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# Water Current

Conservation & Survey  
Division

William L. Powers, Director  
Volume 13, Number 3

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Karen E. Stork, Editor  
May/June 1981

FROM THE ~~DESK~~ <sup>University of Nebraska</sup> OF THE DIRECTOR . . .

Recently, several possible new funding sources for water research have begun to emerge, including private trusts and foundations. To efficiently utilize diverse funding sources and to avoid a research program of unrelated small projects that could result from this scattered funding, increased planning and coordination are imperative. Research projects to solve priority water problems must be designed using more of a team approach with component parts that can be studied as funds become available.

To facilitate this type of planning and coordination, the Water Resources Center will undertake a series of workshops. The first workshop (to be held in September) will be composed of water users and water technology and information users. The purpose of this workshop will be to update and prioritize a list of water problems in Nebraska. A second workshop, composed mostly of research oriented scientists, will determine the research needed to solve the most pressing state water problems. The Water Center will consult with department heads and assemble research teams or task forces to study these water problems. Then we will seek funding to support the component parts of team research efforts.

I recently visited the four regional stations of the University and during the latter parts of June and July will be touring the state and talking to various citizens and groups about their particular water problems. A working paper on Nebraska's water problems will then be drafted for participants in the first workshop.

We hope that by participation of a substantial cross-section of water users, technical water information users, and the scientific community, we can attract funds for a planned research program to attempt to solve some of the state's more serious water problems in a steady, deliberate fashion.



NEBRASKA WATER RESOURCES CENTER



## ON THE HOMEFRONT

### SOLICITATION OF RESEARCH PROPOSALS

The Water Resources Center has been designated as coordinator for an Agricultural and Water Research Fund being made available through the University of Nebraska Foundation. Currently there is between \$30,000 and \$40,000 in this fund, and additional monies will be available every year.

Research proposals are being solicited for funding from this source. Priority research areas are listed below. Proposals may be submitted for projects of more than one year duration; however, projects will be funded for only one year at a time. These proposals will be reviewed by the Water Resources Center Executive Committee. Projects will run from October 1, 1981 through September 30, 1982. Because a limited amount of funding is available this first year, it is expected that no more than two or three proposals will be chosen during this first selection. Deadline for proposals is July 15, 1981.

#### Priority Research Areas for Funding From Agricultural and Water Research Fund

Water Law. There is general agreement that Nebraska's water laws need to be updated and revised, but little consensus on how the Legislature should proceed. It is also possible that additional laws and regulations could have a direct economic impact on farm income, the state's economic activity and the business volume of those involved in irrigated agriculture. Research on the laws of Nebraska and other states must be coordinated with the best obtainable data on Nebraska's water resources to achieve a comprehensive legal framework for planned use and development. Research is also needed which would involve economic impact analysis of a range of alternative laws and regulations.

Atmospheric Drought Research and Monitoring. Additional meteorology and climatology studies are needed, including improved methods of surveillance of conditions, specification of plant characteristics needed to maintain acceptable levels of production under drought conditions, reliable methods of monitoring evaporation and crop water usage and cultivation techniques to reduce drought stress on crops.

Irrigation Energy Efficiency. Drastically higher energy costs and potential shortages present a vital need for development of alternative energy sources or new techniques for powering irrigation systems. The accelerated cost of pumping water also creates a major economic stress on irrigation. Research and educational program needs include the development of alternative energy sources for irrigation, testing of irrigation pumping plants, developing low pressure gravity and sprinkler irrigation systems, improved well design, and developing on-farm scheduling techniques which could include weather monitoring systems and micro-computer chip technology.

Efficiency and Drought Tolerance of Plants. Differences are known to exist--both between and within plant species--as to water use efficiency and drought tolerance. However, the physiological, morphological and genetic attributes of plants that contribute to these differences are not fully understood. Research is needed to assist plant breeders in the development of desired traits in new varieties and to assist agronomists in devising cultural practices that maximize the efficiency with which available water is used in crop production.



Water Quality. Relatively little is known about diffuse pollution by runoff from fields and streets. In addition to fertilizers and pesticides, erosion of the soil is a factor in contamination. It is also becoming increasingly evident that nitrate contamination of groundwater in Nebraska is already a serious problem. Accelerated research is needed for the sake of domestic water quality, fish, game and recreation, as well as for agricultural production. Practices involved in minimizing nitrate movement into groundwater are the same practices needed to make the most efficient use of nitrogen fertilizer and water. Research and education is needed to devise the means of incorporating the major factors involved in nitrate availability and movement into an effective management system.

Implications of Water Policy Alternatives. Even after achieving a significant increase in technical data, there will remain the necessity for making wise decisions involving the complex economic, social and environmental trade-offs associated with water policy choices. The benefits of solving any one aspect of the water problem have to be weighed against an unavoidable counter-cost. Some cost-benefit comparisons will be essentially economic, while others will pit dollars against social goals. Continuing studies in this area will help citizens and their elected officials reach sound and acceptable decisions.

For further information, contact the Director's Office, Nebraska Water Resources Center, 310 Ag. Hall, University of Nebraska. Telephone: (402) 472-3305.

#### STAFF ACTIVITIES

Dr. M.-L. Quinn, Assistant Professor of Water Resources, recently presented a paper entitled, "Managing for Waves on Nebraska's Man-Made Lake McConaughy," at the International Symposium on Reservoir Ecology and Management, organized under the auspices of UNESCO, in Quebec, Canada. The symposium was part of a larger International Colloquium on the Development of Water Conservation Strategies.

### WATER RESOURCES IN NEBRASKA

#### REPUBLICAN RIVER BASIN WATER MANAGEMENT STUDY

The U. S. Bureau of Reclamation is currently conducting a Water Management Study of the Republican River Basin. The study will evaluate existing and future uses of the limited water resources throughout the basin. Initial funding was provided in fiscal year 1978, and it is estimated that the cost of the 7-year study will be \$1,437,000. The objectives of the study are to identify present and future use and availability of water and associated land and environmental resources of the area to determine ways to efficiently use the remaining available water.

The Republican River is located along the Kansas-Nebraska border and drains parts of three states. The drainage area is approximately 24,900 square miles, with 9,700 square miles in Nebraska, 7,500 square miles in Kansas and 7,700 square miles in Colorado. The study area includes four divisions of the Pick-Sloan Missouri Basin Program: the Upper Republican,



Frenchman-Cambridge, Kanaska and Bostwick Divisions. For study purposes, the basin has been divided into two sections: the area above Harlan County dam and the area below Harlan County Dam.

Basic goals of the water management study are: (1) with the assistance of the public, identify water resource problems and water needs in the basin, including multiple water uses such as municipal and industrial, irrigation, flood control, recreational, fish and wildlife, water quality, and environmental needs; (2) evaluate the causes of the declining water supplies for the existing reservoirs; (3) define future water supply capability in the basin; (4) develop alternative management plans for the most effective use of present and projected water resources; (5) evaluate the economic, social and environmental impacts associated with these alternative management plans; and (6) prepare reports documenting the study effort and recommending future courses of action related to management of the basin's water resources.

The Bureau of Reclamation has assembled historic surface water data and has identified the trends associated with surface water supplies and areas where water supplies do not meet present needs. Changes in land use and water quality are being evaluated, as well as an analysis of the condition of presently irrigated soils. Water rights data have been collected and canal losses are being analyzed. Socioeconomic data for present conditions in the basin have been collected. Information is being collected on water-related recreation needs and opportunities so that additional recreational facilities can be identified. A series of working documents will be written as various phases of the study are completed. These will present a concise description of portions of the study and will be available to the public.

Groundwater, precipitation and runoff studies will lead to the projection of future water supplies and conditions in the basin. Once water supplies have been projected, modifications and programs to better use the future water supply will be examined. These may include: (1) canal lining; (2) pipe lateral systems; (3) offstream storage; (4) administration of water rights; (5) implementation of irrigation management scheduling and modification of reservoir operations; (6) reduction of irrigation district lands; (7) investigation of raising crops with reduced water requirements; (8) importation of water supplies from outside the basin; and (9) changes in water use.

Public participation is especially important during the early stages of the study. Public meetings will be held throughout the basin to provide information and solicit input. Workshops will be held to identify the problems and opportunities in the various areas, suggest possible solutions, and determine any preference for an alternative solution. Meeting dates and places will be announced through the local news media.

To obtain additional information about the study, contact the Regional Planning Officer, U. S. Bureau of Reclamation, Lower Missouri Region, Building 20, Denver Federal Center, P.O. Box 25247, Denver, Colorado 80225. Telephone: (303) 234-4451.



## PIPE LATERAL INVESTIGATION FOR THE NORTH LOUP DIVISION

An investigation is presently being conducted by the Bureau of Reclamation in the North Loup Division area to determine the most economical method of installing pipe laterals in the soils found in the area and with the readily available construction material.

There are several miles of pipe laterals included in the design of the project's distribution system. Common procedure in pipeline construction is to puddle non-cohesive material such as sand around the pipe to give it adequate support. Sand will not be encountered by any of the excavations for the pipelines so expensive transportation would be required to get sand to the sites. The trenches for the pipe will be excavated primarily in silts having no to low plasticity; if a satisfactory and economical method of compacting these silts around the pipe could be found, considerable dollar savings would result.

Three field sites were selected within the project land to evaluate methods of compaction. The following methods were tested: (1) backfilling trench and wheel rolling with rubber-tired equipment; (2) compacting with a sand vibrator with the soil at in-place and optimum moisture and in 1' and 2' lifts; (3) puddling a 2' backfilled lift of silt without agitation, puddling the 2' lift silt and agitating with concrete vibrator, and puddling the 2' lift of silt then backfill trench and wheel roll with rubber-tired equipment.

The amount of compaction is measured by obtaining in-place densities of the compacted lifts of silt. This study will evaluate the results found and will evaluate the costs to install pipe in the various ways. A recommendation will be made on backfill methods for pipe laterals to be installed in the North Loup Division.

## FEDERAL HIGHLIGHTS

### SENATE COMMITTEE APPROVES WATER BILL

The Senate Committee on Environment and Public Works recently approved a revised version of a bill introduced by Senator James Abdnor (R-SD). The bill, S. 1095 (the National Water Resources Research and Planning Act of 1981), would create a National Board of Water Policy composed of the Secretaries of Army, Interior and Agriculture, the Administrator of EPA, and a chairman appointed by the President. The Board would advise the Administration and the Congress on water policy issues, identify inconsistencies in existing programs, and make recommendations to Congress and the Administration. A State Advisory Committee (consisting of five members) would be established to assist the work of the National Board of Water Policy. Members of this committee would be nominated by the National Governor's Association.



The proposed bill would also establish an Office of Water Programs in the Department of Interior which would administer state and regional planning grants and a water research program. This state and regional water grant program would be funded at \$12 million for FY 1982 and 1983 and at \$10 million For FY 1984 and 1985. From 1984 and thereafter, grants would be awarded on a competitive basis in response to proposals from state planning officials and river basin commissions for specific water resource problems with a national or regional character.

Title III of this bill would authorize continuation of the state water institutes through grants provided through the Office of Water Programs. Institutes would be required to submit a water research program along with assurances that the program had been developed in consultation with that state's department of water resources. Funds would have to be matched on a one-to-one basis with non-federal funds. After FY 1983, \$5 million would be available to be divided among state water institutes on a competitive basis. In addition, \$12 would be authorized on a matching basis for competitive specific water research programs.

A house version of this bill is more limited in scope than the Senate bill. It does not include provisions for an Office of Water Programs in Interior or water research grants (these are covered by the House Interior and Insular Affairs Committee).

#### PROPOSED REPLACEMENT FOR WRC

In a recent appearance before the Subcommittee on Water Resources of the House Committee on Public Works and Transportation, Interior Secretary James G. Watt supported the Administration's proposal to abolish the Water Resources Council (WRC). He noted that the Cabinet Council on Natural Resources would act in a decision making capacity on natural resources development.

In addition to Secretary Watt (who heads the Council), other members of the Cabinet Council on Natural Resources are the Attorney General, the Secretaries of Agriculture, Transportation, Energy, HUD, and three ex-officio members--the Vice President, the Councilor to the President and the President's Chief of Staff. Watt noted that a high-level advisory committee is being formed to replace the present WRC and to provide recommendations to the Cabinet Council. The advisory committee will be headed by the Assistant Secretary Designate for Civil Works, William Gianelli, and will include Interior Assistant Secretary for Land and Water Resources, Garrey Carruthers; Agriculture Assistant Secretary Designate for Natural Resources and Environment, John B. Crowell, Jr.; Carol Denkins from Justice; Don Kluff from OMB; John Hernandez from EPA; John Savis from HUD; Judith Conner from Transportation; Steve Hanke from Council of Economic Advisers; and Major Earl Walker and Danny Boggs from the White House Office of Policy Development.



Public witnesses at this hearing did not support the Administration's position and suggested instead that the Water Resources Council be continued with an independent chairman or that some coordinating organization be established for water resources planning and implementation.

## CONFERENCES

### CALL FOR PAPERS

The 1981 Symposium on the Aquatic Resources Management of the Colorado River Ecosystem will be held November 16-19, 1981 in Las Vegas, Nevada. The symposium is sponsored by the Office of Water Research and Technology and the Utah Water Research Laboratory. One-page abstracts for papers to be considered for presentation at the symposium are invited.

The purpose of the symposium is to examine current and projected effects of water and land management practices within the Colorado River Basin on the river ecosystem. The conference will provide a basis for determining what can be done to do a better job of managing aquatic resources within the total context of activities affecting Colorado River flows and water quality. Five general sources of impact will be examined: (1) present and potential impacts of energy resource developments and new energy use technologies; (2) major reservoirs (flow regulation, sedimentation, evaporation, salinity, trophic status, etc.); (3) interbasin water transfers with their associated legal aspects and potential impacts on water quality (salinity, flow depletion, water diversions etc.); (4) land use and basin development as they affect groundwater and overland flow to the reservoirs and inter-reservoir systems -- changes to water, groundwater interactions, agricultural runoff, and other factors that change flow patterns and water quality impacts on the ambient flora and fauna of the river system; and (5) collective effects of water and land use practices (reservoirs, salinity control projects, with transfers from agriculture to energy, etc.) in the Upper Basin and the Lower Basin. What negative and positive effects actually occur from upstream management?

Papers to be presented orally will be selected from the abstracts submitted. Acceptance for publication will be based on content and how well the paper meets the description of the abstract. All technical and/or poster session papers will be peer reviewed for publication in a proceedings that will be distributed after the conference. Deadlines are as follows: (1) Receipt of one-page abstract - June 15, 1981; (2) Acceptance by program committee and instructions for paper preparation - July 1, 1981; (3) Final manuscript received for peer review and editing - November 19, 1981.

Abstracts should be sent to program committee chairpersons Dr. V. Dean Adams or Dr. Vincent A. Lamarra, Utah Water Research Laboratory, UMC 82, Utah State University, Logan Utah 84322.



### MRBC TRAINING WORKSHOPS

The Missouri River Basin Commission (MRBC) is offering workshops in three locations this summer to train local officials to design and operate effective community water conservation programs. The dates and locations of the workshops are:

- August 10 in St. Joseph, Missouri
- August 12 in Sioux Falls, South Dakota
- August 13 in Billings, Montana

The training session format includes lectures, exercises, problem-solving sessions and a case study of a hypothetical community facing a water shortage. Participants will learn a seven-step procedure to devise a water conservation plan for the community.

Mayors, city water plant operators, public works superintendents, and others responsible for or concerned about community water supplies are encouraged to attend.

For additional information, contact: Missouri River Basin Commission, 10050 Regency Circle, Suite 403, Omaha, Nebraska 68114. Telephone: (402) 397-5714.

### WATER REUSE SYMPOSIUM II

Water Reuse Symposium II will be held August 23-28, 1981 in Washington, D. C. The theme of this year's symposium is "Water Reuse in the Future." Co-sponsors include: the Office of Water Research & Technology, Environmental Protection Agency, U.S. Department of Defense, National Science Foundation, American Water Works Association Research Foundation, Water Pollution Control Federation, American Society of Civil Engineers, and American Institute of Chemical Engineers.

This is the second week-long symposium devoted entirely to the renovation and reuse of wastewaters from municipal, industrial and agricultural sources. The theme implies new water recycling approaches, planning strategies, innovative technologies, in-plant experiences, pertinent case histories and practical community applications of reclaimed sewage effluents. The technical program has been designed specifically to carry out the theme with emphasis on industrial recycling, pollution control and water conservation strategies in the 1980's.

The registration fee is \$75 which includes a copy of the proceedings and four lunches. Abstracts of all papers to be presented will be available to participants upon arrival. Two technical tours are also being planned.

Attendance is limited to 700, and registration forms and hotel reservations are due by August 1, 1981. For additional information and registration forms, contact: AWWA Research Foundation, 6666 West Quincy Avenue, Denver, Colorado 80235.



### SYMPOSIUM ON GROUNDWATER IN SOUTHEASTERN COASTAL STATES

Papers are invited on the general subject of "Groundwater Problems and Outlook in the Southeastern Coastal Plain of the U.S.," which is the title for a symposium to be presented as part of the Irrigation and Drainage Specialty Conference, Orlando, Florida, July 20-23, 1982. The symposium is sponsored by the Groundwater Committee of the American Society of Civil Engineers' Irrigation and Drainage Division.

The general theme of the symposium is a discussion of the regional aquifer system of the southeastern coastal plain and groundwater availability, use, problems, and management in that region. Both invited and volunteered papers are to be presented. Topics to be covered include trend and future outlook for groundwater development and inherent problems, groundwater management including conjunctive surface water management, aquifer water balance, saltwater encroachment, subsurface storage of freshwater and of treated wastes, and deterioration of groundwater quality.

Three copies of an abstract, 250-500 words, accompanied by list of authors, a designated speaker, an address and a telephone number for contact, must be submitted by July 30, 1981 to Clyde S. Conover, U.S. Geological Survey, 325 John Knox Road, Suite F-240, Tallahassee, Florida 32303, Telephone: (904) 386-1118.

### GROUNDWATER MANAGEMENT IN ARID AND SEMI-ARID REGIONS

The Groundwater Committee of the Irrigation and Drainage Division, American Society of Civil Engineers, is sponsoring a half-day session on "Groundwater Management in Arid and Semi-Arid Regions," to be held in Las Vegas during the ASCE Spring Convention, April 19-23, 1982. It is intended to seek a status-of-management paper from each of the southwestern states and is requesting contributed papers on mining of groundwater, determination of groundwater yield, geologic methods and findings, use of artificial recharge, control of land subsidence, economics, legal aspects, and other topics related to groundwater management in arid and semi-arid areas.

State management-status papers will be permitted up to 30 minutes while other papers will be permitted 20 minutes each. Abstracts are due on July 31, 1981, acceptance notices will be sent to authors on August 31, 1981, and papers in final form for pre-printing are due on February 15, 1982. All abstracts and inquiries should be addressed to Helen J. Peters, Session Chairperson, Groundwater Committee, ASCE, c/o California DWR, P.O. Box 388, Sacramento, California 95802. Telephone (916) 445-2182.

### AWRA ANNUAL CONFERENCE

The American Water Resources Association (AWRA) will hold its Seventeenth Annual Conference October 4-7, 1981 in Atlanta, Georgia. The theme of the conference will be Waste Impact on Water, and a Symposium will also be held on River Basin Management.



Registration forms and additional information will be available from the AWRA National Headquarters, St. Anthony Falls Hydraulic Laboratory, Mississippi River at Third Avenue, S.E., Minneapolis, Minnesota 55414. Telephone: (612) 376-5050.

#### INTERNATIONAL SYMPOSIUM ON HYDROMETEOROLOGY

The American Water Resources Association is sponsoring an International Symposium on Hydrometeorology on June 13-17, 1982, in Denver, Colorado. In addition to paper sessions and panel discussions, poster sessions and field trips are being planned. An exhibit of international hydrometeorology equipment, books, and services is expected.

The technical program will cover the subject of hydrometeorology in broad scope, covering such subjects as droughts, flood forecasting, climatic trends, weather modification, quality of precipitation (acid rain), conflicts in hydrologic/meteorologic analysis, and hydrometeorological aspects of energy development. Offered and invited papers will be included in the program and a proceedings volume will be published.

Additional details concerning the symposium may be obtained by contacting General Chairman A. Ivan Johnson, Woodward-Clyde Consultants, 2909 West 7th Avenue, Denver, Colorado, 80204.

#### PUBLICATIONS

##### NEW INDEX TO INFORMATION ON NATION'S WATER

The most complete compilation of information on surface and groundwater data collected at more than 100,000 sites across the United States and bordering areas of Canada and Mexico is now available in a new edition of the index to the catalog of information on water data, released by the U.S. Geological Survey.

Based on information provided by hundreds of participating federal, state, and local agencies across the country, the index presents selected information from the catalog, a comprehensive computerized file of information about water-data acquisition activities in the United States, its territories and possessions, as well as activities in parts of Canada and Mexico.

The Catalog does not contain the actual data, but does provide information on where and by whom data are being collected, the type or types of data acquired, and how these data can be obtained.

As in previous editions, the information presented in the new seventh edition is published in 21 regional volumes, representing the 18 largest drainage basins of the United States, plus Alaska, Hawaii and Puerto Rico. These



21 regions, designated by the U.S. Water Resources Council, include such river basins as the Missouri, Mississippi and Rio Grande. Each regional volume is divided into four informational sections -- streamflow and stage, quality of surface water, quality of groundwater, and areal investigations and miscellaneous activities.

Copies of any of the 21 separate volumes of the "Index to the Catalog of Information on Water Data," are available free upon request from: Office of Water Data Coordination, U.S. Geological Survey, 417 National Center, Reston, Virginia 22092.

#### FLOOD HAZARD MITIGATION STUDY

As part of the NSF Authorization Act for fiscal year 1980, the National Science Foundation (NSF) was instructed to conduct a study of flood hazard mitigation policies and transmit the report to Congress by September 30, 1980. The report was written by a committee of experts in flood hazard mitigation from outside the Foundation. The Committee, called the External Working Group, prepared the analytic body of the report and arrived at a series of conclusions and recommendations that represent their best judgment of the strengths and deficiencies of flood hazard mitigation policy, technology and research.

A few copies of this report are still available. Requests for single copies at no charge should be sent to: Edward H. Bryan, Program Director, Water Resources and Environmental Engineering, National Science Foundation, Washington, D. C. 20550.

#### POSITIONS AVAILABLE

##### IRRIGATION ENGINEERING FACULTY POSITION

The Departments of Land, Air and Water Resources and Agricultural Engineering at the University of California, Davis, invite applications for a faculty position in irrigation engineering. This is an 11-month Assistant Professor ladder faculty position (plus one month of paid vacation) with joint appointments in the College of Agricultural and Environmental Sciences (10% teaching, 60% research) and the College of Engineering (30% teaching). Qualifications for this position include a doctorate in engineering or related field, with a strong background in irrigation and hydrodynamics. Applicants should have a demonstrated interest in agriculture, with competence in design and performance of on-farm irrigation systems.

The appointee is expected to teach undergraduate level courses in Water Application Systems (primarily for non-engineers) and Sprinkler and Drip Irrigation System Design, and a graduate level course in Hydraulics of Surface Irrigation. Additional teaching duties include advising of undergraduate and graduate students, supervising graduate student research, service on committees and other tasks necessary for the conduct of an academic program.



The appointee will be expected to develop a research program with an emphasis in on-farm irrigation engineering. Possible research areas are: (1) innovative water application methods to increase irrigation efficiency and minimize energy requirements; (2) hydrodynamics and simulation analyses of surface and subsurface irrigation methods, including unconventional techniques; and (3) water distribution, control and measurement techniques, including automation. This research will complement current department research activities in irrigation and drainage management, energy requirements in irrigated agriculture, physics of soil water, groundwater, biometeorology and evapotranspiration, water-soil-plant relations, water resources management, and water quality and pollution.

Starting salary will depend upon the level of appointment within the rank of Assistant Professor. This position will become available July 1, 1981 and is to be filled during the 1981-82 academic year.

Applicants should submit curriculum vita, statement of research and teaching interests and background in each, official undergraduate and graduate transcripts, copies of publications and reports (in-press and accepted for publication items), manuscripts submitted to journals, and a summary or abstract of the dissertation, and the names, addresses and telephone numbers of at least three references. Applications and inquiries should be directed to: Professor V. H. Scott, Recruitment Committee Chairperson, 113 Veihmeyer Hall, Department of Land, Air and Water Resources, University of California, David, California 95616. Telephone: (916) 752-0690/752-0453.

To be assured of consideration, applications should be submitted by July 15, 1981.

The University of California is an Affirmative Action/Equal Opportunity Employer.

#### NEWSLETTER ITEMS SOLICITED

The WATER CURRENT Newsletter will publish without charge announcements, programs for upcoming conferences, employment opportunities, or other newsworthy items on hydrology, water resources or related topics.

#### QUESTIONS AND INQUIRIES

Newsletter items and inquiries should be sent to: Editor, Nebraska Water Resources Center, 310 Agricultural Hall, University of Nebraska, Lincoln, Nebraska 68583. Telephone: (402) 472-3305.