SCIENTIFIC BULLETIN
of "Politehnica" University of Timişoara
Transactions on Hydrotechnics

CONTENT and ABSTRACTS

Vol. 51 (65) 2006, No. 1,2, ISSN 1224-6042

Abstract*-It's known the fact that the discharge of the well can be exactly calculated in terms of well radius and sink by using Dupuit's formula. To determine the maximum yield production, the maximum admitted water velocity and the entrance into well must be taken into consideration in order to ovoid the aggradations of the well filter. Even the discharge obtained by Dupuit's formula is an exactly one this assumption doesn't permit the entrance velocity calculation because the outflow height, located above the well water level in neglected. The paper presents an analysis of the calculation methods of the yield production for wells located in phreatic aquifer. With this analysis a simplified calculation method is proposed based on empirical formula for the outflow height. The proposed method is verified by comparison of the results whit that obtained by Finite Element Method (FEM). It's shown that is not necessary as such complicated method, the results obtained by the simplified method being closed.
***Keywords*: well yield production, numerical method, and simplified analytical method**

Abstract*: Drought and the two associated phenomena's (aridity and desertification) represent problems which were very studied in the last period. In the last 55 years, temperature around Timisoara increase with 0.7°C and the precipitation were reduced. Taking in consideration and other factors as human impact and soil's characteristics, it can be observe especially in the north-western part of Timiş County the appearance of aridity phenomenon. This paper presents an assessment regarding the aridity in western part of Romania, Timiş County, taking in consideration two indicators based on precipitation and temperature: De Martonne and Lang. Using these two indexes, were created and will be presented two maps.
***Keywords*: aridity, indicators, De Martonne, Lang, maps**

Abstract:* The present paperwork presents the criteria for choosing water sources for supplying drinking water to the population and the criteria for choosing the technologies for treating the surface and underground water in order to make them drinkable, both in urban and in rural environment.
***Keywords:* gross water quality, produced quality water, safety of treatment processes, installations flexibility, operator's ability, compatibility with the environment, dimension of the processes**

Abstract*: The paper present the history of surface drainage and drainage works on Romania territory, presenting evolution stages of these until 2004. Conclusions will post some recommendations referring to problem of humidity excess elimination and the perspectives of these types of hydroameliorative works.
***Keywords*: evolution, surface drainage, drainage, perspectives, hydroameliorative works**

Abstract* - Eutrophication represents water enrichment with nutrients, especially nitrogen and phosphorus resulted from algae and macrophyte bloom which lead to water pollution. Preventing the pollution events and reservoirs eutrophication will be accomplished through technical measures of polluting agents reduction and biological measures which are corresponding to the actual legislation.
Keywords: eutrophication, pollution, biological methods, legislation

Abstract* -It's becoming accepted that comprehensive storm water management systems need to focus on controlling peak rate, quality, frequency, duration, and volume of runoff. This focus is a vast improvement over our traditional systems that relied on detention to simply control peak flow rates. It has also become apparent that onsite infiltration and bioretention currently offer the greatest opportunities for solving our urban runoff and nonpoint-source pollution problems. In practice, these methods have not gained wide