From Buffalo to Bottled Water, Summer Water Tour Attracts Newcomers

by Steve Ress

The diversity of northeast and north central Nebraska’s agriculture and water resources attracted 80 people, many of them first-time participants, to last month’s annual Nebraska Summer Water Tour. “The annual tour hadn’t focused on these unique areas of the state in a number of years and there is quite a lot to see there,” said tour co-organizer Mike Jess of the University of Nebraska-Lincoln’s Conservation and Survey Division. Primary tour sponsors were the Kearney Area Chamber of Commerce, UNL, Central Nebraska Public Power and Irrigation District, Nebraska Public Power District, KN Energy, Gateway Farm Expo and the Nebraska Water Conference Council. More than two dozen of the tour’s 80 registered participants had never before been on a Nebraska water tour. “I think the diversity made it a very educational and fun tour for everyone, and especially so for those who had never been on one before,” Jess said. That diversity was exemplified in millions of laying hens at M.G. Waldbaum in Wakefield, clusters of grapes (continued on page 5)
Nebraska’s Number One Resource? 
You Be The Judge

from the DIRECTOR
Edward F. Vitzthum

How often have you heard the phrase, “Water is Nebraska’s number one resource?” Or, how about “Water is the cornerstone of Nebraska’s economy.” Many of us have heard these, and similar lines, so often they don’t really mean much any more.

To some they are mere slogans, tired clichés. To others they’re undeniable truths. Regardless of how often we’ve heard them, it sometimes takes a generous dose of reality to remind us that we can’t afford to ignore them. My reminder came recently as I participated in the annual Nebraska Water Tour. Fact of the matter is, the tour was more than just a single reality; it was a relatively steady stream of them.

First stop of the tour was the Loup Public Power District hydro-electric plant near Columbus. Beyond the 80-or-so tour participants who gathered around the plant’s service door were three small turbines, humming steadily as they have for more than 60 years. True, there are hydro-electric plants scattered all across Nebraska, many of them far larger than the LPPD unit. But though small in terms of the kilowatt hours it produces, the plant is still producing power for the city of Columbus and the people of Platte County. Water working for Nebraskans.

Conversely, water can - and all too often has - worked against Nebraskans. Evidence of that was seen at Pender where a 10-foot reinforced concrete wall rings most of the town in the event Logan Creek pours over its banks in the future.

Driving across northeast Nebraska we saw numbers of pivots as well as gravity irrigation systems pouring water on thirsty crops. But agricultural enterprises other than crop production also place heavy demands on water resources. This became evident in two stops in the Wakefield area.

One was at the MPM Dairy where Managing Partner Kent Pulfer, DVM, gave the group a walking tour of a state-of-the-art dairy facility. Formerly based in California, MPM moved to Nebraska only within the past year. MPM’s milking barn features a 54-stanchion “carousel” kept busy several hours a day milking the 1,200 cows on site.

Several on-site wells supply the dairy’s voluminous water requirements. Manure from the operation is spread under contract on a number of farms throughout the vicinity, Pulfer said, to minimize potential adverse effects on ground water. MPM has a similar, but slightly smaller, dairy facility west of Wayne.

Only a few miles away was M.G. Waldbaum’s. Here in one place were more than four million laying hens supplying the raw materials for the company’s breaking/drying operation in nearby Wakefield. Why our tour stopped here was readily apparent! Here was yet another major enterprise requiring enormous amounts of water to operate, and, like the dairy, producing prodigious amounts of organic waste. (Like the dairy, Waldbaum’s land applies their waste under contract to area farmland.)

At Long Pine the group visited that town’s newest industry, a plant that bottles water that comes from springs feeding Long Pine Creek.

Later participants boarded canoes near Valentine and traveled downstream to the state park below beautiful Smith Falls. If you’ve never taken such a trip, do it! Soon! It is a two-and-a-half hour experience that will leave you humming one of Historian-Folksinger Bob Manley’s favorite songs, “Beautiful Nebraskaland.”

The return trip to Lincoln was an opportune time for some reflection about Nebraska and it’s water resources - ground and surface.

Without those abundant resources, our great state would not be where it is today. The future is no (continued on page 4)
1999 Nebraska Water Legislation

by J. David Aiken

Few significant water bills were enacted by the Nebraska Legislature in 1999.

LB870 (a bill dealing with feedlot zoning), authorizes Natural Resources Districts (NRDs) regulating groundwater depletion to require groundwater management area well permits for water wells pumping 50 gallons per minute or less, if the well is not used for domestic or range livestock watering purposes. Under LB870 the Upper Republican NRD can require well permits for feedlot wells.

The major issue to be considered in the 2000 session of the Nebraska Legislature, is water banking, the subject of three holdover bills. The initiative for the water banking and leasing bills comes from efforts to design a basinwide endangered species program for the Platte River.

LB338 would allow NRDs and other political subdivisions to jointly create water banks in which “Conserved water” could be used to offset effects of new water depletions, in order to satisfy state or federal environmental laws. The Nebraska Department of Water Resources (DWR) would serve as a technical advisor for water banking, and would determine the amount of water banked.

LB671 and LB672 are based on 1998 water leasing interim study committee recommendations. LB671 would allow the lease of water rights held by irrigation districts, and LB672 would allow leasing of water rights held by individuals.

Leases could be for up to five years and could be extended, subject to DWR approval. Notice of the application would be published and individuals would have the opportunity to request a hearing. DWR would also have independent authority to schedule a hearing and to analyze the impacts of the proposed lease.

The lease would be approved if DWR found that: (1) the application was complete (that would include the written consent of the owner of the land to which the water right was then attached; (2) that the proposed use of the water was a beneficial use; (3) that the exercise of the water right would not diminish the supply of water available for other water right holders; (4) that the lease would be in the public interest; and (5) that the volume of water to be consumed would not be greater than the amount historically consumed.

In determining whether the lease was in the public interest, DWR would consider the economic, social and environmental impacts of the lease by itself and of the lease when combined with possible use of water from other sources on the original land. Also to be considered is whether other sources of water would be available to the proposed lessee.

DWR could impose conditions upon the water lease to insure consistency with the approval criteria. If an extension of the lease were proposed following the original term, the extension would be subject to the same review as was the original lease. Water right leases would not lower the property tax valuation of the land to which the water right was originally attached.

Interim studies, now underway, include LB106, state protected river designation; LR107, water banking and water leasing; and LR108, merging several state resources agencies into a new Nebraska Department of Natural Resources.

(J. David Aiken is a Water and Agricultural Law Specialist at the University of Nebraska-Lincoln. He is a frequent and valued contributor to the Water Current newsletter on water and agricultural law issues).

Water Center Faculty Responds to Request From “Down Under” (continued from page 8)

Presentations and discussions concerned a proposal to develop extensive groundwater-irrigated cotton plantings on Aboriginal lands. The meeting was organized by the Kimberley Land Council which supports, establishes and defends Aboriginal land rights.

— One week in South Australia (SA), where I had previously presented on groundwater protection in December, 1997. On this trip, the audiences for my eight seminars included a wide range of federal, state and local elected officials who shared a growing concern about the protection of groundwater resources. Since my last visit, catchment (drainage basin) management boards have been created and given legal responsibility to develop and implement water protection plans. My discussion was largely on how a community-based program could bring citizens into this planning process as required by SA statutes.

— A one-day seminar in Hamilton, New Zealand for 35 water planners from regional environmental councils across the country. There, the concept of citizen participation in the water planning process is new and still being explored. Through an interactive process, workshop attendees identified how a program like Groundwater Guardian might help them meet their particular source water protection needs.

Since returning from my speaking tour, I have been invited to work with the CGS in Adelaide, SA on establishing a groundwater technology network. If you would like to know more about this trip, e-mail rkuzelka1@unl.edu. For more information on The Groundwater Foundation or the Groundwater Guardian program, visit www.groundwater.org.

(Editor's note: Kuzelka is an associate professor in NU's School of Natural Resource Sciences and assistant to the director of the NUI Water Center/Environmental Programs).
Seventh Annual Festival of Color Will be Aug. 28 Near Mead

by Steve Ress

The latest information on environmentally friendly and low maintenance ways to design and plant midwest landscapes leads this year’s schedule of Festival of Color events.

The seventh annual turfgrass and landscape display and open house is Saturday, Aug. 28 at the University of Nebraska’s John Seaton Anderson Turfgrass and Ornamental Research Area. This area is part of NU’s Agricultural Research and Development Center near Mead.

Demonstrations, displays and how-to sessions will be from 10 a.m. to 4 p.m.

Master gardeners, horticulturists, entomologists, water experts and others will lead talks, demonstrations and guided tours during this one-day extravaganza.

Festival focus areas include turfgrass management; trees, flowers and shrubs; landscape management and maintenance; and residential landscape design and maintenance.

Within each of these areas are a variety of half-hour talks, some of which will be given once in the morning and repeated in the afternoon.

Popular “Tent talks” feature a question and answer session with the panel of Nebraska Educational Television’s Backyard Farmer. Others are on floral design with NU horticulturist Ellen Paparozzi and “Designing a Landscape with Water Quality in Mind” by Bryan Kinghorn of Kinghorn Horticultural Services.

Guided tours will evaluate the landscape of a prospective home with Don Steinegger and Roch Gausson of the UNL Horticulture Department; look at insect and disease problems with UNL plant pathologist John Watkins and entomologist Fred Baxendale; examine tree and shrub pruning with Duane Novotny of Campbell’s Nursery and take a plant walk with Douglas County extension educator Kathleen Cote.

NU’s Loren Geisler, Jim Kalisch, Jeff Rawlinson and Anne Streich combine for a plant diagnostic clinic that Streich said could help answer gardeners’ most nagging questions.

“If you have questions about landscape diseases or insect problems, bring in a sample and we’ll help you identify the problem and suggest ways to best treat it,” she said.

Environmental and gardening organizations will be represented in an organization tent and retailers will offer a large selection of plant material, equipment and other landscaping materials for sale throughout the day. Food and beverages, including water, will be available all day.

An activity-filled family fun center and children’s flower and vegetable garden are additional attractions.

To access the Festival and it’s schedule of events on the Internet go to http://hort.unl.edu/fallfest/.

Festival of Color remains free to the public, though volunteer donations of $5 per family or $2 per person are encouraged to help defray rising costs.

Festival of Color is supported by the U.S. Environmental Protection Agency, Region VII through the Nebraska Department of Environmental Quality; Nebraska Nursery and Landscape Association; Nebraska Turfgrass Foundation; Earl May Seed and Nursery, Limited Partnership; Bluebird Nursery; the Lower Platte North Natural Resources District; Campbell’s Nursery and Garden Center; Nebraska Statewide Arboretum and NU’s Institute of Agriculture and Natural Resources and School of Natural Resource Sciences.

Playing games...youthful visitors to last year’s Festival of Color enjoy a variety of games teaching environmental awareness and stewardship in a University of Nebraska-sponsored tent. This year’s festival will be August 28 near Mead (photo: Steve Ress).

From the Director (continued from page 2)

different; without water that is adequate both in quantity and quality, Nebraska’s future is frankly bleak. Crop production and ranching are the cornerstones on which Nebraska’s economy has been built; and while our economy is diversifying, they will remain mainstays long into the future. Over time, numerous factors have converged to threaten portions of Nebraska’s water resources, ground water in particular. Through research, extension, and teaching, the University, in collaboration with federal and state agencies, has been instrumental in helping ensure today’s plentiful supplies of good quality water.

But water quantity/quality issues will continue to confront us as we move forward into the 21st century. Can we afford to become complacent now...abandon our research efforts...ignore the practices we’ve put in place to preserve and protect our water resources?

You be the judge.
From Buffalo to Bottled Water, Summer Water Tour Attracts Newcomers (continued from page 1)

at Pierce’s Cuthills Vineyard, bottled spring water in Long Pine, herds of Buffalo near Mullen and a flood control dike at Pender, to name just a few.

"The tour was a way to educate a cross-section of the public about tax-supported projects of natural resources districts and to such issues as flood control, soil erosion and livestock waste management concerns," said Lower Elkhorn NRD Manager Stan Staab.

Speakers and panelists represented a broad spectrum of interests and viewpoints across the tour’s broad agenda of topics and stops. They addressed local water issues and agricultural topics, livestock confinement and production, public power generation, unique agricultural ventures, public recreational and flood control projects, environmental issues such as the Niobrara Scenic River and many other topics.

Buses began the tour from Kearney and Lincoln, meeting at Columbus’ Loup Public Power District generation plant early on the first morning of the tour. Afternoon stops in northeast Nebraska included egg-processing operations near Wakefield, Pender’s recently completed $5.3 million levy project on Logan Creek and an evening pork barbecue at Cuthills Vineyard. Also visited with the new MPM milking operation near Wakefield.

The second day included enroute discussions about the Cowboy Trail, irrigation district and NRD water projects and lunch at historic "Hidden Paradise" on Long Pine Creek before a tour of the Seven Springs water bottling operation in neighboring Long Pine.

Proceeding to Valentine, tour participants canoed several miles of the Niobrara River, viewed Smith Falls and enjoyed an evening steak fry on the river’s banks.

On the morning of the third day, buses headed south from Valentine for a look at bison raising operations on Ted Turner and Jane Fonda’s 54,000-acre “Spike Box” ranch near Mullen. Ranch Manager John Hansen was more than willing to explain the ranch’s work toward “Starting a new industry” in the middle of traditional cattle country, though none of the ranch’s more than 2,500 bison were anywhere in sight.

Tour participants then saw and heard for themselves of the Sandhills’ near-miraculous recovery from a March range fire that swept through thousands of acres of prime grazing land. Though the recovery is not yet total, Rancher Lyle Phillips said timely spring and summer rains have done much to rejuvenate scorched areas.

After lunch in Thedford buses returned to Kearney and Lincoln.

Reporters from several state newspapers, including the Kearney Hub, Norfolk Daily News and Lincoln Journal-Star accompanied the tour.

Two Join Water Sciences Lab Staff

Dottie Harrell and Anita Sisco have recently joined the staff of the University of Nebraska-Lincoln’s Water Sciences Laboratory.

Harrell replaced Pat Larsen as the lab’s clearinghouse and data manager earlier this spring. Larsen has moved to a staff geoscientist position with Stone Environmental in Montpelier, VT. At the lab, Harrell manages the Nebraska groundwater nitrate and pesticide database. She hold a M.S. in Zoology and Water Resources Management from the University of Wisconsin-Madison and a B.S. in Biology from the College of William and Mary in Virginia.

Harrell formerly worked as a computer specialist for 12 years at the USDA-ARS Soil and Water Conservation Research Unit, which is also located on UNL’s East Campus.

She and husband Mark, a professor and forester with the Nebraska Forest Service and NU School of Natural Resource Sciences, have two daughters.

Sisco comes to the lab as a new research technician II, where she works closely with faculty and staff researchers.

She attended Benedictine College in Kansas, where she studied biology, and holds an Associates Degree in Environmental Lab Technology from Lincoln’s Southeast Community College.

The southwest Kansas native and her husband Joe have a baby boy.

Joe, a graduate of both UNL and Southeast Community College at Beatrice, is a sales agronomist for the Pickrell cooperative.
Overview of Vision Statements Available

A 16-page overview of group vision statements created by participants of the 28th Annual Nebraska Water Conference, "Nebraska Water 2000: Planning for the Future," is now available free from the UNL Water Center/Environmental Programs.

The purpose of the report is to share the collective vision of participants of the conference with all people interested in Nebraska's water future," said co-author Mark Burbach of UNL's Water Sciences Laboratory.

The report provides a brief examination of the areas of planning concern as expressed by conference participants. More than 100 conference participants were randomly divided into eight equal groups and then tasked with developing vision statements that could provide guidance for helping to develop the state's water future.

Copies of the final vision statement have been mailed to conference participants, as well as to relevant federal, state and local entities.

To obtain a copy, e-mail sress1@unl.edu, phone (402)472-3305 or write: Water Center/Environmental Programs, P.O. Box 830844, University of Nebraska, Lincoln, NE 68583-0844.

The Value of Water

A limited number of 12-page, full-color booklets on how companies, governmental entities and others can make better investment decision for their water resources is available free from the UNL Water Center/Environmental Programs.

"The Value of Water - Recognizing and Using The Full Potential of Your Water Supply" was recently published by The National Water Research Institute. The booklet discusses water in terms of its value as an investment, consumer services that are generated from it, its financial value to companies and entities and services generated from water-related assets for consumer benefit.

Single copies of the booklet can be obtained by contacting: Water Center/Environmental Programs, P.O. Box 830844, University of Nebraska, Lincoln, NE 68583-0844, phone (402)472-3305 or e-mail requests to sress1@unl.edu.

1999 USBR Hydrologic Modeling Inventory (HMI)

The latest hydrologic modeling inventory project is underway at the U.S. Bureau of Reclamation. The USBR is now compiling the 1999 Hydrologic Modeling Inventory (or HMI). This inventory will be a compilation of a vast array of the hydrologic models available today. It will provide up-to-date information on the models, as well as contact points for obtaining the models.

The inventory will be available to the general public in the form of a web site at: http://www.usbr.gov/hmi. Please visit the site for more details. In conjunction with the inventory, the site includes a large literature review of hydrologic modeling, providing a searchable database of articles and text covering hydrologic modeling.

If you have a model appropriate for submission, please fill out a model questionnaire. These can be found in HTML, MS Word, WordPerfect or plain text formats at the above web site. If you use e-mail, please provide the HMI web team with a carbon copy of your e-mail.

The USBR's goal is to present comprehensive information about all models, it is thus important that models be submitted as accurately and completely as possible, giving all pertinent information and illustrating any strengths and weaknesses.

If you wish to receive updates on the progress of the web site or have comments or questions, e-mail hmi@www.usbr.gov, phone (303)445-2468 or FAX (303)445-6351.

EPA Ag Center Publications and List Server

The U.S. Environmental Protection Agency's (EPA) National Agriculture Compliance Assistance Center (Ag Center) has some new entries on its publications list.

The Center also offers a new e-mail system for notifying users about the latest topics posted on the news page at the Ag Center web site.

The Ag Center has updated its automatic "Fax-back" system for fact sheets and other publications. The number to call for these publications, and other information on environmental requirements that affect agriculture is (888)663-2155. This is a toll-free number. To subscribe to the AgCenter Listserve, go to http://www.epa.gov/oeca/ag/. The only messages that subscribers receive are the periodic notifications from the Ag Center about additions to the web site (generally not more than one message per week). To subscribe, send the command subscribe agcenter Firstname Lastname (Your first name and last name) in the body of an e-mail message addressed to listserver@unixmail.rtpnc.epa.gov.

"Understanding and Addressing Groundwater Risks"

"Understanding and Addressing Groundwater Risks" is the theme for the 15th annual fall symposium and national Groundwater Guardian designation celebration. The conference will be Nov. 15-17 at the Omni Hotel, CNN Center, Atlanta, GA.

The conference is aiming at enhancing presenter and participant understanding of the risks to groundwater and to human and ecological health and also to honor groundwater protection achievements of the 1999 Groundwater Guardian communities, affiliates and national partners.

Invited speakers include Peter Dykstra of CNN and EPA Administrator Carol Browner. Groundwater Foundation President Susan Seacrest said the focus is on risks to groundwater because of major new regulations developed under the 1996 Safe Drinking Water Act amendments.

For more information, call (800)858-4844 or e-mail info@groundwater.org.
SEPTEMBER
12-16: NACAA AM/PIC meeting, Omaha. Plans are progressing rapidly for the NACAA Ag. Agent meeting. If you want to learn more about our plans, visit our website: http://www.iarn.unl.edu/nacaa99/.
19-22: Ground Water Protection Council 1999 Annual Forum, The Hotel Viking, Newport, RI. Groundwater, source water and underground injection forum and technical exchange exposition. For information phone (405)516-4972, FAX (405)516-4973 or on-line at http://gwpc.site.net/meetings.htm
20-21: Biennial Ground Water Conference, San Diego, CA. “Interconnected Water Supply in California.” For information, contact Jeff Woled at (503)752-8050 or e-mail jwoled@ucdavis.edu
20-24: Advanced Water Pollution Control, Biological Wastewater Treatment, Joe C. Thompson Conference Center, The University of Texas at Austin. Direct registration questions to (512)471-3506 or e-mail gpanson@mail.utexas.edu
26-28: 1999 Nebraska Association of Resources Districts (NARD) Fall Conference and Vendor Expo, Quality Inn, North Platte. For information contact Ann McFall at (402)471-7670 or e-mail nard@ncdec.nrc.state.ne.us.

OCTOBER
12-25: Second National Small Farm Conference, Regal Riverfront Hotel, St. Louis, MO. To provide an opportunity for people in the public and private sectors, including community-based organizations, land-grant institutions, small and medium sized farmers to strengthen collaboration and partnerships.
25-26: A Planet at Risk - A Partnership at Work; the Volvo Environment Prize Foundation and Columbia University. Conference will be held at Columbia University. For information, e-mail vhk.hugo@memo. volvo.se or on-line at www.environment-prize.com
27-28: “The South Platte: Old River - New Course?” The 10th Annual South Platte Forum, Raintree Plaza Conference Center, Longmont, CO. Changes in Land and Water Use in the South Platte Basin. For information, or to submit posters, phone (970)491-1141 or FAX (970)491-2293.

NOVEMBER
4-6: International Riverbank Filtration Conference, The Camberley Brown Hotel, Louisville, KY. Sponsored by The National Water Research Institute. Registrations must be received by Sept. 15. To register or for information, contact the NWRI at (714)378-3278.
7-10: Fourth USA/CIS Joint Conference on Environmental Hydrology and Hydrogeology, San Francisco, CA. Contact the American Institute of Hydrology at (651)484-8169, e-mail A1Hydro@aol.com or at aihydro.org.

8-9: The Missouri River Voyage of Recovery Conference, Saint Charles, MO. For information phone (877)4Rivers or on-line at www.americannrivers.org
14-16: Virginia Water Research Symposium, Holiday Inn, South Kroger Center, Richmond, VA. Sponsored by the Virginia Water Resources Research Center. For information, (540)231-8030 or e-mail jupoff@vt.edu
15-17: The 15th Annual Groundwater Foundation Fall Symposium “Understanding and Addressing Groundwater Risks,” Omni Hotel, CNN Center, Atlanta, GA. Understanding and addressing risks to groundwater. For information on the symposium, or presenting, contact Cindy Kreifels or Zoe McManaman at (800)858-4844.
28-30: Nebraska Water Resources Association/Nebraska State Irrigation Association annual conference “New Roles for Water in the New Millennium, Holiday Inn, Kearney. For information, phone (402)474-3242 or e-mail demaris@navix.net

Voyage of Recovery Conference
Noted historian and author Stephen Ambrose keynotes the Missouri River Voyage of Recovery Conference in Saint Charles, MO Nov. 8 and 9.
Sponsored by American Rivers, the conference will join local communities and organizations working to revitalize the Missouri River for the bicentennial celebration of Lewis and Clark's historic journey. There will be conference workshops, case studies, field trips and visits to historic sites and riverfront restoration projects that are in progress.
“Though few rivers have been subjected to human influence as much as the Missouri, no river possesses more potential for revitalization. The 200th anniversary of Lewis and Clark’s voyage creates a great opportunity that must not be squandered,” said Ambrose in his book Undaunted Courage.
For registration materials or more information call (877)4-RIVERS or visit the conference web site at www.americannrivers.org

Clyde Ogg (left) accepts NU's Institute of Agriculture and Natural Resources Outstanding Employee Award in the Managerial/Professional Category for May/June 1999 from Cooperative Extension Dean Ken Bolon. Ogg is the Pesticide Education Specialist within the Water Center/Environmental Programs unit at UNL (photo: Steve Ress).
A visit to Australia and New Zealand logged over 25,000 air miles between May 12 and June 6 for University of Nebraska-Lincoln associate professor Bob Kuzelka, who's report on the trip follows:

Invitations and financial support for the trip came from the International Association of Water Quality, the Australian CSIRO's Centre for Groundwater Studies (CGS) and the Environment Waikato Regional Council in Hamilton, New Zealand.

During the trip I made a dozen formal presentations related to community-based groundwater protection. For these presentation I drew heavily on the process and results of The Groundwater Foundation's Groundwater Guardian program (editor's note: Kuzelka has been a consultant to the Foundation in the design and development of this program since 1993. Groundwater Guardian supports, recognizes and connects North American communities who are protecting their groundwater sources).

The invitation was generated from a growing interest in Australia, New Zealand and other countries to mobilize community and human resources for the protection of groundwater resources. Not all countries use groundwater to supply the high percentage of their drinking waters as the 50 percent in the United States, but on a local basis, groundwater protection is absolutely essential for a community which relies 100 percent on groundwater, such as Mt. Gambier in South Australia.

Such local conditions are an ideal setting for community-based groundwater protection.

Highlights of my trip included the following:

— **Plenary speaker in Perth, West Australia (WA)** at the 1999 International Conference on Diffuse Pollution. Here I was joined by more than 150 delegates from more than two dozen countries to explore and share ideas on how to meet the challenges of managing the diffuse (or nonpoint) pollution of earth's water, but surface and subsurface.

— **A very long one-day trip** to Broome, WA, 1,000 miles north of Perth. Here I joined with speakers from the Karajarri Aboriginal Tribe, Environs Kimberley, WA Water and River Commission and Western Agriculture Industries at a public meeting entitled “Water is Life.”

(continued on page 3)