

Pérez Franco, D. (2017). La explotación del agua subterránea. Un nuevo enfoque (Vol. 1 y 2), La Habana: Félix Varela.

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The Cuban university is permanently related to society because it arises from it and responds to it. This relationship acquires the character of a law, conditions the process of training higher level professionals and determines their regularities and trends.

In this way it is recognized that the twenty-first century university has as historical mission, to preserve and promote through its substantive processes and in close connection with society the culture of humanity. In this order, it corresponds to higher education to train undergraduates in Education, specializing in Construction, with a broad profile from the technical point of view, which includes the Civil Construction, Road Construction and Hydraulic works specialties, corresponding to the average technical level of completion, as well as specialties related to the trades, and which mission is the integral education of professionals who have to teach at the institutions of the Technical Professional Teaching where technical specialties and workers related to this sector are developed.

The study plan "E" currently applied in this major has within its disciplines the corresponding projects, construction and conservation of civil works, which includes among its subjects Hydrology with a total of 28 hours, taught in the fourth year, first semester. Among the contents to be developed in it are, among others, those related to groundwater, runoff, characteristics, schemes, wells, types, construction and development, permeability and transmissibility, all linked to hydrometry, which is part of the basic core of the discipline.

For the development of this content we have the complementary text *Exploitation of groundwater. A new approach* (Vol 1 and 2), by Dr.C. Diosdado Pérez Franco, Civil Engineer, professor of Hydraulic Engineering and Merit professor of the Higher Polytechnic Institute "José Antonio Echeverría" (ISPAJAE).

The text is structured in 17 chapters directly related to the central theme that allow the reader (student and teacher) a broad tour of the treatment, use, conservation and exploitation of these water sources, among other aspects of primary interest.

Chapter 1: Introduction. Chapter 2: Aquifers and their properties. Chapter 3: General characteristics of groundwater movement. Chapter 4: The laws of potential flow applied to linear flow. Chapter 5: Natural flow in aquifers. Chapter 6: Flow to trenches and catchment galleries. Chapter 7: Introduction to well hydraulics. Chapter 8: Methods of linear well hydraulics. Chapter 9: General non-linear approach to well hydraulics. Chapter 10: Pumping tests and the interpretation of their results. Chapter 11: Saline intrusion in coastal aquifers. Chapter 12: The role of the natural flow gradient in the catchment hydraulics. Chapter 13: Design of well fields and other catchment structures. Chapter 14: Prospecting and other methods of studying groundwater. Chapter 15: Evaluation of groundwater resources. Chapter 16: Artificial recharge. Chapter 17: Contamination of aquifers.

Chapter I specifies what is related to the water hydrological cycle specifying the underground formation, its location in the different depths of the earth's crust, its importance and use by man, as well as its manifestations regarding the behavior with the process of care and conservation of natural environments and the environment, and also be able to trace, from their knowledge, alternatives that enable the mitigation of degradable effects on it. In the exploitation of groundwater. A new approach also deals with aspects related to the historical development of the scientific interpretation of subterranean hydrology in section 1.5, regardless of the various uses given to it, its possibilities of attracting through low-cost works and its probabilities of use with the slightest treatment, contents that do not appear in basic texts such as *Hydrology*, by Froilán Ferro Bernal, *Hidrología y Hidráulica*, by J. L .Coterón, which are limited to a brief description of the movement of the groundwater, as well as more specific properties and particularities.

In this work you can consult important elements about the laws of the potential flow applied to the linear flow of groundwater and the general characteristics of the movement of these liquids with the corresponding methodologies for their calculation, the determination of the porosity index, the specific retention, the effective porosity, among other unknowns that constitute basic nuclei of students' knowledge.

In a general sense, it is feasible to use this text to consult the topics addressed, which are necessary and sufficient for the learning process in this branch, as well as for the acquisition of a hydraulic culture by the students, which reverts in the capacity to demonstrate an executive responsibility in the treatment of hydrotechnical works preceded by the analysis of the behavior of underground water resources and their potential for use.

It is considered, then, a complementary literature of obligatory consultation by its level of update, scientificity, depth in the analysis and treatment to the topics approached for the education of the professional in this branch of science.