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CONTENT AND ABSTRACTS

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Abstract-*The Romanian companies in charge with drinking water supply services enshuring at least one hundred cubic meters per day must be in compliance the specific laws (Romanian Water Law 107/1996 and Romanian Government Law HG 930/2005). According the above mentioned regulations around the water supply systems must set up the sanitary protection zones in number of three categories in which the activity is restricted. The paper presents a study case to establish the sanitary protection zones for a drinking water supply system with complex hydrogeological conditions. The sanitary protection zone has been set up by using numerical modelling with MODFLOW model.*
Keywords: *water supply systems, sanitary protection zones, Romanian law, numerical modeling with MODFLOW*
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Keywords: *Timiș and Bega rivers water quality, European Union and Romanian laws, control sections*
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Keywords: *European regulations, Land Improvement mechanization process, resources management*
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mitigation. A geometric and hydraulic analyze is performed, theory and drawing calculus by numerical or simplified analytical method, finally recommendation are provided.

Keywords: April 2005 flood, plain temporary storages, mitigation results

Popescu-Busan Alina Ioana, Nicoara Serban Vlad, Constantin Albert Titus- Climate Sharp Changings, Generating Factors and Effects 33

Abstract - *The global warming is an important issue that concerns us all. In the last period we have been witness to continuous and severe climate and geological changes. These changes are produced by both natural factors and human activity. There are some natural factors, of which generally people are not aware of, that lead to negative changes in our climate. First we must mention the solar activity. The sun with its magnetic modifications and solar wind leads to a warming phenomenon throughout the Earth surface. Another factor is the Gulf Stream that sustains the entire structure of seasons in the Western Europe and Canada. Due to the accelerating glacial calotte melting process, huge quantities of fresh water reach into the Gulf Stream, modify the salinity and affect the season's equilibrium. A third factor is the planetary ocean which transports the heat towards different continental areas using salinity differences between the water currents. If salinity changes the heat transportation changes too. The tectonic movement which produce earthquakes and as a consequence – tsunamis, the volcanic activity, the modifications in Earth polarity and magnetic field and the “arctic fog” are again factors that lead to global warming.*

Keywords: global warming, solar activity, seasons, planetary ocean, tectonic movement, pollution, gas emissions, greenhouse effect

Bârliba Livia , Eles Gabriel, Bârliba Costel - Cadastral Arrangement for Micro Farms According to the New European Standards 37

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Keywords: cadastre, farm arrangement, European Standards

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Abstract - *Soil mapping, represent an important activity of the economic branch of cadastre, in order to evaluate its economical potential. Also an important step in soil mapping consist in determine the soil units on the field. The paper, present how GPS technologies can be helpful in soil mapping activities*

Keywords: GPS technologies, soil mapping

Achim Camelia, Girbaci Alina, Staniloiu Cristian, Iliuta Cornel - The effect of the urbanization and how to reduce the stormwater on the small surface45

Abstract -*Stormwater runoff, precipitation that does not soak into the ground where it falls, is one of the greatest threats to water quality in much of the industrialized world. When water runs off yards, streets, and parking lots into storm sewers or directly into waterways, it carries with it sediments that clog streams and reduce oxygen in the water, as well as chemicals that poison aquatic ecosystems and can render water supplies undrinkable. Runoff also contributes to flooding and, because it doesn't recharge groundwater supplies, it exacerbates water shortages in many areas. As more and more people move to cities and towns, the stormwater runoff problem worsens, because the flattened, impervious surfaces and lack of natural vegetation in these environments prevent precipitation from soaking into the ground. While runoff is a problem of immense scale, there are plenty of simple steps you can take to reduce stormwater runoff on your own property.*

Keywords: precipitations, runoff problems, groundwater supplies

Pisleaga Mihaela - Processes of Movement and Transfer in Non - Homogenous Media49

Abstract: *The influence of the local non - homogeneity presents a special interest in the field of the underground waters, being a very popular topic. In this study, we attempted to present a systematic analyses of the influence of the non - homogeneities upon the movement and transport processes in the aquifer. The results of this study shall be applied in the processing and reading of the field-measurements and in the design of the hydro-geological projects*

Keywords: local non - homogeneity, porous medium, modeling the flow and the transport of the pollutants in the underground

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