

Memorandum

To: BOGP Expert Panel

From: Santana Minerals Limited

Date: 23 September 2026

Re: Response to Question 2 of Request for Information 12 – Cushionfield and spring annuals compensation

Introduction

In Question 2 of Request for Information (**RFI**) 12, the Panel queries whether MGL has given consideration to an alternative approach of identifying and protecting (including active management) an area of cushionfield (including spring annuals) habitat, whether within the BOGP Consent Area or outside it, at a much earlier stage of the project (e.g. within the first 5 years)? The Panel notes this could be an alternative form of compensation for the effects on spring annuals and cushionfields and to safeguard spring annual presence while propagation and revegetation trials are undertaken.

This response has been prepared by Santana Minerals with input from Robyn Simcock, Senior Researcher – Ecology/Soils, NZ Institute for Bioeconomy Science Limited and Emeritus Professor David Norton, Biodiversity Solutions Ltd, who support the content.

Response

Cushionfield

In response to the Panel's query, MGL offers an amended compensation plan in relation to cushionfield success criteria.

Given the importance of cushionfield and spring annuals, MGL will ensure that compensation for potentially unmet success criteria for cushionfields in the Direct Disturbance Footprint (**DDF**) and managed areas (the Ecological Rehabilitation and Enhancement Area excluding the DDF) is implemented from Year 6¹ (as opposed to passive closure as previously proposed). This Year 6 obligation would be triggered as if the success criteria for cushionfield were completely unsuccessful, being:

- For mined areas (the DDF):
 - The non-establishment of 19 hectares of cushionfield (reducing to 14.5 hectares if the Come-in-Time Open Pit is not mined in accordance with Condition C129 of the D.03 Common Conditions; and

¹ Year 6 is from commencement of consent and aligns with the first Ardour Restoration Area five-yearly review (in accordance with Condition C114) and five-year review of grazing leases (existing legal agreements). Implementation of protection from Year 6 allows the outcomes from the scheduled five-year reviews to be completed but does not prevent measures from being implemented prior to Year 6 where feasible.

- For managed areas (the Ecological Rehabilitation and Enhancement Area excluding the DDF):
 - An increase in net area of cushionfield of less than 10% prior to active closure; and
 - A decrease in cushionfield condition score.

For the purposes of certainty regarding the area that would require compensation at Year 6, compensation will be required for 19 hectares for the non-establishment of cushionfield on the DDF and a further 10% of the total area of cushionfield present in the managed areas.

Preferred Approach – Protection of Cushionfield within the BOGP Consent Area at Year 6

The actual area of cushionfield in the managed areas is not certain at this time due to the coarse mapping categories used in the RMA Ecology Vegetation Values Assessment for baseline studies. In the B.13 RMA Ecology Vegetation Values Assessment, cushionfield was mapped as part of the *Mixed Depleted Herbfield and Grassland* category which includes exotic grassland and other herbfields. RMA Ecology also misattributed approximately 18 hectares in the Mine Regeneration Zone (**MRZ**) to *Mixed Depleted Herbfield and Grassland* near Mt Moka².

Component 1 of the Applied Research Plan for the Conservation, Management, Rehabilitation and Expansion of Cushionfield (**Cushionfield ARP**) will map cushionfield in Year 1. This will establish certainty of the area of cushionfield present on the BOGP Consent Area.

The area in managed areas requiring compensation at Year 6 will then be calculated as 10% of the area mapped in Component 1 of the Cushionfield ARP within the category mapped as *Mixed Depleted Herbfields and Grasslands*.

MGL notes that approximately 35 hectares of *Mixed Depleted Herbfield and Grassland* were mapped in the Ardgour Restoration Area (**ARA**) Land Management Unit 3 – Lower and Middle Dry Creek Shrublands (**LMU 3**). A site visit by experts³ following workshopping in Cromwell in April 2026 identified additional areas of cushionfield in LMU 3 outside of the mapped *Mixed Depleted Herbfield and Grassland*. Further new areas of cushionfield on ARA may also be identified during Component 1 mapping described above.

MGL notes that the proposed overall management objective for LMU 3 is increasing woody shrublands, and as a result cushionfield in LMU 3 would likely be degraded or lost over time due to the removal of grazing and expansion of woody elements.

As part of the amended compensation program MGL will conserve and actively manage the areas of cushionfield in LMU 3 that would have been degraded or lost under the current management objective. These areas of cushionfield will be conserved by fencing and actively

² Max Crowe Statement of Advice: Vegetation and Flora, 10 March 2026 and Zac Milner Statement of Evidence in response to Section 53 Feedback, 17 April 2026

³ MGL experts David Norton and Zac Milner hosted CODC expert Mike Harding and DOC expert Max Crowe on site to view the extent of cushionfield in the Consent Area.

managed by grazing in accordance with cushionfield management proposed for LMU 5 – Cushionfields set out in the Ardgour Restoration Area Management Plan (**ARAMP**).

The quantum of cushionfield that will be protected in LMU 3 (or other areas outside of LMU 5 – cushionfields) is not certain until the completion of mapping under Component 1 of the ARP, however MGL expects it will be in the order of 30-35 hectares.

Fencing of areas of cushionfield conserved on LMU 3 (and potentially other areas on the ARA) will be completed by the end of Year 5 in alignment with the commencement of the second ARA five-year management period (required under Condition C114 of the D.03 Common Conditions). MGL notes that management of LMU 3 during the initial five-year management period under the ARAMP comprises grazing using sheep to maintain its current condition (i.e. to control weeds/overgrowth which is key for maintenance of cushionfield and spring annuals).

Alternative Approach – Protection of Cushionfield outside the BOGP Consent Area at Year 6.
Under this amended compensation plan, if the amount of cushionfield area available to be conserved inside the BOGP managed areas is inadequate, then an additional area outside BOGP Consent Area will be required to be protected and managed for conservation of cushionfields.

Cushionfields are present on land managed by MGL outside of the BOGP Consent Area. These areas are currently under lease agreement for grazing. The lease agreement is renegotiated every five years. To meet the amended compensation plan, cushionfield located on MGL managed land outside of the BOGP Consent Area will be identified, conserved and actively managed prior to Year 6, following renegotiation of grazing leases.

Substantial areas of cushionfield are present throughout Central Otago. If additional areas, over and above those protected on the BOGP Consent Area or broader MGL managed areas are required for compensation, MGL will negotiate with landowners to ensure adequate areas of suitable cushionfield are conserved and actively managed from Year 6.

If compensation is required at post / passive closure due to the cushionfield success criteria not being fully achieved, any additional areas outside of the BOGP Consent Area that have been managed for conservation since Year 6 will be protected for cushionfield and/or spring annual conservation via an appropriate legal mechanism in perpetuity. Compensation areas inside the BOGP Consent Area (e.g. fenced areas in LMU 3 of the ARA) will automatically be protected in perpetuity by the covenant proposed by MGL for the offset and compensation areas within the BOGP Consent Area (including the ARA) prior to the cessation of mining operations (refer to Condition C134 of the D.03 Common Conditions).

Spring Annuals

Success criteria for spring annuals include a net increase in discrete sub-populations of *Ceratocephala pungens* and an increase in the area occupied by sub-populations of *Myosurus minimus* subsp. *novae-zelandiae*, *Myosotis brevis*, and *Myosotis antarctica* var. *antarctica*, within the landscape managed by MGL over ten years.

As the Panel have referenced in their question, Condition C127 (D.03 Common Conditions) requires compensation at passive closure that requires identification of land that contains suitable spring annual habitat outside of the BOGP Consent Area and Ecological Rehabilitation and Enhancement Area and implementation of an appropriate legal mechanism to protect the spring annuals habitat in perpetuity.

The amended compensation plan for cushionfields detailed above, confers substantial benefits to spring annuals since spring annuals frequently co-locate with cushionfields. The number and type of spring annuals found in cushionfield habitat will direct the selection and size of cushionfield areas for protection to provide conservation benefit to both spring annuals and cushionfield.

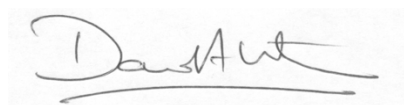
Future spring annuals surveys may identify significant populations of spring annuals outside of cushionfield:

- Within BOGP managed areas - Where significant populations of spring annuals are identified outside of cushionfield areas that are managed for conservation, those populations will be managed in accordance with the ARAMP to achieve the spring annual success criteria.
- Outside BOGP managed areas - Where significant populations of spring annuals are identified outside of cushionfield areas that are being managed for conservation those areas will be managed for spring annual conservation following the five year review of existing leases and/ or successful negotiation with landowners, commencing Year 6 to achieve spring annual success criteria.

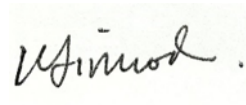
Where compensation is required at post / passive closure due to success criteria not being achieved, the additional areas outside of the BOGP Consent Area that have been managed for conservation since Year 6 will be protected via an appropriate legal mechanism to protect habitat in perpetuity.

Proposed New Consent Conditions

These amended compensation measures for cushionfields and spring annuals will be reflected in the updated consent conditions in *D.03 – Schedule One – Common Conditions to the Central Otago District Council and Otago Regional Council Resource Consents* that will be provided to the Panel alongside MGL's closing submissions on 28 September 2026.



David Norton



Robyn Simcock