

Number 11

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SYMPOSIUM ON HYDROLOGY OF COASTAL REGION SCHEDULED

The Institute has scheduled a Symposium on Hydrology of the Coastal Region of North Carolina for May 12, 1967, at the N. C. State University Faculty Club in Raleigh. This is the second meeting on coastal waters sponsored by the Institute. The first, held on May 12, 1966, dealt with estuarine ecology.

The coming meeting will include panels on ground water and estuarine hydrology. Additional information will be provided through the News as the program develops.

INTERNATIONAL SYMPOSIUM ON EUTROPHICATION

The National Research Council has announced an International Symposium on Eutrophication for June 11-16, 1967, in Madison, Wisconsin, to review the present status of world knowledge of the complex processes, both natural and man-induced, which contribute to and frequently hasten the aging of lakes and streams.

Taking part in the program will be thirty-six eminent scientists, from the United States and abroad, representing the fields of botany, chemistry, limnology, zoology, hydrology, and sanitary and agricultural engineering. Public policy considerations and the broad social and economic consequences of eutrophication will be discussed by Senator Gaylord Nelson of Wisconsin and Interior Secretary Udall.

This meeting should be of interest to many North Carolinians. Additional information can be obtained from Dr. Michael R. De Carlo, Division of Biology and Agriculture, National Research Council, 2101 Constitution Avenue, N. W., Washington, D. C. 20418.

SECOND ANNUAL WATER RESOURCES RESEARCH CONFERENCE

The Second Annual Water Resources Research Conference has been scheduled by the Office of Water Resources Research, Department of the Interior, in Washington, D. C., on January 24-25, 1967, with a one-day conference for affiliated University representatives and Directors of Water Resources Research Institutes on January 26, 1967.

Invitations to attend the two-day and one-day conferences have been sent to Directors of the seventy-one institutions that have interdisciplinary university

organizations of water resources education and research, including the Institutes established under the Water Resources Research Act of 1964.

The two-day conference will start with addresses by Robert L. Smith, Chairman, Committee on Water Resources Research, Office of Science and Technology, and Secretary of the Interior Stewart L. Udall. Following this, there will be talks by Henry P. Caulfield, Executive Director, Water Resources Council, and other national figures on priority water resources research areas. The group will then break up into panel sessions on the various subject areas, subsequently reporting back to the full Conference. The Panel on Ecological Impacts of Water Resources Development will be chaired by Director Howells of the U. N. C. Water Resources Research Institute.

#### UPPER FRENCH BROAD DEVELOPMENT PLAN PROPOSED

The Tennessee Valley Authority, working in close cooperation with the North Carolina Department of Water Resources and other groups, has proposed a multipurpose plan for developing the water resources of the Upper French Broad Valley in western North Carolina. TVA reports the plan is designed to fit the area's water resources into a broader economic development program for the area and to make them more useful in accelerating economic growth.

It consists of 14 dams, 74 miles of channel improvements, and a 1.4-mile levee along the Asheville waterfront. Twelve of the dams would be multipurpose structures with permanent lakes, one would be a "dry dam" to retard flood flows, and the other would function as a detention structure initially, but would be designed for conversion to a multipurpose reservoir. Total construction costs are estimated at \$96 million and total estimated benefits at \$140 million.

#### WATER RESOURCES PLANNING GRANTS

Rules and regulations for the administration of water resources planning grants to the States have now been approved by the Water Resources Council.

The Water Resources Planning Act of 1965 authorized \$5 million annually to assist the States in developing and participating in comprehensive water resources planning. Funds available during the present fiscal year total \$1,750,000.

In their applications for grants, the States must declare the current status of comprehensive water and related land resources planning, describe on-going planning activity, and provide information on economic conditions and other aspects of water resource planning.

Twelve States have filed applications for planning funds and an additional fifteen States have filed letters of intent to apply.

PROJECT COMPLETION REPORT AVAILABLE

A report on "Plankton Heterotrophy in a North Carolina Estuary," by Dr. John E. Hobbie, Department of Zoology, N. C. State University, is now available upon request to the Institute. This represented the first phase of a long-term study to gain further understanding of the role of aquatic bacteria in the metabolism of natural waters. The work is based upon a recently developed technique utilizing a measurement of the uptake of organic radioisotopes by the natural bacteria of fresh water. The objectives of this phase of the project were to carry out experiments to adapt the heterotrophic uptake technique to estuarine conditions; to identify some of the organic substrates being used by the heterotrophic bacteria; and to measure the rate of uptake of some of these compounds and the seasonal and spatial changes of this rate in the Pamlico River estuary complex.

NATIONAL INVENTORY OF INDUSTRIAL WASTES

At the suggestion of Rep. Robert E. Jones (D-Ala.), chairman of the House subcommittee on Natural Resources and Power, the Federal Water Pollution Control Administration has undertaken the development of a national inventory of industrial wastes discharged into water courses. Earlier efforts toward such an inventory were shelved because of objections from industry. Jones said, "Happily, today, there is reason to believe that the attitude of our leading industries has altered, and they are prepared, generally, to cooperate more fully with Federal and State water pollution control agencies."

MEETINGS SCHEDULED BY THE INSTITUTE

Board of Directors - January 4, 1967, at 4 p.m.

Advisory Committee - January 6, 1967, at 9 a.m.

Symposium on Hydrology of Coastal Region of North Carolina - May 12, 1967

NEW PUBLICATIONS RECEIVED BY THE INSTITUTE

Aquatic Ecology

"A Preliminary Bibliography with KWIC Index on the Ecology of Estuaries and Coastal Areas of the Eastern United States," by Robert Livingstone, Jr., Special Scientific Report - Fisheries No. 507, Fish and Wildlife Service, Department of the Interior.

Hydraulics and Hydrology

"The Keweenaw Current, A Regular Feature of Summer Circulation of Lake Superior," by Robert A. Ragotzkie, Department of Meteorology, Univ. of Wisconsin, August 1, 1966.

Hydraulics and Hydrology (cont.)

"Discharge Characteristics of Embankment-Shaped Weirs," by Dr. Carl E. Kindsvater, Georgia Institute of Technology, Water Supply Paper 1617-A, Geological Survey, Dept. of the Interior, Washington, D. C.

"Methods of Flow Frequency Analysis," Bu. No. 13, April, 1966, Prepared under auspices of Subcommittee on Hydrology, Inter-Agency Committee on Water Resources, Published through arrangements made by S. C. S., Dept. of Agriculture. Available from Supt. of Documents, Gov't. Printing Office, Washington, D. C. 20402, @ \$0.35 per copy.

"Generalized Computer Programs," Hydrologic Engineering Center, Corps of Engineers, 650 Capitol Mall, Sacramento, Calif.

Spillway Rating and Flood Routing  
Fortran Source Inventory & Renumbering  
Spillway Rating - Partial Tainter Gate Openings

"Selecting Hydraulic Reaction Turbines," Engineering Monograph No. 20, Bureau of Reclamation, Department of the Interior, Denver, Colorado.

"The Effect of a Permeable Bed on Sediment Motion - Phase I: Seepage Force on Bed Particles," by C. S. Martin, Water Resources Center, Georgia Institute of Technology.

"Reclamation Project Data (Supplement)," Bureau of Reclamation, Department of the Interior. For sale by the Gov't. Printing Office, Washington, D. C., @ \$2.00 per copy.

"Seepage Flow Through an Earth Dam," by M. R. Carstens and G. D. May, Water Resources Center, Georgia Institute of Technology.

Water Quality

"Proceedings of the Twentieth Industrial Waste Conference," May 4, 5, & 6, 1965, Purdue University.

"Survey of the Nature and Magnitude of the Water Research Needs of the Textile Industry of Georgia," by W. L. Hyden, D. F. Becknell, and T. E. Elders, Water Resources Center, Georgia Institute of Technology.

"The State of the Art of Water Use and Waste Disposal in the Textile Industry," by L. D. Jones and W. L. Hyden, Water Resources Center, Georgia Institute of Technology.

"Water Quality Alteration Through Acid and Heat Pollution in a 1500 Acre Reservoir," by R. S. Cambell, J. R. Whitley, and E. R. Rezina, Project Report No. 1, Water Resources Research Center, Univ. of Missouri, Columbia, Mo.

"Snow Water Acidity in Wyoming," by Pierre Clement, Water Resources Series No. 3, Water Resources Research Institute, Univ. of Wyoming, Laramie, Wyoming.

"Surfactant Effects on Humans and Other Mammals," by R. D. Swisher, Soap & Detergent Association, 485 Madison Ave., New York, New York 10022, Scientific and Technical Report No. 4, November, 1966.

General

"The Big Water Fight," League of Women Voters, The Stephen Greene Press, Brattleboro, Vermont, 1966, \$6.95.

ZIP CODE REQUIREMENT

Is your area zip code correct as shown on the reverse side of this page? Our News is classified as third class mail, which must bear the zip code as of January 1, 1967, in order to reach destination. Please send a card to the Institute reflecting your correct address and zip code if our records are incorrect at the present time. Your cooperation is appreciated.

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