

ARIZONA WATER RESOURCES NEWS BULLETIN

NEWS BULLETIN NO. 73-3

NOVEMBER-DECEMBER 1973

WATER RESEARCH PROJECT NOTICES

On January 3, 1974 notices will go out soliciting proposals for water resources research projects to be funded under the Allotment Program of the Office of Water Resources Research, U.S. Department of the Interior. Director Sol Resnick of the University of Arizona Water Resources Research Center, through which Allotment funds are administered, is requesting that draft proposals for research to be funded for FY 1974-75 be submitted to his office no later than February 15, 1974.

Instructions for preparing Allotment proposals, and a listing of research priorities developed by the State Water Advisory Committee, will be available at the Office of the Director, Water Resources Research Center, University of Arizona, Tucson, Arizona 85721. Those projects already funded and active in the current fiscal year were listed in Newsletter No. 73-1.

In addition to the Allotment program, the Office of Water Resources Research also administers the Matching Grant and Title II programs for water research. Allotment and Matching Grant programs are open only to the State universities, whereas Title II proposals may be submitted by any individual or organization. Deadlines for submitting proposals under the various programs occur at different times during the year and will be announced in advance in the Newsletter. Those Matching and Title II projects, either state or regional, which are currently in progress are listed below by title, principal investigator(s) and their University departmental affiliations, and the appropriate OWRR project number.

MATCHING GRANT (STATE)

Decision Analysis for Watershed Management Alternatives (B-032-ARIZ): Martin M. Fogel and John L. Thames, Watershed Management.

The Role of Institutional Fragmentation in Promoting Policy Innovation (B-034-ARIZ): Helen M. Ingram, Department of Government.

Modeling Soil Water Movement for Trickle Irrigation (B-035-ARIZ): Arthur W. Warrick, Department of Soils, Water and Engineering, and David O. Lomen, Department of Mathematics.

Transient Movement of Water and Solutes in Unsaturated Soil Systems, Phase II (B-040-ARIZ): Daniel D. Evans, Hydrology and Water Resources.

MATCHING GRANT (REGIONAL)

Salinity Management Options for the Colorado River (X-138): Ernest B. Jackson, Agronomy and Plant Genetics, University of Arizona.

TITLE II (STATE)

Environmental Impact Statements in Water Resource Planning and Policy-Making: Michael Bradley, Hydrology and Water Resources.

TITLE II (REGIONAL)

Development of Techniques for Estimating the Potential of Water Resources Development for the Achievement of National and Regional Social Goals, Phase III (C-4330): T.G. Roefs and R.L. Gum, Hydrology and Water Resources, University of Arizona.

It is with a sense of shock that we report the death of Professor Chester C. Kisiel of the University of Arizona, Department of Hydrology and Water Resources. He collapsed and died, suddenly and without warning, on November 5, 1973. He was 44 years old. He is survived by his wife and eight children and by both his parents. We here, and his friends, colleagues, and students from many countries mourn his loss.



**CHESTER C. KISIEL
MEMORIAL FUND ESTABLISHED**

As a tribute to the memory of Dr. C.C. Kisiel, the Department of Hydrology and Water Resources, University of Arizona, has established a memorial fund to be used for scholarships and a memorial reading room. Contributions (tax deductible), may be sent to: Chester C. Kisiel Memorial Fund, Department of Hydrology and Water Resources, University of Arizona, Tucson, Arizona 85721. Further information concerning the fund may be obtained from Dr. Hasan K. Qashu, same address.

COOLIDGE REGIONAL PARK PROJECT

The University of Arizona has recently expanded its public service role in the area of community development. In the past year the Cooperative Extension Service and the office of State and Community Resources, University of Arizona, have joined efforts in offering assistance to Arizona communities on projects involving development or resource problems.

One such community which responded to the offer of the University's help was the City of Coolidge, Arizona. Coolidge officials saw the need for development of a new regional park for people both within and outside the Coolidge community, and the opportunity to reuse treated wastewater in the process. The land to be used for the park area was located next to the existing and proposed additional sewage treatment plant. Therefore, sewage effluent reuse for park irrigation was a definite possibility.

The University organized an interdisciplinary technical team made up of faculty and staff members, and students under their direction, to research the problem and compile a report with planning recommendations. This report will include various design options for reuse of the effluent in the park, making the function of the University team strictly an advisory one. The selection of the final plan will be the responsibility of the Coolidge City Council. For actual construction, the City of Coolidge will join forces with Central Arizona College, located near Coolidge, to provide a training area for underprivileged students enrolled in the school.

**NOTICE OF INITIATION OF
FLOOD PLAIN INFORMATION STUDY
IN PIMA COUNTY**

At the request of the Board of Supervisors, Pima County, Arizona, the Los Angeles District of the U.S. Army Corps of Engineers has initiated a Flood Plain Information Study of Tanque Verde Creek and Tributaries, east of Tucson. The study is being made under the continuing authority provided the Corps of Engineers in Section 206 of the 1960 Flood Control Act (Public Law 86-645), as amended. The

reaches to be studied are Cienega Creek, Agua Verde Creek, Rincon Creek, Agua Caliente Wash, Bear Canyon, Sabino Creek and Pantano Wash.

The purpose of the study is to identify flood hazard areas and evaluate associated flood hazards along the study reach. The report will present information which points out the flooding problems caused by past floods and the flooding problems which may result from large future floods that can reasonably be expected in the area. The report and other results of the study, will be made available to the Pima County Board of Supervisors, other interested governmental agencies, and to the public through the Pima County Planning Department.

It is intended that the completed report be used by local agencies as a tool in determining how the flood plain areas should be used in order to minimize future flood damage and to guide optimum land use. The report will indicate the extent of flooding problems for the study area; however, it will not develop or recommend structural solutions for flood control.

Should you have pertinent hydraulic or hydrologic data, including known high water marks or photographs of past floods, that can be made available to the Corps of Engineers for use in this study, please bring this to the attention of Mr. James Z. Metalios, LTC, CE, Acting District Engineer, Department of the Army, Los Angeles District, Corps of Engineers, P.O. Box 2711, Los Angeles, California 90053. If your agency has any plans or specific policies pertinent to the conditions for use of the flood plain study area, such information would also be appreciated.

**PUBLICATION RELEVANT TO
ARIZONA AVAILABLE**

Water Facts and Figures for Planners and Managers, U.S. Geological Survey Circular 60 1-1 by J.H. Feth was published in 1973 and is available free of charge from the U.S.G.S., Washington, D.C. 20244.

Urbanization—the concentration of people in urban areas and the consequent expansion of these areas—is a characteristic of our time. It has brought with it a host of new or aggravated problems that often make new demands on our natural resources and our physical environment. Problems involving water as a vital resource and a powerful environmental agent are among the most critical. These problems include the maintenance of both the quantity and quality of our water supply for consumption, for recreation, and general welfare and the alleviation of hazards caused by floods, drainage, erosion, and sedimentation.

A prerequisite to anticipating, recognizing, and coping intelligently with these problems is an adequate base of information. This series of reports is intended to show the relevance of water facts to water problems of urban areas and to examine the adequacy of the existing base of water information.

NSF AWARDS THREE CONTRACTS FOR SOLAR ENERGY RESEARCH

The National Science Foundation (NSF) has awarded three contracts for a research project designed to hasten the day when solar energy for heating, cooling and supplying the hot water needs for buildings will become commercially available and socially acceptable.

The NSF awarded contracts totalling approximately \$1,536,000 to three industry-university teams to conduct studies for eight months as the first phase of the project.

Contracts were awarded to the General Electric Company, Philadelphia; Westinghouse Electric Corporation, Baltimore; and TRW Inc. of Redondo Beach, California. General Electric will work with the University of Pennsylvania; Westinghouse will cooperate with Colorado State University and Carnegie-Mellon University; and TRW is teamed with Arizona State University. Dr. John Yellott, Professor, College of Architecture, is heading up the ASU effort.

The objective of the first-phase study will be to establish the feasibility of using solar energy and to provide the basis of planning the later phases of the program.

The study will determine the heating, cooling, and hot water requirements of various types of buildings over a range of climatic regions in the United States. Solar system concepts will be developed for making integrated solar energy systems to meet these requirements. Conventional fuels will be used to supply needs not met by solar energy and its associated energy storage.

The first-phase researchers also will determine the economic feasibility of the various systems and applications and recommend those systems which should be carried through proof-of-concept experiments.

Future phases will involve critical subsystem research and preliminary system design, together with the proof-of-concept experiments. The final phase will involve design, construction, and systems testing and evaluation.

The contracts are part of the NSF's Research Applied to National Needs (RANN) Program, which has supported research on solar energy since the program's inception in 1971.

Approximately 25 percent of our energy is now used for space heating and cooling and for supplying hot water. The consumption of energy for these purposes is expected to double by the year 2000. The NSF said success of this experiment could reduce the impact of that increased use on existing energy resources.

NSF officials said that among the methods being researched, the use of solar energy for heating and cooling of buildings is the most advanced potential application and presents an excellent opportunity to make an early impact on national energy requirements.

UPCOMING EVENTS

"FUNDAMENTALS OF HYDRAULICS"

A three-day short course for water and wastewater treatment plant operators will be conducted January 9-11, 1974 on the University of Arizona campus. The course will be sponsored cooperatively by the Department of Civil Engineering and the Arizona Water and Pollution Control Association. Its purpose is to help prepare plant operators for State certification.

WATER HARVESTING SYMPOSIUM

A Symposium on water harvesting will be held March 26-28, 1974 at the Ramada Inn in Phoenix. Topics to be covered include water supplies for livestock, irrigation, domestic, municipal, and recreational uses by chemical and mechanical treatment of soil to increase precipitation runoff. For further information, contact the U.S. Water Conservation Laboratory, 4331 East Broadway, Phoenix, Arizona, Phone: 261-4356.

ANNUAL SPRING MEETING OF AMERICAN WATER RESOURCES ASSOCIATION

The annual spring meeting of the Arizona Section of American Water Resources Association, held jointly with the Hydrology Section of the Arizona Academy of Science, will take place at Northern Arizona University in April. Exact dates and details of the program will be announced soon. Topics to be discussed will include forest and range watersheds; social and economic aspects of water; water quality; analysis of flow and storage systems; resource planning; and data use and handling.

For information regarding submittal of papers for the AWRA meeting, one may contact one of the Program Chairmen:

Robert Gale
U.S. Forest Service
102 South 28th Street
Phoenix, Arizona 85034
Phone: 261-3205

E.L. Montgomery
Northern Arizona University
Box 6030
Flagstaff, Arizona 86001
Phone: 523-3851

FORTHCOMING PUBLICATION

The Arizona Section of American Water Resources Association announces that Volume 3 of *Hydrology and Water Resources in Arizona and the Southwest* is in press and will be available for distribution sometime in February. The exact date and other information will be announced soon.

Please address your news items or comments on the News Bulletin to any of the three editors:

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