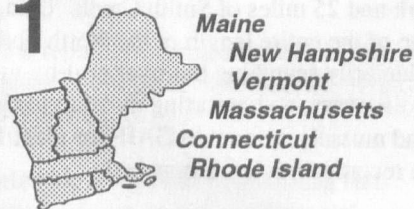


EPA The Water Monitor

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: David Pincumbe (617) 565-3544

Nonpoint Source: Bob Moorehouse (617) 565-3513

Clean Lakes: Warren Howard (617) 565-3515

VERMONT: Wetland Protection Program in Lake Champlain Basin: The Lake Champlain Basin Program (LCBP) recently unveiled a strategy to permanently protect over 1500 acres of wetland in the Champlain Valley of New York and Vermont. The project represents a major achievement in the protection of wetlands through cooperative, nonregulatory means.

The Vermont chapter of the Nature Conservancy inventoried more than 100 wetlands throughout the Lake Champlain basin during 1992 and listed the 18 highest quality wetland sites in need of permanent protection. According to Jon Binhammer, a biologist with The Nature Conservancy, these wetlands contribute to the improvement of water quality and the maintenance of biological diversity in the Lake Champlain basin.

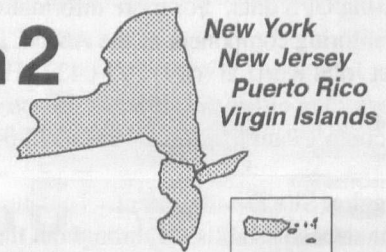
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The wetland protection strategy will be implemented through the cooperative efforts of The Nature Conservancy's New York and Vermont chapters, the Vermont Agency of Natural Resources, and the New York Department of Environmental Conservation. These organizations will work with willing sellers to acquire wetland acreage and upland buffers on both sides of Lake Champlain. The program is strictly voluntary.

For more information, contact John Roe, Director of Land Protection, Vermont Chapter, The Nature Conservancy, at (802) 229-4425.

Region 2



Regional Coordinators

Monitoring: Randy Braun (908) 321-6692

305(b), Waterbody System: Xuan-Mai Tran (212) 264-3188

Volunteer Monitoring: Diane Calesso (908) 321-6728

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

Nonpoint Source: Mack Henning (212) 264-2059

Clean Lakes: Terry Faber (212) 264-8708

NEW YORK: Estuarine Eutrophication Model

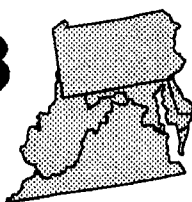
Developed: Recently, the New York/New Jersey Harbor Estuary Program Nutrient Workgroup met to discuss a draft scope of work for a system-wide eutrophication model developed by the New York State Department of Environmental Conservation. The scope of work has been revised considering workgroup comments and submitted to EPA Region 2 for further action. This project will be combined with a similar one under Total Maximum Daily Load (TMDL) Workgroup development for toxics modeling. Ultimately, the two will be used as a base for cooperative model development between the U.S. Army Corps and the Harbor group for the NY/NJ Harbor, Western Long Island Sound, and the New York Bight.

For more information, call Phil O'Brien, NYSDEC Monitoring and Assessment Bureau, (518) 457-8819.

NEW JERSEY: Ambient Biomonitoring Network (AMNET): The state of New Jersey has sampled a total of 56 biomonitoring stations in the Raritan Basin in addition to the 106 stations in the Passaic/Hackensack/Wallkill Basins. The results of this monitoring will be used to provide the department with a biological impairment assessment of the basins using EPA Rapid Bioassessment Protocol II. Furthermore, state staff have used the Global Positioning System (GPS) to establish coordinates for 300 of the FY93 and FY94 monitoring stations. All 300 station locations have been downloaded from the Geographical Position Unit (GPU) receivers and corrected to base station data using the Trimball PFINDER software. Eighty-four station locations have been converted into state plane coordinates and entered into the department's Geographical Information System. Monitoring Operations Section staff also developed standard operating procedures for downloading and correcting GPS data. For more information on the biomonitoring component of the AMNET program, contact John Kurtz at (609) 292-0427. For more information regarding either the GPS or GIS activities of the state, contact Paul Morton at (609) 292-0427.

EcoRegion Site Development: To date, 43 ecoregion sites have been established throughout the state. Four new sites were sampled this month for the second seasonal monitoring event. For more information, contact John Kurtz at (609) 292-0427.

Region 3



Delaware
Pennsylvania
Maryland
Virginia
West Virginia

Regional Coordinators

Monitoring, Volunteer Monitoring: Chuck Kanetsky
(215) 597-8176

305(b), Waterbody System: Margaret Passmore
(215) 597-6149

303(d)/TMDL: Thomas Henry (215) 597-8243

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

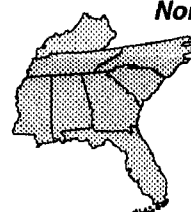
VIRGINIA: Volunteers Conduct Mussel Search in the North Fork Shenandoah River: In 1991, Friends of the North Fork Shenandoah River (Friends), in cooperation

with the Virginia Department of Game and Inland Fisheries (GAIF), initiated a pilot program to search for freshwater mussels in the North Fork. In the past decade, a drastic decline has been noticed in the number of mussel species in the North Fork Shenandoah River. Current information suggests that *Alasmodonta varicosa* and other mussel species may disappear from the North Fork unless causes and remedies are explored immediately.

The Friends of the North Fork has now entered a 2-year program that will identify specific sites where mussels, both live and dead, are found in the 96 miles of the North Fork and 25 miles of Smith Creek. Using a grid-marked map of the entire length of the North Fork, Friends is voluntarily searching the river grid-by-grid, marking sites of discovery, and reporting in detail to GAIF. Samples of dead mussels are sent to GAIF for identification; live beds are recorded but left untouched.

GAIF will use this information to identify critical habitat sites and help determine the probable causes of the problem. For more information, contact The Friends of the North Fork Shenandoah River at (703) 459-8550.

Region 4



North Carolina
Kentucky
South Carolina
Tennessee
Georgia
Alabama
Mississippi
Florida

Regional Coordinators

Monitoring: David Melgaard (404) 347-2126

305(b), Waterbody System: Larinda Tervelt
(404) 347-2126

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

Volunteer Monitoring: Virginia Buff (404) 347-2126 and
Connie Alexander (404) 347-1740

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

Clean Lakes: Howard Marshall (404) 347-2126

REGIONAL OFFICE: BMP Development for Silviculture: EPA Region 4 has initiated a project in cooperation with the U.S. Forest Service to identify and document the scientific/technical rationale for silviculture Best Management Practices (BMPs) applicable in the southeastern United States. All eight states in Region 4 have developed their own BMPs, but state BMP manuals do not describe the technical basis or provide detailed guidance on BMP selection, installation, and maintenance and the direct relationship of BMPs to water resource protection. This project brings together Forest Service

and University of Florida scientists to compile this information in one report on BMP recommendations for southeastern states.

While the project may not result in identification of new BMPs, their usefulness to protect water resource integrity (chemical, physical, and biological) will be better understood. In addition, current inconsistencies among state BMPs for similar activities in similar forested ecosystems will be reduced if the information provided is used in future BMP revisions by state forestry and water quality agencies and EPA.

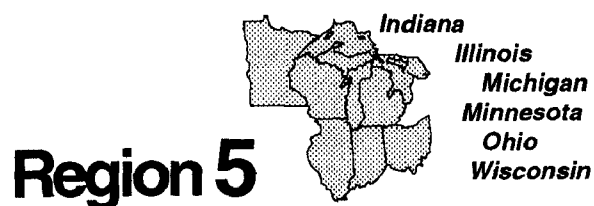
The first draft of the report is expected to be available for review by next summer. For more information, contact Ira Linville at (404) 347-2126.

ALABAMA: Statewide Volunteer Monitoring Network: The Alabama Department of Environmental Management (ADEM) is cooperating with a number of organizations to build a statewide volunteer monitoring network and educate teachers, students, and citizens about the importance of water quality. In the past 2 years, nonpoint source water quality teacher workshops have trained approximately 150 teachers, and about 200 volunteers have attended volunteer water monitoring workshops.

A related program evolved with the establishment of Alabama Water Watch, a stream and lake monitoring program that provides equipment and technical expertise to volunteer groups and teachers of grades 1-12 for monitoring water quality and biological characteristics at selected sites. Alabama Water Watch is cooperating with ongoing citizen volunteer monitoring programs and is also helping to establish at least 20 new groups across the state. The groups will assess chemical, biological, and habitat characteristics throughout the year.

For more information, contact Patti Hurley, ADEM Nonpoint Source Section, at (205) 271-7938.

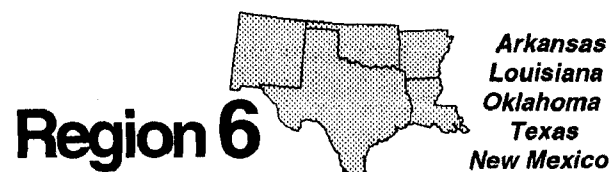
The Water Monitor is produced monthly to exchange surface water assessment information among states and other interested parties. If you would like more information or want to be added to the mailing list, please fill out the order and comment form on page 8.



Regional Coordinators

Monitoring, 305(b): Donna Williams (312) 353-6175
303(d)/TMDL: Robert Pepin (312) 886-1505
Waterbody System: Fouad Dababneh (312) 353-3944
Volunteer Monitoring: Donna Williams (312) 353-6175 and Tom Davenport (312) 886-0209
Nonpoint Source, Clean Lakes: Tom Davenport (312) 886-0209

No material was submitted for December/January.

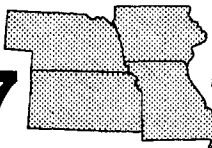


Regional Coordinators

Monitoring: Charlie Howell (214) 655-8354
303(d)/TMDL: Troy Hill (214) 655-6647
305(b): Russell Nelson (214) 655-6646
Waterbody System: Paul Koska (214) 655-8357
Volunteer Monitoring: Mike Bira (214) 655-6668 and Paul Koska (214) 655-8357
Nonpoint Source: Brad Lamb (214) 655-7140
Clean Lakes: Mike Bira (214) 655-6668

REGIONAL OFFICE: Annual Water Monitoring and Assessment Workshop: The annual Region 6 Water Monitoring and Assessment Workshop will be held in Bandera, Texas, on March 22-24, 1994. Bandera is located in the historic Texas Hill Country northwest of San Antonio. The workshop will include a half-day of field demonstrations on the Medina River. The seminar committee is currently soliciting presentations for the workshop. Please contact Paul Koska at (214) 655-8357 or Charlie Howell at (214) 655-8354 if you are interested in making a presentation at the meeting, or for additional details.

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 and Donna Sefton (913) 551-7500
Nonpoint Source: Julie Elfving (913) 551-7475
Clean Lakes: Larry Sheridan (913) 551-7439

REGIONAL OFFICE: NPS/TMDL Workshop:

Region 7 sponsored the Second Annual NPS Workshop on December 6-8, 1993, in Kansas City, KS. Included in the conference was a TMDL workshop with presentations by Ed Carney of the Kansas Department of Health and Environment, who discussed the Eutromod modeling status for the Hillsdale Reservoir TMDL Mini-Grant, and by Paul Brakhage of the Nebraska Department of Environmental Quality (NDEQ), who discussed NDEQ's approach to TMDL development. For more information, contact Jerry Pitt at (913) 551-7766.

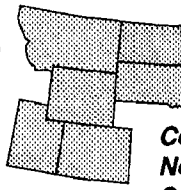
Regional Environmental Monitoring and Assessment Program:

To formally begin the Region 7 R-EMAP project, "kick-off" meetings were held on December 7 and December 8 in Kansas City, KS, and Lincoln, NE. The meetings were attended by all participating state person-

nel, the project coordinator, and Frank McCormick, project officer (designee), EMSL Cincinnati. The agenda for the meeting included distribution of random site maps, site reconnaissance and replacement procedures, funding procedures, ecoregion reference site selection, report procedures, data transfer, sample handling, and a summary of project plan modifications including methods.

The meetings were very productive and several project issues were resolved. The R-EMAP project is scheduled to begin its data collection phase in June 1994. For more information, contact Jerry Anderson at (913) 551-5066.

Region 8

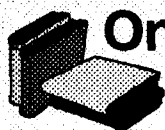


Montana
Utah
Wyoming
Colorado
North Dakota
South Dakota

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: Carol Russell (303) 293-1449
Clean Lakes: Dave Rathke (303) 293-1703

UTAH: Utah Watershed Assessment Reports: The State of Utah has recently restructured the surface water quality monitoring program, focusing monitoring efforts in



On the Bookshelf . . .

National Environmental Benefits of the Clean Water Act (EPA 842-K-93-001). This brochure includes 14 case studies to highlight national statistics and progress made through the secondary treatment of municipal wastewater. Available from the National Center for Environmental Publications and Information in Cincinnati and OCPD. Contact Karen Klima at (202) 260-9130 or Ray Hall at (202) 260-1998.

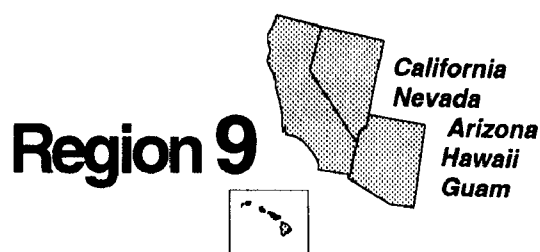
Nonpoint Source News-Notes, November-December, 1993. This 30-page newsletter contains articles on a range of nonpoint-source-related subjects, including New York City's Watershed Program, news from the coastal nonpoint pollution control program, and wetlands workshops for teachers in Georgia. For a copy or to get on the mailing list, fax your request to (202) 260-1517.

Runoff Report, Winter 1993. This 12-page newsletter, subtitled Watershed Information Network News, is published by the National Nonpoint Source Federation. The Winter 1993 issue includes articles on the Farm*A*Syst Program, a national rural pollution prevention program supported by the USEPA and the USDA; Living Classrooms, a river-based training program for teachers; and runoff news "shorts" from across the Nation. The newsletter is available to Federation members. For more information, call 800-795-3634.

Volunteer Monitoring, September 1993, EPA 800-F93008. This 6-page brochure includes information on EPA's volunteer monitoring program, the national volunteer monitoring movement, and brief examples of environmental improvements volunteer monitors have made to our environment. For a copy, contact Alice Mayo at (202) 260-7018.

specific basins. Monitoring will be conducted in a rotating series of basins, with each basin being revisited on a 5-year cycle. A core network of monitoring stations will also be maintained within the state to allow assessment of temporal trends at a subset of stations.

These basin investigations are designed to provide information about designated use support, to address water quality trends, and to determine water quality issues that should be addressed by state or local entities. A series of reports have been completed for the Little Bear River, Otter Creek, and Chalk Creek watersheds. Copies of these reports can be obtained by contacting Tom Toole, Utah Department of Environmental Quality - Division of Water Quality, at (801) 538-6146.



Regional Coordinators

Monitoring, 305(b), Waterbody System: Chris Faulkner (415) 744-2012

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

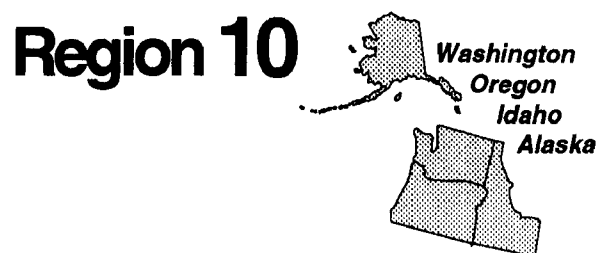
Volunteer Monitoring: Clarice Olson (415) 744-1489 and Chris Faulkner (415) 744-2012

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

Clean Lakes: Wendell Smith (415) 744-2018

CALIFORNIA: Bioassessment Methodology for CA Water Monitoring Agencies: California's water quality monitoring agencies met on December 14, 1993, in Sacramento to discuss the development of Standard Operating Procedures (SOPs) for performing biological assessments. This meeting was convened by Jim Harrington of the state's Department of Fish and Game. It was decided that a statewide bioassessment workgroup involving state and federal government personnel, as well as local university professors, should be created to adapt the Rapid Bioassessment Protocols for streams to Californian ecoregions. Chris Faulkner from the Water Management Division of EPA Region 9 was asked to chair this bioassessment workgroup. Also involved in this effort are Peter Husby from the Environmental Services Branch and Gary Wolinsky from the Water Quality Standards Section.

The formulation of the bioassessment workgroup is a necessary first step in the state's efforts to implement a biological criteria program. The desired product from this workgroup is an adapted bioassessment protocol document for California similar to the *Region 10 In-stream Biological Monitoring Handbook For Wadable Streams in the Pacific Northwest*. This activity has been proposed as an action item for the Regional Intergovernmental Task Force on Monitoring Water Quality (ITFM) workgroup as well. The first full workgroup meeting will be held in late January or early February of 1994. For more information on the status of biological assessment data in California, contact Jim Harrington at (916) 355-0856 or Michael Perrone at (916) 657-0660.



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

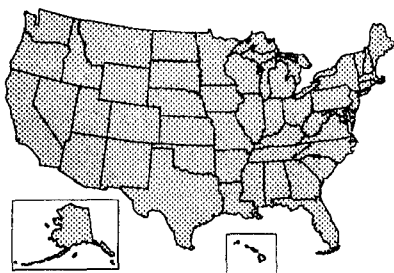
Clean Lakes: Judith Leckrone (206) 553-6911

IDAHO: NPS/Monitoring Workshop: The fourth annual "Nonpoint Source Water Quality - Monitoring Results Workshop" was held in Boise, Idaho on January 4-6, 1994. This workshop was sponsored by the Idaho Division of Environmental Quality (IDEQ), Idaho Department of Fish and Game, U.S. Agriculture Research Service, U.S. Bureau of Land Management, U.S. Forest Service, and EPA. Each year this workshop brings together state and federal agencies, tribes, and others conducting water quality monitoring projects in Idaho to share their results and to provide technical transfer. In addition to presentations concerning nonpoint source water quality monitoring projects, this year there were workgroups on endangered species, data management, and Total Maximum Daily Loads (TMDLs). For more information, contact Bill Clark (IDEQ) at (208) 334-5860.

Agricultural Water Quality conference: On January 23-26, 1994, in Boise, Idaho, the Idaho Association of Soil and Water Conservation Districts is sponsoring a conference titled "Water Quality 2000 - Helping to set the course for

Idaho's agricultural water quality program in the next century." The objectives of this conference are to provide Idaho's farmers and ranchers with current information on water quality; to identify and prioritize national water quality issues of local importance regarding endangered species, watershed policies, and economic development; to prompt farmers and ranchers to adopt Best Management Practices; and to foster the public's interest in water quality issues. For more information, contact Juanita Arroues at (208) 338-5900.

HEADQUARTERS ACTIVITIES



OFFICE OF WETLANDS, OCEANS AND WATERSHEDS (OWOW)

Assessment and Watershed Protection Division (AWPD)

Joint TMDL/NPS Meeting Held in San Francisco: On November 1-3, members of AWPD's Watershed Branch and Nonpoint Source Control Branch and the Office of Science and Technology's (OST) Exposure Assessment Branch met with Regional total maximum daily load (TMDL) and nonpoint source (NPS) coordinators in San Francisco to discuss ways to improve coordination of program activities. One of the results of the meeting is the establishment of an informal workgroup that will include NPS, TMDL, and OST representatives. These representatives will work together to



The Water Monitor Goes Bulk Mail

The *Water Monitor* has recently shifted from 1st class to bulk mail rate. While this saves postage fees, it also increases the time it takes your monthly copy to reach you. We hope our readers are not inconvenienced by this unavoidable delay.

develop a strategy to identify and recommend tasks and activities in which the NPS and TMDL programs can coordinate. The workgroup plans to release a report in about 4 months. For more information, contact Mimi Dannel at (202) 260-1897.

Joint Meeting of Regional Monitoring Coordinators and Regional Quality Assurance Officers (QAO): Region 3 hosted the first joint meeting of the Regional Monitoring Coordinators and Regional Quality Assurance Officers (QAO) on November 16-17. The purpose of the meeting was to ensure good QA/QC involvement in the water monitoring strategic plan and program activities. This forum resulted in suggested areas for cooperation between quality assurance and monitoring staffs. For more information, contact Mary L. Belefski at (202) 260-7061.

Searchable Watershed Registry Available on Nonpoint Source Bulletin Board (NPS BBS): An on-line searchable database of watershed project professionals is now open on the NPS BBS in Special Interest Group Forum #5, the Watershed Restoration Network. Over 150 people are registered in the database, which include (for each person) contact information, expertise, and details about watershed project activities. New registrations are being accepted on-line only. To obtain a free copy of the USEPA NPS Information Exchange Computer BBS User's Manual (EPA 503/8-92/002), write to NCEPI, 11029 Kenwood Road, Building 5, Cincinnati, OH 45242 or fax your request to (513) 891-6685.

Midwest Flood Activities: An organizational meeting of the Flood Event Water Quality Workgroup, a workgroup of the Subcommittee on Water Quality (under the Interagency Coordination Committee on Water Information), was held December 14-15 in Washington, DC. The mission of the workgroup is to develop a national plan for collecting water quality information during major flood events. Mary L. Belefski (primary) and Franz Schmidt (alternate) are the EPA representatives to this workgroup. John Helvig of the Environmental Services Division in Region 7 also attended and briefed the members on Region 7's flood-monitoring activities. For more information, contact Mary L. Belefski at (202) 260-7061.

Oceans and Coastal Protection Division (OCPD)

OCPD National Branch Chiefs Meeting: The annual OCPD National Branch Chiefs Meeting was held in Atlanta, Georgia, on December 1-3. Major topics included implementation of the Water Resources Development Act; management of contaminated dredged material; funding and program direction issues in the National Estuary Program

Calendar Highlights

February

15-19 **Biodiversity of the Indian River Lagoon**, Fort Pierce, FL. Contact Derek Busby, Indian River Lagoon NEP, 1900 So. Harbor City Blvd., #109, Melbourne, FL 32901. (407) 984-4950.

16-18 **Ecosystem Management - What Is It and How Do We Achieve It?** Annual Meeting of the Oregon Chapter of the American Fisheries Society, Sunriver, OR. Contact Bob Hughes, METI, 200 SW 35th Street, Corvallis, OR, 97333. (503) 754-4516, FAX: (503) 754-4716.

17-18 **North Carolina Stormwater Management Conference**, Asheville, NC. Contact Bill Eaker, Land-of-Sky Regional Council, 25 Heritage Dr., Asheville, NC 28806. (704) 254-8181.

23-25 **Mid-Atlantic Highlands Area: Environmental Monitoring and Assessment Conference**, Hershey, PA. Contact Susan Brager, Eastern Research Group, Inc. 110 Hartwell Ave., Lexington, MA. 02173-3198. (617) 674-7347, FAX: (617) 674-2906.

28- Mar 4 **Stormwater Management Modeling**, Toronto, Canada. Contact Evelyn James, CHL, 36 Stuart Street, Guelph, Ontario, Canada, N1E 4S5. (519) 767-0197, FAX (519) 767-2770.

March

3-5 **NALMS 3rd Annual Southeastern Lakes Management Conference—Watershed Management: From**

Concept to Implementation, Columbia, SC. Contact Kathy Shecker, SCDHEC, 2600 Bull Street, Columbia, SC 29201. (803) 734-5402, FAX (803) 734-5216.

7-10 **National Pesticides Management Conference**, St. Louis, MO. Contact Lynn Kirshner, CTIC, 1220 Potter Drive, West Lafayette, IN 47906. (317) 494-9555, FAX (317) 494-5969.

22-24 **Annual Region 6 Water Monitoring and Assessment Workshop**, Bandera, TX. Contact Paul Koska at (214) 655-8357.

27-30 **Second International Conference on Groundwater Ecology**, Atlanta, GA. Contact John Simons, USEPA (4602), 401 M Street, SW, Washington, DC 20460. (202) 260-7091.

April

10-13 **Toxic Substances and the Hydrologic Sciences**, Austin, TX. Contact AIH, 3416 University Avenue, SE, Minneapolis, MN 55414-3328. (612) 379-1030, FAX (612) 379-0169.

10-14 **Fourth National Volunteer Monitoring Conference**, Portland, OR. Contact Deborah Rodney, CITE, Inc., 2405 NE 21st Avenue, Portland, OR 97212. (503) 282-2627, FAX (503) 335-3532.

17-20 **The Coast: Organizing for the Future**, Charleston, SC. Contact Leigh Handal, SC Sea Grant, 287 Meeting Street, Charleston, SC 29401.

(NEP); transferring lessons learned in the NEP to other programs; OCPD's role in section 6217 of the Coastal Zone Act Reauthorization Amendments; and potential impacts of the Endangered Species Act and Clean Water Act reauthorization on OCPD programs. For more information, contact Macara Lousberg at (202) 260-9109.

Albemarle-Pamlico Estuarine Comprehensive Conservation and Management Plan (CCMP): On November 30, the Policy Committee of the Albemarle-Pamlico Estuarine Study (one of EPA's early National Estuary Programs) voted to transmit its final CCMP to the Governor and the Administrator for approval. Agricultural and forestry practices were among those issues addressed most

aggressively by the program, and the CCMP is consistent with the state's Watershed Protection Approach.

Activities to implement the CCMP are already underway. For example, the Governor has designated 1994 as the "Year of the Coast" and has established a Coastal Futures Committee to review 20 years of coastal management in North Carolina. The CCMP implementation will be carried forward by a Coordinating Council and five regional subcouncils, the latter also corresponding to the watershed regions in the study area. The Management Conference hopes to receive approval by the Administrator in February 1994. For more information, contact Eric Slaughter at (202) 260-1051.



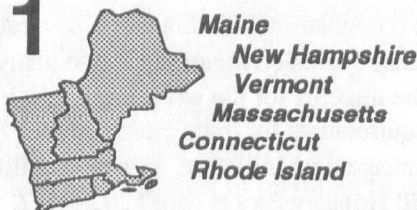
The Water Monitor

U.S. EPA Region 8 Library
Denver, Colorado

MAR 18 1994

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: Workshop on Biological Indicators for Lakes: The New England Association of Environmental Biologists (NEAEB) hosted a workshop, "Developing Fish and Macrobenthos Indicators for Lake Assessments," at its meeting in March (see related story below). EPA's Environmental Monitoring and Assessment Program (EMAP) and Biological Criteria Program (BCP) are currently developing a series of biological indicators for assessing the ecological condition of lakes; this workshop focused on a number of the issues associated with evaluating the potential of lake fish and benthic invertebrate assemblages as ecological indicators. The first section of the workshop included presentations

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based on data collected from Northeast lakes. The second section was a panel-led discussion focusing on selection and standardization of sampling methods, evaluation of candidate metrics, reference site selection and comparison of indicator requirements for making region-level (EMAP) versus lake-specific (BCP) assessments.

For information concerning the workshop, contact Peter Vaux, Harry Reid Center for Environmental Studies, University of Nevada - Las Vegas, 4505 Maryland Parkway, Box 454009, Las Vegas, NV 89154-4009, (702) 895-3382, FAX (702) 895-3094.

MAINE: Volunteer Conference: The Maine State Planning Office and University of Maine Cooperative Extension will sponsor a fourth annual Water Quality Monitoring Fair for volunteer monitoring groups, "Water, Water Everywhere," on March 26, 1994 in Newcastle, Maine. Concurrent workshops will feature over 30 expert presenters from New England, Colorado and Nova Scotia. Topics at this year's fair include: organizing and funding a program; incorporating quality assurance elements; interpreting data; approaches for watershed protection; and biological monitoring. There will be displays and resource tables sponsored by existing monitoring programs.

For more information, contact the Maine State Planning Office at (207) 287-3261.

RHODE ISLAND: Meeting of New England Biologists: The Rhode Island Department of Environmental Management (RIDEM) hosted the 18th annual meeting of the New England Association of Environmental Biologists (NEAEB) on March 2-4, 1994 in Newport, Rhode Island. Topics highlighted for discussion included metals contamination and assessment; targeted nonpoint source programs; watershed permitting and monitoring; case studies incorporating biological monitoring and assessments; and wet weather programs.



For more information contact Bob Richardson, RIDEM, Division of Water Resources, 291 Promenade Street, Providence, RI 02908-5767, (401) 277-6519.



Regional Coordinators

Monitoring: *Randy Braun* (908) 321-6692
305(b), Waterbody System: *Xuan-Mai Tran*
(212) 264-3188

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

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

Nonpoint Source: *Mack Henning* (212) 264-2059

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

REGIONAL OFFICE: 1993 R-EMAP Sampling: Region 2 Environmental Services Division (ESD) personnel completed the 1993 sampling portion of their Regional Environmental Monitoring and Assessment Program (R-EMAP), "Sediment Quality Assessment of the NY/NJ Harbor Complex and the Regional Validation of EMAP-Like Indicators of Sediment Quality." EMAP staff assisted the Region in determining the appropriate random stations for sampling. EPA staff and the EPA vessels *Clean Waters* and *Anderson* conducted the sampling.

The ESD sampled a total of 85 stations in 6 basins of the harbor complex and analyzed for chemical parameters, toxicity and benthic community structure. The 6 basins were: Upper NY Harbor, Jamaica Bay, western Long Island Sound, Newark Bay, NY Bight Apex, and Lower NY Harbor/Raritan Bay. Complete results for the first year of this two-year study are expected by June 30, 1994. For more information, contact Darvene Adams at (908) 321-6700.

NEW JERSEY: Clean Method Sampling Protocol for Ambient Trace Metal Monitoring: The Department of Environmental Protection and Energy's (DEPE) Office of Water Monitoring Management has developed a draft clean methods monitoring protocol.

Entitled, "Clean Methods Techniques to be Used When Sampling for Trace Metals in Aqueous Samples," its objective is to provide monitoring accurate to 1 part per billion (ppb).

Method validation is currently underway. The draft protocol addresses equipment precleaning, source water, reagent quality, field blanks, sample collection, filtration (dissolved metals) and atmospheric contamination.

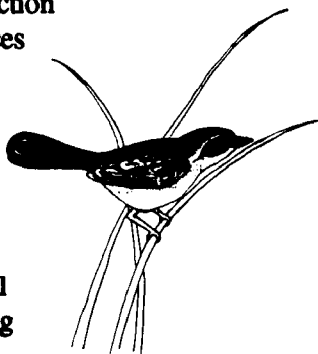
In conjunction with this work, several laboratories are being evaluated regarding 1 ppb analytical capabilities. The impetus for the work is the low level monitoring requirements for trace metals in DEPE's watershed management initiative. For more information, contact Bill Honachefsky at (609) 292-0427.

Nonpoint Stormwater Study: The NJ DEPE and the US Geological Survey are cooperating on a study of stormwater pollutant loads in Barnegat Bay, New Jersey. Participants will conduct storm event monitoring and base flow monitoring to estimate annual loads from three distinct land use types. They will evaluate basic water quality parameters such as dissolved oxygen, suspended solids, nutrients and fecal coliform bacteria. The state will use information obtained from this study to estimate the impact of stormwater on water quality in the Bay. Techniques developed may be used in future studies for stormwater impacts in other estuaries and in the evaluation of best management practices (BMP) effectiveness. For more information, contact James Mumman at (609) 292-1623.

Improving Water Quality Trends in NJ Estuarine/Marine Waters: The NJ Office of Water Monitoring Management has found a general improving trend in the quality of NJ marine and estuarine waters based on increases in acreages of water from which shellfish can be harvested. During 1976-1994, the state found an 11% increase in the acreage of harvestable waters. Shellfish water classifications are based on shoreline, hydrographic, and bacteriological surveys. The Bureau of Marine Water Classification and Analysis has proposed changes to shellfish water classifications which call for the upgrading of approximately 285 acres. For more information, contact Bill Eisele at (609) 749-2000.

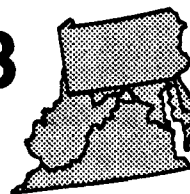
NEW YORK: Ramapo River Assessment Report: The NY State Department of Environmental Conservation (DEC) has completed a biological assessment of the Ramapo River, sampled on August 24, 1993. Compared to sampling in 1991, the study found that water quality improved substantially downstream of the main Orange County Sewer District #1 discharge at Harriman. The discharge now does not adversely affect instream fauna. Water quality from Southfields to Hillburn remains slightly impaired. Since the Ramapo provides little dilution to the Orange County Sewer District #1 treated effluent, treatment efficiencies must be maintained to assure aquatic life health in the waterbody. This has been difficult to maintain in the past. For more information, contact Peter Mack at (518) 457-3495.

Long Island Sound Study: DEC representatives participated in the Long Island Sound Study monitoring plan workshop held at the Stony Brook SUNY campus from November 30 through December 1, 1993. In attendance were representatives from the states of New York and Connecticut, the Interstate Sanitation Commission (ISC), New York City Department of Environmental Protection (NYDEP), the Marine Sciences Research Center at Stony Brook, Hydroqual, involved federal agencies, and invited participants from academia. Workshop participants developed the outline of a draft monitoring plan that will be refined and finalized during a final workshop to be held early in 1994. For more information, contact Peter Mack at (518) 457-3495.



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, Volunteer Monitoring: *Chuck Kanetsky*
(215) 597-8176

305(b), Waterbody System: *Margaret Passmore*
(215) 597-6149

303(d)/TMDL: *Thomas Henry* (215) 597-8243

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

REGIONAL OFFICE: Marine Sediment and Fish Sampling Project: Region 3, in cooperation with the Headquarters Office of Research and Development, conducted an oceanographic survey at and around three ocean outfalls. This survey was conducted from January 8 through 11, 1994 using the U.S. EPA ocean survey vessel *Peter W. Anderson*. Sediment samples and fish samples were collected at nine stations in a study area extending from north of the Bethany Beach, DE outfall to south of the Ocean City, MD outfall, as well as at five stations in a study area extending from north to south of the Virginia Beach, VA outfall. The purpose of this sampling activity was to ascertain the winter benthic infaunal and fisheries community composition in support of the National Biological Criteria Program. In spite of frigid and windy weather conditions, all sampling activities were conducted without any problems. For details on this sampling program as well as the status of the National Biological Criteria Program, contact George R. Gibson, Jr. at (202) 260-7580.

Presque Isle Bay Sediment Monitoring: EPA Region 3, the PA Department of Environmental Resources and the Great Lakes National Program will be performing some follow-up sediment monitoring at 21 sites in Presque Isle Bay to further delineate the environmental problems in this Great Lakes Area of Concern. The objective is to determine the extent of the pollution problem from anthropogenic versus background sources and its impact on macroinvertebrates and plankton in the

Bay. The monitoring activities will include sediment toxicity testing, sediment chemistry (pesticides, PCBs, and PAHs), particle size, total organic carbon, and macroinvertebrate and plankton identification. For more information, contact Chuck Kanetsky at (215) 597-8176.

Region 4



Regional Coordinators

Monitoring: David Melgaard (404) 347-2126
305(b), Waterbody System: Larinda Tervelt (404) 347-2126
303(d)/TMDL: Jim Greenfield (404) 347-2126
Volunteer Monitoring: Connie Alexander (404) 347-1740
Nonpoint Source: Mary Ann Gerber (404) 347-2126
Clean Lakes: Howard Marshall (404) 347-2126

REGIONAL OFFICE: Mississippi Flood Waters Affect Gulf of Mexico and North Carolina Coast: Last summer's flood waters in the Upper Mississippi River Drainage Basin could result in significant degradation of the water quality of the lower Mississippi River and provide large concentrations of contaminants and nutrients to the Gulf of Mexico. In addition, these midwestern flood waters, which joined the Gulf Stream around the tip of Florida and flowed up the East Coast, have reduced the salt content of the water around Cape Lookout in North Carolina.

The Mississippi River carried tons of farm chemicals into the Gulf during the summer flood. Heavy concentrations of the herbicide atrazine and nitrates from fertilizers triggered a huge growth of algae. The algae settled and decayed, consuming the oxygen necessary for marine life and creating a dead zone approximately the size of New Jersey in surface area and running up to 20 meters thick. Divers who entered this dead zone found no crabs, shrimp or fish.

The U.S. Geological Survey is sampling at sites that were also sampled in 1991-92 during a study of agricultural chemicals in the Mississippi River, and will compare the concentrations and loads during and after the flood with the earlier data. For more informa-

tion, contact Dr. Nancy Rabalais, Louisiana Universities Marine Consortium, at (504) 851-2800.

SOUTH CAROLINA: Water Quality Awards

Presented: On January 6, 1994, EPA-Region 4 presented awards for the South Carolina Outstanding Soil Conservation District and Conservation District Cooperator for 1993.

The 1993 EPA/Conservation District Water Quality Award was presented to John Walpole, primary owner and operator of Sunny Point Farm located on Wadmalaw Island. This 1,800-acre farm is bounded by creeks and streams that flow directly into the marshlands of coastal South Carolina. Fields are contoured so that any runoff is drained to holding ponds where it is recycled through the irrigation system. All water on the farm is channeled, thus precluding runoff into adjacent streams and creeks. Fertilization needs are established through soil and plant tissue tests, and fertilizers are applied directly to crops through a drip irrigation system.

Sunny Point Farm has been used as a demonstration site by a number of federal and state agencies, and Mr. Walpole has been previously recognized by the South Carolina Land Resources Commission as the State's Clean Water Farmer of the Year. For more information, contact Mark Gates, EPA-SCS Liaison, at (404) 347-2126.

Region 5



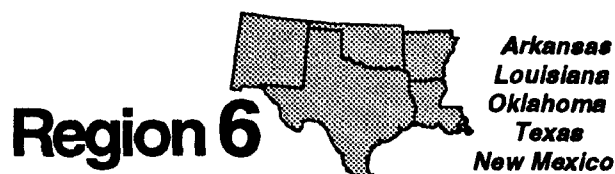
Regional Coordinators

Monitoring: Dave Stollenberg (312) 353-5784
303(d)/TMDL: Robert Pepin (312) 886-1505
Waterbody System: Fouad Dababneh (312) 353-3944
Volunteer Monitoring/305(b): Donna Williams (312) 353-6175
Nonpoint Source, Clean Lakes: Tom Davenport (312) 886-0209

MINNESOTA: Monitoring Proposals Submitted: The Minnesota Pollution Control Agency (MPCA)

recently submitted two monitoring proposals to the Legislative Commission on Minnesota Resources (LCMR). The LCMR funds 2-year projects designed to help maintain and enhance Minnesota's natural resources. One project will develop region-specific biological criteria, using fish and macroinvertebrate community data collected at stream reference sites. The other project will develop and pilot test statistically-based monitoring networks for lakes and streams. These networks would be developed in consultation with USEPA Environmental Monitoring and Assessment Program (EMAP) personnel. If funding is obtained, the projects would begin in July, 1995. For more information, contact Sylvia McCollor at (612) 296-7249.

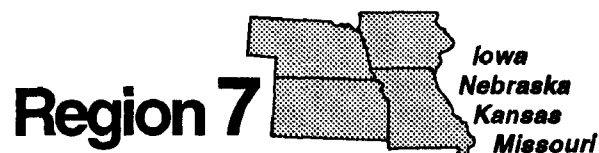
Interagency Committee on Nonpoint Source Monitoring: An interagency committee composed of representatives from federal, state and local agencies involved in monitoring in MN has been formed to revise the monitoring strategy of the Section 319 Nonpoint Source Pollution Management Plan. Participants have expressed interest in maintaining this committee on an ongoing basis to enhance other monitoring coordination activities. For more information, contact Sylvia McCollor at (612) 296-7249.



Regional Coordinators

Monitoring: Charlie Howell (214) 655-8354
303(d)/TMDL: Troy Hill (214) 655-6647
305(b): Russell Nelson (214) 655-6646
Waterbody System: Paul Koska (214) 655-8357
Volunteer Monitoring: Mike Bira (214) 655-6668 and Paul Koska (214) 655-8357
Nonpoint Source: Brad Lamb (214) 655-7140
Clean Lakes: Mike Bira (214) 655-6668

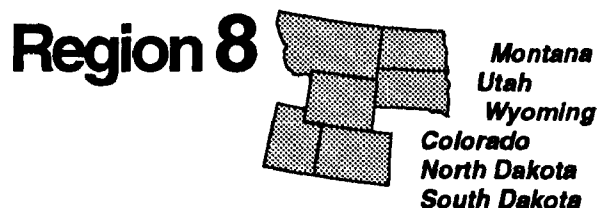
No material submitted for February.



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 and Donna Sefton (913) 551-7500
Nonpoint Source: Julie Elfving (913) 551-7475
Clean Lakes: Larry Sheridan (913) 551-7439

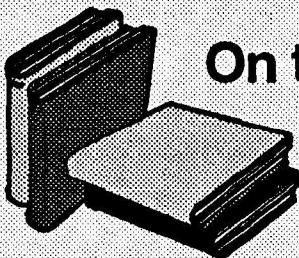
KANSAS: Volunteer Monitoring Activities: Pure Water for Kansas has announced a number of upcoming volunteer monitoring program activities. Several cities throughout the state will host workshops to train team leaders for monitoring, and Pure Water for Kansas is scheduling a conference to be held in 1995 for volunteer groups to meet and discuss their data and future activities. For more information, contact Jerome Pitt at (913) 551-7766.



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: Carol Russell (303) 293-1449
Clean Lakes: Dave Rathke (303) 293-1703

REGIONAL OFFICE: Adopt-A-Platte Citizens Monitoring Program: Adopt-A-Platte is a joint EPA/Audubon Society program designed to collect biological information on the South Platte River and stimulate citizen awareness and stewardship of the



On the Bookshelf . . .

Clean Water In Your Watershed: A Citizen's Guide to Watershed Protection. This 90-page guide is designed to help citizen groups work with local, state, and federal agencies to plan and implement watershed protection/restoration projects tailored to the needs of their own communities. The guide was developed through a cooperative agreement with EPA Region 6. While supplies last, single copies may be obtained for free by sending a self-addressed adhesive mailing label to Susan Alexander, 6WQS, USEPA, Region 6, 1445 Ross Ave, Dallas TX 75202. Copies may also be purchased for \$19.95 plus \$3 shipping and handling from the Terrene Institute, 1717 K St N.W., Suite 801, Washington, D.C. 20006, (202) 833-8317.

LakeSmarts—The First Lake Maintenance Handbook. A new publication on lake maintenance tools and techniques developed through an EPA grant is now available. This 228-page "do-it-yourself" oriented handbook is written in non-technical terms and is filled with practical and affordable techniques for solving lake water quality problems. The handbook is directed primarily at lake communities, lake associations and lake property owners who are interested in preserving or restoring water quality. Copies can be obtained for \$18.95 plus \$3 shipping and handling from the Terrene Institute, 1717 K Street, N.W., Suite 801, Washington, D.C. 20006, (202) 833-8317.

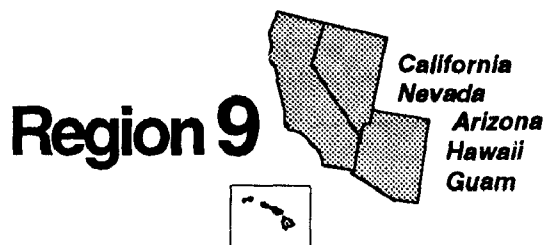
TMDL Case Study, Lake Chelan, Washington, EPA 841-F94-001: This total maximum daily load case study is the 11th in the series published by the Watershed Branch of AWPB. It is available either on the NPS-BBS TMDL Special Interest Group Forum or through your regional 303(d) coordinator.

Using Nonprofit Organizations to Advance Estuary Program Goals, EPA 842-B-093-008: This 50-page paper developed by the EPA describes the role nonprofit organizations (NPOs) can play in carrying out the recommendations for action identified in the Comprehensive Conservation and Management Plans that are being developed for the 21 estuaries in the National Estuary Program. The paper covers the ability of NPOs to attract funding and carry out implementation, oversight and federal consistency activities. Types of NPOs and advantages and disadvantages of using an existing NPO versus a new NPO are also discussed. The issues and recommendations in this paper are also relevant to most ecosystem and watershed management programs. To obtain a free copy, write to USEPA NCEPI, 11029 Kenwood Road, Building 5, Cincinnati, OH 45242 or fax your request to NCEPI at (513) 891-6685. Be sure to cite the correct title and EPA publication number.

Watershed Protection Techniques: A Quarterly Bulletin on Urban Watershed Restoration and Protection Tools, v.1, no.1, Feb 1994. This 34-page bulletin includes an open forum discussing the pros and cons of using natural wetlands for stormwater treatment and a series of technical notes on urban best management practices. The technical notes cover topics as varied as the effectiveness of vegetated filter strips, pollution prevention practices for service stations, and establishment of wildflower cover in stormwater detention basins. The bulletin is produced by the Center for Watershed Protection, 1020 Elden St., Suite 205, Herndon, VA 22070, (703) 709-0040. Single copies may be obtained for \$14; subscriptions are also available.

river, which runs through Denver and out onto the plains of Colorado. The program began in August, 1992, when volunteers adopted one mile of the river. Currently concerned citizens have adopted a total of four miles of the South Platte.

Volunteers are collecting quantitative data on bird species present; bird population density information is collected several times a month along each adopted segment. To date, a total of ninety-two species of birds have been identified along the monitored segments. Volunteers also quantify the recreational use of the river and surrounding river corridor for each adopted section. Recreational use of the river is significant, with volunteer monitors documenting up to 32,000 "user hours" per month along a single one-mile stretch of river. Future activities planned include riparian mapping and aquatic habitat mapping on the South Platte. For further information contact Bob Erickson, EPA Region 8, at (303) 293-1566.



Regional Coordinators

Monitoring, 305(b), Waterbody System: *Chris Faulkner (415) 744-2012*

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

Volunteer Monitoring: *Clarice Olson (415) 744-1489 and Chris Faulkner (415) 744-2012*

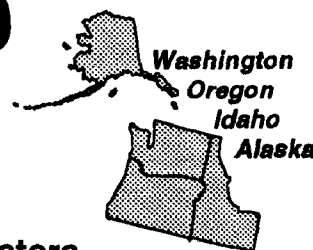
Nonpoint Source: *Jovita E. Pajarillo (415) 744-2011*

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

CALIFORNIA: Citizens' Meeting to Discuss Russian River Assessment: On January 26, 1994, California's North Coast Regional Water Quality Control Board convened a meeting with a local citizens' group to discuss the state's Section 305(b) assessment of the Russian River. According to the assessment, the river is attaining its designated uses; however, the citizens' group believes that uses are not being met and that the local sewage treatment facility is causing a nutrient loading problem.

Participants at the meeting agreed that additional monitoring was needed to better understand the Russian River Watershed and to adequately prove or disprove the theory that the facility is responsible for summer algal blooms. Region 9 staff presented information on EPA's integrated assessment approach, recommended biological monitoring of the river (to be integrated with chemical data), and encouraged the formation of a volunteer monitoring group to assist in the assessment. For more information, contact Chris Faulkner at (415) 744-2012.

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*

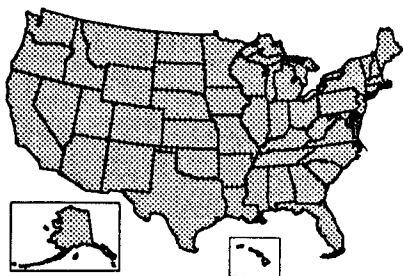
Clean Lakes: *Krista Mendelman (206) 553-1571*

REGIONAL OFFICE: Regional Environmental Monitoring and Assessment (R-EMAP) Conference: EPA Region 10 will host a R-EMAP Conference on March 8, 1994 in Portland, OR. In 1994, EPA and the states of Oregon and Washington will undertake a multi-year joint ecological monitoring and assessment program for the Coast Range Ecoregion of Oregon and Washington and the Yakima River Basin. The program will assess the current ecological status of wadable streams in the area. The conference objectives are to provide information on the details of the Region 10 R-EMAP project; identify the breadth and extent of ongoing research, monitoring, and assessment in these geographic areas; and identify the ecological indicators, methods and information systems to be used in this R-EMAP project. For additional information, contact Gretchen Hayslip at (206) 553-1685.

IDAHO: Teton Canyon Status Report Published: The Idaho Division of Environmental Quality

(IDEQ) recently published a water quality status report for Teton Canyon, Idaho. The Teton River was identified in the Agricultural Nonpoint Source Pollution Abatement Plan as a second priority stream segment for the reduction of agriculture-related pollutants. In addition, the state conducted an agricultural planning study in conjunction with local Water and Soil Conservation Districts. The objectives of these studies were to: 1) document the water quality impact of agricultural practices on the Teton River and its tributaries; 2) determine the source of the pollution found in the streams and river; 3) based on the water quality data and analysis, rank each watershed as to the severity of agricultural pollution, and ; 4) recommend, to the Soil and Water Conservation Districts, areas where pollution control programs would produce the greatest reduction in agricultural water pollution. For additional information, contact Blaine Drewes of IDEQ at (208) 233-6160.

HEADQUARTERS ACTIVITIES



OFFICE OF WETLANDS, OCEANS AND WATERSHEDS (OWOW)

Assessment and Watershed Protection Division (AWPD)

EPA/NOAA Conduct First Three CZARA Threshold Reviews: AWPD and the National Oceanic and Atmospheric Administration's (NOAA) Coastal Programs Division have completed threshold reviews of coastal nonpoint pollution control programs for three states: South Carolina, New York and Maryland. EPA and NOAA established the threshold review process to assist coastal states in developing the coastal nonpoint programs re-

quired by the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). This voluntary process is intended to provide states with early feedback on their proposed approaches to their coastal nonpoint programs. It also encourages early public participation and promotes direct dialogue between EPA, NOAA and the state coastal zone and water quality agencies responsible for program development and implementation. The two-day reviews are conducted by a team comprised of staff from NOAA, EPA Headquarters and the appropriate EPA Region.

EPA and NOAA expect that most of the 29 states and territories covered by CZARA will request reviews over the next year. Final state programs must be submitted to EPA and NOAA by July of 1995, and approval of the programs must occur within six months of submittal. For more information, contact Stu Tuller at (202) 260-6487.

Ecological Restoration Planning Meeting: In mid-February, AWPD's Watershed Branch, along with EPA Region 5, co-sponsored a planning meeting of experts in the field of aquatic ecosystems restoration. The planning group is focusing on developing the agenda for a 1995 symposium on using ecological restoration techniques to help achieve Clean Water Act goals and meet state water quality standards. Contact Doug Norton at (202) 260-7017 for further information.

STORET MODERNIZATION: Water Systems Modernization Activities: Modernization of EPA's Water Quality Storage and Retrieval (STORET) computer network is proceeding on several fronts: (1) The logical model is being converted to a physical model in anticipation of developing up to three prototypes. AWPD plans to showcase at least one of these prototypes in selected locations before the planned national users conference later this calendar year. (2) Tools available in the present STORET, Ocean Data Evaluation System (ODES), and Biological System (BIOS) have recently been compiled to determine which will be supported in the new system. (3) Parameter codes have been categorized and grouped in order to propose business rules for migrating data from the present systems to the new modernized system. As progress on this project

continues, AWPDP's Information Management Section is planning to form subgroups to address each of these issues and involve the user community. For further information on STORET modernization, contact Phil Lindenstruth at (202) 260-6549 or (800) 424-9067.

Taxonomy Standards: An effort is underway to establish interagency standards for taxonomy and a taxonomic reference system. The USGS, EPA, NOAA and the National Biological Survey (NBS) are participating in the development of a relational database that will contain a comprehensive list of taxonomic and common names with additional supporting information. NOAA's National Oceanographic Data Center houses the existing database and will coordinate update activities. The system will provide a common reference list for taxonomic data that is consistent, accessible, and regularly updated. A system is envisioned that will allow users to download information for selected taxonomic groups via Internet. For additional information, please contact Charlie Howell at (214) 655-8354 or Lee Manning at (202) 260-6082.

Midwest Flood Monitoring Activities Update: The interagency Flood Event Water Quality Monitoring (FEWQM) work group held meetings with State representatives from Missouri and Iowa during the week of January 24 to learn about any monitoring conducted by the states during the 1993 Midwest floods and what they would do differently if flooding occurred again. On February 8 and 9, FEWQM convened to review the states' results, to plan for potential spring 1994 flooding, and to work on the outline for overall guidance for any future flood events. As a result of the meeting, the group plans to develop and distribute guidance on water quality monitoring relating to spring flooding. This special interest work group is under the Subcommittee on Water Quality which reports to the ongoing Interagency Advisory Committee on Water Data. For more information, contact Mary Belefski at (202) 260-7061.

Oceans and Coastal Protection Division (OCPD)

San Francisco Bay-Delta Estuary CCMP Approval: On December 9, Administrator Carol Browner approved the San Francisco Bay-Delta

Comprehensive Conservation and Management Plan (CCMP). Growing public concern for the health of the San Francisco Bay and Delta led EPA to establish the San Francisco Estuary Project in 1987. To address this challenge, the project brought together over 100 representatives from the private and public sectors, including government, industry, business, and environmental interests, as well as elected officials from all 12 Bay-Delta counties. The Plan contains 144 specific action items that will foster the improvement and maintenance of the Bay-Delta estuary. Many of the actions will be implemented using funds from section 319 and Titles II and VI of the Clean Water Act. For more information, contact Steve Taylor at (202) 260-6578.

Estuarine Biocriteria Workgroup: The Estuarine Biocriteria Workgroup held a meeting on January 6 and 7 to discuss and reach consensus on elements of standardized methods which should be included in technical guidance for developing estuarine biocriteria. These elements include reference conditions; community measurements; habitat assessment; survey design; and specific metrics used for assessment purposes. Other issues discussed include how and where biocriteria/bioassessments interface with current regulatory programs and approaches. The group, chaired by the Office of Science and Technology, includes staff from EPA, NOAA, and the U.S. Fish and Wildlife Service. Other attendees included representatives from states and academia. For more information, contact Steve Glomb at (202) 260-6414 or Brigitte Farren at (202) 260-9134.

Local Government Workshops on Protecting Coastal Resources: OCPD staff are planning the next series of Local Government Workshops. These workshops are designed to familiarize state and local decision-makers and planners with the regulatory tools available to them for protecting their coastal resource, as well as the financing mechanisms available. To date, five workshops have been held. The upcoming workshops will be held in Boston, MA; Norwalk, CT; coastal North Carolina; Orlando, FL; San Juan, PR; Portland, OR; and Portland, ME. Specific dates and workshop sites are being arranged. For more information, contact Macara Lousberg at (202) 260-9109.

Calendar Highlights

March

22-24 **Annual Region 6 Water Monitoring and Assessment Workshop**, Bandera, TX. Contact Paul Koska at (214) 655-8357.

26 **Water, Water Everywhere: Fourth Annual Water Quality Monitoring Facir for Volunteers**, Newcastle, ME. Contact Maine State Planning Office. (207) 287-3261.

27-30 **Second International Conference on Groundwater Ecology**, Atlanta, GA. Contact John Simons, USEPA (4602), 401 M Street, SW, Washington, DC 20460. (202) 260-7091.

28-April 1 **Water Quality Standards Academy, -1994**. Kansas City, KS. Contact Michele Vuotto, Dynamac Corporation, 2275 Research Blvd., Rockville, MD 20852. (301) 417-6090.

April

4-8 **Water Quality Standards Academy, -1994**. Albuquerque, NM. Contact Michele Vuotto, Dynamac Corporation, 2275 Research Blvd., Rockville, MD 20852. (301) 417-6090.

10-13 **Toxic Substances and the Hydrologic Sciences**, Austin, TX. Contact AIH, 3416 University Avenue, SE, Minneapolis, MN 55414-3328. (612) 379-1030, FAX (612) 379-0169.

10-14 **Fourth National Volunteer Monitoring Conference**, Portland, OR. Contact Deborah Rodney, CITE, Inc., 2405 NE 21st Avenue, Portland, OR 97212. (503) 282-2627, FAX (503) 335-3532.

17-20 **The Coast: Organizing for the Future**, Charleston, SC. Contact Leigh Handal, SC Sea Grant, 287 Meeting Street, Charleston, SC 29401.

18-20 **7th Annual Virginia Water Resources Conference**, Richmond, VA. Contact Ann Bell, 11743 Ledura Court, #204, Reston, VA 22091, (703) 620-8168.

19-22 **Rivers Without Boundaries**, Grand Junction, CO. Contact Denny Huffman, American River Management Society Symposium Chairperson, Dinosaur National Monument, P.O. Box 210, Dinosaur, CO 81610, (303) 374-2216, FAX (303) 374-2414.

May

2-6 **Water Quality Standards Academy, -1994**. Sacramento, CA. Contact Michele Vuotto, Dynamac Corporation, 2275 Research Blvd., Rockville, MD 20852 (301) 417-6090.

2-3 **Empowering Watershed Stakeholders: A Training Workshop**, Chicago, IL. Contact Bob Kirschner, NEIPC, Natural Resources Department, 222 South Riverside Plaza, Suite 1800, Chicago, IL 60606, (312) 454-0400.

4-6 **Enhancing the States' Lake Management Programs: Building Partnerships for Lake and Watershed Protection**, Chicago, IL. Contact Bob Kirschner, NEIPC, Natural Resources Department, 222 South Riverside Plaza, Suite 1800, Chicago, IL 60606, (312) 454-0400.

5-8 **Texas Watch Meeting of the Monitors: Getting to Know Your Watershed**, Galveston, TX. Contact TX Natural Resource Conservation Commission. (512) 475-2166.

16-20 **Water Quality Standards Academy, -1994**. Atlanta, GA. Contact Michele Vuotto, Dynamac Corporation, 2275 Research Blvd., Rockville, MD 20852. (301) 417-6090.

24-27 **North American Benthological Society, 42nd Annual Meeting**, Orlando, FL. Contact Rob Mattson, Suwannee River Management District, Route 3, Box 64, Live Oak, FL 32060.