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Australia and New Zealand Inc.

ABSTRACT SPECIFICATIONS

Title: Inclusion of invertebrates in rehabilitation performance measures and minesite completion criteria

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Abstract: The metrics used in most rehabilitation performance standards (PS) and completion criteria (CC) tend to focus on safety, aesthetic and biological aspects. However, the latter tend to be very generic and only provide a basic understanding of the 'naturalness', biodiversity value and ecological sustainability of the site. Terrestrial invertebrates are extremely diverse, and participate in all ecosystem functions and processes, including soil structuring, nutrient cycling and pollination, as well as providing food for vertebrates. Since the majority of species have specialized requirements, their presence or absence tells us much about the conditions of the environment that we are looking at. Assessment of the species present in an environment therefore provides and excellent picture of the diversity and environmental 'condition' or 'health' of an area. Inclusion of invertebrates in PS and CC would greatly enhance our understanding of the condition of the mine during rehabilitation or prior to closure. It would provide considerably more meaningful information on the 'naturalness', biodiversity value and ecological sustainability of the site than the current schedule of PS and CC.

This paper will discuss the selection of the most effective taxa to use, methods for measuring them and will outline ways in which inclusion of invertebrates can be achieved in a cost-effective manner, while still providing useable data.