Agua subterránea y construcciones subterráneas en áreas urbanas. El caso de la ciudad de Santa Fe, provincia de Santa Fe, Argentina [

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text (article)

Analítica

In recent decades, the absence or inadequate application of urban planning plans has generated in many cities land use patterns characterized by a high concentration in central areas, in contrast to a disorderly occupation the peripheries. In turn, underground use has become an alternative for cities with problems of growth and population density, although the complexinteraction between land use and the behavior of the groundwater system is not understood, nor is it addressed consideringregulatory aspects. The objective of this work is to evaluate the relationship between the hydrodynamic and hydrochemical characteristics of the aquifer system that underlies the city of Santa Fe with the underground constructions and thus contribute to the formulation of technical and regulatory guidelines to optimize works projects with underground use. The variations of groundwater levels for a period of 10 years, the chemical quality of the groundwater and the underground usewere analyzed, verifying that the depth of the groundwater table varied between 1.70m from the ground to approximately 8m, a range where foundations, infrastructure and underground enclosures are housed. These results will contribute to optimizing future underground works and to the generation of an integral management awareness that assumes the complex relationship between the use of urban land and the hydrogeological environment in decision-making and city planning
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