XVIII International Conference on Water Resources
CMWR 2010
J. Carrera (Ed)

ADVANCES IN THE STUDY OF THE EFFECTS OF THE EVAPORATION IN THE DRYING OF THE SABANA DE BOGOTÁ, COLOMBIA

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Key words: Evaporation, Sabana of Bogotá, Regionalization of parameters, land-atmosphere interaction.

Abstract

In carrying out infrastructure foundation design where the interaction is involved soil atmosphere, climate and the variables involved in the process in some cases are not considered in the strictest manner. In the case of evaporation, this plays an important role in the variability of water content in the soil by changing the mechanical properties of this, and changing the conditions that initially were considered in the design of foundations. In order to deepen understanding of the state of saturation, suction, and possible changes of stress in the soil, consider evaporation as a process with space-time variability, by posing a conceptual model that considers climatic variables interacting in coupled way with some soil physical characteristics. Therefore are presented and discussed advances in the study of the effects of evaporation in the specific case of the drying of the Sabana of Bogotá (Colombia) seeking to develop tools for physical and numerical modeling of the process of land-atmosphere interaction, giving a contribution in the understanding of the geotechnical structures' response and its design optimization.