July–August 1991
#14

EPA Nonpoint Source News-Notes

The Condition of the Environment and The Control of Nonpoint Sources of Water Pollution

Commentary . . .

Environmental Considerations in Cattle Grazing

Today's range and fisheries specialists must tailor grazing to fit the needs of streambanks, stream channels, water quality and streamside vegetation. . . . In formulating and evaluating a grazing strategy, many environmental conditions must be considered. Conditions such as channel resistance or vulnerability to erosion, overall range condition, topography, climatic fluctuations, riparian plant community types, or (whether) beaver are present or absent. . . . Prognostic tools must be used to predict such things as the amount of ungrazed vegetation required to catch sediment during runoff events to build streambanks and to rebuild aquifers, the complex of vegetation cover needed to minimize trampling damage and bank erosion, and the amount of brushy canopy needed in the future to control solar heat input into the water column. —Excerpted from William S. Platts, *Managing Fisheries and Wildlife on Rangelands Grazed by Livestock*, Nevada Department of Wildlife, December, 1990.

We are impressed by Platts' construct. When we set out to accomplish water quality management on a watershed-wide basis, we would do well to take into account the totality of the water related environment — all of the natural influences and considerations recorded by Platts, plus human activities: grazing, farming, subdivision development, manufacturing and processing, or simple camping or fishing. The mixing of human activities with elements of the natural environmnent in a watershed requires the forging of a holistic, overarching integration of all of these water-related environmental elements and activities. A watershed is a way of thinking. — *The editor.*

Headquarters Notes

EPA Issues Policy on the Use of Biological Assessments and Criteria in the Water Quality Program

On June 19, 1991 Tudor T. Davies, Director of the EPA Office of Water's Office of Science and Technology, issued a national *Policy on the Use of Biological Assessment and Criteria in the Water Quality Programs*, calling it:

INSIDE THIS ISSUE

Commentary:
Environmental Considerations in Cattle Grazing 1
Headquarters Notes
Policy on Biological Assessments & Criteria Issued 1
Notes of National Interest
Environmental Educators Meet 4
"Coastal America" Program Announced 5
A Regional Note of Interest
California High on Coastal Nonpoint Source Karma 6
Notes From the States and Localities
Maryland's Chesapeake Bay License Plate 7
California Sets Timber Harvest Workshops 8
Colorado Kids' Water Festival Makes Big Splash 8
South Carolina Enacts Stormwater & Sediment Legislation 9
Legislation to Strengthen Wisconsin's Watershed Program 10
Agricultural Notes
ASCS Sets Conservation Reviews Meetings 11
Regulation of Feedlots and Dairy Farms — Iowa, Illinois and Oregon 12
Notes on NPS Technology
Management of Individual Sewerage Systems 15
County Health Department Tackles On-Site Systems 17
Update on Nonpoint Source BBS 18
A Correction 19
DATEBOOK 20
THE COUPON 23

> *. . . a significant step toward addressing all pollution problems within a watershed. It is a natural outgrowth of our greater understanding of the range of problems affecting watersheds from toxic chemicals to physical habitat alteration, and reflects the need to consider the whole picture in developing watershed pollution control strategies.*

The statement of policy itself reads, in part, as follows:

> *To help restore and maintain the biological integrity of the Nation's waters, it is the policy of the Environmental Protection Agency (EPA) that biological surveys shall be fully integrated with toxicity and chemical-specific assessment methods in State water quality programs. . . .*
>
> *It is also EPA's policy that States should designate aquatic life uses that appropriately address biological integrity and adopt biological criteria necessary to protect those uses. Information concerning attainment/nonattainment of standards should be used to establish priorities, evaluate effectiveness of controls, and make regulatory decisions.*

This policy statement had been under development for several years and is the result of comprehensive debate over the relative weight that should be accorded to different measures of water quality and the cost implications of shifting program emphasis in the directions indicated by the policy. The policy, originally developed by Jim Plafkin of the Assessment and Watershed Protection Division before his untimely death in 1990, was carried to completion by Chris Faulkner and a state/federal workgroup.

Biological Monitoring and Assessment

The policy statement makes this point:

> *The distinction between biological surveys, assessments and criteria is an important one. Biological surveys . . . consist of the collection and analysis of the resident aquatic community data and the subsequent determination of the aquatic community's structure and function. A biological assessment is an evaluation of the biological condition of a waterbody using data gathered from biological surveys or other direct measures of the biota. Finally, biological criteria are the numerical values or narrative expressions used to describe the expected structure and function of the aquatic community.*

The statement indicates that biological monitoring uses a biological entity as a detector and its response as a measure in determining environmental conditions. The policy sets forth a rationale for conducting biological assessments, stating:

> *To more fully protect aquatic habitats and provide more comprehensive assessments of aquatic life use attainment/nonattainment, EPA expects States to fully integrate chemical specific techniques, toxicity testing, biological surveys and biological criteria into their water quality programs . . . Taken together, chemical, physical, and biological integrity define the overall ecological integrity of an aquatic ecosystem. Because biological integrity is a strong indicator of overall ecological integrity, it can serve as both a meaningful goal and a useful measure of environmental status that relates directly to the comprehensive objective of the Act.*

In dealing with biological surveys, the statement observes:

> *. . . biosurveys should have clear data quality objectives, use standardized, validated laboratory and field methods, and include appropriate quality assurance and quality control practices. Biosurveys should be tailored to the particular type of waterbody being assessed (e.g., wetland, lake, stream, river, estuary, coastal or marine water) and should focus on community components and attributes that are both representative of the larger community and are practical to measure.*

Biocriteria in State Standards

The policy statement establishes a goal that states adopt narrative and numerical expressions of biological integrity (biocriteria) as part of their state water quality standards:

EPA Issues Policy on the Use of Biological Assessments and Criteria (continued)

Biological criteria can be quantitatively developed by identifying unimpaired or least-impacted reference waters that operationally represent best attainable conditions. EPA recommends States use the ecoregion concept when establishing a list of reference waters. Once candidate references are identified, integrated assessments are conducted to substantiate the unimpaired nature of the reference and to characterize the resident community. Biosurveys cannot fully characterize the entire aquatic community and all its attributes. Therefore, State standards should contain biological criteria that consider various components (e.g., algae, invertebrates, fish) and attributes (measures of structure and/or function) of the larger aquatic community.

Relationship of Ecological, Chemical and Toxicity Information

One of the most controversial issues addressed by the policy is whether the findings of one approach should take precedence over another approach. There are now three principal approaches to measuring water quality: chemical concentrations, toxicity testing and ecological monitoring. EPA has adopted the policy that

> *. . . each of these three methods can provide a valid assessment of designated aquatic life use impairment. Thus, if any one of the three assessment methods demonstrate that water quality standards are not attained, it is EPA's policy that appropriate action should be taken to achieve attainment, including use of regulatory authority.*

This is based on the premise that:

> *Because biosurvey, chemical-specific, and toxicity testing methods have unique as well as overlapping attributes, sensitivities, and program applications, no single approach for detecting impact should be considered uniformly superior to any other approach. EPA recognizes that each method can provide valid and independently sufficient evidence of aquatic life use impairment, irrespective of any evidence, or lack of it, derived from the other two approaches. The failure of one method to confirm an impact identified by another method would not negate the results of the initial assessment. This policy, therefore, states that appropriate action should be taken when any one of the three types of assessment determines that the standard is not attained. States are encouraged to implement and integrate all three approaches into their water quality programs and apply them in combination or independently as site-specific conditions and assessment objectives dictate.*

Biological Indicators Reflect Nonpoint Pollution Impacts

The statement, importantly, points out that the use of biological information is key to understanding the impacts of significant categories of nonpoint pollution.

> *Biosurveys and biological criteria add [a] needed dimension to assessment programs because they focus on the resident community. The effects of multiple stresses and pollution sources on the numerous biological components of resident communities are integrated over a relatively long period of time. The community thus provides a useful indicator of both aggregate ecological impact and overall temporal trends in the condition of an aquatic ecosystem. Furthermore, biosurveys detect impacts caused by: (1) pollutants that are difficult to identify chemically or characterize toxicologically (e.g., rare or unusual toxics [although biosurveys cannot themselves identify specific toxicants causing toxic impact], "clean" sediment, or nutrients); (2) complex or unanticipated exposures (e.g., combined point and non-point source loadings, storm events, spills); and perhaps most importantly, (3) habitat degradation (e.g., channelization, sedimentation, historical contamination), which disrupt the interactive balance among community components.*

[For more information and copies of the policy statement contact the Monitoring Coordinators at EPA Regional Offices as listed below, or Chris Faulkner, Biologist, Monitoring Branch, Assessment and Watershed Protection Division (WH-553), U.S. EPA, 401 M Street, SW, Washington, DC 20460.]

Regional Monitoring Coordinators

Region I
ME,NH,VT,MA,CT,RI
Diane Switzer
Monitoring Coor., ESD
US EPA Region I
(WQM-2103)
J. F. Kennedy Bldg.
Boston, MA 02203
(617) 860-4377

Region II
NY,NJ,PR,VI
Randy Braun
Monitoring Coor.
US EPA Region II
26 Federal Plaza, Rm 813
New York, NY 10278
(201) 321-6692

Region III
PA,DE,MD,VA,WV,DC
Chuck Kanetsky
Environmental Services Div.
(3ES12)
US EPA Region III
841 Chestnut Street
Philadelphia, PA 19107
(215) 597-8176

Region IV
KY,TN,NC,SC,GA,FL,AL,MS
Dan Ahern
Water Quality Mgmt. Division
US EPA Region IV
345 Courtland St., NE
Atlanta, GA 30365
(404) 347-2126

Region V
MN,WI,MI,IL,IN,OH
Wayne Davis
Environmental Services Div.
US EPA Region V, (5F)
5WQS-TUB8
230 S. Dearborn Street
Chicago, IL 60604
(312) 886-6233

Region VI
NM,OK,TX,LA,AR
Charlie Howell
Monitoring Coor.
US EPA Region VI
First Inter. Bank Tower
1445 Ross Avenue
Dallas, TX 75202-2733
(214) 655-2289

Region VII
NE,IA,KS,MO
John Helvig
Planning & Eval. Sec.
US EPA Region VII
25 Funston Road
Kansas City, KS 66115
(913) 236-3884

Region VIII
UT,CO,WY,MT,ND,SD
Jim Luey
WQ REQ Sec.
US EPA Region VIII
PO Box 25366
Denver Federal Cntr.
Lakewood, CO 80225
(303) 293-1449

Region IX
CA,NV,AZ,HI,GU,TT, AS,MP
Ed Lui
Monitoring Coor.
US EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-2012

Region X
AK,WA,OR,ID
Gretchen Hayslip
Monitor. Coordinator
Environ. Serv. Div.
Mail Stop 345
US EPA Region X
1200 Sixth Avenue
Seattle, WA 98101
(206) 442-1685

Notes of National Interest

Environmental Educators Meet to "Network Globally—Act Locally"

The Alliance for Environmental Education annual conference held in Virginia June 20 through 22 reflected a new movement in environmental education by focusing on electronic communications. The Alliance is a coalition linking business, labor, government and non-profit organizations. The common goal is improving and extending environmental education through production of educational materials and teacher training. The Alliance is also committed to educating decision-makers on environmental issues.

The conference served not only to present educators with options in new technology, but also was an unofficial christening of 63 computers donated to the Alliance's Network for Environmental Education (NEE). NEE, formed in 1989 with support from the Tennessee Valley Authority and EPA, is a nationwide system of environmental education centers.

The computers, part of a grant from Apple Computer, will link NEE centers through electronic conferences; bulletin boards; event listings; newsletters; and EcoNet, an international environmental computer network. Training in using the computers, software and networks was provided throughout the conference.

A panel discussion, "Improving Your Electronic Communications", emphasized person-to-person communication through computers. As NEE coordinator Andrew Alm put it: "We may be distant from each other geographically, but we are right there . . . electronically."

Environmental Educators Meet in Virginia (continued)

Omar Khalifa, environmental issues manager at Apple Computer, demonstrated other uses for computers in environmental education through a dazzling display of multi-media interactive electronics. Computer-monitor images complete with accompanying audios came alive on a television screen at the touch of a mouse, the printed word unfolded into exciting graphics, and colorful menus invited students to select deeper explorations of environmental topics.

Another speaker, EPA's Office of Environmental Education (OEE)'s acting director Michael O'Reilly, emphasized improving environmental education through the establishment of partnerships between organizations. O'Reilly described the new office, which was established in 1990, as a catalyst: "We're not looking at it so much as a federal program but as a focal point for your efforts within the federal sector."

"This is not EPA's or the federal government's environmental education program," he told the educators. "It is yours."

Tapes of O'Reilly's speech and other speeches and discussions from the conference are available through Rollin' Recording — (512) 736-5483 — at nine dollars each.

[For more information on AEE, contact Tom Benjamin, AEE, 10751 Ambassador Dr., Manassas, VA 22110. Phone (703) 335-1025.]

"Coastal America" Program Announced

In February 1991, President Bush announced a new initiative, Coastal America, that is designed to encourage federal agencies to work more closely with each other and with states, local governments and citizens on action-oriented coastal projects. The undertakings must deal ultimately with living coastal resources and be concerned with one or more of the three major threats to many coastal regions: nonpoint source pollution; contaminated sediments; habitat loss and degradation.

The program calls for cooperation among the four federal agencies with principal responsibility for the stewardship of coastal living resources: the Army Corps of Engineers, Environmental Protection Agency, National Oceanic and Atmospheric Administration, and Department of the Interior. The President's Council on Environmental Quality is helping to coordinate the effort.

Seven geographic regions have been defined: Alaska, Northwest, Southwest, Gulf of Mexico, Southeast, Northeast, and Great Lakes. Regional teams composed of participants from the four federal agencies have developed plans for projects in each region. The projects are currently under preliminary review and final selection is scheduled for September/October.

Some of the criteria for selection are: three out of the four federal agencies must participate and some match of non-federal funds must be obtained. Projects must focus on implementation and management rather than research or planning.

Goals of the program include:

- producing demonstrable environmental results in the short term without neglecting long term results.
- building lines of communication and teamwork between agencies.
- field testing new, innovative and experimental approaches.
- providing models for future projects.
- improved conservation and protection of living coastal resources.

Projects will be approached on a watershed basis.

Twenty-three million dollars, to be split among the four agencies, has been requested for FY 92. So far, the House Appropriations Committee has approved $6 million to EPA.

[For more information, contact: Steve Glomb/Mark Flory, Oceans and Coastal Protection Division, OWOW, WH-556F, U.S. EPA, 401 M St., SW, Washington, DC 20460. Or contact: Robin O'Malley, Coastal America, 722 Jackson Place, NW, Washington, DC 20503.]

A Regional Note of Interest . . .

Report from Our EPA Region IX Correspondent . . .

EDITOR'S NOTE: What follows is from a report sent into *NPS NEWS-NOTES* from EPA Region IX. In the interest of spreading the wisdom, we reprint these erudite observations, verbatim.

CALIFORNIA'S HIGH ON COASTAL NONPOINT SOURCE KARMA!

The state of California, in response to section 6217 of the Coastal Zone Reauthorization Act Amendments of 1990, entitled *Protecting Coastal Waters*, has dreamed up the vision of a cooperative agreement between the State Water Resources Control Board (SWRCB) and the California Coastal Commission (Commission). With financial assistance and support from the EPA, Region 9 fairy godmother, this cooperative agreement has come true and is being implemented.

The cooperative agreement will provide California with the resources for a pilot project initiating the state's Coast Nonpoint Pollution Control Program (CNPC). The project will require coordination between EPA, Region IX, the Commission, the SWRCB, and the San Francisco Bay Conservation and Development Commission (BCDC). The Regional Water Quality Control Boards and the coastal program district officer will also be involved in the project.

The pilot project will build a framework for developing the CNPC program. It will provide the preliminary information necessary to assess the constraints and opportunities for a statewide program. Although the pilot is not expected to result in the completion of a final nonpoint source pollution program for the specific watershed selected for the study, it is intended to lay a solid basis of technical/institutional information and analyses from which the coastal program and water quality agencies can model their overall program efforts.

The "steering committee" is comprised of representatives of EPA, SWRCB, BCDB, and the Commission. They have selected the Morro Bay watershed for the study. Morro Bay is located in the central coastal, San Luis Obispo County area of California. The watershed supports a $16 million agricultural industry, which is feeling increased pressure from changes in land values and land use, reduction and competition for available water supplies, and changing regulations governing application of nutrients and pesticides. Approximately 9,000 acres of the upper watershed are public lands which have some grazing values, but are primarily even-aged brush stand. Limited grazing and the presence of several abandoned mines on these public lands contribute sediment and heavy metals to the Bay. The two creeks that flow into the Bay are currently on the state impaired water body list due to elevated levels of sediment, increased temperature and agricultural nonpoint pollution.

The pilot study will build on, and coordinate with, existing efforts to control and prevent nonpoint source pollution of the Bay's water. The California Coastal Conservancy has contributed $400,000 for cost-sharing for implementation of selected erosion control practices in the watershed. The Coastal San Luis Obispo Resource Conservation District has received an EPA grant of FY-90 funds through the SWRCB/California Regional Water Quality Control Board, to provide technical assistance for Morro Bay sediment reduction. The goal of Phase I of this Section 319 project is a reduction of 3700 cubic yards of soil reaching Morro Bay over the life of the project. The secondary goal is widespread involvement and education of local landowners. Region 9 will also provide FY91 319 monitoring funds to support a long-term monitoring effort in the Morro Bay watershed. Recent discussions with the Soil Conservation Service, EPA, the University of California Cooperative Extension, Morro Bay Foundation, and the Regional Board staff have developed some of the basic issues which should be addressed by long term monitoring.

California's High on Coastal Nonpoint Source Karma (continued)

Through cooperation and imagination, California has chosen an integrated and totally fresh approach in confronting a daunting agenda for coastal water quality. This approach will be a useful model statewide for developing coastal nonpoint pollution control programs. Surf's up and so is the challenge for nonpoint source pollution control! Cowabunga!

[For further information contact: Jovita Pajarillo, NPS Coordinator, (W-3-2), U.S. EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105. Phone: (415) 744-2011.]

Notes from the States and Localities (where the action is)

Overwhelming Response to Maryland's License Plate Raises Money for Chesapeake Bay

Chesapeake Bay clean-up and education projects are receiving a financial boost from an innovative money-raising plan teaming the Maryland Motor Vehicle Authority (MVA), the Governor's office, private industry and a nonprofit organization. Meanwhile, Maryland residents get a chance to show their commitment to the Bay by driving cars sporting "Treasure the Chesapeake" commemorative license plates.

By choosing the commemorative plates over the regular Maryland license plates, car owners have generated over $1.7 million in the first six months, well ahead of the projected $1 million they were to raise over a two-year period.

At $20 for the 'standard model' or $100-$500 for the limited editions, the two-plate sets are extremely popular. To date more than 170,000 have been sold.

When an automobile owner buys a set of the blue-and-green plates, the production cost of $10 is returned to the MVA. The remaining money is tax-deductible to the buyer and goes to the not-for-profit Chesapeake Bay Trust, which distributes funds to worthy education and restoration projects.

None of the money goes to pay the Trust's administrative costs, since these are donated by Maryland's Department of Natural Resources.

The Governor's Chesapeake Bay Communications Office did the promotion for the plate, enlisting public service announcements on radio, printing newsletter inserts and making presentations to civic groups and law-makers. "None of the promotion funds came from the state government," said Ellie Falk, deputy director for the office, "All of it came from the private sector." For example, 3M Company donated $2,500 of the $12,000 used in marketing the plate program.

In addition to that money, the only other investment has been $5,000 for design of the plate.

When planning distribution, the MVA decided to print 1000 "limited edition" sets to be assigned through the Trust on a first-come-first-serve basis. The limited editions, which have raised more than forty thousand dollars, are printed with the word 'Bay' and a very low series of numbers or the owner's choice of numbers. "One woman selected the numbers 9-1-1 because she felt the Bay was in an emergency situation," said Trust Project Manager Rick Leader. The plate, manufactured of recycled aluminum, depicts a great blue heron in its fragile marshland habitat and the motto, "Treasure the Chesapeake." The Chesapeake Bay watershed is home to the Atlantic coast's largest great blue heron rookery, a colony of 1,300 breeding pairs.

[For more information, contact Rick Leader, Project Coordinator, Chesapeake Bay Trust, 60 West St., Suite 200 A, Annapolis, MD 21401. Phone: (301)974-2941. Or contact Ellie Falk, Deputy Director, Governor's Chesapeake Bay Communications Office. Phone: (301)974-5300.]

California Sets Regional Workshops To Formulate Timber Harvest NPS Management Program

The California Board of Forestry has issued a newsletter, aptly entitled *Stream Reach*. It is designed to inform the timber and forestry community in that sprawling, resource-rich, state, all about the Board's stream protection efforts. We reprint here the lead story from the Summer 1991 issue. No explanation or elaboration is necessary:

Forestry, the Public and the "Feedback Loop"

A message from the California Board of Forestry

The California Board of Forestry is responsible, under the state's program of implementing the nation's Clean Water Act, for assuring that timber harvest practices on state and private lands are Best Management Practices, or "BMPs", as that term is used in the Act. Simply stated, BMPs are methods, ways of doing business — in our case harvesting trees — that keep lakes and streams clean and, at the same time, make good forest resource management sense.

The development of California's forest practice BMPs has been a long and sometimes contentious path. To improve water quality protection, the Board of Forestry substantially revised the state's forest practice rules in 1983. While these improved rules have been adopted as BMPs, the law requires a process of monitoring and evaluating their effectiveness prior to federal certification as BMPs. The law also requires their continued improvement on the basis of a monitoring program.The Clean Water Act requires a feedback loop.

> *To put it in simple terms, we are not learning from experience . . . the feedback loop between research, policy and regulations seems on the whole to be not only incomplete, but sometimes quite overlooked.* — Luna Leopold, 1981.

To avoid the pitfalls that Luna Leopold warns of, the Board of Forestry decided that the best way to design the required monitoring and assessment program would be with the help of both technical experts and the interested public. We felt strongly that public input was key to to our understanding of water quality impacts on forest lands. We have organized a panel of advisors, including registered professional foresters, watershed protection specialists, aquatic biologists and others, which we have called the *Best Management Practices Effectiveness Assessment Committee,* or "BEAC". And the BEAC, in turn, has scheduled a series of public workshops, so they can learn from the public — from anyone who feels he or she has a stake in the relationship between timber harvesting and water qualify protection. The BEAC will be asking which harvest practices appear effective in protecting streams and lakes and which are not, and how that effectiveness, or lack of it, should be measured and evaluated. . . . the BEAC will report its findings to the Board. It will also make recommendations for the design and implementation of a private-land forest practice BMPs monitoring and assessment program. The Board will, in turn, hold both informal and formal discussions of BEAC's recommended program design and will adopt a final program by the summer of 1992.

It is our hope that by bringing our workshops to your community, through volunteer efforts of the BEAC, that you can be an early participant in the "feedback loop" of good technical information and honest public concern, which we see as the essential elements of our clean water program.

[For further information contact: Doug Wickhizer, Board of Forestry, P.O. Box 944246, Sacramento, CA 94244-2460. Phone: (916) 322-0128.]

Colorado Kids' Water Festival Makes Big Splash

The month of March swept in an opportunity for Colorado children to learn about the importance of water resources. The first-ever Children's Water Festival in the state was sponsored by the Central Colorado Water Conservancy District and hosted nearly 2,000 children and adults from across the state. The one-day festival, patterned after the Children's Groundwater Festival in Nebraska, was geared toward fourth and fifth graders.

Colorado Kids' Water Festival Makes Big Splash (continued)

Over 40 classroom activities and displays were situated at Aims Community College for the festival. Numerous local, state and federal agencies assisted with the events, which ranged from presentations on municipal water systems, soil classification, and water sampling techniques to water rap music. One of the most popular games was "Water Wizards," in which schools competed in a quiz. A local TV personality hosted the competition.

The exhibit hall was set up with booths and displays, which included aquifer models and giant bubbles. Gold miners demonstrated the panning process to wide-eyed students and adults alike. Other booths were manned by growers associations, utilities associations, state departments of health and water resources, Northern Colorado Water Conservancy District, EPA, University of Northern Colorado, Colorado State University and the state Division of Wildlife. Future Farmers of America students served as guides during the day.

Response to the festival was amazing. Invitations were sent to schools in January, and the festival filled to capacity in only ten days.

Hopes are that other groups will create their own children's water festivals in the future. Already, plans are under way in other parts of Colorado for festivals in 1992. South Dakota's Department of Agriculture, for example is working on a Section 319-funded festival for next year. The Central Colorado Water Conservancy District, which is hosting their second festival in March '92, will be happy to share their experience with others planning similar events.

[This article was written by Tom Cech of the Central Colorado Water Conservancy District and first appeared in the June '91 issue of the Colorado Conservator, The Nonpoint Source Newsletter of Colorado.]

[For more information, contact: Tom Cech, Central Colorado Water Conservancy District, 3209 W. 28th St., Greeley, CO 80631. Phone: (303)330-4540.]

South Carolina Legislature Enacts Stormwater and Sediment Control Laws

South Carolina Governor Carroll A. Campbell, Jr. signed the state Stormwater Management and Sediment Reduction Act on May 27, 1991. The Act charges the state's Land Resources Commission to develop a state stormwater management and sediment reduction program for South Carolina, containing statewide regulations, education, technical assistance, research, design, construction and public involvement components.

The Act requires that all individual land-disturbing activities, with certain exceptions, be carried out according a stormwater and sediment control plan developed specifically for each specific activity by a registered professional and approved by a local government, a soil and water conservation district, or, lacking action by these local agencies, by the state Land Resources Commission, itself.

Periodic inspections are be made and enforcement actions, including fines, are to be assessed by the approving agency, when violations are found.

Exemptions include agriculture and silviculture, single family residences, and regulated mining activities as well as other activities regulated by federal or state environmental permits or licenses. Also exempted are maintenance actions and certain activities conducted by public and private utilities.

Options available to local governments include:

- adopting their own stormwater and sediment control ordinance
- using state stormwater management and sediment control standards and criteria in an existing ordinance (zoning, subdivision, etc.)
- contracting with conservation districts or others for local regulatory and enforcement administration.

In addition, two or more cities and/or counties may join together to administer a program.

South Carolina Legislature Enacts Stormwater and Sediment Control Laws (continued)

If a local government decides not to adopt a program and implement it either directly or through contract with another entity, the South Carolina Land Resources Commission and conservation districts are to administer the program within the jurisdiction of the local government.

There are two other interesting features to the South Carolina legislation:

- The Act allows for master planning of a stormwater management system on a watershed basis by the establishment of designated watersheds which have stormwater quality or quantity problems. This could also apply to watersheds that have the potential for such problems due to increased land use conversion. Once a local government designates a watershed and a watershed master plan is approved, all projects conducted in the watershed must be done in accordance with the master plan.
- The Act allows local governments to create watershed-wide stormwater management utilities to fund, through the collection of user fees, the operation and maintenance of the stormwater systems. Under these arrangements local governments could also make improvements to existing systems. The utility form is an alternative to reliance on property taxes and general fund revenues.

The Land Resources Commission plans to submit regulations for the Act to the General Assembly at the beginning of the 1992 legislative session. With the approval of the regulations, full implementation of the act is expected by June 1992.

[For more information contact Bill Spearman, P.E., Director of Engineering, S.C. Land Resources Commission, 2221 Devine Street, Suite 222, Columbia, SC 29205. Phone: (803) 734-9120. This article was adapted, with permission, from The Nonpoint Source Pollution Control Newsletter for South Carolina, June 1991, Jim Nicholson, Editor.]

Legislation Developed to Strengthen Wisconsin's Priority Watershed Program

In Wisconsin, State Senator Charles J. Chvala's Legislative Council Nonpoint Pollution Study Committee has made its recommendations and has received unanimous approval of the Legislative Council of its nonpoint package. The package was the product of several months's study by a group composed of legislators (four Senators and six Representatives) and eleven citizen members representative of "..environmentalists and builders, lake district officials and realtors, farmers and municipal officials. A balanced committee. . . ." according to Senator Chvala. (See a related report on the committee and its work in *NPS NEWS-NOTES*, #8, October, 1990.) The proposals are expected to be introduced later this year.

In announcing the Committee's action, Senator Chvala stated:

> *With the installation of pollution controls by industry and municipal wastewater treatment plants, nonpoint source pollution—broadly defined as run-off from urban and rural lands—accounts for two-thirds of water pollution today.*

Key among the proposals is legislation which will improve Wisconsin's pioneer priority watershed program. (see *NPS NEWS-NOTES* #12, April-May 1991.) The four principal elements of this proposal are:

- **Clean Water 2000.** Wisconsin's Department of Natural Resources (DNR) must begin all priority watershed projects in the state by the year 2000. Of the 330 watersheds in Wisconsin, DNR has identified roughly 130 which have been severely degraded by nonpoint pollution. DNR has begun only 51 projects since the priority watershed program started in 1978, and has completed only 6.
- **Water Quality Goals.** DNR must establish water quality goals at the beginning of each priority watershed project, and DNR must persuade landowners to volunteer for the program by offering 70 percent cost-sharing to install best-management practices (more in cases of economic hardship).

Legislation to Strengthen Wisconsin's Priority Watershed Program (continued)

- **Grace Period.** After an initial three year voluntary sign-up period, DNR must determine if it will achieve water quality goals. If not, it must contact critical nonparticipants and encourage them to volunteer during a six-month grace period.
- **Bad Actor Provision.** After sign-up and grace periods, DNR could require participation of critical nonparticipants whose nonpoint pollution is causing DNR to fail in meeting its water quality goals. Those bad actors required to participate will be eligible for only a loan subsidy or a 25 percent grant.

"This should provide a strong incentive to volunteer, hopefully greatly limiting the need for enforcement," Chvala said.

The NPS legislative package includes five additional measures:

- **Cows out of streams.** The state's Department of Agriculture, Trade and Consumer Protection (DATCP) is directed to develop a model livestock exclusion ordinance and to encourage counties to adopt it by 1995. The Wisconsin Conservation Corps would be granted set-aside monies to give priority to projects helping counties implement the ordinance.
- **Drainage Districts.** DATCP would have the authority to set performance standards for drainage districts and order corrections for districts where poor maintenance allows large amounts of sediment to enter navigable waters.
- **Construction site erosion.** The Department of Industry, Labor and Human Relations (DILHR) would regulate construction site erosion at one- and two-dwelling unit sites. Further, DNR must revise the existing model ordinance to regulate erosion at the site of all other land-disturbing activities. Counties would be required to adopt and enforce the ordinance. DNR and DILHR would develop a training program for local enforcement officials and could issue stop-work orders to ensure compliance.
- **Financial provisions.** To help cover costs, the proposed legislation would provide the expanded nonpoint source program with $93 million of bonding authority, and impose a $7.50 environmental surcharge on motor vehicle title transfers and a fee on road salt to be paid by highway authorities.
- **Farmland Preservation Tax Credit.** In separate but more controverial legislation, the committee recommended increasing the Farmland Preservation Tax Credit by $18 million by using unspent state lottery monies. Under current law, soil conservation plans are required of farmland preservation tax credit recipients. Senator Chvala observed, "Unfortunately, both the average size of tax credits and participation in the program have tapered off. The new benefits will work to increase participation. This will help reduce nonpoint pollution and provide farmers with an important boost at this critical time in the farm economy."

[For more information, contact Senator Charles Chvala's office: State Capitol, South Wing, P.O. Box 7882, Madison, WI 53707-7882. Phone: (608) 266-9170.]

Agricultural Notes

ASCS Schedules State/County Conservation Reviews and FY 92 ACP Special Project Nominations; EPA and State NPS Managers to be Included

USDA's Agricultural Stabilization and Conservation Service (ASCS) has addressed its state and county offices throughout the country, directing them to convene their respective Conservation Review Groups (CRG) for their FY 1991 meetings.

The CRGs are to review the effects on conservation programs of the:

- sodbuster, swampbuster, and the conservation compliance provisions of the 1985 Farm Bill

ASCS Schedules State/County Conservation Reviews —EPA and State NPS to be included (continued)

- Endangered Species Act (with Fish and Wildlife Service representatives)
- Historic Preservation Act (with State Historic Preservation Officers)

The CRGs are also to consider the possibility of developing and recommending Agriculture Conservation Program (ACP) Water Quality Special Projects for 1992.

The CRGs are advised by ASCS to take into consideration state 319 Water Quality Management Plans and make "a special effort to have the following represented at the CRG meeting":

- EPA Regional Coordinator, Regional Ground Water Coordinator, or both
- State agency responsibile for water quality, including Nonpoint Source Coordinator.

The notices sent out by ASCS contain other related matters to be taken up at local and state CRG meetings.

County CRGs are to meet by August 16, 1991 and then report to their state CRG. State recommendations are to be transmitted to ASCS' Washington Conservation Environmental Protection Division (CEPD) by September 20, 1991.

[For further information on local county schedules for these important meetings, contact your local conservation district.]

Regulation of Feedlots and Dairy Farms— Iowa, Illinois and Oregon

EDITOR'S NOTE: Under 40 CFR 122.23, a federal NPDES permit is required for *concentrated animal feeding operations* (feedlots) with over 1,000 animal unit capacity operations. As states have been certified to take over and operate the NPDES program, they have treated the federal 1,000 animal unit threshold in different ways. *NEWS-NOTES* will, from time to time, briefly report on some of the ways that states are regulating concentrated animal feeding operations. This report deals with the states of Iowa, Illinois and Oregon.

IOWA
Iowa Feedlot Permit Program Directed at New Construction

The Iowa concentrated livestock feeding operations permit program is primarily directed at new construction.

Iowa's Department of Natural Resources (IDNR) is authorized by the code of Iowa to control water pollution, including pollution from animal feeding operations. Permits to operate are required of open feedlots of over 1000-animal-units (AU) capacity, as well as for other feedlots which meet U.S. EPA criteria under 40 CFR 122.23. Construction permits are required for those open feedlots having to obtain operation permits and for certain confined feeding operations. Old existing concentrated animal feedlots are inspected by IDNR when a complaint is filed.

For over-1000 AU feedlots, Iowa prohibits discharge of wastes except as a result of storms in excess of the 25-year, 24-hour storm. Iowa does allow feedlot operators to select between five runoff control alternatives, allowing an operator to reduce the frequency of waste disposal by providing additional capacity in waste control facilities.

For feedlots not having to obtain an operation permit from IDNR, the minimum required level of waste control is removal of settle-able solids prior to discharge of feedlot runoff into state waters. Additional control can be required of these feedlots if site investigation determines such control is needed to protect the state's surface or ground waters.

IDNR rules include comprehensive guidelines for land disposal of animal wastes. Topics covered in these guidelines include: waste application rates, disposal on frozen or snow-covered ground, disposal on land subject to flooding and on land adjacent to water-bodies, and disposal on steeply sloping ground.

Increase in Funding and Program Levels

IDNR reports an increase in funding for animal waste related programs from state and federal sources. Since 1990 funds have been available from the Iowa Department of Agriculture and Land Stewardship for water quality protection practices, including animal waste controls which solve existing problems in livestock operations.

Iowa is expanding its informational program to feedlot operators. Two informational publications are planned and the state has a number of water quality demonstration projects, many including animal waste management components. In 1990, 319(h) grant funds were received by IDNR to establish a network of animal waste demonstration projects. An additional staff person was added to head up this program. Currently in the initial stage, plans for the next two years are to establish animal waste management systems on 10 to 15 sites, which will be available for feedlot operators to view prior to constructing or modifying their own livestock waste control facilities.

Assistance Programs Available

Several types of assistance are available to help Iowa livestock producers comply with IDNR waste control requirements:

- Technical assistance is available from the Soil Conservation Service; feedlot operators may have registered private engineers design waste management facilities.
- The Agricultural Stabilization and Conservation Service may provide Agriculture Conservation Program (ACP) cost-share funds to assist feedlot operators, depending upon county programs and priorities.
- State cost-share funds are provided if a county soil and water conservation district has identified animal waste management as its priority for use of Water Quality Protection Practice funds.
- Iowa state law allows a property tax exemption for newly constructed waste controls.

[For more information contact: Ubbo Agena, Environmental Engineer, Department of Natural Resources, Water Quality Planning Section, Wallace State Office Bldg., Des Moines, IA 50319. Phone: (515)281-6402.]

ILLINOIS
All Polluting IL Feedlots Subject to Control

All livestock feedlots (regardless of size) that are causing water pollution, are subject to regulations administered by the Illinois Environmental Protection Agency (IEPA). In all open feedlots, the runoff of surface water must be controlled so that it will not cause water pollution. The IEPA is authorized to administer the large feedlot permit system as specified by NPDES criteria; these are the only permits issued to livestock operations. An additional requirement specifies that new livestock feeding facilities shall not be located within one-half mile of a populated area or within one-quarter mile of a non-farm residence. If located in a flood plain, any new livestock facility must be protected against a flood of the size expected not more often than once every 10 years. New facilities must be located or built so they will not cause a groundwater pollution hazard.

Role of IEPA's Regional Staff

IEPA has a central office staff involved in facility plan reviews, issuance of NPDES permits, and compliance and enforcement activities. Regional staff activities include site inspections and compliance and enforcement activities.

IEPA actively attempts to locate and deal with pollution problems from existing livestock operations. According to the 1989 IEPA annual report, more than 300 site inspections were made during the year. According to a 1990 survey report, IEPA was devoting about 5.7 employees per year to its animal waste control program. Officials estimate there are 50,000 animal feedlots in the state— mostly swine operations. An estimated 17,000 (or more) feedlots throughout the state are in need of some type of runoff control.

Small Feedlots May Use Vegetative Filters

Open feedlots of less than 300 AU capacity may use a vegetative filter infiltration system to control runoff liquids, if water pollution will not result. Otherwise, total runoff control is required. Waste discharge is allowed, as a result of precipitation in excess of the 25-year, 24-hour storm, from open feedlots meeting US EPA criteria, and from other feedlots required by IEPA to control both solid and liquid runoff. Feedlots subject to this discharge restriction are required to provide capacity in waste controls to retain 12 inches of runoff from earthen feedlot areas and 15 inches of runoff from concrete areas. IEPA requires that collected runoff be disposed of as needed to maintain adequate capacity to retain runoff from a 25-year, 24-hour storm. Liquid-manure storage facilities must provide at least 120 days of storage unless the operator has justifiable reasons to substantiate the claim that a smaller storage volume is sufficient.

Enforcement

The State Pollution Control Board sets standards for issuance of permits and authority for inspections; the board has adopted regulations which prohibit the deposit of any contaminants upon the land in such a manner as to create a water pollution hazard.

When an operator is cited for not complying with the water quality protection rules and regulations the case may be presented to the board. IEPA is represented by the state attorney general before the board.

IEPA also has the authority to force smaller operators, who usually do not require a NPDES permit, to apply for NPDES permit if they are causing water pollution. However, IEPA attempts to operate in the voluntary compliance mode.

Guidelines for Livestock Waste Application

Illinois has adopted specific guidelines for land disposal of animal wastes. The guidelines are contained in an IEPA technical policy statement. The basic policy is that applications of livestock waste should not result in quantities of applied nitrogen which exceed those that can be taken up by the growing crop.

Assistance to Feedlot Operators

Programs are available to help livestock producers comply with livestock waste control requirements, including:

- **Technical assistance**—Soil Conservation Service and Extension Service will assist in the design of animal waste control systems; alternative designs may be implemented if they provide equivalent levels of waste control.
- **Federal cost-share funds**—Agricultural Stabilization and Conservation Service (depending on county's programs and priorities).
- **Property tax exemptions**—IEPA and Illnois Department of Revenue cooperate in certifying animal waste control facilities.
- **Information and education on facility operation**—Extension Service.

[For more information contact: A.G. Taylor, Agriculture Advisor, Illinois EPA, 2200 Churchill Rd., P.O. Box 19276, Springfield, IL 62794-9276. Phone: (217)785-0830. FAX (217)524-4916.]

Regulation of Feedlots and Dairy Farms (continued)

OREGON

Oregon's Comprehensive General Feedlot Permit

Under Oregon's comprehensive general Water Pollution Control Facility (WPCF) permit, all animal production operations (including furriers and dog kennels), regardless of size, that have liquid manure handling systems and confine animals for more than four months must submit a notice of intent for coverage under the general permit. According to Oregon officials, a few individual permits have been issued for animal production operations, mostly those having special pollution problems requiring long term solutions. Oregon Department of Agriculture (ODA) also requires permits for construction and expansion of confined animal feeding operations. Oregon has EPA authority for managing the NPDES permit program.

Enforcement Actions Against Animal Operations

Oregon takes more enforcement actions against animal production operations than against any other single source of pollution, according to water quality authorities. In 1990, seventy-seven animal operations were investigated by ODA and the Soil and Water Conservation Districts (SWCD). Seventeen operators participated in Oregon's stipulated order process, in which violators voluntarily cooperate with ODA and the state Department of Environmental Quality (DEQ) to negotiate remedial actions including Best Management Practice (BMP) schedules. Civil penalties were adjudicated against two operations for a total of $6,000. So far in 1991, civil penalties have been adjudicated against four operations and assessed a total of $23,000.

Many Agencies Cooperating

Many state and local agencies are cooperating in the Oregon Concentrated Animal Feeding Operations (CAFO) program. The agencies and their responsibilities are as follows:

- **DEQ**—enforcement, maintenance of standards, rules and statutes.
- **Oregon State University Cooperative Extension Service**—education, research, and development.
- **Agricultural Stabilization and Conservation Service**—funds implementation. May be limited by involuntary compliance.
- **Soil Conservation Service**—provides technical assistance.
- **SWCD**—coordinates and provides assistance.
- **ODA**—provides overall coordination, permitting, plan review, investigations and resolutions and education.

[For more information contact: David Wilkenson, CAFO Project Coordinator, Natural Resources Division, Oregon Department of Agriculture, 635 Capital St., Salem, OR 97310-0110. Phone: (503)378-3810. FAX (503)378-5529.]

Notes on NPS Technology

F.Y.I.: NPS NEWS-NOTES Responds to an Inquiry on the Management of Nonpoint Sources from Individual Sewerage Systems

Richard Hart, of the *Sewerage & Water Management Commission of St. Tammany Parish*, Louisiana, recently used The Coupon to communicate with *NEWS-NOTES*, asking for information:

> *Recently created by the legislature, the Commission is very interested in issues and research regarding the determination, monitoring, effects, and control of nonpoint-source sewage runoff from poorly maintained community or individual sewerage systems. Thank you.*

Mr. Hart reminded us that St. Tammany Parish abuts Lake Pontchartrain, as reported in *NEWS-NOTES* #11 (March 1991). He indicated that this would give a better understanding of "our perspective on the problem."

Our reply was:

We have four references for you at this time:

- **I. Delaware County, Health Department (Ohio)** has conducted a citizens' awareness program in relation to on-site sewage disposal system maintenance needs and failures. A release on the project issued by the Ohio Environmental Protection Agency, made these comments:

  As a result of the project, the Board of Health adopted regulations to govern the inspection program and set fees for semi-public sewage systems. All sewage system installers must now attend one four-hour session on Household Sewage Disposal System Installation and Operation. New sewage regulations were adopted to include the Ohio Sanitary Code. These regulations were made more strict to reflect the realistic needs of the community.

  This work was initiated some five years ago. The County Health Department is, of course, still very much in the septic tank regulatory business. Samples of the materials they have produced, and answers to other questions can be provided by contacting Paul Rosile, Delaware County Health Department.

(**NOTE:** At the time this inquiry was answered, the Delaware County (Ohio) experience had not yet appeared in *NEWS-NOTES*. It is in this issue (#14) immediately following this article — including information on how to contact Paul Rosile.)

- **II. NEWS-NOTES #6, (July 1990) page 3** reports on the Pollution Control Fee System for Puget Sound developed by the state of Washington's Department of Ecology. This proposal, to be installed by the counties in the watershed, at their option and to fit their budgetary and other needs, calls for an annual "avoidable surcharge" of $75 on landowners with on-site septic systems. The surcharge would be avoided when septic systems are inspected and in good working order.

  [For more information contact: Bill Zachmann, State of Washington, Department of Ecology, Shorelands and Coastal Zone Management Program, Mail Stop PV-11, Olympia, WA 98504-8711. Phone: (206) 459-6515.]

- **III. NEWS-NOTES #8 (October 1980) page 10,** reports on the establishment by Jefferson County, Washington of a low-interest-rate loan program designed to encourage and assist residents to voluntarily identify and correct water quality problems on their property (largely, malfunctioning septic systems) with the technical and financial assistance of the county.

  The state of Washington provided the funds ($200,000) to set up the county program through a loan from the State Revolving Loan Fund (SRF) created under the provisions of the federal Water Quality Act of 1987 and state law. The county expects to pay the loan back to the state in ten years at an interest rate of four percent.

  [For more information on the Jefferson County Water Quality Improvement Fund contact: Teresa Barron, Jefferson County Planning and Building Department's Water Quality Program, County Courthouse, P.O. Box 1220, Port Townsend, WA 98368. Phone: (206) 385-9149. For more information on the State of Washington's SRF Program contact: Rosemary Walrod, Water Quality Financial Assistance Program, Department of Ecology (Mail Stop PV-11), Olympia, WA 98504-8711. Phone: (206) 459-6264.]

- **IV. NEWS-NOTES #12 (April-May 1991) page 17,** contains an article on an innovative procedure for *tracing on-site effluent from failing septic systems.*

  [For a copy of the procedure send a self-addressed stamped envelope to Thurston County Environmental Health Department, Atten: Linda Hofstad, 2000 Lakeridge Drive SW, Olympia, WA 98502.]

In each of these cases the person and the agency referenced have gone through the process of identifying the issues, have done research and are monitoring the effects and control of nonpoint-source sewage runoff from poorly maintained community or individual sewerage systems. Be sure to contact these resources with any questions you might have.

Best of luck as you proceed. We would be pleased to receive copies of any reports you issue on your progress along the way. Call, FAX or write if there is anything else you need help on.

We pass this inquiry-answer experience along to our readers to let you know how it works. If you have a question, use The Coupon.

[For more information contact: Richard Hart, Manager, Sewerage & Water Management Commission of St. Tammany Parish, P.O. Box 747, Covington, LA 70448. Phone: (504) 626-3500.]

A County Health Department Tackles On-site Sewage Disposal Systems

In 1985, Delaware County, Ohio began a multi-faceted program to address the problem of poorly maintained, faulty and poorly sited private residential sewage disposal systems. The county health department, assisted by the planning commission, Soil and Water Conservation District and Cooperative Extension Service worked with homeowners, system installers, plumbers and builders to promote proper installation and maintenance of on-site sewage systems.

In order to raise awareness about sewage disposal problems and solutions, the health department sent homeowners a newsletter and maintenance reminder postcard and updated the existing sewage system handbook. At the same time, seminars were held for professionals planning, installing and maintaining residential systems. Using a county-produced slide presentation, the seminars covered installation techniques and siting requirements.

As a result of the initial project, which cost $4,820 in EPA funds, the Board of Health adopted regulations that require an installer to attend a four-hour session on installation and operation of on-site sewage systems.

Since the project began, there has been a nineteen percent drop in the number of complaints related to sewage.

In 1991, as a result of the project's public information component, homeowners's awareness of sewage issues has increased and they feel that installation techniques have improved, according to Paul Rosile of the health department. While funding for the maintenance reminder program has run out, the newsletter continues to be published periodically and installer seminars held semi-annually. To date, the project has cost an estimated $30,000-50,000. Most of the money has come from local levy funding.

Although the ultimate goal is to connect homes to central sewage systems wherever possible, the project's current focus is on individual aeration systems, which discharge effluent into streams, rather than a leach field as septic systems do. Through a permitting system that annually inspects each of the county's approximately 1150 aeration systems, Rosile has found one-fifth to be substandard. In comparison, Rosile estimates that five to ten percent of the county's 7000 septic systems are faulty.

The Board of Health is currently using stream water quality data from EPA assessment projects to influence policy as to the number of aeration systems that will be permitted and where they may discharge. Said Rosile,

> *There are currently twelve streams which are impacted or impaired from on-site waste water treatment pollution, which the Board of Health gives serious consideration to when granting discharge permits for aeration systems. Scientifically-based policy decisions are an absolute necessity for managing environmental impacts in Ohio's fastest growing county. These decisions are especially important because Delaware County's surface water supplies a majority of the residents of two adjoining counties.*

[For more information, contact: Paul Rosile, R.S. Environmental Health Administrator, Delaware County Health Dept., 109 N. Sandusky St.,Delaware, OH 43015. Phone: (614) 368-1700.]

What's New on the Nonpoint Source Electronic Bulletin Board (BBS)

The Nonpoint Source Electronic Bulletin Board (NPS/BBS) What It's All About and How To Use It

The *NPS/BBS* is designed to provide state and local agencies, private organizations, businesses and concerned individuals with timely, relevant NPS information, a forum for open discussion, and the ability to exchange computer text and program files.

You can use the *NPS/BBS* to:

- Read, print or save to computer disk, current, NPS-related articles, reviews and fact sheets.
- Exchange computer data, including database files, electronic spreadsheets, word processor files, and software.
- Post your own articles and comments online for the benefit of others.
- Ask questions and conduct discussions directly with NPS experts.
- Exchange private letters with other users.

How to Access the NPS Computer Bulletin Board System (BBS)

To access the NPS/BBS, you will need a PC or terminal, telecommunications software (such as CrossTalk or ProComm), a modem (1200 or 2400 baud), and a phone line that will handle modem communications.

The NPS/BBS phone number is: 301/589-0205.

The telecommunication parameters are: no parity, 8 bits, and 1 stop-bit (N-8-1).

When you first access the BBS, you will be asked to register and create a password. Write this password down as you will need to use it every time you access the BBS.

For further assistance in accessing the *NPS/BBS* refer to your computer and modem user's manuals, and/or write to *NPS NEWS-NOTES* and ask for a copy of the *NPS/BBS* Users' Manual. (Use THE COUPON on page 23.)

The NPS/BBS Has a Variety of Features

Once you are registered on the system, you will have access to all the following features:

HELP *Help is available on the BBS at all times by selecting "Help" from the options menu.*

NEWS FLASHES *A screen or two of information that scrolls by when you first sign on or enter a conference. Read these for:*
- *— Announcements of upcoming conferences and workshops.*
- *— Promotion of new BBS services and files.*
- *— Timely tidbits from the states and regions.*
- *— Notes on new federal regulations and actions.*

BULLETINS *Visit the bulletin area to read, print, or transfer to a disk, text files such as:*
- *— Descriptions of the NPS/BBS and new user information.*
- *— Short articles on NPS-related topics.*
- *— Conference/workshop schedules.*
- *— Names and phone numbers of experts.*
- *— Chapters from the NPS/BBS user's manual.*

The Nonpoint Source Electronic Bulletin Board (NPS/BBS) (continued)

FILES *An area where text and program files are available for downloading (transferring to your computer). Visit this area to acquire larger text files and free software.*

MESSAGES *Use the message feature to post public announcements and inquires, to send private messages and files, or to ask questions of the BBS system operator (sysop).*

SIG'S *Special Interest Group areas dedicated to a specific topic that have all the features of the main BBS. An Agriculture SIG is open and operational. (See the note below.) Other areas of interest are being developed. Watch this space for announcements!*

DOORS *Doors serve as a gateway from the NPS/BBS software to some other piece of software without leaving the BBS. As the NPS/BBS develops, Doors will be added to allow full-text searches of long documents for specific references, key-word searches of databases, and other customized database and other software applications.*

THe NPS/BBS Will Succeed as a Vital Tool for the Exchange of NPS Information If You Use It!

You can take advantage of this new NPS Information Exchange service. Upload your reports, articles, and non-copyrighted software (no games). Engage in the public debate and discussion via the message system. Let the system operator know about improvements you would like to see. Tell your co-workers about the system.

Agriculture SIG is ONLINE

ANNOUNCING. . . . the grand opening of the first Special Interest Group area (SIG) on Agriculture.

The new SIG is the place to go to discuss and read up on Agricultural NPS issues. The moderator of the SIG is Daniel Bard from the Maryland Department of Agriculture. He is ready and waiting to answer your questions and provide whatever online support he can regarding your ag-NPS endeavors.

To visit the AG SIG, at the Main Board prompt, type "j" (for join) and press <ENTER>. **Then select "1" from the menu.**

A Correction

NEWS-NOTES inadvertently neglected to give credit to Edward F. Vitzthum as the co-author with Paul A. Brakhage of the article *Cleaning Up Our Water Quality Act, The Nonpoint Source Pollution Dilemma,* upon which we based our article *Nebraska Finds Nonpoint Sources Threatening 101 Recreational lakes,* that appeared in Issue #13, June 1991. We apologize for our oversight. Mr. Vitzthum is the Interim Director of Environmental Programs at the Institute of Agriculture and natural Resources, University of Nebraska–Lincoln.

Datebook

This DATEBOOK has been assembled with the cooperation of our readers and *Conservation Impact*, newsletter of the Conservation Technology Information Center (1220 Potter Drive, Room 170, West Lafayette, IN 47906-1334). If there is a meeting or event that you would like placed in the DATEBOOK, contact the NPS NEWS-NOTES editors. Due to an irregular printing schedule, notices should be in our hands at least two months in advance to ensure timely publication.

1991 Meetings and Events

August

1-2 *Remedial Approaches for Sites with Contaminated Sediments.* Allis Plaza, Kansas, MO. Contact: Barbara Morris, Conference Coordinator, EA Technology Group, PO Box 296, Dept EPA-06, Knoxville, TN 37901. Phone: (615) 688-0998 FAX: (615) 688-0999. Sponsored by EPA's Center for Environmental Research Information.

4-8 *The 46th Annual Meeting of the Soil and Water Conservation Society: Living with the Land,* Lexington, KY. Contact: Tony Vrana / Tim Kautza, 7515 NE Ankeny Rd., Ankeny, KY 50021-9764, USA. 515/289-2331. Focuses on use and management of the land according to its carrying capacity, highlighting present and potential conflicts of many human activities with the environment and offering ways to respond to these conflicts. The four sub-themes are: understanding the capacity of the land, strategies for intervention, the human dimension, and restoring the land.

4-9 *National Conference on Integrated Water Information Management.* Claridge Casino Hotel, Atlantic City, New Jersey. (800) 257-8585. Make hotel reservations for the National Integrated Water Information Conference, Multi-State Project, Virginia Tech. Contact: Karen Kelly Reay (703) 231-7348. Physical, chemical, biological and regulatory aspects of water management. Use and transfer of integrated water related information through enhancing cooperation among conference participants.

5-6 *Sewer System Infrastructure Analysis and Rehabilitation.* San Diego Marriott - La Jolla, La Jolla, CA. Registration Hotline (617) 648-7811. Or contact: Michelle Roden (617) 641-5346 or Susan Brager (617) 641-5347.The reserved block of rooms will be held until three weeks prior to each seminar. Latest available methods and technologies to evaluate, replace, repair or maintain municipal sewer systems.

6-7 *Suggested Practices for the Design and Installation of Groundwater Monitoring Wells.* The Palmer House, Chicago, IL. Contact: Elaine Brenner, Eastern Research Group, Inc., (617) 641-5334. Sponsored by The Center for Environmental Research Information (CERI). State-of-the-art technology and field-oriented practices will be emphasized. Design, construction, and installation of groundwater monitoring wells.

8-9 *Sewer System Infrastructure Analysis and Rehabilitation.* OmniRoyal Orleans, New Orleans, LA. See August 5-6 for details.

19-20 *Controlling Nonpoint Source Pollution in Maryland.* A 2-day conference for environmental professionals interested in agricultural and urban nonpoint source management alternatives. U. of Maryland at College Park. Cost: $40.00. Deadline: August 1. Contact: Dr. William Magette, Dept. of Ag. Engineering, College Park, MD 20742-5711. Phone: (301) 405-1198.

19-20 *Sewer System Infrastructure Analysis and Rehabilitation.* Meany Tower Hotel, Seattle, WA. See August 5-6 for details.

21-22 *Suggested Practices for the Design and Installation of Groundwater Monitoring Wells.* Worcester Marriott, Worcestor, MA. See August 6-7 for details.

August

22-23 *Sewer System Infrastructure Analysis and Rehabilitation.* Sir Francis Drake Hotel, San Francisco, CA. See August 5-6 for details.

September

4-6 *Environmental Stewardship for Water Quality, Research, and Applications.* Rockville, MD. Contact: Carole Ann Barth, CRIS, 6110 Executive Boulevard, Rockville, MD 20852. (301) 881-8678. A workshop for extension agents and others involved in public education in urban and residential areas. The workshop is organized around three themes: Stewardship in the Home, Landscape, and Community.

5-6 *Eighth Annual Fall Field Days.* The Thompson Farm, Boone, IA. Contact: Thompson Field Days, c/o Skip Kauffman, Rodale Institute, 222 Main St., Emmaus, PA 18098. Phone: (215) 683-6383. Or contact Thompson Farm, Rt. 2, Box 132, Boone, IA 50036. Phone (515) 432-1560. Demonstrations on rotational grazing, walk-through fly trap, raising your own cover crop, 7-year cash-grain rotation, farrow-to-finish hogs without antibiotics.

5-6 *EPA Training Workshop: Methods for Estimating NPS Contaminated Groundwater Discharge to Surface Water.* Embassy Suites Hotel-O'Hare. Rosemont, IL. Contact: ICF,Inc., 1 East Wacker Dr., Suite 2700, Chicago, IL 60601, Attn: Groundwater Training Workshop. Hotel reservation: Phone (708) 699-6300. For water quality managers and environmental planners. Introduction to low-resource methods for estimating movement of contaminants through groundwater to surface water: hydrograph separation and analytical groundwater flow estimates. No registration fee.

7-8 *Introduction to Geographic Information Systems (GIS) for Water Resources Applications.*Baton Rouge, LA. Contact: Michael C. Fink, AWRA Meetings Manager, 5410 Grosvenor Lane, Bethesda, MD 20814. (301) 493-8600. Designed for middle management/supervisory personnel.

8-13 *Water Management of River Systems & Resource Development of the Lower Mississippi River, 27th Annual AWRA Conference and Symposium. The Fairmont Hotel, New Orleans, LA 70140. Contact: American Water Resources Assoc., 5410 Grosvenor Lane, Bethesda, MD 20814-2192. (301) 493-8600.*

11-12 *Sixth Annual Groundwater Protection Seminar.* San Antonio Convention Center, TX. Contact: Texas Water Commission, Ground Water Section, PO Box 13087, Austin, Texas 78711. (512) 371-6319. Protecting groundwater supplies from contaminants. Wellhead protection, NPS contamination, local emergency spill response, and groundwater protection strategy.

11-13 *Water Systems Modernization Symposium for STORET, BIOS, ODES.* Sheraton Park Central, Dallas, TX. Sponsored by EPA, Office of Information Resources Management. Contact: Irv Weiss, U.S. EPA, ORIM PM-218B, 401 M St. SW, Washington DC, 20460. Phone: (202) 382-2324. Email EPA 3754. OR Sandra Gehring/Ken Green, ViGYAN, Inc., 5203 Leesburg Pike, Suite 900, Falls Church, VA 22041. Phone: (703) 931-1100. FAX (703) 820-4332.

12-13 *Suggested Practices for the Design and Installation of Groundwater Monitoring Wells.* Meany Tower Hotel, Seattle, WA. See August 6-7 for details.

15-18 *Integrating Geographic Information Systems and Environmental Monitoring,* Boulder, CO. Contact: GIS/Modeling Conf. Secretariat NCGIA, University of California, Santa Barbara, CA 93106. (805) 893-8224.

16-18 *Riparian Management Workshop.* Alex Johnson Hotel, Rapid City,SD. Contact: Angela Ehlers, SDACD, 116 N. Euclid, Pierre, SD 57501. Phone: (605) 224-0361. Sponsored by South Dakota Association of Conservation Districts. To provide interaction between local watershed managers, governmental agencies and experts in riparian management. Topics include: SD Perspectives on Riparian Management, Coordinated Resource Management, Grazing Systems for Watershed Management, Water Quality Impacts from Riparian Management, Uses of a Riparian Association, Designing Improvement Projects for Public Benefits. Field tour after workshop.

September

26-27 — *Nonpoint Source Water Quality Conference - Coalition Building for NPS Problem-Solving.* Utah's second annual NPS conference. Prospector Square Hotel, Park City, Utah. Make hotel reservations directly. From Salt Lake City call (801) 322-3123; From outside Utah: (800) 453-3812. Preregistration: $45 both days; Late registration: $60. For registration and program information call Jim Paraskeva (801) 538-7172.

October

1-3 — *Oceans 91: Ocean Technology for the Pacific in the 90s,* Honolulu, HI. Contact: High Tech Development Corp., Oceans 91, Leilehua Building, Mililani, HI 96789.

21-24 — *The International Wetlands Symposium,* Pensacola, FL. Contact: G.A. Moshiri / C.D. Martin, University of West Florida, 11000 University Parkway, Pensacola, FL 32514. (904) 474-2754. (904) 474-2052.

November

18-19 — *Sewer System Infrastructure Analysis and Rehabilitation.* The 57 Park Plaza Hotel, Boston, MA. See August 5-6 for details.

21-22 — *Sewer System Infrastructure Analysis and Rehabilitation.* Omni Tampa Hotel, Tampa, FL. See August 5-6 for details.

December

4-6 — *3RD Conference on Hydrology, Ecology, Monitoring and Management of Groundwater in Karst Terrains.* Nashville, TN. Contact: Karst Conference, Nat'l Well Water Assoc., P.O. Box 182039, Dept.017, Columbus, OH 43218. Phone: (614) 761-1711.

8-11 — *Coastal Depositional Systems in the Gulf of Mexico: Quaternary Framework and Environmental Issues,* Houston, TX. Contact: Shea Penland, LA Geological Survey, University Station, Baton Rouge, LA 70893. Issues covered might include coastal erosion and wetlands loss, global climate change impacts, sediment geochemistry and pollution, human impacts on coral reefs, oil spills.

1992

January

28-30 — *Montana Water Quality Conference.* Butte, Montana. To provide landowners, managers, educators, cooperators, and the general public with up-to-date water quality information. DATEBOOK will publish details as they become available.

Call for Papers

Deadlines 1991

August

9 — *3RD Conference on Hydrology, Ecology, Monitoring and Management of Groundwater in Karst Terrains.* Nashville, TN. Submitt abstract to: Karst Conference, Program Coordinator, Nat'l Well Water Assoc., 6375 Riverside Dr., Dublin, OH 43017. Topics include: Groundwater modeling and model validation, meiofauna dynamics of springs as indicators of aquifer behavior, interpretation of trends in groundwater quality, land use planning, potential or existing pollution due to urbanization. . . . Deadline for abstracts: Aug 9, 1991.

September

2 — *International Conference on Groundwater Ecology.* Tampa, FL. April 27-29, 1992. Contact: John Simons, U.S. EPA, Groundwater Protection Division, WH550G, 401 M St., SW, Washington, DC 20460. Phone: (202) 382-7091.Topics include basic research needs related to groundwater ecology, effects of pollutants on groundwater organisms, biomonitoring using groundwater organisms, watershed planning considerations, bioremediation of contaminated groundwater. . . . Deadline: September 2, 1991.

The Coupon

Nonpoint Source Information Exchange Coupon #14

(Clip or Photocopy and Mail or FAX this coupon to us)

Our Mailing Address: **NPS News-Notes (WH-553),** Assessment and Watershed Protection Division U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460

Our Fax Number: **NPS News-Notes,** (202) 755-2517

Use this Coupon to: (check one or more)

- ☐ *Share your success story, OR*
- ☐ *Ask for Information, OR*
- ☐ *Make a suggestion*

Write your story, ask your question, or make your suggestions here:
Attach additional pages if necessary.

- ☐ *I need the NPS/BBS Users' Manual. Please send me a copy.*
- ☐ *Please add my name to the mailing list to receive News-Notes.*

Your Name: _____

Organization: _____

Address: _____

City/State _____ **Zip:** _____

Phone: _____ **Fax:** _____

Nonpoint Source NEWS-NOTES is an occasional bulletin dealing with the condition of the environment and the control of nonpoint sources of water pollution. NPS pollution comes from many diffuse sources and is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and manmade pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters. NPS pollution is normally associated with agricultural, silvicultural, mining and urban runoff.

NPS NEWS-NOTES, is published under the authority of section 319(l) of the Clean Water Act by the Nonpoint Source Information Exchange, (WH-553), Assessment and Watershed Protection Division, Office of Wetlands, Oceans and Watersheds, Office of Water, U.S. Environmental Protection Agency, 401 M St. SW, Washington DC 20460. FAX # (FTS/202) 755-2517. Hal Wise, Editor; Elaine Bloom, Associate Editor. Corresponding Editors: Margherita Pryor, Oceans and Coastal Protection Division, OWOW and John Reeder, Office of Ground Water and Drinking Water. For inquiries on editorial matters call (FTS/202) 245-3665. Produced and distributed by The Terrene Institute under EPA grant # X-817133.

Moving?
Send present mailing label and new address including zip code to:

NPS NEWS-NOTES (WH-553)
Nonpoint Source Information Exchange
Assessment and Watershed Protection Division
Office of Wetlands, Oceans and Watersheds
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

First Class
U.S. Postage
PAID
Permit No. 328
Merrifield, VA

Printed on recycled paper