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- Proceedings of the Sixth Caribbean Islands Water Resources Congress now online

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PRWRERI *Newsletter*

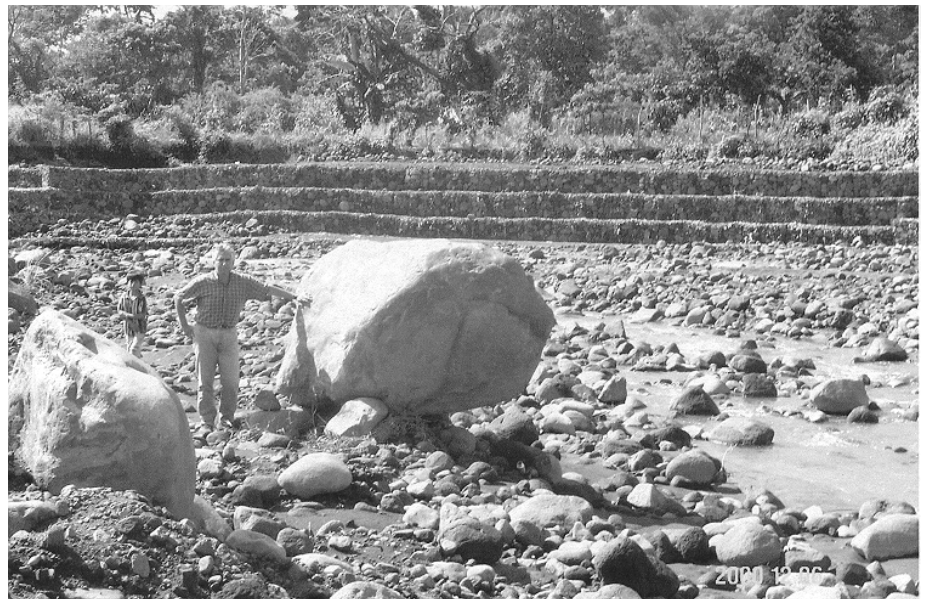
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*Puerto Rico Water Resources and Environmental Research Institute ...
Dedicated to the Research and Sustainable Development of
Water Resources in Puerto Rico*

The PRWRERI and USACOE offer a training course in Guatemala

Channel stability assesment is important in a large variety of projects including flood control, protection of agricultural land, erosion and sedimentation control, and water quality preservation. These problems are similar in all countries of the world. The techniques and design procedures developed by the United States Army Corp of Engineers (USACOE) are a valuable tool to assist engineers and other professionals in the area of water resources and environmental engineering, in the analysis and control of some of these problems. The USACOE is expanding its relations with foreign countries. The closest and more probable requests would come from Latin



Huge rock transported during a major flood event in Río Samalá, Guatemala. A gabions structure was built with local material for streambank protection.

American countries, where agricultural land erosion, water quality issues and flood problems are extremely common and threaten the economy and the lives of their inhabitants. However, in most of these cases,

the language becomes a barrier in technology transfer because engineers in these countries have no fluent knowledge of the English language. Therefore, real dissemination of state-of-the-art; as well as, traditional

knowledge, require removing the language barrier by making accessible translations of the more important concepts, methodologies and applications of river bank stabilization techniques. The availability of such material will make easier the development of future collaborative research with other countries of the world.

The PRWRERI, with Dr. Silva-Araya as principal investigator, is working on a project that proposes the development of a compendium of state-of-the-art techniques to assess and design river stability measures that would be an instructive manual suitable for use as a technology transfer tool. The project takes as a base the "Streambank Stabilization Handbook" written by D. Biederharn, C. Watson, and C. Elliot for the USACOE. The new compendium will be available in Spanish to further promote the increasing international relations between the USACOE, the PRWRERI, and the Latin American Countries in terms of collaborative research and technology transfer. This will generate a useful literature review and, at the same time, will put to test the Spanish version by serving as a technology transfer material for an intensive course titled "Estabilización de Bancos y Control de Erosión en Ríos" to be offered by the PRWRERI and the USACOE in Guatemala in April 2001.

UIC Inspector Training Course in San Juan with EPA

The Underground Inspection Control (UIC) Program has evolved since the last time an Inspector Training Course was offered in Puerto Rico. Since 1992, several changes and amendments have been made to the program. This makes necessary the offering of a new updated training course for local government officials that are responsible for the inspection of class V wells in Puerto Rico. For this reason an updated UIC Training Course was offered in San Juan, Puerto Rico during the week of August 9-11, 2000.

The EPA and the PRWRERI organized the course, which was offered in Spanish and lasted for three days. The first two days were dedicated to theory, with a pre-test administered on the first day. The last day included a field trip to some of the class V wells, located in the surroundings of San Juan metropolitan area, where monitoring techniques and sampling equipment were demonstrated. Transportation was provided to all attendees to and from the well sites. The course ended with a final test administered to all students. The PRWRERI is looking forward to serve the water resources and environmental community of Puerto Rico.

Hydrologic/Hydraulic Study for the Design of a bridge over the Rio Yagüez and Quebrada Lavat in Mayagüez

The Puerto Rico Highway and Transportation Authority (PRHTA) is planning the construction of two bridges, one over the Río Yagüez and another over the Quebrada Lavat in Mayagüez. The purpose of this construction is to alleviate the transit on the Comerio Avenue in that sector. The Engineering Firm Guillermetty Ortiz and Associates contracted the PRWRERI to do a Hydrological/Hydraulic study to determine the dimensions of the proposed bridges considering the effects of the tides that occur in that zone without affecting the flooding conditions in the area.

The PRWRERI will offer professional services under contract with Guillermetty Ortiz and Associates. These services will include the gathering of data during field visits, hydrologic and hydraulic studies, surveying, local scour studies, and the coordination of the final design.

Expanding International Relations with Costa Rica

In a meeting with Eng. Marco Vinicio Corrales, Director of the Hydrologic Section of the Municipality of San José, the hydrologic and hydraulic

problems faced by the municipality of San Jose were discussed in an effort to establish ways for the PRWRERI to collaborate with the city. Dr. Walter Silva, Associate Director of PRWRERI, agreed to send a proposal to the city to provide training for engineers from the San José area and other cities in the country in the use of hydrologic/hydraulic models which would allow them to solve some of the serious problems of urban flooding. Because these problems are serious in many cities in this country, there is a good chance that municipalities that are members of the Association of Municipalities of Costa Rica will finance this project.

The proposal will consist of three courses in Costa Rica. These will include the following topics: "Fundamentals of Hydrology and Frequency Analysis", "Hydrologic Modeling utilizing HEC-HMS", and "Hydraulic Modeling utilizing HEC-RAS". These courses are scheduled to be offered in the summer of 2001.

PRWRERI Associate Director visits Guatemala

As part of the project "Research on State-of-the-Art Techniques to Assess and Design River Stability Measures", Dr. Walter Silva-Araya visited Guatemala. This project is financed by the USACOE. The federal funds are assigned by the United States Congress and are managed by

the Interamerican Development Agency to alleviate the consequences of the passing of Hurricane Mitch through the area. The purpose of the visit was to get acquainted with the hydraulic problems of the rivers in this country and to coordinate the course on river stability measures, which will be offered in this country in April 2001. (See photograph)

UCOWR Congress 2000: "Living Downstream in the Next Millennium: Reconciling Watershed Concerns with Basin Management."

From August 1-4, 2000, the Universities Council on Water Resources held its annual conference in the city of New Orleans. Dr. Jorge Rivera-Santos, Director of the PRWRERI, and Dr. Walter Silva-Araya, Associate-Director of the PRWRERI, were in attendance at the conference.

One of the reasons for the location was that many of the important issues discussed in the conference were focused on what happens to the water after it is used. Since New Orleans is located downstream from most of the states that border the Mississippi River, whatever happens upstream will have an impact on this city.

The priority of this meeting was to address problems related to the Federal Clean Water Action

Plan which promotes an approach to water quality and other natural resources concerns through integrated watershed management. However, this management is unable to address threats that originate upstream from diverse activities throughout the river basin. In order to address associated problems there must be broader inland watershed or basin-scale management efforts.

This meeting also served as a retrospective to show how the present status was reached and to take a look at what the future of this work will be like. Many ideas discussed at the Congress are useful for other watershed management projects that are being developed or proposed by the PRWRERI in Puerto Rico.

PRWRERI Newsletter Now Available Online

Increasing postal rates and production charges make it necessary for PRWRERI to reduce distribution of the print version of its Newsletter. The PRWRERI will continue to produce a printed version of the Newsletter for the moment. We are creating an electronic mailing list and continuously updating our Website with the most recent information and our Newsletter issues. Please contact our Website at www.ece.uprm.edu/rumhp/prwrri/news.html to join our mailing list.

CALENDAR OF EVENTS

2001 Information Management & Technology Conference and Exhibition
American Water Works Association
April 8 – 11, 2001 - Atlanta, Georgia
For more information contact: AWWA
Phone: 1-800-926-7337
Web site: www.awwa.org

AWRA's Annual Spring Specialty Conference
"Water Quality Monitoring, & Modeling"
American Water Resources Association (AWRA)
April 30 - May 2, 2001 - Menger Hotel - San Antonio, Texas
For more information contact: AWRA
Phone: (540) 687-8390

AWWA Annual Conference and Exposition
June 17-21, 2001 - Washington D.C.
For more information contact: AWWA
Phone: 1-800-926-7337
Web site: www.awwa.org

Joint AWRA/UCOWR Summer Specialty Conference
"Decision Support Systems for Water Resources Management"
American Water Resources Association (AWRA)
Universities Council on Water Resources (UCOWR)
June 27-30, 2001 - Snowbird, Utah
For more information contact: AWRA
Phone: (540) 687-8390

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