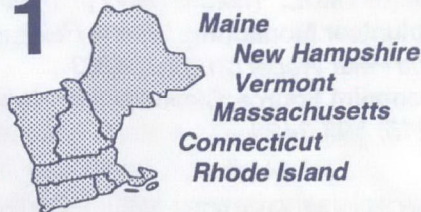


# EPA The Water Monitor

## REGIONAL AND STATE ACTIVITIES

### Region 1



#### Regional Coordinators

**Monitoring, 305(b), Volunteer Monitoring:** Diane Switzer (617) 860-4377

**Waterbody System:** Al Pratt (617) 860-4379

**303(d)/TMDL:** Mark Voorhees (617) 565-4173

**Nonpoint Source:** Bob Moorehouse (617) 565-3513

**Clean Lakes:** Warren Howard (617) 565-3515

**REGIONAL OFFICE: Resource Protection Project Underway:** EPA's Region 1 is working with the state of New Hampshire and a number of other organizations in implementing a Resource Protection Project. The overall goal is to protect New England's most important natural resources, starting with those in New Hampshire. Specific measurable environmental goals will be developed once the priority resources are selected and the measures needed to protect or restore them are identified.

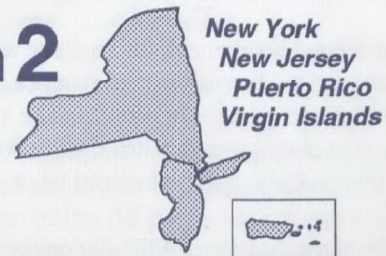
A workgroup in New Hampshire has been working for the last 6 months to identify priority resources in the state by pooling information from a wide spectrum of programs and interests. Important habitats, water supplies, flood storage areas, agricultural and forestry areas, and recre-

ational areas are being considered. The workgroup will examine connections, overlaps and potential conflicts between the resource areas and, once specific areas are selected, will hold meetings with local interest groups to discuss appropriate protection measures. The workgroup is using a geographic information system to screen and display existing data.

The project is being well received in New Hampshire, largely because of its collaborative nature, its use of existing information, and its focus on natural resource protection and restoration. Connecticut and Rhode Island have enthusiastically agreed to participate in the project next year.

For more information, contact Rosemary Monahan, EPA Region 1, at (617) 565-3518 or Katherine Ueland, New England Interstate Water Pollution Control Commission, at (508) 658-0500.

### Region 2



#### Regional Coordinators

**Monitoring:** Randy Braun (908) 321-6692

**305(b), Waterbody System:** Rick Balla (212) 264-5671

**Volunteer Monitoring:** Diane Calesso (908) 321-6728

**303(d)/TMDL:** Rosella O'Connor (212) 264-8479

**Nonpoint Source:** Barbara Spinweber (212) 264-8632

**Clean Lakes:** Terry Faber (212) 264-8708

**REGIONAL OFFICE: Discovery Program Apprenticeships:** For the eighth consecutive year, Region 2's Environmental Services Division (ESD) participated in the Discovery Program, a precollege academic enrichment and apprenticeship program in science and technology lasting 5 weeks during the summer. Minority high school students with demonstrated academic promise and an interest in the sciences participate in the program, which is sponsored

#### What's Inside . . .

On the Bookshelf.....p.	3
Headquarters Activities.....p.	8
Calendar Highlights.....p.	10
Order and Comment Form.....p.	11



jointly by EPA and Rutgers University. It provides the students academic enrichment and "hands on" experience in the Region's summer ambient monitoring programs and in the laboratory. The program is a unique and exciting opportunity for the students to gain insight and exposure to college life, college education, and careers in the sciences. The student apprentices participate in an actual work experience 2 days a week for 5 weeks.

Eight students were paired and spent time working in three different areas. In their first rotation, students collected ocean water samples for fecal coliform, enterococci bacteria, and phytoplankton analyses and collected sediment samples in the NY/NJ Harbor for toxicity testing, benthic macroinvertebrate identification, and chemical analyses. The



students were responsible for maintaining records, navigating to the proper sampling locations, and reading all safety manuals and operating procedures associated with the

EPA vessel *Clean Waters* and use of the EPA helicopter.

In their second assignment, the students were responsible for analyzing the bacteriological samples collected by their fellow students from the helicopter. The students prepared media, read plates, incorporated quality control into laboratory analysis, and maintained laboratory notebooks.

Last, the students assisted ESD biologists in conducting rapid bioassessments and electro-fishing surveys. The students were taught how to determine water quality differences by comparing upstream and downstream sampling sites. They participated in an actual macroinvertebrate population and fish population study at the FAA Tech Center in Pomona, New Jersey. For more information, contact Helen Grebe at (908) 321-6797.

**The Water Monitor** is produced monthly to exchange surface water assessment information among states and other interested parties. If you would like more information or want to be added to the mailing list, please fill out the order and comment form on page 11.

## Region 3



Delaware  
Pennsylvania  
Maryland  
Virginia  
West Virginia

### Regional Coordinators

**Monitoring, 305(b), Waterbody System:** *Chuck Kanetsky*  
(215) 597-8176

**303(d)/TMDL:** *Thomas Henry* (215) 597-9927

**Volunteer Monitoring:** *Teena Reichgott* (215) 597-3364  
and *Peter Weber* (215) 597-4283

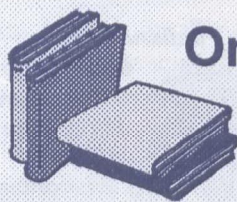
**Nonpoint Source, Clean Lakes:** *Hank Zygmunt*  
(215) 597-3429

**REGIONAL OFFICE: Volunteer Ground Water Monitoring:** On August 3, 1994, members of EPA Region 3's Ground Water Protection Section, the U.S. Geological Survey (USGS), and state ground water coordinators joined in a ground water workshop and monitoring effort for 20 interested citizens of the Crum/Ridley Volunteer Water Monitoring Program. Ground water data were collected at five sites at Tyler Arboretum, from a drinking water well, a springhouse, and along a creek. Using their own equipment, the USGS representatives demonstrated ground water discharge to surface water; citizens used their field kits to demonstrate the occurrence of high levels of nitrates in shallow ground water. For more information, contact Peter Weber at (215) 597-4283.

**MARYLAND: Maryland Surface Water Pesticide Monitoring Project:** The Maryland Department of the Environment (MDE) conducted a pilot pesticide monitoring project during calendar year 1992. MDE monitored surface waters from three regions of the State for the presence of 14 agricultural pesticides—alachlor, aldrin, atrazine, carbofuran, chlordane, chlorpyrifos, cyanazine, dieldrin, diflubenzuron, fenvalerate, metolachlor, permethrin, simazine, and toxaphene. Aldrin, chlordane, dieldrin, fenvalerate, permethrin, and toxaphene were not detected in any samples. Samples collected at each of ten stations contained detectable levels of at least one of the other pesticides. Pesticide levels observed throughout 1992 did not suggest any impact to human health and were below levels which have been reported as deleterious to aquatic animals and plants.

For a copy of the report, "Pilot Monitoring for 14 Pesticides in Maryland Surface Waters," contact USEPA Chesapeake Bay Program Office at (800) 968-7229.





## On the Bookshelf . . .

***How to Save A River***, by David Bolling. This book, subtitled *A Handbook for Citizen Action*, defines general principles for developing a river protection campaign, including getting organized, planning a campaign, building public support, and putting a plan into action. Examples of successful river protection campaigns are included. Paperback copies are available for \$14.00 plus \$4.00 shipping and handling from River Network, P.O. Box 8787, Portland, OR 97207-8787, (800) 423-6747.

***National Estuary Program: Bringing Our Estuaries New Life***, EPA 842-F-93-002. This full-color, fold-out brochure highlights water quality protection activities underway in the 21 estuaries participating in the National Estuary Program (NEP). It also includes information on the importance of estuaries and contact names for each NEP. For a copy, contact NCEPI, 11029 Kenwood Rd, Bldg 5, Cincinnati, OH 45242, FAX (513) 891-6685. Be sure to include the EPA publication number in your order.

***Statistical Methods for the Analysis of Lake Water Quality Trends***, EPA 841-R-93-003. This technical supplement to the *Lake and Reservoir Restoration Guidance Manual* presents nonparametric statistical methods for trend assessment in water

quality, with an emphasis on lakes. The purpose of the manual is to provide lake program managers with guidance on the application and interpretation of methods for the detection of trends in lake water quality. The manual comes with accompanying software in the Statistical Analysis System (SAS) and includes references for additional information on descriptive statistics. To order a copy, contact NCEPI, 11029 Kenwood Road, Bldg. 5, Cincinnati, OH 45242, FAX (513) 891-6685. Be sure to include the EPA publication number in your order.

***The Volunteer Monitor***, Spring 1994. This issue, entitled *Volunteer Monitoring: Past, Present, and Future*, provides a wide-ranging overview of the volunteer monitoring movement. Included in the 24-page newsletter is a profile of volunteer monitoring programs, derived from statistics from the *National Directory of Volunteer Environmental Monitoring Programs*; information on the variety of parameters sampled by volunteers and on programs that have gone beyond simple water quality monitoring to engage in activities such as riparian habitat inventories, amphibian surveys, and well testing; examples of how volunteer monitoring data are used; a history of the volunteer monitoring movement; and an in-depth article on monitoring for phosphorus. For a copy, contact Alice Mayo at USEPA, AWPD (4503F), 401 M St. SW, Washington, DC 20460, (202) 260-7018.



## Region 4



### Regional Coordinators

**Monitoring, Volunteer Monitoring, 305(b), Waterbody System:** *David Melgaard (404) 347-2126*

**303(d)/TMDL:** *Jim Greenfield (404) 347-2126*

**Nonpoint Source:** *Mary Ann Gerber (404) 347-2126*

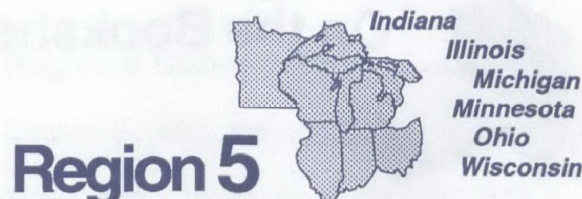
**Clean Lakes:** *Howard Marshall (404) 347-2126*

**REGIONAL OFFICE: Nepal Government Representative Serving Fellowship in Region 4:** Dr. Jiwan Shrestha, a member of the Nepal Government's Environment Protection Council and the first woman in Nepal to obtain a Ph.D. in zoology, is serving a 30-day Environmental Fellowship in Region 4, studying EPA inland water monitoring programs with emphasis on wetlands and aquatic ecosystems.

The Environmental Fellowship Program is funded by the United States-Asia Environmental Partnership. Dr. Shrestha is scheduled to participate in various wetland planning and regulatory activities and visit the ESD/ORD laboratories in Athens, Georgia; the Wetlands Center at the University of Florida; the Tennessee Valley Authority; and the Nashville District of the Corps of Engineers. For more information, contact Tom Welborn at (404) 347-3555, extension 6507.

**GEORGIA: Joint NAWQA/Georgia Adopt-A-Stream Volunteer Monitoring Project:** Georgia Adopt-A-Stream is working with the U.S. Geological Survey's National Water Assessment (NAWQA) project to evaluate the quality of volunteer biological monitoring data. Four teams of volunteers (about 16 people) are conducting biological assessments of streams in the metro Atlanta area. USGS is providing training and equipment for volunteers, while Georgia Adopt-A-Stream is coordinating volunteers, logistics, and data management. This project is one of the first in the country to study how volunteers can contribute to the NAWQA program. NAWQA is a long-term effort to gather water quality information in 20 different basins around the country. The project hypothesis is that volunteers can collect credible information about macroinvertebrate communities, although at a more general level than professional ecologists. The NAWQA team and volunteers will sample the same stream sites; however, the volunteers will collect data more frequently than the

professionals (every 2 months). The two sets of data will be compared and results submitted to the national NAWQA office, Georgia Adopt-A-Stream and participating volunteers. For more information, contact Laurie Hawks, Adopt-A-Stream, at (404) 656-4988.



## Region 5

### Regional Coordinators

**Monitoring, 305(b):** *Dave Stoltenberg (312) 353-5784*

**303(d)/TMDL:** *Robert Pepin (312) 886-1505*

**Waterbody System:** *Fouad Dababneh (312) 353-3944*

**Volunteer Monitoring:** *Clyde Marion (312) 353-5966*

**Nonpoint Source, Clean Lakes:** *Tom Davenport (312) 886-0209*

**REGIONAL OFFICE: Saginaw Bay Initiative:** The Regional Environmental Sciences Division has completed its final report to the Water Division in support of the Saginaw Bay (Michigan) Initiative. The report included trends, annual loading estimates, and annual means analyses for selected parameters in tributaries going into the Saginaw Bay. For more information, contact Fouad Dababneh of USEPA at (312) 353-3944.

**Lake Michigan Mass Balance Study:** The Great Lakes National Program Office (GLNPO) is beginning a mass balance study of Lake Michigan. By monitoring loads from rivers and the air, GLNPO and the other agencies with whom it is working will determine the importance of each of those sources to the total amount of a pollutant entering the lake. The information gathered will be used in a mathematical model of the Lake Michigan ecosystem. This model will allow scientists and environmental managers to determine what effects reduction in pollutant load will have on the lake and, in particular, on contaminant levels in the fish tissues of top predators.

Participants in the study will take samples from rivers during snowmelt and heavy rains, when most pollutants are washed into the lake. Pollutants from the air will be measured from ships and at land-based sampling sites. EPA's research ship, the *Lake Guardian*, and National Biological Survey's fish trawlers also will take samples to determine concentrations of pollutants in the lake water and in plants and animals in the lake.

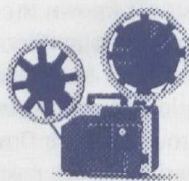


Other studies will be conducted to determine what large urban areas contribute to the lake through the air, the transport of pollutants within the lake, and their movement and concentration through the food chain. Lake sediment will be sampled extensively to determine the total amount of pollutants in the mud that could be cycled back into the lake. Smaller studies will be conducted that will provide remote sensing (satellite image) information to determine where pollutants go and the effects of lake ecology on the concentration of contaminants in fish.

The mass balance study will involve several EPA Region 5 offices as well as personnel from the Michigan and Wisconsin Departments of Natural Resources, state agencies in Illinois and Indiana, U.S. Geological Survey, National Biological Survey, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, and universities.

The mass balance program and workplan are part of a larger monitoring program for Lake Michigan designed to address reduction in the release of toxic substances to the Great Lakes system. These activities are part of the Lakewide Management Plan for the lakes that is mandated under Section 118 of the Clean Water Act as well as Annex 2 of the Great Lakes Water Quality Agreement, and a study for the Great Waters Program mandated by the 1992 Clean Air Act Amendments. For more information, contact Paul Horvatin, GLNPO, (312) 353-3612, or Dr. Glenn Warren, Chief, Surveillance & Research Branch, (312) 886-2405.

**WISCONSIN:** Wisconsin DNR Filmed for TV's "48 Hours": Staff from the Wisconsin Department of Natural Resources were recently filmed by a CBS camera crew for the TV news program "48 Hours." The segment dealt with contamination of the Milwaukee water supply by *Cryptosporidium* protozoa and covered sampling methods, analysis, and safeguards for the public. For additional information, contact Marilyn Jupp of USEPA at (312) 353-5882.



## Region 6



Arkansas  
Louisiana  
Oklahoma  
Texas  
New Mexico

### Regional Coordinators

**Monitoring:** *Charlie Howell (214) 665-8354*

**303(d)/TMDL:** *Troy Hill (214) 665-6647*

**305(b):** *Russell Nelson (214) 665-6646*

**Waterbody System:** *Paul Koska (214) 665-8357*

**Volunteer Monitoring:** *Mike Bira (214) 665-6668 and Paul Koska (214) 665-8357*

**Nonpoint Source:** *Brad Lamb (214) 665-7140*

**Clean Lakes:** *Mike Bira (214) 665-6668*

**REGIONAL OFFICE: Grand River Basin Study:** In FY93, EPA Region 6 received a congressional appropriation of \$400,000 for a study of the Grand River Basin. This basin, primarily in Kansas, also includes the states of Oklahoma, Missouri, and Arkansas. EPA awarded these funds to the state of Oklahoma through a 104(b)(3) grant to coordinate the project. The first phase of the study, almost completed, uses currently available data sources to identify areas of the basin that have the greatest impacts on water quality. The second phase will identify specific problem areas, develop a management plan for the basin, and develop TMDLs for nutrients.

This study was conceptualized after completion of a Clean Lakes Program Phase 1 Study on Grand Lake of the Cherokees, an impoundment on the Grand River in the northeast corner of Oklahoma. The success of the project to date can be attributed to the cooperation of the four states and two EPA Regions in the basin.

For more information, contact John Hassell of the Oklahoma Conservation Commission at (405) 521-2384, or Mike Bira, EPA Region 6, at (214) 665-6668.





## Region 7



Iowa  
Nebraska  
Kansas  
Missouri

### Regional Coordinators

**Monitoring:** Jerry Anderson (913) 551-5066  
**305(b), 303(d)/TMDL:** John Houlihan (913) 551-7432  
**Waterbody System:** Jerome Pitt (913) 551-7766  
**Volunteer Monitoring:** Jerome Pitt (913) 551-7766  
**Nonpoint Source:** Julie Elfving (913) 551-7475  
**Clean Lakes:** Larry Sheridan (913) 551-7439

**REGIONAL OFFICE: Environmental Monitoring and Compliance (EMCM) Branch Streamlining Pilot:** Region 7's EMCM Branch is participating in the Environmental Services Division's streamlining pilot to be conducted for 6 months from August 1, 1994, to January 31, 1995. Streamlining objectives include reducing the employee-to-supervisor ratio, empowering employees, improving customer/client relationships, and implementing the seven elements of the Administrator's strategy (reinventing EPA management, strong science and data, compliance assurance, partnerships, ecosystem protection, environmental justice, and pollution prevention).

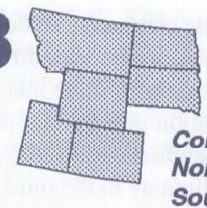
EMCM will accomplish these objectives by serving as a focal point for the Office of Enforcement and Compliance Activities (OECA) coordination and communication within the Environmental Services Division and by realigning the staff into two sections: Environmental Monitoring and Assessment, and Compliance Assurance.

A significant benefit of the streamlined Branch organization should be enhanced communication and coordination with program division counterparts in the Office of Enforcement and Compliance Activities. For more information, contact John Helvig at (913) 551-5002.

#### KANSAS: Volunteer Monitoring Workshops

The Pure Water for Kansas Program has completed training in the first series of workshops for volunteer stream monitors in Kansas. Representatives from EPA attended the last workshop, held in Lawrence, Kansas. Another series of workshops will be scheduled soon, based on popular demand. For more information, contact Jerry Pitt at (913) 551-7766.

## Region 8



Montana  
Utah  
Wyoming  
Colorado  
North Dakota  
South Dakota

### Regional Coordinators

**Monitoring, 305(b):** Phil Johnson (303) 293-1581  
**303(d)/TMDL:** Bruce Zander (303) 293-1580  
**Waterbody System:** Toney Ott (303) 293-1573  
**Volunteer Monitoring:** Paul McIver (303) 293-1552 and Phil Johnson (303) 293-1573  
**Nonpoint Source/Clean Lakes:** Dave Rathke (303) 293-1703

**COLORADO: South Platte River Dissolved Oxygen Study:** The South Platte River is one of the three major streams flowing onto the plains of Colorado east of the Rocky Mountains. The river flows through the Denver metropolitan area, then north of the city where it is surrounded by largely agricultural and small community land use. Below Denver, the Metro Wastewater Reclamation District Sewage Treatment Plant (Metro) treats most of the urban sewage, discharging between approximately 100 and 300 cfs on a daily cycle. This discharge constitutes the river's flow for most months of the year. In this section the river is low-gradient, 100-150 feet wide, with a bottom ranging from sand to small cobble and silty sands in the quieter waters of pools and backwaters. Approximately 26 fish species are known to occur, a large number for Colorado. A number of irrigation diversions take out water, and there is substantial groundwater inflow along with several smaller tributaries. In the past, urban runoff, poorly treated sewage, packing plant waste, and sugar beet waste have been major contributors to the decline of the biological integrity of this river. In recent years, Metro has controlled chlorine toxicity and substantially reduced the amount of ammonia and biochemical oxygen demand (BOD) entering the river.



However, field studies continued to reveal low dissolved oxygen (DO) values (to below 2 mg/L) at several locations downstream of the Denver Metro discharge. Low DO values were generally associated with pooled areas of the stream and occurred during late summer and fall, particularly during early morning. Metro set up a working advisory committee with EPA, Colorado Department of



Health, Colorado Division of Wildlife, and other interested representatives. As part of this effort, the Region has been cooperatively working with Denver Metro in designing and implementing studies necessary to determine site-specific DO standards in the South Platte River for a 26-mile segment below Denver.

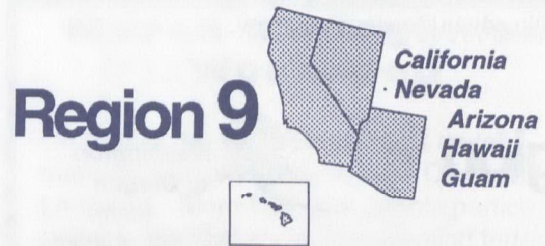
Denver Metro has authorized \$2 million of studies to assess the problem. A major sampling, modeling, and design effort has been underway for 2 years to understand the oxygen dynamics and their causes. These studies—along with field biological studies and laboratory tests for effects of cyclical variation of DO on mortality, growth, and behavior—are expected to lead to site-specific DO standards for the river segment, including specific in-stream compliance points that will address instantaneous, 7-day mean minimum, 7-day mean, and 30-day mean criteria. Major physical/chemical results to date have shown that benthic oxygen demand is a major contributor to low DO, that the 24-hour variation in discharge flows (100 to 300 cfs) may have a significant effect on DO levels and the biological community, that ground water is virtually stripped of oxygen as it moves through the sediments into the river, and that nighttime DO values may go below 1 mg/L during critical periods in late summer and fall. Major biological results to date have shown that juveniles and adults of most fish species tested survived 7 days of cyclical 24-hour exposure to DO concentrations from 7 to 2 mg/L. Larval mortality and growth tests remain to be completed.

Metro is performing a thorough analysis of alternatives of how best to improve DO in the Platte. In addition to traditional alternatives like improvements at the treatment plant, Metro is investigating alternatives such as ambient flow equalization and in-stream modifications, including stream habitat constraints and opportunities for enhancement, to increase the DO levels at critical points in the stream.

For more information, contact Bob Erickson at (303) 293-1566 or Bruce Zander at (303) 293-1580.

**MONTANA: Clark Fork River TMDL:** The State of Montana has embarked on an effort to define Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus for the Clark Fork River watershed. This TMDL will address the stream eutrophication problems that are occurring at several points in the watershed. The TMDL will use a phased approach, with the first step being to define what level of enrichment is acceptable for the Clark Fork. Controls on point and nonpoint sources are being considered. In addition, coordination with the downstream states of Idaho and Washington is being

performed through a tri-state committee. For information, contact Bruce Zander at (303) 293-1580.



## Regional Coordinators

**Monitoring, 305(b):** Ed Liu (415) 744-1934

**Waterbody System:** Janet Hashimoto (415) 744-1156

**303(d)/TMDL:** David Smith (415) 744-2019

**Volunteer Monitoring:** Clarice Olson (415) 744-1489 and Janet Hashimoto (415) 744-1156

**Nonpoint Source:** Jovita E. Pajarillo (415) 744-2011

**Clean Lakes:** Wendell Smith (415) 744-2018

### REGIONAL OFFICE: Nonpoint Source Watershed

**Conference:** On July 26-28, the EPA Region 9 nonpoint source program convened a conference focusing on watershed protection for the states of California, Arizona, Nevada, Hawaii, and the Region 9 Indian tribes and Pacific Islands. Over 350 persons registered for the meeting, including representatives from federal resource and regulatory agencies, state agencies, nongovernment organizations, and private citizens. A significant group of participants represented Rural Conservation Districts, groups of private agricultural landowners that have been organized by the U.S. Department of Agriculture's Soil Conservation Service for environmental protection along watershed lines for over 20 years. The Region 9 meeting bridged the gap between regulators and the citizens who owned and were responsible for the land on the watershed.

More than 110 presentations were given at the meeting. Watershed restoration emerged as a major theme in the conference, and it also became clear that biological monitoring plays an important role in restoration projects. Biological monitoring can provide a sensitive measure of biological integrity as watershed practices are changed or structural improvements are installed on the land.

Some examples of watershed improvement projects where monitoring played a role either in planning or in measuring success include Klamath River Basin, CA; Tomki Creek, CA; Truckee River, NV; Yavapai Ranch, AZ; Napa River, CA; Garcia River, CA; Coyote Creek, CA; and Wildcat Creek, CA.



Contact Jovita Pajarillo at (415) 744-2011 for more information on the Region 9 nonpoint source watershed conference. For details of monitoring activities presented at the conference, contact Ed Liu at (415) 744-1934 or on Email at liu.edwin@epamail.epa.gov.

## Region 10



### Regional Coordinators

**Monitoring, Waterbody System:** *Gretchen Hayslip*  
(206) 553-1685

**305(b):** *Donna Walsh* (206) 553-1754

**303(d)/TMDL:** *Bruce Cleland* (206) 553-2600

**Volunteer Monitoring:** *Susan Handley* (206) 553-1287

**Nonpoint Source:** *Elbert Moore* (206) 553-4181

**Clean Lakes:** *Krista Mendelman* (206) 553-1571

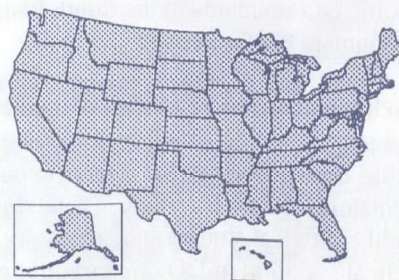
### WASHINGTON: Biological Monitoring Protocol

**Developed:** The Washington State Department of Ecology (Ecology) has completed a monitoring protocol titled "Instream Biological Assessment Monitoring Protocols: Benthic Macroinvertebrates" that focuses on the use of benthic macroinvertebrates as environmental indicators. The development and implementation of this protocol is a continuation of the original pilot study conducted by Ecology in 1991.

Modifications to the earlier biological assessment work are incorporated into this more recent protocol. A multihabitat sampling approach (riffles and pools) is used to describe each stream reach. Subsamples from macroinvertebrate field collections incorporate a 300-count sorting procedure. Habitat assessment methods are focused on stream bottom areas where benthic samples are collected.

A compendium of results from the summer of 1993 field collections will follow this protocol manual. Analytical results of the biological and physical information will address the validity of regionalization strategies; stream size effects; reference versus degraded conditions; and the ability of biologists to visually identify the severity of biological degradation at a stream site. Ecology will generate information describing expected regional conditions, as well as watershed-specific conditions. For more information, contact Rob Plotnikoff at (206) 407-6687.

## HEADQUARTERS ACTIVITIES

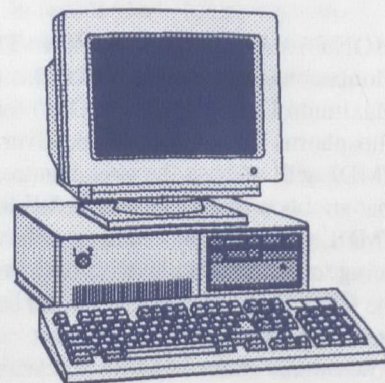


### OFFICE OF WETLANDS, OCEANS AND WATERSHEDS (OWOW)

#### *Assessment and Watershed Protection Division (AWPD)*

**Soil and Water Conservation Society of America (SWCS) Conference:** AWPD staff participated in a roundtable discussion on the middle ground between volunteerism and regulations at the SWCS annual meeting in Norfolk, Virginia, on August 8-9. Recurring themes during the roundtable discussion were (1) volunteerism and regulations as tools in the continuum of addressing environmental problems; (2) watershed approach concepts of prioritization and targeting, setting specific environmental goals, involving stakeholders in collecting data to get buy-in and create peer pressure for action, education and outreach, dialogue, and partnerships; and (3) sustainable community development. For more information, contact Donna Sefton at (202) 260-7105.

**Water Systems Modernization:** EPA is in the 4th year of the 7-year project to modernize STORET (EPA's National Water STOrage and RETrieval System), BIOS (the BIOlogical component of the STORET System), ODES (Ocean Data Evaluation System), and WQAS (Water Quality Analysis System). The first of three prototypes that will form the entire system will be available on October 1, 1994. This prototype, called "Maintain Site," will be demonstrated at the 3rd





Modernization Workshop, scheduled for February 7-9, 1995, in Dallas. (A flyer announcing the workshop is being distributed.) The "Maintain Site" prototype contains information about sampling site location and is equivalent to the station header information of the current STORET system. The other two prototypes will be "Organization/Project Surveys" and "Sampling/Results." At the completion of all three of these prototypes (scheduled for April 1996), the system will be complete and migration of the parametric data from the current system to the modernized system can begin.

Among other studies underway is a determination of which analytical tools should be an integral part of the data base. An information packet on this "Tool Kit" is being sent to all STORET users for information and comment. The other study underway is to determine whether the present parameter codes can be eliminated. A detailed information and comment packet on this issue is also being sent to all STORET users. Each of these developments and studies will be highlighted in future issues of the *Water Monitor*. For more information, contact Phil Lindenstruth, U.S. EPA, at (202) 260-6549 or (800) 424-9067.

### **Oceans and Coastal Protection Division (OCPD)**

**Final Rule Released on Section 301(h):** On July 14, the Administrator signed the final rule which will affect 45 applicants and permittees with waivers from secondary treatment requirements under section 301(h) of the Clean Water Act. The affected publicly-owned treatment works (POTWs) are located in coastal communities in California, Maine, Massachusetts, New Hampshire, Alaska, Hawaii, Puerto Rico, the Virgin Islands, and the U.S. Pacific Trust Territories. Under section 301(h), the POTWs must meet strict environmental requirements to obtain a waiver. The new regulations strengthen requirements and, among other things:

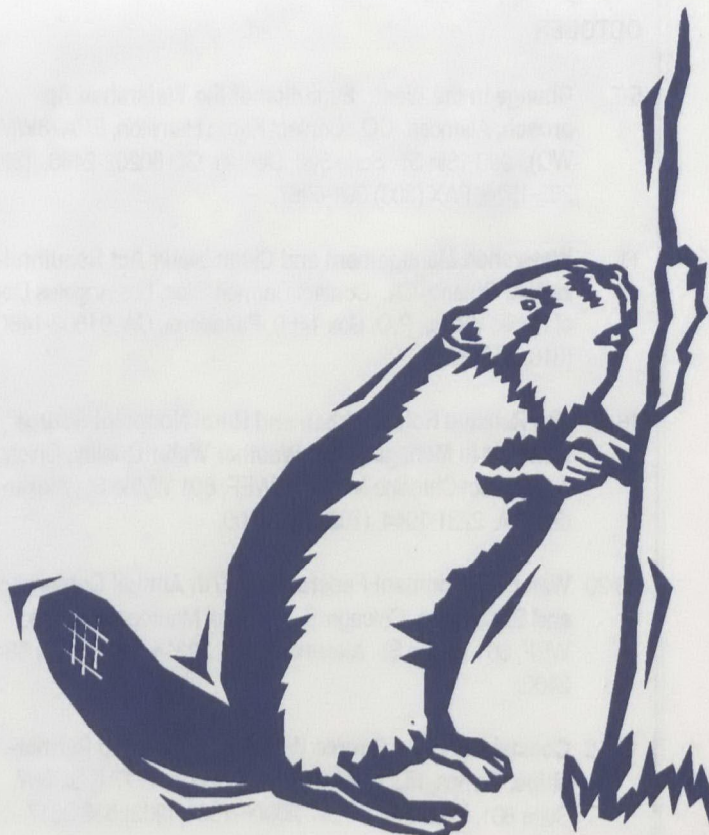
- require POTWs to achieve a minimum of primary treatment,
- increase industrial pretreatment requirements for POTWs serving urban areas to further reduce the levels of toxic pollutants in treated wastewaters, and
- meet the water quality criteria established under section 304(a)(1) of the Clean Water Act.

These regulations provide added protection for marine waters into which the applicants discharge. For more information, contact Deborah Lebow at (202) 260-6419.

### **Wetlands Division**

#### **Marsh Management Workshop**

On August 16-18, EPA hosted a marsh management workshop in New Orleans, Louisiana. More than 200 people participated in the workshop, representing federal and state agencies, environmental organizations, fisheries and other stakeholder interests, and reporters. The information and perspectives gathered from speakers and participants attending the workshop, in addition to the results of the Science Advisory Board Review, will be used in the development of guiding principles to evaluate marsh management projects. For more information, contact Elizabeth Zinecker at (202) 260-5907.





# Calendar Highlights

## SEPTEMBER

- 22-24 **Seniors for the Environment**, Chevy Chase, MD. Contact EASI, 51 Main St., P.O. Box 368, The Plains, VA 22171, (703) 330-5667, FAX (703) 330-3268.
- 26-30 **Second National Nonpoint Source Monitoring Conference: Urban Streambank Restoration and Storm Event Monitoring**, Northbrook, IL. Contact Kim Soulliere, Northeastern Illinois Planning Commission, 2225 Riverside Plaza, Suite 1800, Chicago, IL 60606, (312) 454-0400, FAX (312) 454-0411.
- 27-29 **A National Forum on Mercury in Fish**, New Orleans, LA. Contact Charlie MacPherson, Tetra Tech, Inc., at (703) 385-6000.
- 28-30 **Watersheds 94: Creating the Links: People, Politics, Science and Stewardship**, Bellevue, WA. Contact Andrea Lindsay at (206) 553-1896 or 1-800-424-4EPA, ext. 1896.
- 29-Oct 1 **Second Annual Friends of Trashed Rivers Conference**, New York, NY. Contact the local conference manager, (201) 525-1594 or FAX (201) 525-1574.

## OCTOBER

- 5-7 **Change in the West: Evolution of the Watershed Approach**, Alamosa, CO. Contact Karen Hamilton, EPA (8WM-WQ), 999 18th St., Suite 500, Denver, CO 80202-2466, (303) 293-1576, FAX (303) 391-6957.
- 11 **Watershed Management and Clean Water Act Reauthorization**, Ontario, CA. Contact Carmen Rios, Los Angeles Dept. of Public Works, P.O. Box 1460, Pasadena, CA 91802-1460, (818) 458-3525.
- 16 **The Relative Role of Urban and Rural Nonpoint Source Controls in Managing Wet Weather Water Quality**, Chicago, IL. Contact Christine McKallip, WEF, 601 Wythe St., Alexandria, VA 2231-1944, (703) 684-2400.
- 16-20 **Water Environment Federation's 67th Annual Conference and Exposition**, Chicago, IL. Contact Maureen Novotne, WEF, 601 Wythe St., Alexandria, VA 22314-1944, (703) 684-2400.
- 17-19 **Coastal Nonpoint Source Workshop: Building Partnerships**, Tampa, FL. Contact Julia Johnson, 1717 K St. NW, Suite 801, Washington, DC 20006-1504, (202) 833-8317.

- 30-Nov 3 **Society of Environmental Toxicology and Chemistry, 15th Annual Meeting: Ecological Risk: Science, Policy, Law, and Perception**, Denver, Colorado. Contact Rod Parrish, SETAC, 1010 North 12th Ave., Pensacola, FL 32501, (904) 469-1500, FAX (904) 469-9778.

- 31-Nov 5 **North American Lake Management Society 14th Annual International Symposium: Managing Water Resources in the 21st Century: Finding Workable Solutions**, Orlando, FL. Contact Marilyn Schroeder, (303) 781-8287, FAX (303) 781-6538.

## NOVEMBER

- 5-6 **Short Course: Advanced Geographic Information Systems**, at American Water Resources Association's 30th Annual Conference, Chicago, IL. Contact AWRA, 950 Herndon Pkwy, Suite 300, Herndon, VA 22070, (301) 493-8600, FAX (301) 493-5844.
- 5-6 **Short Course: Watershed Hydrology and Water Quality**, at AWRA 30th Annual Conference, Chicago, IL. Contact AWRA at (301) 493-8600, FAX (301) 493-5844.
- 6-10 **American Water Resources Association's 30th Annual Conference**, Chicago, IL. Contact AWRA, 950 Herndon Pkwy, Suite 300, Herndon, VA 22070, (301) 493-8600, FAX (301) 493-5844.
- 15-16 **Watershed WISE: A Workshop on Watershed Protections**, Grand Junction, CO. Contact Susan Foster, Thorne Ecological Institute, 5398 Manhattan Circle, Suite 120, Boulder, CO 80303, (303) 499-3647, FAX (303) 499-8340.

## DECEMBER

- 4-7 **56th Midwest Fish and Wildlife Conference**, Indianapolis, IN. Contact Debbie Fairhurst, Atterbury Fish & Wildlife area, Edinburgh, IN 46124, (317) 232-7535.
- 12-13 **Protecting Ground Water: Promoting Understanding, Accepting Responsibility, and Taking Action**, Washington, DC. Contact Laura Ludwig, Terrene Institute, 1717 K St. NW, Washington, DC 20006, (202) 833-8317; FAX (202) 296-4071.