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SECOND MEETING OF INSTITUTE ADVISORY COMMITTEE

The twenty-two man Advisory Committee of the Water Resources Research Institute held its second meeting on January 6 at the North Carolina State University Faculty Club in Raleigh. Meeting with the Committee were the Institute Board of Directors, the Institute Technical Committee, the Institute Director, and Dr. Roland R. Renne, Director of the Office of Water Resources Research, Department of the Interior, Washington, D. C.

In his introductory comments, Dean Ralph E. Fadum, Chairman of the Board of Directors, expressed appreciation to the Committee members for their interest and services on behalf of the Institute. He noted the advice and assistance given by the individual members on a daily basis throughout the year and its value to the Institute.

Colonel George E. Pickett, Chairman Pro tem and Director of the State Department of Water Resources, opened the meeting with a review of the Department's water resources program and relationship to the Institute. He remarked that "The Water Resources Research Institute is providing a very valuable service to the State of North Carolina in its role as the coordinating center for water resources research," and said that "The Institute and the Department of Water Resources maintain very close coordination as both - - are concerned with all phases of water resources development."

The major part of the meeting was devoted to a review and discussion of the Institute program, comments by Committee members on the Institute report, "Water Resources Problems and Research Needs of North Carolina," and a review and discussion of research proposals received for funding under the F.Y. 1968 Annual Allotment Program.

The Advisory Committee made many helpful suggestions, complimented the Institute on its report covering the "Water Resources Problems and Research Needs of North Carolina," and strongly endorsed its overall program. Colonel Pickett was unanimously elected Chairman, a role which he has filled on an acting basis for the past year.

Dr. Renne addressed the assembled groups at lunch on the Federal Water Resources Research Program. Among other things, Dr. Renne stressed the growing importance of the behavioral sciences in water resources research and management; the new Water Resources Information Center being established within his office to serve the Federal government as a whole; and the report of an advisory panel to Interior which has recommended the

implementation of Title II funding under the Water Resources Research Act. The Advisory Committee, University officials and faculty were pleased at Dr. Renne's complimentary assessment of the Institute as one of the top ten in the country.

INDUSTRY URGED TO TAKE LEAD IN FIGHT AGAINST POLLUTION

Mr. M. A. Wright, President, U. S. Chamber of Commerce, and Chairman of the Board of the Humble Oil and Refining Company, called upon private industry to take the lead in the control of air and water pollution in an address before the Houston Chamber of Commerce on December 6, 1966. Among his comments were:

"Either we voluntarily implement effective pollution abatement programs at all levels of business and industry, or in the near future our actions in this area will be spelled out by Congressional legislation. Today we still have the freedom to make a reasoned and resolute response to the problem. Tomorrow our actions may be tightly controlled by government regulations.

"If our efforts are made mandatory, not only will we be forced to take more costly and less efficient action, but we will also forfeit our claim to being a responsible segment of society. To those who say they cannot afford to take effective anti-pollution measures, I can only respond that they can't afford not to."

WATER POLLUTION RESEARCH NEEDS NEGLECTED

FWPCA Commissioner James M. Quigley told the participants of the American Association for the Advancement of Science at their annual meeting in Washington, D. C., on December 27, that the "scientific genius that has characterized so much of America's industrial efforts has largely bypassed the field of pollution control. - - - In 1966 we are building - often with the aid of Federal subsidies - sewage treatment plants which, technically speaking, could have been built in 1936 or, perhaps, even in 1906. This is comparable to our still flying in Ford tri-motors or driving Model T's."

Quigley cited agricultural pollution as a primary need for new research. He said that "from a technical and economic point of view most point source pollution can and will be brought under control in this country in the next five to ten years. As this happens the problem of pollution from non-point or diffused sources will become our greatest challenge. He called particular attention to pollution from pesticides, concentrations of salt and other chemicals in return flows from irrigation systems, silt resulting from soil erosion, and runoff from large feed lots.

ADDITIONAL RESEARCH ASSISTANCE UNDER TITLE II OF THE WATER RESOURCES RESEARCH ACT

On January 5, 1967, Dr. Roland R. Renne, Director, Office of Water Resources Research, announced that his office is now accepting research proposals in the field of water resources for consideration for support pursuant to Title II of the Water Resources Research Act. Present emphasis will be given to the support of research in the categories of water resources, planning, water quality management and protection, water quantity management and control, and the management of water in urbanized areas.

While no funds have been appropriated to implement Title II, a supplemental appropriation request has been submitted to the Congress for its immediate consideration. This invitation for proposals is in anticipation of favorable action on that request.

The 1966 amendments to the Water Resources Research Act authorized \$85 million in appropriations over a ten-year period for research under Title II of the Act. The authorization starts at \$5 million for fiscal year 1967 and increases one million each year to \$10 million for the remaining five years. These funds can be used by the Secretary of the Interior for grants, contracts, matching, or other arrangements with educational institutions, private foundations or other institutions; with private firms and individuals; and with local, State, and Federal agencies to undertake research into any aspects of water problems related to the mission of the Department of the Interior. This authorization is in addition to the funds provided through the Water Resources Research Institute under Title I of the Act.

To allow sufficient time for proposal review, the negotiation of contract awards, and transmittal to Congress, formal proposals must be submitted to the Office of Water Resources Research by February 15, 1967, in order to be eligible for initial Title II consideration. Although proposals may be submitted to OWRR at any time, those received after the above date will be held for consideration for support subsequently.

Copies of "Guides for the Submission of Proposals," application forms, and other materials can be obtained from the Office of Water Resources Research, U. S. Department of the Interior, Washington, D. C. 20240. A limited supply has been requested by the Institute and copies will be made available on a first come-first serve basis. The Institute Director, Prof. David H. Howells, will be pleased to provide this material and to assist you in any way he can. His telephone number is 755 - 2815. The office is 124 Riddick Building, North Carolina State University, Raleigh, N. C. 27607.

NEW DIRECTION FOR COMPREHENSIVE WATER POLLUTION CONTROL PROGRAMS

The appointment of Reginald C. Price, a California official with national and international experience in the water management field, as Assistant Commissioner for Comprehensive Programs in the Department of the Interior's Water Pollution Control Administration was announced on January 5, 1967, by Secretary of the Interior Stewart L. Udall.

Price, who is fifty-five years old, has been serving as Deputy Director for Policy in the California Department of Water Resources. He will direct an intensified effort by the FWPCA to develop comprehensive anti-pollution programs on a river basin basis.

WATER RESOURCES THESAURUS

The Institute has received two copies of the first edition of the Water Resources Thesaurus published by the Office of Water Resources Research, Department of the Interior, and developed under contract by the Science Information Exchange, Smithsonian Institute.

The development of the Thesaurus is designed to improve communications and to facilitate retrieval of scientific and technical information on water resources. Its availability will encourage individual researchers to contribute to these objectives by providing a standard system for indexing, titling, abstracting, and description of projects at the source.

Additional copies are available at \$2.00 each from the Superintendent of Documents, Washington, D. C. 20402.

NATIONAL SYMPOSIUM ON ESTUARINE POLLUTION

The Sanitary Engineering Division of the American Society of Civil Engineers will sponsor a National Symposium on Estuarine Pollution at Stanford University on August 23-25, 1967. This has been scheduled to provide an opportunity to present and discuss recent research and developments concerned with water quality management and the effects of pollutants in estuarine waters.

The program chairman, Robert M. Kennedy, has announced that the deadline for 200-300 word abstracts for proposed papers is March 15. His address is Kennedy Engineers, 604 Mission Street, San Francisco, California 94105.

SIXTEENTH SOUTHERN WATER RESOURCES CONFERENCE

Duke University will host the Sixteenth Southern Water Resources and Pollution Control Conference scheduled for April 6 and 7. Dr. Edward H. Bryan, Professor, Department of Civil Engineering, Duke University, Durham, N. C. 27706, is in charge of the program. There will be an outstanding program and you will want to attend. Please mark these dates on your calendar.

LISTS OF PUBLICATIONS ON FOREST SOIL AND WATER RESEARCH NOW AVAILABLE

The Institute has been added to the Forest Service mailing list to receive quarterly lists of publications on forest soil and water research issued by Experiment Stations. Each

item is listed under the Experiment Station at which it was published. Station Papers, Notes, and Reprints of most of the periodical articles may be obtained from the Station involved. There is no charge for Forest Service Publications.

GRANTS FOR INDUSTRIAL WASTES AND ADVANCED WASTE TREATMENT ANNOUNCED

Secretary of Interior Udall announced on January 11 the award of \$10,133,180 in grants for research and demonstration projects dealing with industrial wastes and advanced waste treatment.

Grants having industry-wide application were made to the following ten private companies or organizations:

Aerojet-General Corp., El Monte, Calif.	\$ 226,500
Champion Papers, Inc., Hamilton, Ohio	700,000
Caldwell Lace Leather Co., Auburn, Ky.	46,340
Mead Corporation, Chillicothe, Ohio	299,950
Vahlsing, Inc., Easton, Maine	196,014
Battelle Memorial Institute, Richland, Wash.	180,600
Food Machinery Corp., Santa Clara, Calif.	29,300
John Morrell & Co., Ottumwa, Iowa	489,000
Beef Sugar Development Foundation, Fort Collins, Colo.	102,000
Minute Maid Company, Orlando, Fla.	350,000

Fourteen cities and local government districts were awarded grants for demonstration and research projects on advanced waste treatment. These are as follows:

Dallas, Texas	\$ 510,000	Green Bay M.S.D., Wisc.	\$ 251,250
Hemet, Calif.	225,000	Irvine Ranch W.D., Calif.	325,500
W.S.S.C., Md.	1,650,000	Chino, Calif.	560,000
Dist. Columbia	593,000	South Tahoe P.U.D., Calif.	1,022,000
Santee C.W.D., Calif.	800,000	San Buenaventura, Calif.	90,226
San Jose, Calif.	36,100	Nassau County, N.Y.	700,000
Detroit, Mich.	299,800		
East Chicago, Ind.	450,000		

The News will not normally provide as much detail on Federal grants as given above. It is being done on this occasion to call attention to the opportunities available to North Carolina industry, private research organizations, State agencies, and local government - as well as to the universities - for substantial Federal support of research and demonstration on water pollution control problems. See the lead article of the November News for additional information concerning this program.

Similar opportunities in the broader field of water resources are anticipated under Title II of the Water Resources Research Act discussed earlier in this issue of the News. The Director of the Institute would be pleased to provide further information and assistance to any person or organization interested in taking advantage of both of these programs.

T. V. A. WATER QUALITY OBJECTIVES

Dr. O. M. Derryberry, Director of Health, and Mr. M. A. Churchill, Chief, Water Quality Branch, Division of Health and Safety, Tennessee Valley Authority, presented the proposed quality objectives for surface waters in the Tennessee River Basin at a public hearing in Sheffield, Alabama, last month. They reported that "TVA management has concluded that a comprehensive plan for water quality management developed on a basin-wide concept would fill an important need as people of the region continue to evaluate the Valley's resources and to make plans for economic and social growth. Several months ago the TVA Board directed that such a comprehensive plan be developed and that water quality objectives - - include protection of existing high quality water in the Tennessee River basin, as well as restoring to a quality level suitable for all reasonable uses in the public interest those streams - - where water pollution now interferes with such uses."

The objectives include waste treatment requirements, provision for mixing zones, level of stream flow at which water-quality objectives will apply, and specific quality criteria including temperature, dissolved oxygen, coliform bacteria, color, taste and odor, floating and settleable substances, p H, fluorides, toxic substances, other chemical substances, hardness, radioactive materials, and other pollutants.

NEW PUBLICATIONS RECEIVED BY THE INSTITUTE

General

"A Compilation of Current Water-Related Studies in the State of Maine," WRC Publication No. 1, University of Maine, Orono, Maine 04473.

"Biennial Catalog of Research Reports, Papers, Bulletins, Theses," College of Engineering, Colorado State University, Fort Collins, Colorado.

"Cooperative Water Resources, Research, and Training," 1966 Annual Report, Office of Water Resources Research, Department of the Interior, Washington, D. C.

"New Jersey Water Resources Conference," Water Resources Research Institute, Rutgers - The State University, New Brunswick, N. J. (Copies available @ \$5/copy from Rutgers WRI.)

"Pacific Northwest Laboratory Annual Report for 1965 in the Biological Sciences," Battelle Memorial Institute Publication BNWL-280, Pacific Northwest Laboratory, Richland, Washington.

Hydraulics and Hydrology

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

Balanced Hydrograph
Flood Frequency Curves
Flood Operation Forecast

Monthly Streamflow Analysis
Monthly Streamflow Synthesis

Water Quality

"Influence of Environmental Factors on the Nitrogen Cycle in Water," Jack DeMarco, Jerzy Kurbiel, James M. Symons, and Gordon G. Robeck, Federal Water Pollution Control Administration, Department of the Interior, Cincinnati, Ohio 54226.

"Management and Measurement of 'DO' in Impoundments," James M. Symons, William H. Irwin, Robert M. Clark, and Gordon G. Robeck, Federal Water Pollution Control Administration, Department of the Interior, Cincinnati, Ohio 45226.

"The Ion-Exchange Reactions of Radioactive Ions with Soils and Effects of Organic Compounds," Bong T. Kown and Ben B. Ewing, Department of Civil Engineering, University of Illinois, Urbana, Illinois.

"Transport and Retention of Virus-Sized Particles in Porous Media," R. W. Filmer and A. T. Corey, Sanitary Engineering Papers, Colorado State University, Fort Collins, Colorado.

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