Rock Mining and Environmental Planning using a Environmental Chart based on Parametric Methods in General Pueyrredon County, Buenos Aires Province, Argentina.

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The Environmental Chart is a planning tool for decision-making used in this paper to determine suitable areas for rock mining. Even though mining is not economically important in the region, the environmental impact is significant.

The methodology consists on a number of digitized thematic maps (1:50.000), representing different environmental parameters. The maps were combined using a weighting/scaling method, obtaining maps of capacity, impact and suitability. Weight for the component maps were assigned using a Delphi procedure.

Capacity map shows the best areas for developing the activity corresponding to outcrop of orthocuarcite and areas where the cover on the rocks is not thick. Also these areas have good accessibility and services.

Impact map exhibits with the minimum values the affected areas whereas the maximum values account for the positive impact of the activity on the environment. Although the activity has an important impact on the environment, areas lacking of services and infrastructure can be affected in a positive way.

Suitability map has been composed with the capacity map weighted by 30% and the impact map by 70%. This map shows that the whole activity have to be developed in the Batan and Chapadmalal areas and is in this areas were the actual activity is developed.