

Landscape integration and rehabilitation model for mine tailings. Pilot implementation in Huasco, Atacama.

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ABSTRACT

The project proposes the pilot implementation of a conceptual model designed for landscape integration and rehabilitation of a land filtered tailings deposit generated by the production of iron pellets at the Huasco Pellets Plant (HPP) that belongs to Compañía Minera del Pacífico (CMP) in the Province of Huasco, Atacama. This initiative is conceived as an multidisciplinary and innovative project, focused on transforming an environmental passive into a social and environmental asset, with benefits for the ecosystem and the community.

The conceptual model - developed during 2020 and 2021 by a research team of the Pontificia Universidad Catolica de Chile (PUC) within the framework of the project called "*Landscape Integration and Rehabilitation Model for Mine Tailings; Case study in CMP Huasco, Atacama Region*"¹ - considered the design of a Master Plan for Landscape Integration and Rehabilitation in the southern coastal border of Huasco, where the tailings deposit area is located. The Master Plan also establishes a prospective planning approach of the territory, which promotes sustainable and innovative development based on new touristic uses and pioneering programs for landscape rehabilitation in Huasco.

The Master Plan configures an integrated system of circulations, equipment and ecological management areas, which organizes and relates the mitigation and compensation measures proposed in the Environmental Impact Assessment (EIA), in compliance with the requirements of the Environmental Authority. In this way, the measures are not established as random interventions related to traditional impact compensation methods, but instead become part of a strategic vision linked to a territorial scale.

¹ This project has been developed jointly by the "Pontificia Universidad Católica de Chile, School of Architecture", the "Pontificia Universidad Católica de Valparaíso, School of Construction Engineering", the "University of Santiago, Department of Biology" and Compañía Minera del Pacífico.