Environmental Geology Methodology for Urban and Industrial Solid Waste Disposal : Case Study of Caxias do Sul, Rio Grande do Sul, Brazil.

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Sites selection for industrial solid waste disposal was carried out based on methodological approach that considered lithological, tectonic fracturing, surface drainage lines, groundwater seepage, landscape, climatic, native forest, road and urban distribuitions, maped at 1: 50.000 scale.

All above mentioned features were integrated on a common digital database using GIS , remote sensing and *fuzzy* techniques , including legal limitations criteria, to establish sound and adequate environmental measures for sites identification.

Caxias do Sul municipality area , covering more than 1,200 square kilometers, is identified essentially by volcanic lava flows formally included on Serra Geral Formation, indicating large incidence of tectonic features, represented by faults and fractures, that control geomorphic variability, mainly surface drainage lines, and polarize groundwater resources.

Urban and industrial waste as consequence of economical importance of Caxias do Sul, the second city of Rio Grande do Sul, are the principal environmental problems affecting soil and water resources quality, because of inadequate disposal.

Use of the methodology indicate more than 150 possible sites without limitations according sound environmental criteria, which were evaluate under economical focus to establish ordering of feasibility on actual conditions, resulting at least 15 sites for waste disposal.

It is now implementation of new solutions for the industrial and urban waste solids disposal at Caxias do Sul.