WATER HIGHLIGHTS

D.C. WATER RESOURCES RESEARCH CENTER, WASHINGTON, D.C.
COLLEGE OF LIFE SCIENCES UNIVERSITY OF THE DISTRICT OF COLUMBIA

JUNE 1989 Volume IX No. 2

INSIDE

NAVUD Celebrates 25th Anniversary

The National Association of Water Institute Directors' (NAWID) met in Washington, D.C., April 26-28, 1989, to celebrate the 25th birthday of the National Water Institute Program. The celebration was appropriately done in the finest style, ranging between locations *on* Capitol Hill, the Cosmos Club and the Dupont Plaza Hotel The scenario included reflections on program origins, accomplishments, recognition, acknowledge- and intense, hardworking sessions involving the NAWID membership addressing a complex array of problems and issues.

Program highlights included: a memorable 25th Anniversary Symposium on Capitol Hill featuring presentations by Ted Shad, Bud Eastman, Daniel Beard, William Walker, and Dallas Peck, followed by a reception honoring members of Congress and staff; a thought provoking and challenging 25th Anniversary Banquet address by Dr. Peter P. Rogers, Gordon McKay Professor of Environmental Engineering and Professor of City Planning, Harvard University; and meetings between NAWID and U.S.G.S. senior Water Program Division staff which generated new and innovative *Ideas* to strengthen and build on 25 years of outstanding accomplishments by the National Water Institute Program.

In Memoriam to Dr. Annye C. Buck, Former Dean of the College of Life Sciences, University of the District of Columbia

The Center has learned with deep sorrow that Dr. Annye C. Buck, the first dean of the College of Life Sciences of the University of the District of Columbia, passed away May 20, 1989. Dean Buck early recognized the significance of water research. She was a strong champion and supporter of the newly established Water Resources Research Center from its start under her direction as Chairperson of the Science and Technology Department of the Washington Technical Institute through its full development during her tenure as Dean of the College of Life Sciences. Dean Buck will be remembered as a teacher and a friend, as *well* as for her many contributions to science education and administration.

New Research Projects

The Center is pleased to announce several new research projects to be initiated this year which will cover diverse areas, including water quality, the ecology of the Anacostia River, paint-based water pollution, toxic in local fish species and a survey of public awareness and attitudes regarding water issues. Summaries of the projects are as follows:

'The Anacostia River: Ecological Studies of River Pollution Biology, Phase 111', by Dr. V. Guerrero, UDC Department of Environmental Science. The study will provide essential information on the physical, chemical and biological status of the river and its tributaries, including: (1) a better understanding of the total picture of the river; (2) base line information on certain parameters such as coliform, turbidity, sediments and soils, storm water nun-off, temperature, light, dissolved oxygen, suspended solids, conductance, metals chlorine and other chemicals; (3) *a* taxonomic survey of the zoo and phytoplankton, including the benthic species; (4) a method to determine the interface between habitats and the urban human population as it relates to the organisms, the physical and chemical parameters, Including fish and avian species of the area; and (5) a method to determine the interface between the various physico-chemical and biotic variables as it relates to the water quality.

'Survey of Aqueous Sediments and Resident Fish of the Anacostia River for Polychlorinated Biphenyls, by Dr.' H. McDowell and Dr. C. Wade, UDC Department of Chemistry. The Anacostia River, the second largest body of water in and around the District of Columbia, is heavily polluted. It is presently unfit for swimming, wading, playing, and/or fishing. Clean up plans require a solid data base which identifies the pollutants and directs measures for pollutant cleanup or removal. Because the metropolitan area and the banks of the Anacostia and Potomac Rivers are not populated with chemical manufacturing plants, one may assume that sanitary pollution is the sole or chief problem. However, in the summer of 1988 fish in the Potomac River were found to be contaminated with PCBs and Chloridene. With the use, concentration, and distribution of PCBs in the District of Columbia estimated so high, there is an urgent need to examine the Anacostia River beds for their presence. The PCBs cause skin and liver diseases in humans, cause cancer and birth defects in animals, and are implicated *in* other toxic responses.

Speciation of Tributykin Compounds in Water and Sediments Using Mossbauer Spectroscopy, Phase 11f, by Dr. L May of The Catholic University Department of Chemistry and Dr. G. Eng of the UDC Department of Chemistry. This is a continuing three year study. Organotin compounds are used as antifoulants in marine paints of which tributyltin compounds still are used on many leisure marine craft contributing to the problem of water quality in the waterways of this area. There are several marinas located in the District of Columbia and its environs. There is limited information on the speciation on these toxic compounds used in paint formulations in fresh and seawater and in sediments found in the waterways. Knowledge of the products of such reactions would aid those who are making decisions concerning the future use of tributyltin compounds as antifoulants in marine paints. The purpose of the proposed research is to determine the fate of tributyltin compounds in water, seawater, and anaerobic and aerobic sediments.

'Citizens' Attitudinal Surrey on the District Water Resources', by Dr. Y. Choi and Dr. H. Azani, UDC Department- of Business and Public Management. The purpose of the research project is to measure the extent of public awareness, knowledge, and understanding regarding the quality of water, deterioration of water distribution/sewage transport lines, and the sources of water pollution in the city of Washington, D.C. Other areas to be investigated are as follows: What does the public think with regard to various courses of actions (strategies) for expanding the sources of high quality water? What is the state of public opinion regarding the solutions to toxic and hazardous substances threatening surface water quality and non-point sources of pollution? What does the public know about the many undesirable effects of urbanization/land use policies on water downstream from development? Expected outcomes from this research will be the divergences of attitudes, interests, and values among individual citizens, racial groups, and socioeconomic-educational strata Knowing the public attitude is the first step in a democratic decision making or policy making process. This research will provide fact-finding on citizen's attitudes toward water for the District policy makers and administrators.

Capitol Update

Reauthorization

pursuing cosponsors for H.R. 1101 and S. 714. Markup for H.R. 1101 expected before end of May. It is hoped that reauthorization legislation will not contain earmarking for special projects. At present, no Senate hearings have been scheduled. No action yet on comprehensive ground water legislation.

A commentary by Paula Hyghes, NASULGC, Washington, D.C.

WRRC Notes

o Chesapeake Regional Information Service

The Chesapeake Regional Information Service (CHRIS) is designed to provide callers with timely information about ongoing Bay clean-up efforts, including important events, publications, and 0key contacts. CHRIS is a service of the Alliance for the Chesapeake Bay. Phone 1800-662-CHRIS for:

Chesapeake Citizen Directory
Chesapeake Citizen Report
Baybook: A Guide to Reducing Water Pollution at Home
Speakers Database Search
Slide Shows and *Films* EPA and State Bay Reports
Chesapeake White Papers
River Fact Sheets
Rivertrends Quarterly Baybriefs
News Bulletin Alliance Membership Brochure Field Trip Brochure

Interested individuals having expertise in Chesapeake Bay topics and willing to talk to various groups in their area are invited to contact Ms. Carole Ann Barth, CHRIS Director, who is preparing the Speakers List. She may be contacted at (804) 642-7153.

* Excerpted from Anacostia Watershed, Vol. No.2 1989

o DC STAC Members Appointed

The following individuals were appointed by the Mayor to serve on the Chesapeake Bay Program Scientific and Technical Advisory Committee (STAC):

Mr. James H. Hannaham
Dr. A. Jose Jones
Dr. Martha Sager
Dr. Dr. Charles P. Warr Dr. Wilbert Wilson

Maryland, Pennsylvania and Virginia are also represented on STAC.

Vacancy announcement

o Civil/Environmental Engineer

ASCI Corporation has an immediate opening for a Civil/Environmental Engineer. The position *will* be located at the U.S. Environmental Protection Agency-s Environmental Research Laboratory *in* Athens, Georgia, where ASCI provides on-site technical and engineering support. Advanced degree(s) are considered essential and Ph.D. preferred in Civil/Environmental Engineering or closely allied field. Contact for further information or send resume and names of three references to Dr. James L Martin, P.E., ASCI Corporation c/o USEPA, College Station Road, Athens, GA 30613. Phone: (404) 546-3160.

o Assistant* or Associate Professor' (Extension Water Quality Specialist)

Located in the Division of Agriculture, Oklahoma State University, the ercumbent would be responsible for the development, implementation and evaluation of programs relating to water quality, non-point pollution, water use and manage*ment* as these relate to agricultural production. Application and other supporting information should be submitted on or before Friday, September 1, 1989. Applicants should provide a letter of application indicating qualifications and desire for the position, current resume, tran-scripts of credits and three letters of reference to: Dr. Ray Campbell, Assistant Director, OCES, Oklahoma State University, 245 Ag Hall, Oklahoma State University, Stillwater, OK 74078.

o Director, Westwater Research Center, The University of British Columbia, Faculty of Graduate Studies

The successful candidate will have a Ph.D. or equivalent, and will be a

recognized authority in a field of research that enhances the activities of the Center. The appointment as Director will be for an initial period of five years, and will take effect by January 1990 or as soon as possible thereafter. Applications with supporting documentation and names of three referees should be sent by 31 August, 1989 to: Dr. S. Cherry, Associate Dean, Faculty of Graduate Studies, University of British Columbia, Vancouver, B.C. V6T 1Z3, Canada.

Meetings

AUGUST 1989

23-.25JWaterpower ‘89. Niagara Falls, N.Y. CONTACT: Waterpower '89 Program, ASCE-TAC, 345 East 47th St., New York, NY 10017 (212) 7057266.

SEPTEMBER 1989

in Africa, Held May 3-8, 1987, Atlanta Georgia. USAID. Washington, D.C. Under Cooperative Agreement No. DPE-59520-A-00-5040-00 with Atlanta University.

U.S. Environmental Protection Agency. Draft Environmental Impact Statement, Call for Abstracts

JANUARY 1990

24-26/IWRA, 'International Symposium, Planning, Management, and Research of Water Resources'. Merida, Yucatan, Mexico.

The sub-theme for this conference is 'Recent Progress in Pan America with Water resources Management and Research'. The symposium is being sponsored *by* the Department of Civil Engineering at the Universidad Autonoma de Yucatan in Merida. Co-sponsors are the American Society of Civil Engineers (ASCE) and the International Water Resources Association (IWRA).

Abstracts should not exceed one page in length and must include the affiliation, position, and address of the author(s). Two copies of the abstract should be submitted by September 11, 1989. Authors of accepted papers will be notified by September 20,1989, with completed manuscript due by November 20, 1989.

All others should send abstracts to:

Ing. Miguel Villasuso Pino
Facultad De Ingenieria
Universidad Autonoma De Yucatan Calle 14x41 Ex-Fenix
Merida,
Yucatan
MEXICO 99-27-45-23

U.S. and Canadian authors should submit abstracts to:

Harold J. Day Room ES 317 University of Wisconsin U.S.A.
(414) 465-2369

Publications Received

Department of Defense, Department of the Army. Biological Defense Research Program, Final Programmatic Environmental Impact Statement. DOD, DOA Fort Detrick, Frederick, MD. April 1989.

George Washington University, Proceedings of Ground Water Issues and solutions , in the Potomac River Basin/Cheaspeake Bay Region, March 14-16, 1989, Marvin Center. GWU. Washington, D.C.1989. 525p.

Marshall E. Moss and Harry F. Lins, Water Resources in theTwenty-First Century-A Study of the Implications of Climate Uncertainty. U.S. Geological Survey Circular 1030:1989.

U.S. Agency for International Development, report and Recommendations of the Symposium on Water and Sanitation Sludge Management Study, Blue Plains Wastewater Treatment Plant, Washington, D.C. USEPA Region III. Philadelphia, PA. March 1989.

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ROLE OF INSTITUTE

The DC Water Resources Research Center (DC WRRC), a component of the University of the District of Columbia, is a partner in a joint federal-state research effort to find solutions to the District of Columbia water resources problems. The Center's primary mission is: to promote research and development; to identify and find practical solutions to the District's water and water resources related problems; to promote training of scientists, engineers, and other skilled personnel in the fields related to water resources; and to disseminate information through the maintenance of a water resources scientific information center and through a computer data base system.

AREAS OF EMPHASIS

The DC WRRC has targeted its research and public service efforts on the Anacostia River, a tributary of the Potomac River, The DC WRRC research activities encompass water quantity problems, water quality problems related to the improvement of the Anacostia River. These activities include but are not limited to the control of non-point source pollution, of erosion of soil from land and streams, and of urban runoff. Typical recent projects are: 'Impact of erosion and sedimentation on the water quality of the estuarine portion of the Anacostia River'; 'he Anacostia River: ecological studies of river pollution biology'; 'Anacostia River sediment toxicity: localization, accumulation, and characterization'.

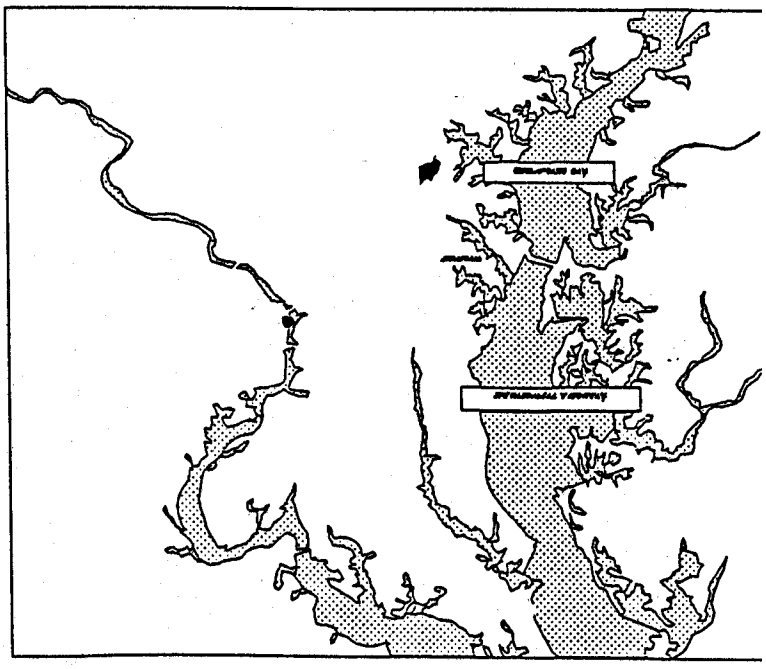
As part of its public service, the DC WRRC has two major programs: technology transfer and public education, and water information management system. The first one is a program designed to increase the communication of technical and scientific knowledge to promote a general understanding of water resources problems. Under this program, the DC-WRRC convenes conferences, symposia, workshops, and seminars; maintains a library of more that 4,000 water resources documents; publishes a quarterly newsletter 'Water Highlights'. The water information management system is a program designed to provide a data base and management of information involving the District of Columbia's water resources.

EDUCATION AND TRAINING

The DC WRRC provides the opportunity for faculty members and students in Washington, D.C. to develop their expertise in water resources, as well as in-service training and assistance for internship with water agencies. The Center enables students to enhance their knowledge of water resources and helps them to improve their capabilities as water problem solvers.

From FY 73 to FY 87

Graduate: 45 Undergraduate: 73



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