

# EPA The Water Monitor

EPA REGION 1 OFFICE  
JFK FEDERAL BLDG.  
BOSTON MA 02203-2211

## REGIONAL AND STATE ACTIVITIES

### Region 1



### Regional Coordinators

**Monitoring 305(b):** Ray Thompson (781) 860-4372

**305(b), Volunteer Monitoring:**

Maureen Hilton (781) 860-4608

**Waterbody System:** Tom Faber (781) 860-4672

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

**Nonpoint Source:** Sandra Fancieullo  
(617) 565-4426

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

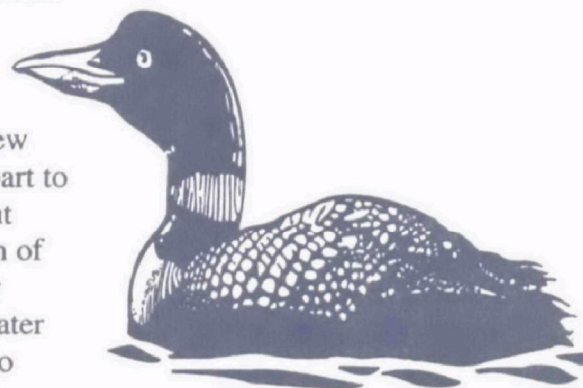
**VERMONT: Study of Mercury in Vermont and New Hampshire Lakes:** In response to the issuance of health advisories against the consumption of mercury-contaminated freshwater fish, Vermont and New Hampshire have launched a three-year study of mercury in sediments, waters, and biota of lakes in these two states. The study is being jointly conducted by the Vermont Department of Environmental Conservation (VTDEC) and the New Hampshire Department of Environmental Services, in collaboration with Dr. Charles Driscoll from Syracuse University. Other project collaborators include Dr. Dan Engstrom from the Science Museum of Minnesota, the Biodiversity Research Institute of Freeport, Maine, the US Fish and Wildlife Service, and the

Vermont Department of Fish and Wildlife. The project is being managed by VTDEC.

The goal of this study is to determine which larger, publicly used Vermont and New Hampshire lakes are of the type that: 1) have significant quantities of mercury in their waters and sediments; 2) possess the conditions linked to processing this mercury into its toxic methylmercury form; and 3) bioaccumulate mercury into plankton, fish, and fish-eating wildlife such as the merganser (*Mergus merganser*) and the common loon (*Gavia immer*). The study follows an EPA-Environmental Monitoring and Assessment Program (EMAP) design for study lake selection, and employs rigorous mercury-clean sampling and analytical protocols as well as new techniques for the acquisition of piscivore tissue samples without injury to the birds. The results of this study will be used in part to refine fish tissue

consumption  
advisories in  
Vermont and New  
Hampshire, in part to  
learn more about  
bioaccumulation of  
mercury in New  
England freshwater  
biota, and also to  
provide baseline

chemical and biological indicators  
against which future reductions of atmospherically  
emitted mercury can be measured.



Researchers have visited 68 of 90 lakes for chemical characterization, have sampled fish and piscivorous birds beginning in May of 1999, and have visited 49 lakes for biological collections. Sediment cores have been acquired from 10 of the 13 lakes. For additional information about this project, contact Neil Kamman, Environmental Scientist, at the Vermont Department of Environmental Conservation at (802) 241-3777 or e-mail: [neil.kamman@state.vt.us](mailto:neil.kamman@state.vt.us).

### What's Inside . . .

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## Region 2



### Regional Coordinators

**Monitoring:** Darvene Adams (732) 321-6700

**305(b), Waterbody System:** Linda Longo (212) 637-3847

**Volunteer Monitoring:** Diane Calesso (908) 906-6999

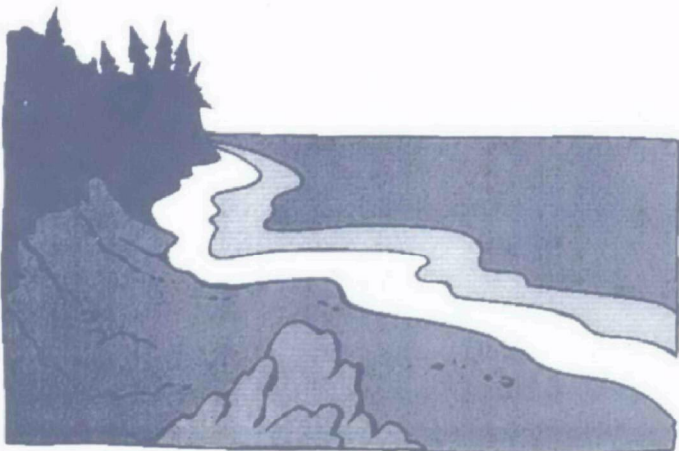
**303(d)/TMDL:** Rosella O'Connor (212) 637-3711

**Nonpoint Source:** Donna Somboonlakana (212) 637-3700

**Clean Lakes:** Terry Faber (212) 637-3698

**NEW JERSEY: Monitoring in Raritan Watersheds:** New Jersey's Department of Environmental Protection (NJ DEP) recently conducted 303(d)/reconnaissance monitoring in the North and South Branch Raritan watersheds. Metals were monitored using "Clean Methods" (which are designed to produce data accurate to one part per billion) for three consecutive days at 11 stations. At each station, researchers monitored sediment and the US Geological Survey collected flow information. In addition, 19 stations were monitored for conventional parameters on three consecutive days. These data will be entered into EPA's STORET database. For more information, contact James E. Mumman at (609) 292-1623.

**Bacterial Monitoring:** The NJ DEP has begun a cooperative program with county governments to collect and analyze fecal coliform samples at various freshwater sites in the state. These data will be used to better understand the potential sources of bacterial contamination and the transport of bacterial



particles within the aquatic ecosystem. For more information, contact Bill Eisele at (609) 748-2000.

### Bureau of Marine Water Monitoring Annual Report:

The NJ DEP has completed its report summarizing 1997 water quality conditions in coastal areas. This report consists of a comprehensive analysis of water quality impacts. Each year, the report highlights a different aspect of the coastal environment: this year, the report included an analysis of stormwater impacts. For more information, contact Bill Eisele at (609) 748-2000.

**Ambient Surfacewater Network:** The NJ DEP has begun monitoring on the redesigned bacterial component of the ambient surfacewater network. This monitoring effort will result in the collection of 5 samples, within a 30-day period this summer, at each network station. This sampling frequency follows the guidance provided in the *Surface Water Quality Standards*. For the first time, DEP asked for and received assistance from many county health departments in the collection and analysis of these samples. Their assistance has greatly reduced the effort required by the bureau and is greatly appreciated. For more information, contact James E. Mumman at (609) 292-1623.

## Region 3



### Regional Coordinators

**Waterbody System/305(b):** Martin Matlin (215) 814-6149

**Monitoring:** Chuck Kanetsky (215) 814-2735

**303(d)/TMDL:** Thomas Henry (215) 814-5752

**Volunteer Monitoring:** Peter Weber (215) 814-5749

**Nonpoint Source, Clean Lakes:** Hank Zygmunt (215) 814-3429

### MARYLAND: Maryland Biological Stream

**Survey (MBSS):** A comprehensive and scientifically-defensible tool is available to determine how many stream miles (either within specific river basins or statewide) are healthy, threatened, or degraded. Maryland's Biological Stream Survey has assessed data from about 1,000 randomly selected sites to evaluate the overall ecological health of



Maryland's nontidal freshwater streams from the Appalachian Mountains of Garrett County to the Lower Eastern Shore. Researchers assessed aquatic animals, physical habitat, and water chemistry at each site, as well as land use in the upstream watershed.

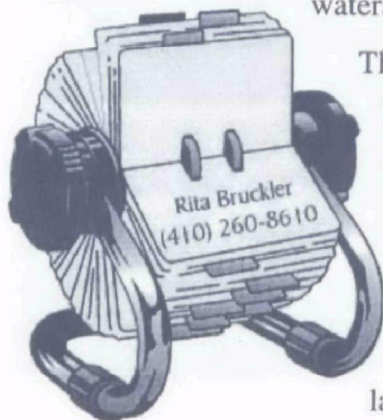
Major findings include: urbanization is a major threat to Maryland's streams; the loss of high-quality physical habitat, such as forested riparian (streamside) buffers is widespread; acid rain is the most important and widespread source of stream acidity, affecting nearly one fifth of the state's stream miles; based on fish and the benthic community in Maryland, 12% of all stream miles are in good condition, 42% are fair, and 46% are poor; and in spite of the stressors on Maryland's streams, they are still habitat for an incredible diversity of animal life.

Results of the Survey can help answer important management questions about the relative impacts and geographical extent of different stressors on Maryland streams. The final report will be published in August. For more information, contact Tom Pfeiffer at (410) 305-2740.

#### **New Volunteer Monitoring Coordinator in MD:**

Maryland Department of Natural Resources has recently filled the position of Volunteer Water Monitoring Coordinator. The new coordinator, Rita Bruckler, will act as a liaison between the Department of Natural Resources (DNR) and volunteer monitoring organizations throughout Maryland.

Through this new position, DNR will provide workshops, lectures, and technical help to assist volunteer monitoring groups in their efforts to promote environmental stewardship. In addition, the coordinator will facilitate the exchange of information from the volunteers to those in government involved in preservation and restoration projects and to others who are interested in the condition of watersheds.



The MD volunteer monitoring coordinator is currently updating information on MD volunteer monitoring groups and assessing the needs of those groups using information from the Maryland Volunteer Water

Quality Monitoring Association, Tributary Teams, the Chesapeake Bay Program Survey, and direct contact with volunteer groups. Frequent updates will be sent to the volunteer monitoring groups concerning Maryland Biological Stream Survey (MBSS) progress, Maryland Water Monitoring Council meetings, conferences, and other information that would be useful to the volunteer groups. Under the MBSS program, MD DNR is planning to use volunteer monitors to help collect benthic invertebrate samples and habitat information on watersheds throughout the state to fill information gaps for smaller watersheds.

For more information, contact Rita Bruckler at Maryland DNR, 580 Taylor Ave. C-2, Annapolis, MD 21401, (410) 260-8610.

## **Region 4**



### **Regional Coordinators**

**Monitoring, Volunteer Monitoring, 305(b), Waterbody System:** David Melgaard (404) 562-9265  
**303(d):** Yvonne Martin (404) 562-9263  
**TMDL:** Jim Greenfield (404) 562-9238  
**Nonpoint Source:** Betty Barton (404) 562-9381  
**Clean Lakes:** Howard Marshall (404) 562-9392

**REGIONAL OFFICE: Report on Usefulness of Probability Sampling:** The USEPA Region 4 Science and Ecosystem Support Division has released a report entitled *Savannah River REMAP: A Demonstration of the Usefulness of Probability Sampling for the Purpose of Estimating Ecological Condition in State Monitoring Programs*. This report presents results of sampling Wadeable streams (first through third order) and large lake embayments in the Savannah River Basin using a probabilistic sampling strategy. The sampling design was derived from the approach used in EPA's Environmental Monitoring and Assessment Program (EMAP). For streams, researchers selected benthic macroinvertebrates, fish, habitat, and algal growth potential as the indicators





to assess biological condition and trophic condition. For the embayment assessment, they selected Chlorophyll *a*, total phosphorous, algal growth potential, Secchi disc transparency, and total suspended solids to assess trophic condition. One hundred nineteen stream sites were sampled over a four year period and 126 embayment stations were sampled over a three year period. The study was a joint effort conducted with the cooperation and assistance of USEPA Region 4, USEPA Office of Research and Development (Corvallis, OR), and the states of Georgia and South Carolina.

Limited numbers of the report are available. For information concerning this report, contact Hoke Howard at (706) 355-8721 or Bobby Lewis at (706) 355-8629 of EPA Region 4 Science and Ecosystem Support Division.

## Region 5



### Regional Coordinators

**Monitoring/ 305(b)/Waterbody System:** Dave Stoltenberg (312) 353-5784

**303(d)/TMDL:** Donna Keclik (312) 886-6766

**Volunteer Monitoring:** Philip Gehring (216) 522-7260 and Tom Davenport

**Nonpoint Source, Clean Lakes:** Tom Davenport (312) 886-7804

**REGIONAL OFFICE: Volunteer Monitoring Meeting Planned:** USEPA Region 5 and the Region 5 state agency volunteer monitoring coordinators are planning a volunteer monitoring meeting early in FY 2000. The meeting is intended to 1) encourage participants to share experiences and ideas for developing, implementing, and

maintaining a network of volunteer monitoring programs that contribute data to state and local efforts; and 2) improve coordination and communi-

cation between state and federal staff working on volunteer monitoring issues in Region 5. In particular, this first meeting will focus on issues such as the data states need that volunteers can provide, development of Quality Assurance Project Plans, data management, and volunteer recruitment and retention techniques. It is hoped that this meeting between USEPA and the state staff will lead to additional conferences and workshops in the future. For more information, contact Sarah Lehmann at (312) 353-4328.

## Region 6



### Regional Coordinators

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

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

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

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

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

### REGIONAL OFFICE: Biocriteria Contractor Support in Arkansas and Texas:

Biocriteria support funds provided by EPA Headquarters were applied to two projects in Region 6. One project will involve assessing habitat data collected using the EPA rapid bioassessment protocol (RBP), as well as the state's "receiving water assessment" method. This assistance will aid the state in developing a standardized habitat assessment protocol for state-





wide application. The second project involves initial development of an index of biological integrity (IBI) applicable to fish, for selected ecoregions in Arkansas. This will be a joint effort between the state (Arkansas Department of Environmental Quality), the University of Arkansas at Pine Bluff, and the contractor. The study will concentrate on assessment of existing data for both reference and impaired streams with small- to medium-sized watersheds. Once developed, the IBI will be used in assessing ecological use classifications already included in the state water quality standards. For more information, contact Philip Crocker at (214) 665-6644 or e-mail: crocker.philip@epa.gov.

## Region 7



### Regional Coordinators

**Monitoring:** Lyle Cowles (913) 551-5042

**305(b)/Waterbody System:** Bob Steiert (913) 551-7433

**303(d)/TMDL:** Ann Lavaty (913) 551-7370

**Volunteer Monitoring:** Norm Crisp (913) 551-5076

**Nonpoint Source:** Pete Davis (913) 551-7372

**Clean Lakes:** Sue Belvill (913) 551-7788

No material submitted.

## Region 8



### Regional Coordinators

**Monitoring, 305(b), Waterbody System:** Jill Minter (303) 312-6084

**303(d)/TMDL:** Bruce Zander (303) 312-6846

**Nonpoint Source:** Kris Jensen (303) 312-6237

**Clean Lakes:** Rick Claggett (303) 312-6800

**Volunteer Monitoring:** Tina Laidlaw (303) 312-6880

### REGIONAL OFFICE: Tribal Coordinators

**Workshop Held:** Region 8 sponsored a training workshop for tribal water quality coordinators in Denver on June 8-10. The workshop included

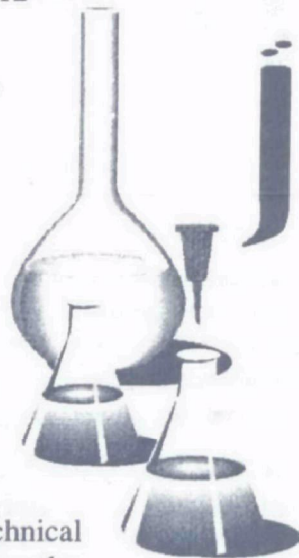
sessions on field monitoring techniques (chemical, physical, and biological), data analysis, and STORET for tribal programs. Twenty-one tribes participated in the three-day training. For more information, contact Tina Laidlaw at (303) 312-6880 or Sue Groves at (303) 312-6068.

### Upcoming Biological Assessment Workshop:

Region 8 will host a workshop, "Biological Assessment in State and Tribal Programs," in Denver, Colorado, on September 20-23, 1999. The workshop is designed to help support and develop state biomonitoring and bioassessment programs and facilitate communication and coordination among EPA, States, and Tribes along with other federal agencies conducting bioassessments. The workshop will also provide an opportunity to discuss the role and involvement of the states in the Western Environmental Monitoring and Assessment Program (EMAP Pilot Study). For more information, contact Jill Minter at (303) 312-6084.

### Volunteer Monitoring Support:

Region 8's volunteer monitoring coordinator, the Regional lab, and staff from the Community Based Environmental Protection program are working closely to provide support for local watershed groups. Conducting free laboratory analysis of samples, training volunteers in water quality monitoring, and providing technical assistance are a few of the ways the region has been supporting local monitoring efforts. For more information, contact Tina Laidlaw at (303) 312-6880.



**Use of STORET in Region 8:** A Regional contractor has recently finished an assessment of how close Region 8 states are to implementing EPA's modernized STORET data management system. This assessment will be used to assign resources in support of these states' efforts to contribute water quality information to STORET. Both the contractor and Region 8's STORET Coordinator will be working closely with EPA partners over the next few months to move existing data sets into STORET. Region 8 is also bringing STORET to new users



such as community monitoring groups, Tribes, and the US Forest Service. For more information, contact Marty McComb, STORET Coordinator, at (303) 312-6963.

**WYOMING: Biological Assessment Workshop:** EPA sponsored a workshop supporting Wyoming's Biological Assessment Program in Casper on June 22-24. The workshop presented the results of an analysis of Wyoming's database of physical, biological, and chemical data, and the technical rationale for procedures used in the analysis. The workshop also included a demonstration of the Wyoming database in the Ecological Data Application System (EDAS), a data management system for managing and analyzing biological data. For more information, contact Jack Smith, Wyoming DEQ, Monitoring Coordinator, at (307) 332-3144.

## Region 9



### Regional Coordinators

**Monitoring/305(b):** Janet Hashimoto (415) 744-1933

**Waterbody System:** Eric Wilson (415) 744-1964

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

**Nonpoint Source:** Sam Ziegler (415) 744-1990

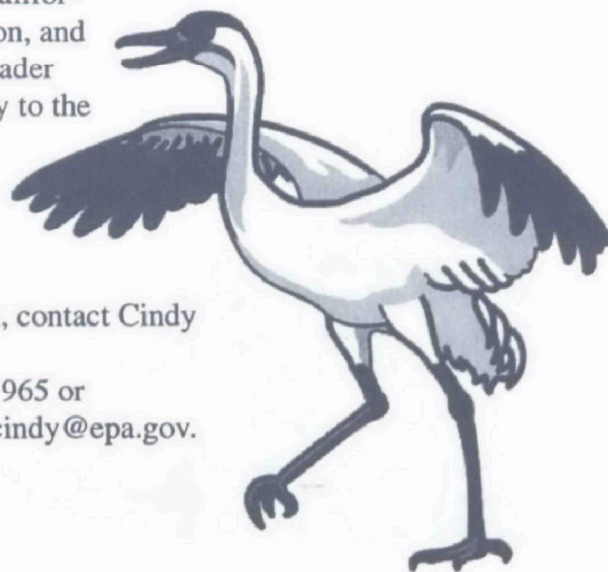
**Clean Lakes:** Wendell Smith (415) 744-2018

**REGIONAL OFFICE: Pilot REMAP Project in Calleguas Creek Watershed, Ventura County, California:** The pilot Regional Environmental Monitoring Assessment Program (REMAP) project in Calleguas Creek Watershed began this year as a two-year monitoring effort to assess the condition of coastal streams and to evaluate the relationship between land use and stream biota condition. Coastal Calleguas Creek Watershed covers approximately 878 km<sup>2</sup> and is framed by Los Angeles County in the east and the Pacific Ocean in the west. The watershed is one of the fastest growing areas in California, and contains important land uses such as urban, agricultural, and minimally to undisturbed habitat. It currently suffers from many water quality impairments.

Researchers are using a random, probability-based sampling design to select sampling stations. This random design will allow site selection that covers the range of conditions in the watershed, from undisturbed or minimally disturbed to highly impacted areas. The study will intensively monitor indicators of habitat condition and pollutant exposure (i.e., bioassessment) and estimate pollutant loads from different land uses in the watershed. Biological community sampling will take place during spring/summer of each year and will include fish, benthic macroinvertebrates and periphyton assemblages, and riparian habitat assessment and stream morphology. Researchers will determine the relationship between load, condition and land use by assessing biological conditions at approximately 90 stream sites near major land uses in the watershed. They will monitor during storm and dry weather events to capture pollutant load estimates for major land uses. Results from this study will allow identification of the areas contributing to nonpoint source pollution, targeting of control measures, and evaluation of the vulnerability of coastal resources.

The Calleguas Creek Watershed pilot project is part of a four-year REMAP/Western EMAP study to more intensively assess the ecological condition of Southern California streams. It was begun to evaluate indicators for conditions representative of watersheds in semi-arid environments with flashy and intermittent streams (EMAP protocols have been primarily applied in other geographic areas of the country). The results from this pilot effort will be applied to areas in Southern California with similar land uses, as well as to the rest of the Mediterranean California ecoregion, and provide broader applicability to the EMAP Western Pilot.

For more information, contact Cindy Lin at (415) 744-1965 or e-mail: [lin.cindy@epa.gov](mailto:lin.cindy@epa.gov).





## Region 10



### Regional Coordinators

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

**305(b):** Curry Jones (206) 553-6912

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

**Volunteer Monitoring:** Krista Rave (206) 553-6686

**Nonpoint Source:** Teena Reichgott (206) 553-1601

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

**WASHINGTON: Salmon Study Complete:** The Washington State Department of Ecology (Ecology) recently published a report titled *The Relationship Between Stream Macroinvertebrates and Salmon in the Quilceda/Allen Drainage*. Ecology collected stream macroinvertebrate, quantitative physical habitat and water column measurements at several reaches in the Quilceda/Allen drainage, and used existing information on stream reach use by salmon. Researchers found high quality biological conditions at sites where the riparian corridor was visually intact. These sites had a high percentage of coarse gravel and cobble-sized stream bottom substrates. Canopy shading was also correlated to the biological condition of stream communities. The response by the macroinvertebrate community to channel degradation was coincident with changes in reported salmon use.

For a copy of this report (Ecology Publication Number 99-311), contact the Department of Publications at (360) 407-7472. The report is online at the Washington Department of Ecology's website ([http://www.wa.gov/ecology/eils/fw\\_benth/fwb\\_pubs.html](http://www.wa.gov/ecology/eils/fw_benth/fwb_pubs.html)). For specific questions, contact the author, Robert Plotnikoff, at (360) 407-6687.

## HEADQUARTERS ACTIVITIES

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

#### ASSESSMENT AND WATERSHED PROTECTION DIVISION (AWPD)

**Proposed Revisions to TMDL Regulations:** On August 14, 1999, USEPA's Office of Water proposed revisions to the Total Maximum Daily Load (TMDL) regulations (40 CFR Part 130) for implementing state, territorial, authorized tribal, and EPA responsibilities under Section 303(d) of the Clean Water Act.

Under Section 303(d), states, territories, and authorized tribes (collectively referred to as "states") are required to develop lists of impaired waters.

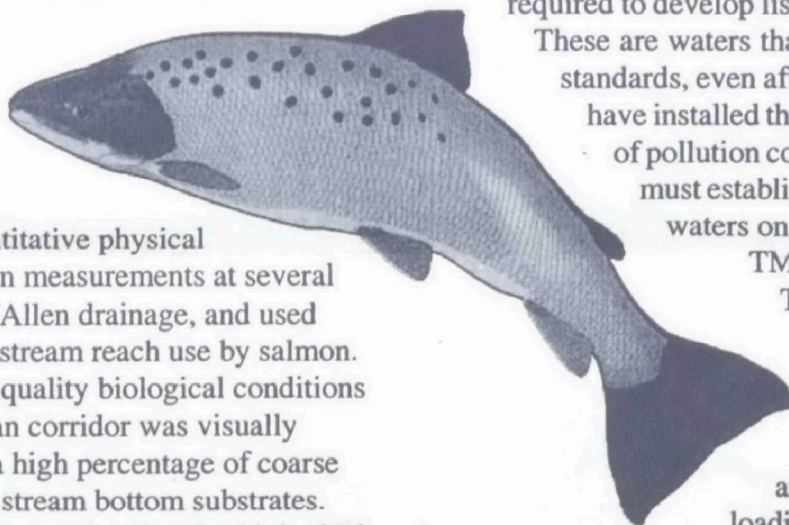
These are waters that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. States must establish priority rankings for waters on the lists and develop

TMDLs for listed waters. A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and allocates pollutant loadings among point and nonpoint pollutant sources. EPA

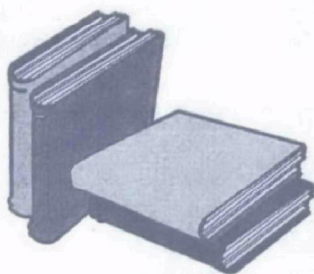
must approve or disapprove state lists and TMDLs. If a state submission is inadequate, EPA must establish the list or the TMDL.

States and territories have identified over 20,000 individual river segments, lakes, and estuaries across America as polluted. These identified waters include approximately 300,000 miles of river and shoreline and approximately 5 million acres of lakes that are polluted mostly by sedimentation, nutrients, and harmful microorganisms.

The purpose of the proposed revisions to the TMDL regulations is to provide states with clear, consistent, and balanced direction for listing waters and developing TMDLs, resulting in restoration of waterbodies not meeting water quality standards. The proposed







## On the Bookshelf . . .

*Getting Started with TMDLs*, by Wesley M. Jarrell, Ph.D. This 86-page document is an introduction to the science, policy, and societal elements of the TMDL program. It addresses common terms, stakeholder involvement, TMDL parameters, assigning load and wasteload allocations, sample sites, effective monitoring, sample data analysis, and the role of models; many case studies, highlights, and references are included. For a copy contact YSI, Inc., 800-897-4151,

*Rapid Watershed Planning Handbook*, Center for Watershed Protection, October 1998. This manual was written to help local governments and watershed organizations develop effective and low-cost watershed protection plans. Eight steps are described in detail, including how to identify and classify subwatersheds, protect and restore water resources, and evaluate progress. Watershed plan budgeting is included, along with a discussion of how estimates were derived. The emphasis of this document is on resource identification and evaluation and planning. Available for \$40 from the Center for Watershed Protection, (410) 461-8324, [www.cwp.org](http://www.cwp.org).

*The Quality of Our Nation's Waters: Nutrients and Pesticides*, USGS Circular 1225. This 82-page, full color report provides national and regional insights on nutrients and pesticides in streams and ground water, based on findings from studies completed in 1998 by the National Water Quality Assessment (NAWQA) program in 20 of the nation's most important river basins and aquifer systems. The report suggests that nutrients and pesticides pose a greater risk to

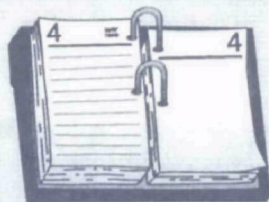
aquatic life than to human health. The report is available at <http://water.usgs.gov/pubs/circ/circ1225/> or in printed form from the Branch of Information Services, P.O. Box 25286, Denver, CO 80225 or by fax request to (303) 202-4693 (specify USGS report C-1225).

*Toward a Sustainable Chesapeake*, EPA Chesapeake Bay Program, EPA 903-R-99-015. Subtitled "Tools and techniques to promote smart growth, protect the environment, and preserve quality of life," this 58-page document summarizes the results of a March 1999 summit that brought together people throughout the Bay watershed involved in community development and growth, land use, and planning. Topics include starting out right, characterizing your community, planning for the future, and implementing sustainable community initiatives. For more information, visit the Chesapeake Bay Program website at [www.chesapeakebay.net/bayprogram](http://www.chesapeakebay.net/bayprogram).

*The Volunteer Monitor, Spring 1999: Restoration*. This 24-page issue of the *Volunteer Monitor* newsletter is devoted to ecological restoration: what it is, the role of volunteers, and its relationship to water monitoring. Articles by program coordinators and restoration experts include: fixing a salt marsh, using bioengineering to restore Paper Mill Run, monitoring restoration projects, standing by your projects (follow-up), funding for community-based habitat restoration, restoring a coastal scrub community, using monitoring data to choose planting sites for underwater grasses, making your restoration project happen, and learning science through restoration. A large list of resources is included for volunteer programs interested in restoration activities. For a copy, contact Alice Mayo, USEPA, at [mayio.alice@epa.gov](mailto:mayio.alice@epa.gov), (202) 260-7018.



## Calendar Highlights



### September

- 17-18 Citizens Volunteer Monitoring Workshop: Stream Corridor Restoration and Monitoring.** Juniata College, Huntingdon, PA. Contact Lesley Moore at (814) 768-9584 or e-mail: [cui@uplink.net](mailto:cui@uplink.net).
- 21-22 Successful River Corridor Management Planning and Policy Considerations.** Fargo, ND. Contact Linda Kingery at (701) 352-3550 or e-mail: [lkingery@polarcomm.com](mailto:lkingery@polarcomm.com).
- 22-24 Working at a Watershed Level.** Jekyll Island, GA. Contact Barry Tinning at (606) 244-8228, e-mail: [btinning@csg.org](mailto:btinning@csg.org), web site: [www.statesnews.org/ecos/working.htm](http://www.statesnews.org/ecos/working.htm).

### October

- 2 Pennsylvania Lake Management Society and Citizen's Volunteer Monitoring Workshop,** Lake Harmony, PA. Contact Lesley Moore at (814) 768-9584; e-mail: [cvi@uplink.net](mailto:cvi@uplink.net).
- 9-13 WEFTEC '99.** Contact Water Environment Federation, Attn: WEFTEC'99 Program Coordinator, 601 Wythe Street, Alexandria, VA 22314-1994. Web site: [www.wef.org/docs/conference.html](http://www.wef.org/docs/conference.html).
- 18-19 East Coast Regional BEACH Conference.** Tampa, FL. Contact Mary Crowe at (703) 385-6000, ext. 144; e-mail: [crowema@tetrattech-ffx.com](mailto:crowema@tetrattech-ffx.com); web site: [www.epa.gov/OST/beaches](http://www.epa.gov/OST/beaches).

### November

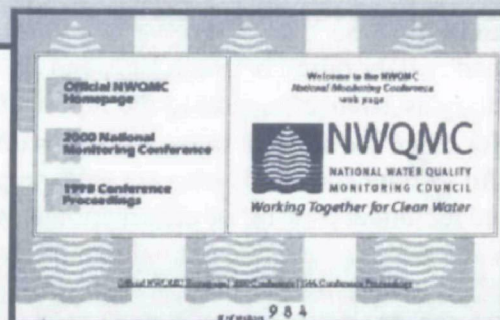
- 14-16 Animal Residuals Management Conference: Developing, Testing, and Implementing Technological Advances.** Crystal City, VA. Water Environment Federation, 601 Wythe Street, Alexandria, VA 22314.
- 14-18 Sustaining Global Environmental Integrity.** Society of Environmental Toxicology and Chemistry (SETAC) 20th Annual Meeting, Philadelphia, PA. For a copy of the program overview or for more information, contact SETAC, 1010 North 12th Avenue, Pensacola, FL 32501-3367. Phone: (850) 469-1500, Fax: (850) 469-9778, e-mail: [setac@setac.org](mailto:setac@setac.org), or web site: <http://www.setac.org/>.
- 15-17 Understanding and Addressing Risks to Groundwater, The 15th Annual Groundwater Foundation Fall Symposium.** Atlanta, GA. Contact Cindy Kreifels or Zoe McManaman at (800) 858-4844.
- 16-17 Wetlands & Remediation: An International Conference.** Salt Lake City, UT. Contact Karl Nehring at (614) 424-6510 or e-mail: [nehringk@batelle.org](mailto:nehringk@batelle.org).
- 18 Rivers, Dams, and the Future of the West.** Salt Lake City, UT. Contact Jack Hamilton, Executive Director, Utah Wetlands and Riparian Center, University of Utah, 1515 Mineral Square, Rm. 138, Salt Lake City, UT 84112. Phone: (801) 581-6384 or e-mail: [jack.hamilton@m.cc.utah.edu](mailto:jack.hamilton@m.cc.utah.edu).

### December

- 15-17 Conservation 2000: Conference to Highlight Local, State, and Federal Programs.** New Orleans, LA. Contact the Conservation Technology Information Center at (765) 494-9555 or e-mail: [ctic@ctic.purdue.edu](mailto:ctic@ctic.purdue.edu).

## October 15

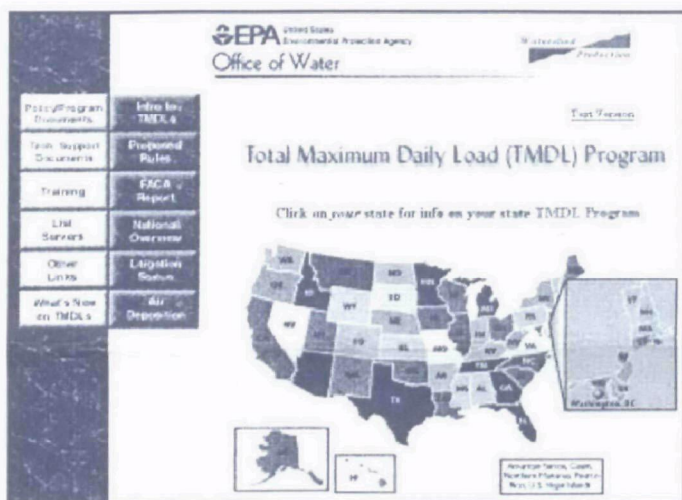
**Deadline for Abstracts for National Water Quality Monitoring Council Conference** to be held April 25-27, 2000 in Austin, TX. For more information, call (405) 516-4972 or web site: <http://nwqmc.site.net>.





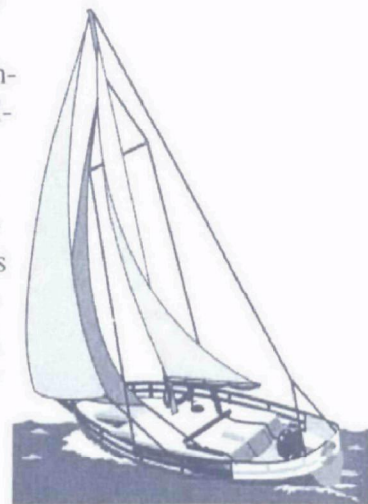
changes call for states to include implementation plans in their TMDLs when they submit them to EPA. Implementation plans should include specific best management practices for nonpoint source pollutants and NPDES permit conditions for point sources, as needed to allow listed waterbodies to achieve water quality standards. Changes to the NPDES and water quality standards regulations are also being proposed in support of the TMDL regulations.

The proposed regulatory revisions are being published in the Federal Register for a 60-day comment period. A copy of the proposal is also available on the Internet at: <http://www.epa.gov/owow/tmdl/>.



**US Geological Survey/EPA Interagency Agreement:** AWPD has entered into an interagency agreement (IAG) with the US Geological Survey (USGS) Office of Surface Water to produce USGS data sets and arrange demonstration evaluations of hydrogeological principles for stream assessment across the US and Alaska from USGS data. The work should be completed in Spring 2000, with the expectation that the IAG will serve as a vehicle for continued collaboration between EPA and USGS on technology assistance/transfer to the regions and states for clean sediment activities. The results will be useful to state and tribes who are seeking guidance and technical transfer of information on using stream assessments to develop total maximum daily loads for clean sediment. For more information, contact Chris Zabawa at (202) 260-7101.

**National Clean Boating Week:** The second annual National Clean Boating Campaign kickoff celebration was held at a marina along the Cuyahoga River, in Cleveland, Ohio. This event featured techniques and products for controlling polluted runoff at marinas and recreational boating facilities, and promoted the environmental benefits of clean waters for boating enjoyment. Representatives from EPA Region 5, Eastern District Office, distributed water quality information on the Great Lakes and other water quality and nonpoint source pollution programs in the region. The venue for this event was particularly fitting, since 1999 is the 30th anniversary of the infamous Cuyahoga River fire. For more information, contact Ed Drabkowski at (202) 260-7009.



## OCEANS AND COASTAL PROTECTION DIVISION (OCPD)

**Atmospheric Deposition of Nitrogen Studied:** The OCPD Air-Water Coordination Group has joined a team working to understand the loadings and sources of atmospheric deposition of nitrogen compounds in the high elevations of the Rocky Mountains. This project will improve scientific understanding of the impacts of atmospheric deposition of nitrogen. The project is taking place in the San Miguel watershed in southwestern Colorado. It includes air deposition monitoring, back-trajectory analysis to estimate sources, and community involvement to find solutions. The project is a joint effort between many organizations: EPA's Office of Air and Radiation and Office of Water are providing the necessary equipment, the US Forest Service is donating capacity for sample analysis, the University of Colorado is providing the back-trajectory analysis, and the San Miguel Watershed Coalition and local county officials are taking the lead role in coordinating the project and devising management solutions. For more information, contact Deborah Lebow at (303) 312-6223.



## Web Happenings:

Interested in checking out some water-oriented web sites?  
Here are a few to consider:

**Center for Marine Conservation:**  
[www.cmc-ocean.org](http://www.cmc-ocean.org)

**EPA's BEACH Watch Web Site:**  
[www.epa.gov/OST/beaches](http://www.epa.gov/OST/beaches)

**EPA's Efficient Water Use Homepage  
(Drought Management):**  
[www.epa.gov/owm/genwave.htm](http://www.epa.gov/owm/genwave.htm)

**EPA's Fish Advisories Homepage:**  
[www.epa.gov/ost/fish](http://www.epa.gov/ost/fish)

**EPA's TMDL Homepage:**  
[www.epa.gov/owow/tmdl](http://www.epa.gov/owow/tmdl)

**EPA's Wetlands Homepage:**  
[www.epa.gov/owow/wetlands](http://www.epa.gov/owow/wetlands)

**Kentucky Watershed Watch 2000:**  
[water.nr.state.ky.us/watch/2000](http://water.nr.state.ky.us/watch/2000)

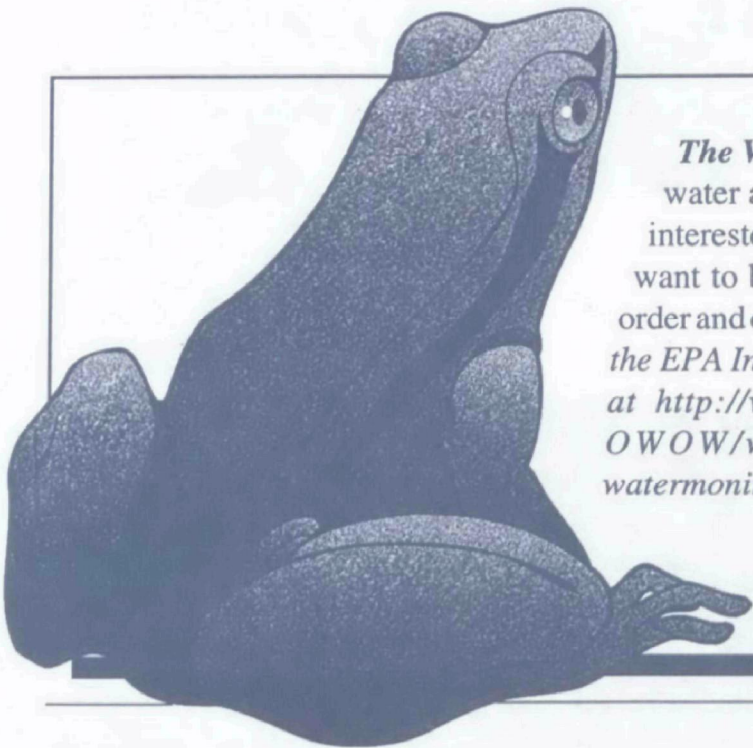
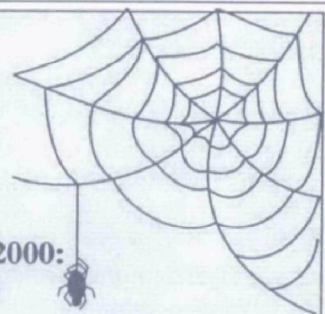
**National Water Quality Monitoring Council  
Conference Web Site:** [nwqmc.site.net](http://nwqmc.site.net)

**Pennsylvania Department of Environmental  
Protection Homepage:** [www.dep.state.pa.us](http://www.dep.state.pa.us)

**The Groundwater Foundation:**  
[www.groundwater.org](http://www.groundwater.org)

**USGS National Water Quality Assessment  
(NAWQA) Program Homepage:**  
[www.rvares.er.usgs.gov/nawqa](http://www.rvares.er.usgs.gov/nawqa)

**Washington Department of Ecology:**  
[www.wa.gov/ecology](http://www.wa.gov/ecology)



*The Water Monitor* is produced 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 12. Also, come visit us on the EPA Internet Homepage at <http://www.epa.gov/OWOW/watershed/watermonitor>.

