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Water Center, The

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Water Current, Volume 24, August 1992

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"Water Current, Volume 24, August 1992" (1992). *Water Current Newsletter*. 187.

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Water Current

Water Center

University of Nebraska

August 1992

Future Water Quality Protection, Coordination, Education, Research and Regulatory Activities Needed

A strong commitment for communication, coordination and collaboration among agencies was called for when the Water Quality Learning Community and the Soil and Water Science Panel of the University of Nebraska Agronomy Department sponsored a tour and conference June 25 and 26.

Emphasis was on soil and water quality coordination, education, research, and regulatory activities in South Central Nebraska. The soil and water quality research and demonstration site tour in South Central Nebraska saw the Mid-Nebraska Water Quality Demonstration Sites, activities at the South Central Research and Extension Center, and the Management System Evaluation Area.

Bill Powers of the University of Nebraska Agronomy Department, chair of the Soil and Water Science Panel, and leader of the Water Quality Learning Community, reported agencies represented were: UNL Extension Service, Nebraska Department of Environmental Quality, Nebraska Natural Resources Commission, USDA Agricultural Research Service, USDA Soil Conservation Service, UNL Agronomy Department, Central Platte Natural

Resources District, Kansas State University Extension Service, University of Nebraska Water Center, and the KSU Agronomy Department.

Topics suggested at the Grand Island half-day conference were:

Communications, coordination, and collaboration; information and education; research; and regulation. A few of the recommendations included:

—Communication, Coordination, and Collaboration

•Agency programs need to be streamlined and integrated for better coordination at the local, state and national levels.

—Information and Education

•Educational programs to integrate all aspects of nitrogen and water management including waste (sewage and livestock) management.

—Research

•Further BMP research to integrate fertigation by furrow, waste management, and irrigation efficiency.

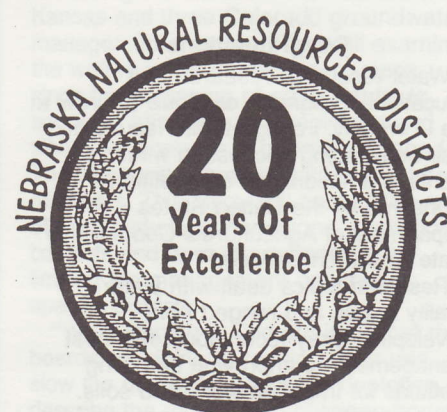
—Regulation

•Because remediation is so expensive, prevention should become the predominant philosophy for water quality protection. ④

NRDs Commemorate 50 Millionth Tree

NEBRASKA CITY — Nebraska's unique system of Natural Resources Districts (NRDs) celebrated its 20th anniversary Wednesday, July 1. The official statewide observance was a commemorative tree planting ceremony on the grounds of Arbor Lodge State Historical Park in Nebraska City. The observance was attended by over 40 visitors, agency and senatorial representatives and Nebraska Governor Ben Nelson.

In addition to the NRD's anniversary, the observance recognized the more than 50 million trees planted throughout the state by Nebraska's NRDs during their 20-year history.



During the ceremony, Gov. Nelson signed a proclamation establishing July as "NRD 20th Anniversary Awareness Month." Gov. Nelson also threw the first shovel full of dirt on the Crimson King Maple tree planted as the NRDs 50 millionth tree on the grounds of Arbor Lodge. State Forester Gary Hergenrader said, "It is appropriate that this tree is planted here in Nebraska City. Nebraska's NRD system has become the tree planting agency of Nebraska."

The NRDs came into existence in 1972 when the Unicameral combined 154 local subdivisions of government into what are now the 23 NRDs. NRDs were established upon watersheds boundaries and given multiple responsibilities for natural resources management.

Water, water, Water research everywhere!

And now a chance to learn more about water research at the University of Nebraska.

Beginning fall semester, the University of Nebraska Water Center will host a monthly brown-bag noon session to highlight water-related, departmental research.

The sessions will be from 11:30 a.m. to 1 p.m., on the second Friday of each month beginning September 11.

Open to the public, all water-related university faculty will be notified of the locations and featured departments.

Others should call Cindy LeGrande at (402) 472-3305 to be put on the mailing list for these notifications.

Water Research Top Priority

As previously anticipated, the University of Nebraska Water Center and the Institute of Agriculture and Natural Resources Office of Environmental Programs have been merged into a single administrative unit.

The mission of the University of Nebraska Water Center and Environmental Programs will be to coordinate focused water research, extension and service programs, to support related education programs within the University and to address environmental needs associated with the agriculture and natural resources areas of the Institute of Agriculture and Natural Resources.

I view this consolidation as a positive step enabling us to better serve the needs of the University and the citizens of Nebraska.

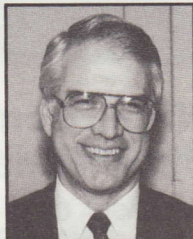
Congratulations!

Water resources research and educational programs continue to grow at the University. I congratulate faculty on their outstanding success in winning grants in a nationwide competition sponsored by the United States Department of Agriculture's Cooperative State Research Service.

Research topics dealt with water quality issues and ranged from developing spray technology, risk-cost management, to improving sampling methods for irrigation wells and soils. The grants will run for three years and total approximately \$650,000.

I also congratulate the Department of Biological Systems Engineering as the lead department in winning a grant to develop educational program materials on our water resources and ways to improve irrigation efficiency and farming management practices. This grant is from the U.S. Environmental Protection Agency 319 Clean Lakes Program which is handled by Nebraska's Department of Environmental Quality.

The Platte River basin has been selected by the U.S. Geological Survey (USGS) for an intense monitoring study under a new Department of Interior program called the National Water Quality Assessment (NAWQA). This study is aimed at assessing the health of the nation's rivers over a long time period.



Bob G. Volk

The USGS is working closely with the University and State agencies in selected monitoring locations on the Platte River and tributaries. We are pleased to be included in this nationwide study.

We continue to work on developing a graduate degree program, both M.S. and Ph.D., in Water Sciences and Management. This new degree program will focus on graduate students interested in an education in the water resources area. The program would cut across all colleges. Very few universities in the nation offer students this option and I would anticipate much interest.

Increased Concern

At a recent meeting of scientists from universities in the North Central region of the U.S. and of scientists having common interests in all aspects of our nation's water resources, I noted an increased concern for surface water quality. It appears that during spring when unusually large rain events occur, runoff from agricultural lands and urban areas may contain higher concentrations of toxic materials.

I suspect we will see more research in surface water quality over the next few years. We also discussed Congress's upcoming consideration of the Clean Water Act. What goes into that Act may have far-reaching consequences on the Nation's water. We need to be in close contact with our Congressmen for updates.

We have enjoyed the wonderful summer weather and the gift of rain about every time I need to water the lawn. I hope that you have benefited in the same manner. ☹

(NRD's—from page 1) ☞

"NRDs have more mandated natural resources management and protection authorities than most any other state agency," Nebraska Game and Parks Commission Assistant Director Bill Bailey said. "They have used those authorities to create the comprehensive resource programs you see today."

The NRDs 50 millionth tree is located just north of Arbor Lodge's carriage house and is marked with a small granite marker. It is hoped that this tree is an appropriate recognition for the tree planters of this state and an inspiration for further resource conservation efforts by future Nebraskans, Craig Gottschalk, Nebraska Association of Natural Resources Districts program director, said. ☹

NEXT ISSUE!

Be watching for the September-October Water Current. It will be a special edition highlighting international water research and travel by University of Nebraska water-related faculty and staff. And a reminder: Send your information, or June clip-out form from the flyer requesting information, to the Water Center as soon as possible in order to be included in this edition. Or call us at (402) 472-3305 for more information.

PLAN TO ATTEND
the 1993 Nebraska Water Conference
"A Centennial Observance of
Irrigation in Nebraska"
March 15, 16, and 17
Holiday Inn Convention Center
North Platte

August 1992

Vol. 24 No. 2

Water Center

Bob Volk
Director

Roy Spalding
Associate Director

Bob Kuzelka
Assistant Director

Pat Larsen
Writer/Editor

Cindy LeGrande
Office Manager

Jean Klasna
Bookkeeper

103 Natural Resources Hall
University of Nebraska

Lincoln, NE 68583-0844
Phone: 402-472-3305

This newsletter is published with partial financial support from the Department of the Interior, U.S. Geological Survey. The contents do not necessarily reflect the views and policies of the Department of the Interior, nor does mention of trade names or commercial products constitute endorsement by the U. S. Government.



Dates to Use

Aug. 31-Sept. 2 National Irrigation-induced Erosion and Water Quality Conference, Boise, ID. Contact:

William Carmack, USDA SCS, South Ag Building, 14th and Independence Ave., SW, Washington, D.C. 20013. Phone: (202) 720-6037.

Aug. 31-Sept. 3 Water Quality Standards for the 21st Century:

Program Direction and Issue Decisions, Las Vegas, NV. Contact: Michele Vuotto, Dynamac Corp., 2275 Research Blvd., Suite 500, Rockville, MD 20850-3268.

Sept 13 Rural Clean Water National Symposium, Orlando, Florida

Sept. 14-18 Geostatistics: Theory, Practice, and Personal Computer Applications, School of Civil Engineering, Georgia Institute of Technology, Atlanta, GA. Contact: Department of Continuing Education—R, 613 Cherry St., Atlanta, GA 30332-0385. Phone (404) 894-2400.

Sept. 29 University of Nebraska Water Policy Forum, Ak-Sar-Ben Aquarium. Contact: The Water Center. Phone: (402) 472-3305. For water related faculty only.

Sept. 30-Oct. 2 National Ground

Water Association 44th Meeting and Exposition, Las Vegas, NV. Contact NGWA, 6375 Riverside Dr., Dublin, OH 43017 Phone: (614) 761-1711.

Oct. 13 Nebraska Groundwater Foundation Fall Symposium, "Truth or Dare" Addressing the Groundwater-Surface Water Link. Ramada Hotel and Convention Center. Phone (402) 434-2740.

Oct. 14 37th Annual Midwest Groundwater Conference, South Falls.

Oct. 16-22 Interdisciplinary Approaches in Hydrology and Hydrogeology. 1992 annual meeting of the American Institute of Hydrology. Portland, Ore. Contact AIH, 3416 University Ave. SE, Minneapolis, MN 55414-3328. Phone (612) 379-1030.

Oct. 14-15 UNL Cooperative Extension Risk Communication Training, East Campus Union. Contact DeLynn Hay. Phone: (402) 472-1625.

Oct. 27-28 Defining Ecological and Sociological Integrity for the South Platte River Basin, University Park Holiday Inn, Fort Collins, Colo. Colorado Water Resources Research Institute, 410 University Services Bldg., CSU, Fort Collins, Colo. Phone (303) 491-2293.

Nov. 1-5. Managing Water Resources During Global Change. The American Water Resources Association. Reno, NV. Contact Michael C. Fink, AWRA, 5410 Grosvenor Lane, Suite 220, Bethesda, MD 20814-2192. Phone: (301) 493-8600. ♡

WHAT DO WE DO TILL THE WELL RUNS DRY?

Inquiring K-State Geographers, Ford Foundation Want To Know

MANHATTAN, Kansas—Like a couple drinking one soda from two straws, western Kansas and eastern Colorado draw water from the Ogallala aquifer. The economic sustainability of the High Plains depends on how well they continue to manage this aquifer and delay its demise, two Kansas State University geographers said.

Groundwater management districts were authorized in 1965 in Colorado and in 1972 in Kansas. And although final authority rests with Colorado's groundwater commission and with Kansas' Division of Water Resources, in reality, local destiny lies in the hands of the nearly invisible groundwater management districts, they explained.

Steve White and Dave Kromm, the researchers, said efforts to conserve the remaining water have never been more intense in the six management districts they are studying. Though some governing boards have chosen fatalistic policies, most are using highly creative and innovative strategies to conserve the aquifer.

This summer, White and Kromm are assessing the effectiveness of three Kansas and three Colorado groundwater management districts. They will examine the written water management plans since the beginning of each district to see what has been accomplished and what new goals have been established. They also will survey irrigators and board members. This study will assess the role of local hydrologic conditions, institutional conflicts and farm characteristics in limiting the management options for specific districts.

"We're hoping to find out just what the boards are doing to restrict water use, slow the rate of groundwater depletion, describe the relationship between board and irrigators, and find out if the district's management initiatives are effective in the minds of the irrigators," White said.

The Ford Foundation is funding the two-year study with a grant of more than \$109,000. Kromm and White will cooperate with the National Council of State Legislators and the Natural Resources Law Center of the University of Colorado at Boulder. They also received Ford funding to study related aspects of water management and legislation in the west.

According to Kromm, the Ford Foundation became interested in the project because how successfully the High Plains responds to water scarcity with local controls could effect future water legislation and conservation

National Water Information Clearinghouse Workshops Issue Executive Report

St. PAUL, Minn.—The Interstate Council on Water Policy (ICWP) and the U.S. Geological Survey (USGS) have released recommendations on the structure, function, and operation for a national water information clearinghouse.

Participants at four workshops in the fall of 1990 and the spring of 1991 recommended Clearinghouse goals, according to Wayne Haas, chairman of the Interstate Council on Water Policy. Haas is with the Department of Water Resources at Boise, Idaho.

Recommendations include:

- Address the needs of a diversified group of users,
- Staff Clearinghouse with backgrounds of extensive information transfer expertise,
- Provide multiple, streamlined access,
- Provide electronic and hard copy,
- Have quality control and compatibility data standards,
- Be highly decentralized, and
- Be a one-step referral center.

Workshops were held at Chapel Hill, North Carolina; Kansas City, Missouri;

Sacramento, California; and San Antonio, Texas.

Ray Hartung, Wahoo, general manager of the Lower Platte North Natural Resources District, is a member of the ICWP Board of Directors, and attended the Kansas City workshop. Susan Seacrest, Lincoln, president of the Nebraska Groundwater Foundation gave the keynote address at the Kansas City workshop and Pat Larsen, communications associate, the Water Center, also attended the Kansas City workshop.

Hartung said, "Workshops were designed to provide a forum for addressing water information clearinghouse needs at all government levels and within the academic and private sectors." He said although program topics were the same for the four workshops, regional experiences and concerns were reflected with diversified in-put that was valuable for formulating recommendations for the proposed Clearinghouse. ♡

☞ (see page 4)



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Missouri River Basin Tour Focuses on Surface Water Management in S.D. and N.D.

by Cheryl Alberts

PIERRE, S.D.—South Dakota Gov. George Mickelson told 55 tour participants the most important common factor between his state and neighboring Nebraska is the Missouri River.

"The Missouri River is probably the greatest natural resource we have in South Dakota," Mickelson said. The river is a resource that has yet to reach its full potential for this state, he said.

Mickelson told how harnessing the river came into being, beginning as early as 1911. The idea became reality in the 1940s with passage of the federal Pick-Sloan plan. As a result, six major dams were built along the Missouri for flood control, irrigation, navigation and hydroelectric power.

South Dakota and the other upstream states sacrificed land so the dams could be built. Now the leaders of the upstream states believe those dams are benefiting the downstream states more than the upstream states.

Mickelson requested an update in the master manual. The manual is used by the U.S. Army Corps of Engineers for operations of the reservoir systems it manages. The South Dakota governor urged re-establishment of river use priorities, following flood control.

Gov. George Sinner of North Dakota later the same evening also spoke about the Missouri River. He said cooperation is needed between the basin states, and at present "we don't even know what

each others' needs are."


Sinner urged his audience to convince Nebraska Gov. Ben Nelson to name an inter-agency task force on groundwater, if he hasn't already done so, because the subject of water is "so important."

In introducing Gov. Sinner, Nebraska Department of Water Resources Director J. Michael Jess noted that North Dakota has been a leader in wetlands policy.

Sinner focused the majority of his remarks on the economic future of the United States. He stressed the need to always remember the "people" aspect on which the democracy was formed. He advised citizens to "walk a mile" in their neighbors' shoes to better understand humanity.


"Every issue is a human issue or it's not an issue at all," he said.

Other stops on the tour included the Dakota Lakes Research Farm, east of Pierre, S.D.; the never-completed Lake Oahe pumping plant, built by the U.S. Bureau of Reclamation; the Lincoln-Oakes Nursery at Bismarck, N.D.; the U.S. Fish and Wildlife Service Fish Hatchery, near Pick City, N.D.; and the Great Plains Coal Gassification Plant, near Beulah, N.D.

The 2,000-mile, 21st annual tour was led by University of Nebraska-Lincoln Farm Management Specialist Les Sheffield. Tours are sponsored by the Nebraska Water Conference Council, the Institute of Agriculture and Natural Resources, and the University of Nebraska Water Center. 

Gavins Point Dam at Yankton, S.D., was the first stop on the 1992 Nebraska Water Resources and Irrigation Tour, July 19-24. The tour covered nearly 2,000 miles and focused on surface water management in the Missouri River Basin.

(Photo by Cheryl Alberts)


(What Do We Do—from page 3) 

policies elsewhere. "The region is a good place to observe the evolution of water management."

Both states operate on the basis of the doctrine of prior appropriation, and in both states, irrigators subsidize the groundwater management districts and can serve on the district board.

"However, just because districts are local in terms of constituency does not guarantee either public involvement or popular faith in the system," the researchers said.

The districts have broad management authority: to recommend the rejection of new well requests; require well metering, set well spacing and pumping limitations, develop management plans, assess special taxes and issue bonds to finance irrigation systems, and organize a board of directors to oversee and approve district operations. But, Kromm and White observed that in Kansas local districts have great autonomy; in Colorado, districts carry out most state policies while opting to request local exception to others.

 (see page 5)

1992 Nebraska Water Legislation

by J. David Aiken
UNL Water and Ag Law Specialist

Property taxes dominated the 1992 legislative session and several important water-related bills, including municipal well-field appropriations, a state protected river system, and state assumption of federal pesticide regulation program were not enacted. Legislation enacted in 1992



J. David Aiken

includes special protection area taxes, administrative protection of stored water releases for instream flows, and the Nebraska environmental trust.

SPA taxes. Under existing law the Nebraska Department of Environmental Quality (DEQ) (formerly the Department of Environmental Control) may establish special ground water quality protection areas (SPAs) to control nonpoint ground water contamination from agricultural use. SPA regulations are developed and implemented by the local natural resource district (NRD) with DEQ approval. Under prior law NRDs could levy 2 cent per \$100 actual valuation within SPAs to cover SPA program administrative costs. Legislative Bill (LB) 21 changed the SPA mill levy to 0.5 cents per \$100 actual value and the levy applies within the entire NRD, not just the portion designated as the SPA.


This change was made because of concerns that SPAs might be designated to protect municipal wellfields located outside a municipality and the municipality would not be subject to the SPA mill levy unless the levy applied to the entire NRD. This provision of LB21 may lead to SPAs being designated within an entire NRD rather than only where contamination is presently occurring.

LB21 also amended ground water control area statutes. The Nebraska Department of Water Resources (DWR) may, at the request of an NRD, designate ground water control areas to manage ground water depletion. Under prior law the DWR could include land from an adjoining NRD within the control area only if the adjoining NRD consented to being included. LB21 authorizes the DWR to include land from an adjoining NRD in a control area regardless of whether the adjoining NRD consents.

Stored Water Releases. NRDs and the Nebraska Game and Parks Commission (GPC) may obtain instream appropriations from the DWR for fish, wildlife and/or recreational purposes. The DWR has granted GPC an instream appropriation for fish habitat on Long Pine Creek in the Niobrara River basin,

and a fish and wildlife appropriation to the Central Platte NRD for the central Platte River. Nebraska law allows water stored in a reservoir ("stored water") to be used for any beneficial purpose, presumably including instream flows. LB49 clarifies that water released from a storage reservoir for instream flow purposes will be protected from diversion by other water users if DWR approval has been obtained.

LB49 was enacted in part to allow the

 (see page 6)

HARDY-SUPERIOR SPA WATER QUALITY REGULATIONS

by J. David Aiken
UNL Water and Agricultural Law Specialist


Natural resources districts (NRDs) may regulate the application of agricultural chemicals (fertilizers and pesticides) in special ground water quality protection areas (SPAs). SPAs may be designated by the Nebraska Department of Quality (DEQ, formerly the Department of Environmental Control) after evaluating the area and a public hearing. SPA regulations must be approved by DEQ before they can be implemented by NRDs. Innovative NRD regulations with a strong contamination prevention orientation have been adopted in Nebraska's first SPA.

Hardy-Superior SPA. DEQ designated Nebraska's first SPA in southern Nuckolls county in January 1991 to deal with nitrate contamination. The SPA includes land in the Lower Republican NRD (67.5 percent) and Little Blue NRD (32.5 percent), including the communities of Hardy and Superior. The nitrate readings in the Hardy area range from 8-10 parts per million (ppm), and 5-6 ppm in the Superior area. (The EPA drinking water limit for nitrates is 10 ppm.) The southern part of Nuckolls county is irrigated, while the rest of the county consists of rangeland and dryland small grain production.


The SPA regulations are part of the NRDs's water quality "action plan" for the SPA. The Hardy-Superior SPA action plan was adopted by both NRDs and approved by DEQ. The primary goal is to reduce average nitrate contamination levels to 6 ppm, 60 percent of the EPA drinking water standard.

The SPA regulations have three phases. Phase I regulations are scheduled to be implemented 1991-95, with phase II regulations implemented 1996-99 and phase III implemented beginning in 2000.

Phase I Regulations. Phase I controls include: (1) mandatory nitrogen and irrigation best management practice

(What Do We Do—from page 4) 

And, water conservation methods differ from district to district in the same state. Only one district of six has a municipal representative on the board. One Kansas district has gone so far as to advocate zero depletion of the Ogallala, while a Colorado district has taken a fatalistic approach toward "planned depletion."

The boards have an enormous range of conservation options and a chance to be innovative to make truly radical changes, Kromm said. "It's really hard to figure why some districts are very restrictive and conserving and others are choosing not to be." 

—Kansas State News Service

(BMP) training certification; (2) annual soil samples for each operator's "demonstration field" (i.e. the operator's largest row crop field) prior to crop fertilization; (3) limiting fertilizer application to the UNL recommendation for the demonstration field (taking soil nitrogen analysis into account); (4) prohibiting fall and winter commercial fertilizer applications prior to March 1 on demonstration fields; (5) irrigation scheduling on demonstration field; and (6) annual demonstration field report of: (i) soil test results, (ii) nitrogen credits, (iii) crop grown, (iv) yield goal, (v) UNL fertilizer recommendations, (vi) fertilizer applied, (vii) irrigation scheduling method used, and (viii) the beginning and ending water meter reading (if using a metered irrigation well).


Phase II Regulations. In phase II, all phase I controls are extended from demonstration fields to all row crop fields. Phase II regulations are scheduled to be implemented January 1, 1996 to January 1, 2000. However, if average SPA nitrate levels reach 12 ppm, phase II regulations may be implemented as early as January 1, 1994.

Phase III Regulations. Phase III controls may include:

- (1) all phase I and II controls;
- (2) split fertilizer applications;
- (3) testing irrigation wells for nitrate content and using test results in determining fertilizer application.

Additional phase III controls may include:

- (1) installing irrigation well meters and surface water flow measuring devices;
- (2) limiting irrigation water application;
- (3) land leveling or alternate irrigation management practices for surface (i.e. gravity) irrigated fields.

 (see page 6)

Central Nebraska Public Power & Irrigation District and Nebraska Public Power District to comply with instream flow requirements being established in the Federal Energy Regulatory Commission's relicensing of Kingsley Dam.


Correcting Storage Use Permits. In surface water irrigation projects, project water rights are tied to the project lands being irrigated. In many projects the pattern of what land is actually irrigated may change over time. When this occurs, the irrigation project operator must have the changes in land being irrigated approved by the DWR. LB948 authorizes surface water irrigation project operators needing such changes to continue irrigation water deliveries pending correction of their project appropriations. LB948 has a April 1, 1994 sunset provision.

LB948 was adopted to allow the Central Nebraska Public Power & Irrigation District to obtain corrections in its project irrigation appropriations from the DWR. Those corrections were approved March 30, 1992.

Environmental Trust. Under prior law Nebraska allowed rural open dumps to exist if ground water were not being contaminated. However EPA is banning open dumps, and the 1992 Nebraska Legislature enacted LB1257, creating a comprehensive solid waste management program. LB1257 also establishes the Environmental Trust, which would be funded by the proceeds of a state lottery if the lottery is approved by Nebraska voters this November.


The purpose of the Trust is to conserve, enhance and restore Nebraska's natural, physical and biological environment. The Trust will be governed by a Board including the Directors of the DWR, Natural Resources, DEQ, Health and the GPC Secretary, as well as six gubernatorial appointees. The Board is authorized to make grants for a variety of projects and activities to further the Trust's purposes. Initially the Board's grant priorities will be:

- (1) critical habitat areas,
- (2) surface water quality,
- (3) ground water quality,
- (4) development of recycling markets and reduction of solid waste volume and toxicity.

Up to 1997, no more than 25 percent of the Trust's annual allocations may be made for soil and ground water cleanup, similar to the federal Superfund program. After 1997 no more than 60 percent of the Trust's annual allocations may be made for soil and water cleanup. If the state lottery is approved, the Trust would initially receive 25 percent of the lottery proceeds. Beginning in 1997 that percentage will increase to 49.5 percent (an estimated \$14-\$15 million annually). 

If the SPA goal of 6 ppm average nitrate levels has not been reached by 2000, phase III regulations will be implemented January 1, 2000. If average SPA nitrate levels reach 18 ppm, phase III controls could be implemented as early as January 1, 1996.

Prevention Orientation. The Hardy-Superior SPA regulations contain a significant prevention orientation. Fairly intensive BMPs (including irrigation scheduling and fertilizer application limits) are required in the initial phases of the SPA program, but are required on one field only. This makes adoption of new practices more manageable for operators.

In addition, intensive BMPs are required regardless of nitrate levels, so they may help prevent contamination levels from exceeding drinking water levels. Other NRDs have adopted a philosophy of adopting more stringent controls only as contamination worsens. The Hardy-Superior approach will do a better job of preventing contamination. The Lower Republican NRD and Little Blue NRD deserve commendations for developing the innovative Hardy-Superior SPA water quality action plan. 

Clip page 7 and 8. It's a directory of independent water groups and associations in Nebraska.

Add insert to the directory, "Water, Nebraska's Most Precious Resource—Where to Get Water Information in Nebraska."

If you would like a copy of this federal, state, local, NU directory, contact the Water Center. We'll send it to you.

Study: Most Farmers Protect Groundwater

Most Nebraska farmers who responded to a University of Nebraska—Lincoln study know groundwater can be contaminated through improper handling and disposal of pesticides.

Ninety-three percent of a random sample survey of 517 agricultural producers said they prepare pesticide applications away from water wells and most burn unwanted pesticide containers rather than haul them to landfills.


Both practices help keep pesticides out of groundwater, said Larry Schulze, a study co-author and University of Nebraska—Lincoln pesticide coordinator.

The 1989 UNL Cooperative Extension survey results showed that 72 percent of respondents burn their paper or soft plastic pesticide containers while 13 percent dump them in landfills. When disposing of metal or hard plastic pesticide containers, 53 percent said they burn them while 27 percent use landfills.

Most producers said improper container disposal does not occur in their communities.

Schulze said that pesticide container recycling programs should be established given the growing number of Nebraska landfill closings.

Farmers who reported having leftover pesticides said they store some or all of the leftover concentrate for future use (89 percent) or return some or all of the leftover concentrate to a pesticide dealer (33 percent).

Within five years of the survey, pesticides were used by 87 percent of farmers while 85 percent used herbicides, 75 percent used insecticides and 29 percent used fungicides. 

WATER CENTER MAILING LIST UPDATE

We are updating our mailing list. If you have a change of title, name, and/or address, or would like to have your name added or removed from our list, please complete this form. If you know of anyone who might be interested in receiving other publications, please submit their name(s). Thank you.

Please: _____ revise my address
_____ delete me from your list
_____ add to your list

Name: _____

Address: _____

City State ZIP: _____

Please submit changes to:

Water Center
103 Natural Resources Hall UNL
P.O. Box 830844
Lincoln, NE 68583-0844
Phone: (402) 472-3305 FAX: (402) 472-3574

Nebraska Water Groups and Associations

A survey was sent to 25 water-related organizations in June in order to develop a directory of water-related citizen groups in Nebraska. The following responded to the Water Center survey:

Central District Water Users

Tom Swartz, president
RR 2, Bertrand, NE 68927
Phone: (308) 472-5309

The water rights application committee is a group of Central District water users and irrigators in the service area of CNPPID who worked to obtain a valid permit through the Department of Water Resources to continue irrigating with surface water diversions, acres that had been transferred, lost in the process of issuing new water contracts. The CNPPID Board is elected by the county. The Water Users board is elected by water users of the district to represent the district irrigators to the board and CNPPID management.

Harlan County Water Resources Committee

Donald L. Calkins
Box A, Alma, NE 68920
Phone: (308) 928-2343

The Harlan County Water Resources Committee strives to consider and deal by lawful means common problems of water resources, including but not limited to dams and reservoirs, groundwater, surface water, irrigation, water quantity and quality, the environment, recreation, conservation, fish and wildlife preservation, and municipal water supplies in the Republican River Basin.

Nebraska Groundwater Foundation

Susan Seacrest, President
P.O. Box 22558
Lincoln, NE 68542
Phone: (402) 434-2740

The Nebraska Groundwater Foundation is a non profit educational foundation dedicated to educating the public about the conservation and management of groundwater. Its mission is to create a well-informed citizenry caring about and for its groundwater resources.

Nebraska State Irrigation Association

Norma Sitzman, secretary-treasurer
Frenchman Valley H&RW Irrigation District
Box 297
Culbertson, NE 69024
Phone: (308) 278-2125

This association encourages the wise and beneficial use of water resources of Nebraska.

Nebraska Water Treatment

Don Elsasser
6317 Havelock Ave.
Lincoln, NE 68507
Phone (402) 464-9062

Water Treatment equipment, water softeners, reverse osmosis, and carbon and sediment filters are available from this organization. Individual components or series are available depending on the water problem.

Nebraska Water Conference Council

Les Sheffield, Secretary
304B Filley Hall
East Campus
University of Nebraska-Lincoln
Lincoln, NE 68583-0922
Phone (402) 472-1773

This Council is composed of about 90 representatives of public agencies, state-wide organizations and interests and private sectors involved or interested in the state's water resources. The Council is a forum and provides opportunities for its members

and other Nebraskans to understand the vital water issues and programs. It sponsors an annual water conference and annual water resources and irrigation tours and meets annually.

Nebraska Water Users, Inc.

Lynn M. Griffis, Director of Public Relations
P.O. Box 820
Kearney, NE 68848-0820
Phone: (308) 234-9344

The Nebraska Water Users, Inc., is a non profit corporation dedicated to the protection of water rights, the education of the public about the importance of water and the conservation of Nebraska's water resources.

Nebraska Water Resources Association

Sara Kay
1327 H St., Suite 305
Lincoln, NE 68508
Phone: (402) 474-3242

This association strives to further the development, reclamation, conservation and beneficial use of land and water resources in Nebraska.

Nebraska Well Drillers Association

Lee Orton
1327 H St., Suite 20
Lincoln, NE 68508
Phone: (402) 476-0162

This association provides support for the water well construction and pump installation industry in Nebraska. The support includes continuing education, public groundwater awareness and legislative and administrative input on industry issues.

North Platte Valley Water Coalition

H. James Merrigan
Rt. 2 Box 305
Scottsbluff, NE 69361
Phone: (308) 632-8345

This coalition educates its members and others about water issues, monitors events and policies related to water; and acts and participates when appropriate.

Missouri-Niobrara River Association

Rayder Swanson
R.R. 1, Box 18
Niobrara, NE 6870
(404) 857-3515 and 857-3340

This association was created after the U.S. Congress designated 39 miles of Missouri River from Fort Randall down stream to Niobrara, 25 miles of the Niobrara River from Boyd County line down stream to Niobrara and 7 miles of the Verdigre Creek from 5 Verdigre down to the Niobrara River. The group hopes to protect the tax base, civil rights and maintain local control of the rivers and creek.

Platte River Whooping Crane Maintenance Trust

Thomas A. Emerton
2550 N. Diers Ave. Suite H
Grand Island, NE 68803
Phone: (308) 384-4633

The Trust maintains, restores, and protects the migratory bird habitat in the Big Bend Reach of the Platte River in Nebraska.

Republican Valley Water Users, Inc.

Bob Keifer
R.R. 1, Box 119
Guide Rock, NE 68942
Phone: (402) 879-4943

This group represents the irrigators below Harlan County Reservoir on water issues and property rights. It was organized as a subsidiary of Nebraska Water Users, Inc.

Stewards of the Platte

Lonnie Logan
P.O. Box 2201
Grand Island, NE 68802
Phone (308) 382-2521

This is a non profit educational organization to promote awareness and provide education about the Platte River and its related ecosystems. A quarterly newsletter is sent to members representing interests associated with the river and its use.

THE FOLLOWING GROUPS DID NOT RESPOND TO THE WATER CENTER SURVEY:**Central District Water Users Water Rights Application Committee**

Dave Dahlgren
Rural Route
Holdrege, NE 68949

Nebraskans First—Concerned Farmers for Nebraska's Groundwater

Al Smith
Rural Route 3
David City, NE 68632

Nebraska Water Pollution Control Association

Norman Jackson
Missouri River Waste Water Treatment Plant
5600 South 10th St.
Omaha, NE 68107

Nebraska Rural Water Association

Jim Hunzeker
Route 3, Box 115
Humboldt, NE 68376

Newport Action Group

Newport, NE 68759

Preserve Our Water Resources Association

Jim Ducey
Executive Director
1210 South 25th St.
Lincoln, NE 68502

Save the Niobrara River Association

Box 3
Bassett, NE 68714

CITIZEN GROUPS WITH STRONG WATER AND OTHER ENVIRONMENTAL EMPHASES INCLUDE:**Ducks Unlimited**

Rural Route 8
Lincoln, NE 68508

Nebraska Audubon Council

401 E. 14th St.
South Sioux City, IA 68776-2431

State Sierra Club

2036 Randolph St., No. 70
Lincoln, NE 68510

The Nature Conservancy

418 So. 10th St.
Omaha, NE 68102

EDITOR'S NOTE:

We regret omissions of water groups and associations that have not been included. Please send corrections or submit the following information for your group to be included in an up-dated directory:

CLIP and MAIL

Name of Organization _____

Contact person and title _____

Address _____

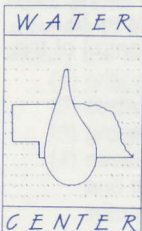
Town and Zip Code _____

Phone Number _____

Purpose of Organization _____

Please mail to:

The University of Nebraska Water Center
103 Natural Resources Hall
University of Nebraska-Lincoln
Box 830844
Lincoln, NE 68583-0844



**103 Natural Resources Hall
University of Nebraska
P.O. Box 830844
Lincoln, NE 68583-0844**

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