correct process should be implemented, for future assessments.

Recommendation

- 3.1 The accredited assessor should note the correct process for removing ecosystem species from the predicted list and implement when doing assessments in the future.

4 VI scores for some vegetation zones may not be representative

There are some vegetation zones that have much lower VI scores than what would be expected. BCS have identified some issues that may be affecting the VI scores for these vegetation zones.

There are a number of plots that have been entered into the calculator that have no composition or structure condition scores entered. For example, vegetation zones '277DNG' and '1330Intact', in assessment 21140, have a composition and structure condition score of 0 for all growth forms; however, the field data sheets contain multiple native species. Entering incorrect data into the calculator will impact on VI scores and may impact of the final credit obligation.

Page 82 of the BDAR indicates that vegetation integrity scores for a number of vegetation zones may have been impacted by plots that were collected during 2018 and 2019 when the site was experiencing impacts from drought conditions. Where plots have been taken in different years and the data indicates significant differences in vegetation condition due to the impacts of prolonged drought the assessor should use the most representative plots for that zone. For example, vegetation zone '1330 Sparse' has four plots entered into the calculator. BSC notes that the plot named '1330sparse' has site attribute scores that are significantly lower than the other three plots collected for this vegetation zone. In this case duplicating one of the other 3 plots to meet the minimum plot number for this zone may result in a more representative VI score for the zone.

Recommendations

- 4.1 All plots across all vegetation zones should be checked in the calculator to ensure all data has been entered accurately.
- 4.2 Where plots are not representative of the vegetation zone the assessor should consider whether duplicating of plots would give a more representative VI score.

5. There are inconsistencies in species credit numbers between the BDAR and the calculator

Table 6.11 of the BDAR is a summary of threatened species impacts not requiring offsets. This table shows that for the species listed and the corresponding vegetation zone that there is not credit obligation generated however this is not consistent with the calculator. For example, in the Hill End subregion the table states that the Bush Stone-curlew generates 0 species credits for the 1197_Shrubland vegetation zone, while the calculator says that there is 1 species credit. All data presented in the BDAR must be correct and consistent with the calculator.

Recommendation

- 5.1 Review table 6.11 of the BDAR and ensure that the data presented in the BDAR and the data in the calculator are consistent.

6. There are inconsistencies between the GIS spatial layers and the BDAR for species polygons

The sizes of the species polygons presented in the spatial layer provided by the accredited assessor are not consistent with the areas that are presented in the BDAR and the areas entered into the calculator.

Recommendation

- 6.1 Determine the correct sizes of the polygons for each species and ensure the correct data is presented in the BDAR and calculator.