

Summer 1972

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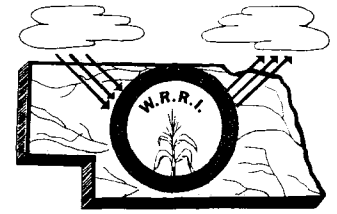
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# WATER RESOURCES NEWS

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THE UNIVERSITY OF NEBRASKA  
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## OWRR ISSUES BIBLIOGRAPHY SERIES

The Water Resources Scientific Information Center of the Interior Department's Office of Water Resources Research has issued a number of topical bibliographies for the benefit of the water resources community by using its computer-retrieval program.

Dr. H. Garland Hershey, OWRR Director, announced the bibliographies are a part of a series designed to exploit the Center's rapidly expanding information base.

Among the titles are: Research Reports supported by OWRR received during July-December 1971; Legal Aspects of Drainage in New England; Detergent in Water; PCB in Water; Mercury in Water; Agricultural Run-off; and Dieldrin in Water.

OWRR's address is U.S. Department of the Interior, Washington, D. C. 20240.

## WATER PROBLEMS EMPHASIZED MORE BY EPA

The Environmental Protection Agency's Office of Air and Water Programs is placing more emphasis on water pollution control.

EPA Administrator William D. Ruckelshaus announced the key change is the creation of two deputy assistant administrator posts for water programs.

Assistant Administrator for Air and Water Programs, Robert L. Sansom, said Deputy Assistant Administrator Eugene T. Jensen would be in charge of Water Programs Operations and that another deputy, not yet named, would be responsible for water planning and standards.

Water Programs Operations will be divided among four major divisions: (1) municipal waste water systems, (2) oil and hazardous materials, (3) water quality and non-point source control, and (4) water supply. The Water Programs Operations Office will also have a manpower development staff to arrange for the training of treatment plant operators and water pollution control specialists.

The Planning and Standards Office will have three divisions: (1) effluent guidelines, (2) monitoring and data support, and (3) water planning.

"We are making these changes in order to give greater emphasis to water pollution control strategy and in order to monitor nationwide cleanup progress," Ruckelshaus said. "The Air and Water Programs Office will also continue to emphasize the development and provisions of states and other implementing bodies of expert technical guidance in the water control field."

#### IRRIGATION WITH FEEDLOT EFFLUENT STUDIED BY ARS

Conrad B. Gilbertson, a USDA-ARS researcher at the University of Nebraska, cautions against assuming that sprinkling runoff effluent from feedlots is always beneficial. Gilbertson cites experiments in 1969 and 1970 which demonstrated opposite results on certain grasses. Even greenhouse studies by botanist Melvin B. Satterwhite showed divergent results for intermediate wheatgrass, big bluestem, and little bluestem seedings. Others similarly affected were sideoats grama, bromegrass, orchardgrass, switchgrass, reed canarygrass, and Holt indiagrass seedings.

Further studies must determine what chemicals reduce plant growth, safe rates of application effects on soil structure and possible harmful effects of bacteria and virus to livestock consuming the contaminated grasses.

#### INDUSTRY LARGEST WATER USER IN U.S.

Industry in the United States withdraws water from various sources at a rate of 177 billion gallons a day. This does not include the 2.3 trillion gallons used in the production of electric power. Large as this amount is, it is considerably less than the gross amount of water used by industry because much of the water is recirculated and reused in the manufacturing process. Furthermore, most of the water withdrawn is subsequently available for reuse elsewhere, so that only about six percent of the water withdrawn from use in manufacturing is actually consumed.

These are just a few of the many facts contained in a 19-page leaflet, "Water and Industry," prepared by the U.S. Geological Survey, Department of the Interior, to answer questions about the subject.

The leaflet is available for purchase from the superintendent of Documents, Government Printing Office, Washington, D.C. 20240 at 20 cents per copy.

### SATELLITE LAUNCH OPEN STUDY

Launched recently from Vandenberg AFB in California was the first Earth Resources Technology Satellite (ERTS-A) which is to monitor water and other resources.

Most of the experimental data from the satellite will go to the U.S. Geological Survey through a data center at Sioux Falls, S.D., under the Interior Department's EROS (Earth Resources Observations Systems) program.

The satellite's water-related experimental chores include gathering information for hydrologic atlases of arid-inland watersheds, checking environmental changes along the Alaska oil pipeline corridor, transmitting data for monitoring systems in the Delaware River Basin, studying "water-stealing" plants in the Southwest, observing sediment movement in Lake Ontario, and monitoring Bureau of Reclamation reservoirs in north-central Colorado.

For additional information on EROS experiments write Office of Program Manager; EROS Program; U.S. Geological Survey; Washington, D.C. 20240.

### COLORADO RIVER SALINITY COSTS TO BE STUDIED

Researchers at Colorado State University will seek a reliable means for measuring the economic impact of salt-laden irrigation water on agriculture.

The study will be made by the school's Department of Economics under a \$25,221 research contract from the Bureau of Reclamation, which is seeking ways to reduce the salinity of the Colorado River in response to protests by Mexico that water flowing south of the border is damaging Mexican farmlands.

The Colorado State University study will deal only with the effects of salinity on agricultural uses of water and will begin with a state-of-the-art survey to determine what means are now available for measuring adverse economic effects. The initial economic study is to be completed by April 30, 1973.

### HOUSE APPROVES \$150,000 APPROPRIATIONS TO STUDY OF CROSS-FLORIDA BARGE CANAL

The House of Representatives voted \$150,000 to undertake an environmental impact study of the Cross-Florida Barge Canal project, which was halted by President Nixon in January 1971. "The study should give consideration to all environmental and economic factors including those involved in the alternatives of completing or modifying

the route and design," the House Appropriations Committee said in a report.

The President's authority to stop the Florida canal is the subject of a still undecided Federal Court case. Federal Judge Harvey Johnsen has indicated that the real purpose of the President's stop-work order was to allow time for preparation of an environmental impact statement. Meanwhile, the Department of the Army and the Council on Environmental Quality have recommended that the Ocala National Forest be extended to include the Oklawaha River, through which the canal would run, and that the river be considered for inclusion in the National Wild and Scenic River system. Engineering News Record reported that the action could prove a blessing: "The Corps might be able to finish the canal over another route."

#### EPA BANNED DDT

William D. Ruckelshaus, EPA Administrator, has issued an order banning use of DDT in the U.S. as of December 31, 1972. A six-month phase-out period will be provided to effect an orderly transition to substitute pesticides. Public health and quarantine uses in the United States are not cancelled by the order, nor does it alter export for use in other countries or three minor uses for green peppers, onions, and sweet potatoes. Ruckelshaus said that he was "convinced by a preponderance of evidence that, once used, DDT is an uncontrollable, durable chemical that persists in the aquatic and terrestrial environments."

In his order, Ruckelshaus also urged quick passage of HR 10729 which would authorize EPA to regulate the use of pesticides for beneficial uses on a restricted basis.

#### USBR ANNOUNCES WATER RESOURCES THESAURUS

The U.S. Bureau of Reclamation has announced the availability of a new "Thesaurus of Water Resources Terms." The vocabulary, containing over 6,500 engineering and biological terms, is designed for use by authors of papers and reports needing to index their contents for information dissemination and retrieval purposes. Over 75,000 entries define interrelationships according to broader, narrower, and related concepts.

The publication may be purchased for \$3.25 from the Superintendent of Documents, Washington, D.C. or from the Bureau of Reclamation, Denver Federal Center, Denver, Colorado 80225. Stock number is 2403-0070.

## ESTIMATES OF NATION'S ENERGY RESOURCES MADE BY USGS

Estimates of the Nation's resources of coal, petroleum, liquids, natural gas, uranium, geothermal energy, and oil from oil shale, have been compiled in a new report by the U.S. Geological Survey, Department of the Interior.

The estimates, illustrated with scaled diagrams, were made by a group of Survey specialists familiar with each of the energy sources, each using techniques he considers most useful for estimating his particular energy source.

The 27-page report, "Energy Resources of the United States," was prepared by P. K. Theobald, S. P. Schweinfurth and D. C. Duncan, and is being published as USGS Circular 650. It is expected to assist in implementing programs called for by President Nixon in his Clean Energy Message to Congress of June 4, 1971.

The booklet may be obtained free upon request from the U.S. Geological Survey, Washington, D.C. 20240.

## RESEARCH REVIEW

Project Title: "Water Quality Models for Urban and Suburban Areas." Principal Investigator: Dr. Dewey R. Andersen. Assistant Professor of Civil Engineering, University of Nebraska. Dates: December 1, 1971 - June 30, 1974.

The purpose of this research project is to develop mathematical models for evaluating the quality of runoff from urban areas. Four specific land use areas have been selected for the collection of sample runoff. These consist of (1) a single dwelling, middle-class residential area; (2) a single dwelling, upper-middle class residential area; (3) a multiple dwelling area; and (4) a commercial area. Runoff sample data will include rainfall versus quantity of runoff, together with related pollutional parameters such as BOD, COD, solids, nitrogen, phosphorus and bacterial concentrations. Additional determinations may be added for certain land use areas if deemed desirable.

Since this project was not initiated until December 1, 1972, no conclusions have been reached at this time. Mathematical models for evaluating the runoff from specific land use areas will be developed as the project progresses.

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3. "Interaction of Herbicides and Soil Micro-organisms," for the Environmental Protection Agency, March 1971.

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#### NEWSLETTER ITEMS

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