

EPA Watershed Training Opportunities



TRAINING COURSES









EPA Watershed Training Opportunities



Assessment and Watershed Protection Division
Office of Wetlands, Oceans, and Watersheds
U.S. Environmental Protection Agency (4503T)
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Washington, DC 20460

Acknowledgments

This booklet was prepared for the U.S. Environmental Protection Agency's Office of Wetlands, Oceans, and Watersheds under EPA Contract 68-C-02-108.

Anne Weinberg, the EPA project manager, appreciates the many EPA staff, particularly those in the Office of Science and Technology, the Office of Wastewater Management, the Office of Ground Water and Drinking Water, and the Office of Wetlands, Oceans, and Watersheds, and others who contributed information about their watershed-related training activities and participated in document review. Special thanks to Ansu John, Tetra Tech, Inc., for her excellent work on this document.

This booklet should be cited as:

U.S. Environmental Protection Agency. 2006. *EPA Watershed Training Opportunities*. EPA 841-B-06-001. Office of Water (4503T), United States Environmental Protection Agency, Washington, DC. 32 pp.

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Internet: www.epa.gov/ncepihom/ordering.htm

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Introduction

The U.S. Environmental Protection Agency's Watershed Academy is a focal point in the Office of Water for providing training and information on implementing watershed approaches. This training is provided to federal, state, tribal, and local officials, as well as private practitioners of watershed management. The Watershed Academy has a Web-based training program, sponsors its own training courses, and develops training materials. It also publicizes watershed-related training materials and Web sites developed by others, including other offices in EPA's Office of Water.

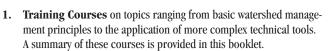
This booklet describes the watershed training opportunities sponsored by EPA's Office of Water and the Watershed Academy.

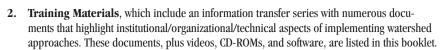
The information provided in this booklet does not constitute an endorsement by the EPA of any nonfederal entity, or its products, nor does it recommend for or against the purchase of specific training courses offered in this booklet.

What is the Watershed Academy?



EPA's Watershed Academy provides training and information on how to implement watershed approaches¹ to local, state, tribal, and federal officials and private practitioners of watershed management. The Watershed Academy consists of three key components:





3. Web-Based Training at Watershed Academy Web (www.epa.gov/watertrain/), through which EPA offers more than 50 free, self-paced training modules and a watershed management training certificate. Occasional live Webcast training is also offered, where participants simultaneously log on to a Web site and/or phone conference lines so that they may participate in a group-learning setting, from remote locations. More information on Watershed Academy Webcast seminars is at www.epa.gov/watershedwebcasts.

A watershed approach is a coordinating framework that focuses community efforts on priority problems within a watershed.

Training Courses

The Watershed Academy offers several training courses that support watershed approaches and also publicizes watershed courses sponsored by others,

including EPA's Office of Water, other federal agencies, and nongovernmental organizations. The watershed-related training courses sponsored by EPA's Watershed Academy and Office of Water are summarized below. To obtain the latest schedule and training information, go to the Watershed Academy Web site at www.epa.gov/owow/watershed/wacademy/corsched.htm. The course schedule includes contact information for course registration. Many courses are free, but fees apply in some instances.

WATERSHED ACADEMY TRAINING COURSES

Watersheds 101: The Clean Water Act: A Key Tool for Watershed Protection

This 2-day course provides a fundamental understanding of each of the major programs in the federal Clean Water Act (CWA) including water quality standards, waterbody assessment and reporting under sections 305(b) and 303(d), Total Maximum Daily Loads (TMDLs), the National Pollutant Discharge Elimination System (NPDES) permit program, the section 319 nonpoint source program, section 404 regulation of placement of dredge and fill material in U.S. waters, and the State Revolving Loan Fund (SRF). Emphasis is placed on the linkages between and across CWA program elements. The goal of the course is to provide trainees with broad knowledge that will enable them to answer most of the basic questions about regulatory tools, funding mechanisms, and other key elements of the CWA, as well as enhance their ability to develop and implement holistic, integrated strategies for watershed protection and restoration. The format includes slideshow presentations, question and answer sessions, informal quizzes, and group exercises.

The Watershed Academy also offers an expanded version of this course entitled "The Clean Water Act and Other Tools for Watershed Protection." This 3-day version of the course includes the information mentioned above, along with information about other key federal statutes relevant to protection and restoration of the chemical, physical, and biological integrity of surface waters (e.g., the Safe Drinking Water Act, Farm Bill, Transportation Equity Act of 2005) and selected innovative state and local tools (such as land acquisition and economic incentives).

These courses are sponsored by EPA's Office of Wetlands, Oceans, and Watersheds, and are intended for watershed managers, staff, and program leaders from states, tribes, and territories; local governments; EPA regional and headquarters staff; watershed associations; and other interested watershed practitioners.

¬ For more information, contact Bill Painter, USEPA (4503T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1218; E-mail: painter.william@epa.gov or wacademy@epa.gov

Watersheds 102: Office of Water "Statutes Courses"

This 4-day course covers the key elements of the federal Clean Water Act and Safe Drinking Water Act along with an overview of other statutes administered by EPA's Office of Water that deal with coastal and marine waters. The course emphasizes the similarities and differences among the various statutes and the EPA regulations that implement them.

¬NW, Washington, DC 20460. Phone: (202) 566-1218; E-mail: painter.william@epa.gov or wacademy@epa.gov

Watersheds 103: TMDL Training for Practitioners

This 1-day course reviews the programmatic and technical components of developing a Total Maximum Daily Load (TMDL) under section 303(d) of the Clean Water Act (CWA). Section 303(d) requires that states, territories, and authorized tribes (hereafter referred to as "states") develop lists of waters that do not meet state water quality standards, even after the application of technology-based and other required controls. States must establish priority rankings for the waters on the list and develop TMDLs for the waters. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can contain and still meet water quality standards and an allocation of that amount to the pollutant's sources. This training provides critical information on how the technical basis for a TMDL can be developed. The TMDL information is presented through lectures and relevant case study examples tailored to regional needs.

This course is sponsored by EPA's Office of Wetlands, Oceans, and Watersheds. The course is intended for people who develop TMDLs, including technical water resources staff and watershed managers from states, tribes, and territories; local governments; EPA regional and headquarters staff; and other watershed practitioners.

⇒ For more information, contact Bill Painter, USEPA (4503T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1218; E-mail: painter.william@epa.gov or wacademy@epa.gov

Watersheds 104: The ABCs of TMDLs for Stakeholders

This 1-day course is designed for people who engage in the Total Maximum Daily Load (TMDL) listing, development, and scheduling process but are not directly responsible for developing TMDLs. The course materials will review the Clean Water Act, TMDL provisions, TMDL listing process, and TMDL development, and will discuss how interested individuals can become involved in the TMDL process.

EPA's Office of Wetlands, Oceans, and Watersheds sponsors this course, which is intended for stakeholder groups such as agricultural and environmental communities, local government officials, and others from the public and private sectors.

For more information, contact Anne Weinberg, USEPA (4503T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1217; E-mail: weinberg.anne@epa.gov or wacademy@epa.gov

Watersheds 105: Watershed Management Tools Primer

This 1- or 2-day course introduces a number of tools that practitioners will find useful in watershed management. The format of the course lends itself well to customization for various audiences according to their special focus or particular interest. The tools explained include watershed assessment methods, modeling, risk assessment, issue prioritization, methods for targeting actions, strategic monitoring, evaluation techniques, and information management. Each session covers two or three tools selected from this list.

This course is sponsored by EPA's Office of Wetlands, Oceans, and Watersheds, and is intended for watershed managers, staff, and program leaders from states, tribes, and territories; local governments; EPA regional and headquarters staff; and other watershed practitioners.

¬For more information, contact Anne Weinberg, USEPA (4503T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1217; E-mail: weinberg.anne@epa.gov or wacademy@epa.gov

Watersheds 106: Watershed Partnership Seminar

This 2-week residential course emphasizes the establishment and maintenance of watershed-based partnerships necessary to build healthy and sustainable watersheds. It is designed to provide training in the natural and human aspects of the watershed management process so that participants understand their importance and have the confidence to go back to their watershed and participate in developing and implementing an ecologically sustaining watershed strategy. The seminar includes an overview of the ecological principles related to watershed planning, the governmental programs designed to support watershed protection goals, and the benefits of watershed management. The course, taught by people involved in cooperative watershed projects and technical experts, blends the human and scientific elements of watershed protection through state-of-the-art case study examples and practical skills and tools, including organizational development and team building skills and frameworks for building sustainable watershed plans. The techniques taught will help participants develop plans and strategies to meet the goals and priorities of several federal, state, and tribal watershed efforts, including the section 319 Clean Water Act Nonpoint Source program.

This course is sponsored by EPA Office of Water's Office of Wetlands, Oceans, and Watersheds. It is intended for community representatives and environmental managers and staff using watershed- or community-based approaches for environmental protection. The course is recommended for EPA regional and headquarters staff; staff from other federal agencies; state, tribal, and local agencies; environmental organizations; corporations; and other parties interested in building or participating in community-based environmental planning and decision making. The course is limited to 40 people and costs approximately \$3,000, which covers tuition, lodging, and meals.

¬ For more information, contact Theresa Trainor, USEPA (4504T), 1200 Pennsylvania Avenue, NW, Washington DC 20460; Phone: (202) 566-1250; E-mail: trainor.theresa@epa.gov or wacademy@epa.gov

Watersheds 107: Watershed Planning: Developing Effective Watershed-Based Plans That Solve Water Quality Problems

EPA and state water resource agencies are moving toward a more quantitative approach for watershed-based nonpoint source pollution projects. Over the past few years, EPA has listed nine key elements for watershed-based nonpoint source pollution control plans that focus on quantifying existing pollutant loads, estimating the reductions needed, and calculating how much can be achieved through best management practice (BMP) implementation. The planning approach recommended is also useful for implementing BMPs designed to achieve load reductions outlined in a TMDL or for protecting water resources threatened by increasing development, land use changes, or other stressors. This training course provides an overview of the nine plan elements and how watershed plans can be developed to address these elements.

□> For more information, contact Barry Tonning at Tetra Tech, Inc., 10306 Eaton Place, Suite 340, Fairfax, VA 22020. Phone (703) 385-6000 ext. 160; E-mail: barry.tonning@tetratech-ffx.com; or Stuart Lehman USEPA (4503T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1205; E-mail: lehman.stuart@epa.gov

Watersheds 108: Watershed Academy Webcast Seminars

The Watershed Academy offers Webcast seminars where trainees log in by Web and/or phone to participate in live training conducted by expert instructors. EPA plans to conduct monthly Webcast seminars. Pre-registration for these seminars will be publicized over electronic discussion list-servers and on EPA's Watershed Academy Web site. While the Internet-based training will be available to a limited number of registered participants, a streaming audio version of the training will be made available after the live seminar for the public to listen to and view.

□> More information on Webcast seminars including descriptions and schedules can be found on the Web at: www.epa.gov/watershedwebcasts. If you have additional questions, you may contact Anne Weinberg, USEPA (4503T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460; Phone: (202) 566-1217; E-mail: weinberg.anne@epa.gov or wacademy@epa.gov

OTHER EPA OFFICE OF WATER TRAINING COURSES

BASINS: A Powerful Tool for Managing Watersheds

This weeklong course is designed to provide technical training and guidance to states, territories, and tribes using Better Assessment Science Integrating Point and Nonpoint Sources (BASINS) to perform integrated water quality and watershed analyses. The course covers an introduction to basic geographic information system (GIS) operations, BASINS environmental data layers, nonpoint source modeling, and in-stream water quality assessments. The course includes extensive hands-on training in computer applications.

EPA's Office of Science and Technology sponsors this course. Persons interested in watershed management, development of Total Maximum Daily Loads (TMDLs), coastal zone management, nonpoint source programs, water quality modeling, National Pollutant Discharge Elimination System (NPDES) permitting, and other related programs are urged to attend. Participants should have a background in water quality modeling, a basic understanding of GIS applications, and familiarity with the Windows environment. Familiarity with ArcView (Ver. 3.x) basic operations is helpful.

In addition to the BASINS course, a number of courses are offered on modeling applications that integrate and work with BASINS. To see the availability of courses such as AQUATOX, HSPF, SWAT, CORMIX, and others, please visit this Web site: www.epa.gov/waterscience/basins/training.htm.

➡ For more information, contact Russ Kinerson, USEPA (4305T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-0392; E-mail: kinerson.russell@epa.gov

Clean Water Act Section 404 Regulatory Issues Training Course

This 3- to 4-day course provides an introduction to issues associated with implementation of the Clean Water Act section 404 regulatory program. The course presents information on the requirements of the section 404(b) (1) Guidelines, the scope of regulated activities; section 404(f) exemptions, mitigation requirements; and procedures for elevating cases under sections 404 (q) and (c).

This course is sponsored by EPA's Office of Wetlands, Oceans, and Watersheds, Wetlands Division, and is intended for EPA regional and headquarters staff and staff from other federal, state, and tribal agencies seeking greater familiarity with the section 404 program requirements. EPA regional and headquarters staff with expertise in the subject areas teach the course. Although there is no tuition for the course, enrollment is limited, with priority given to EPA wetlands staff.

➡ For more information, contact Christopher Hunter, USEPA (4502T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1454; E-mail: hunter.christopher@epa.gov

Community Culture and the Environment: A Guide to Understanding a Sense of Place

This 1- or 2-day course discusses the concepts of community and culture and offers tools for assessing and understanding the social dynamics and local values involved in watershed protection. Using a dynamic, hands-on approach, the course provides a suggested community cultural assessment process and shows participants how they can use the results of the assessment for, among other things, defining their community; building consensus/coalitions; communicating across cultures, visioning, planning, and developing social indicators. The course includes 16 community characteristics and related questions to help focus the assessment process. These characteristics range from community capacity, information flow, and local identity to demographics, property ownership, and governance. Seventeen tools and methods guide the collection of information. These tools include census and economic data, maps and geographic research, social mapping, interviewing, focus groups, surveys, and visual methods. The course features easy-to-use worksheets, case studies from around the country, presentations, and highly interactive exercises.

The course is sponsored and taught by EPA's Office of Wetlands, Oceans, and Watersheds. It is intended for leaders of and academicians in watershed protection, as well as federal, tribal, state, and local agencies seeking technical skills for improving stakeholder involvement processes.

□ For more information, contact Theresa Trainor, USEPA (4504T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1250; E-mail: trainor.theresa@epa.gov

Community Growth Readiness Workshop Series (Southeast Watershed Forum)

A series of four distinct workshops are available for the southeast region that address different tools and strategies that local jurisdictions and community/watershed groups can employ to ensure sustainable growth in their communities.

Introduction to Community Growth Readiness (4 hours)

This workshop introduces elected officials, planning and public works officials, and other community leaders to the tools to design economically viable and watershed-friendly development practices. They learn about the economic impact of poor land use practices on water resources, as well as the economic, quality of life, and regulatory incentives for developing a different approach. Participants are invited to use a community-based process to evaluate and change their codes and ordinances.

Community Growth Readiness (7 hours)

The day-long workshop expands on economically viable development practices that are also watershed-friendly. Attendees assess their current practices, measure their ability to maintain water quality in the face of growth pressures, and learn about a community consensus-building process to implement change in their communities. The timing of this program makes it particularly relevant as communities—facing challenging Stormwater Phase II requirements—look for inexpensive, non-structural approaches to managing polluted runoff. The training helps to overcome the disconnect between smart growth planning and watershed planning.

Multiple Jurisdiction Codes and Ordinances Review (4 hours)

In this workshop, planning and public works officials in different jurisdictions use a Codes and Ordinance Worksheet to evaluate their development rules. The results from all jurisdictions are recorded on a master worksheet. Officials have a structured opportunity to compare results and identify areas of common interest for improvement. This workshop provides a unique opportunity for city or county jurisdictions to develop consistency among their codes and ordinances to discourage development from going to communities with the least-formed land use guidelines.

Community Site-Planning Roundtable (5 hours)

This workshop enables a core team of key leaders and planning officials to reach agreement on the scope, process, participants, and logistics of conducting a watershed site planning roundtable process. A Leadership Team from a local "lead agency" and other key partners and planning officials develop a work plan with assigned responsibilities for conducting the roundtable workshop series. The team will define what it wants to accomplish; identify available resources and obstacles; decide upon a process and timeline; and consider who else needs to be involved. They will continue to meet periodically as needed throughout the 6-month to 1-year roundtable process to ensure the process reflects the priorities of the participating communities.

➡ For more information, contact Christine Olsenius, Executive Director, Southeast Watershed Forum, 1 Vantage Way, Suite D-105, Nashville, TN 37228. Phone: (866) 902-7300; E-mail: co@southeastwaterforum.org; Internet: www.southeastwaterforum.org/training/default.asp

Drinking Water Academy Training Courses

Established by EPA's Office of Ground Water and Drinking Water, the Drinking Water Academy (DWA) is a long-term training initiative whose primary goal is to expand EPA, state, and tribal capabilities to implement the 1996 Amendments to the Safe Drinking Water Act. To help address drinking water at the watershed level, the DWA offers three source water protection courses: (1) Delineation of Source Water Areas for Water Supply (2) Introduction to EPA's Drinking Water Source Protection Programs, and (3) Source Water Contamination Prevention Measures. The DWA also offers a series of other drinking water-related courses in the following topic areas:

- Safe Drinking Water Act Overview (3 courses)
- National Primary Drinking Water Regulations (10 courses)
- Public Water System Operation (13 courses)
- Public Water System Supervision Implementation (5 courses)
- Sanitary Survey (3 courses)
- Source Water Protection (3 courses)
- Underground Injection Control (5 courses)
- Safe Drinking Water Information System (SDWIS) (17 courses)
- Laboratory Certification (2 courses)
- General Interest (5 courses)

For the latest information on course schedules, see the DWA Web site at: www.epa.gov/safewater/dwa/course.html.

➡ For more information, contact James Bourne, USEPA (4606M), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 564-4095; E-mail: bourne.james@epa.gov

Getting in Step: A Pathway to Effective Outreach in Your Watershed

This course provides participants with a framework for developing and implementing successful outreach programs in their watersheds. Through a combination of presentations, group exercises, and panel discussions, participants learn the process for developing an outreach strategy, discover tips and tools to produce eye-catching materials, and learn ways to effectively distribute their message.

This course is taught by Tetra Tech, Inc., with funding support from EPA's Office of Wetlands, Oceans, and Watersheds and other organizations. The course is intended for audiences responsible for implementing watershed protection efforts at the federal, state, tribal, or local level.

⇒ For more information, contact Melissa DeSantis or Barry Tonning at Tetra Tech, Inc., 10306 Eaton Place, Suite 340, Fairfax, VA 22030. Phone: (703) 385-6000; E-mail: melissa.desantis@tetratech-ffx.com or barry.tonning@tetratech-ffx.com; Internet: www.watershedtraining.net

Getting in Step: Engaging and Involving Stakeholders in Your Watershed

This course provides participants with a framework for developing and implementing successful stakeholder involvement strategies for watershed management programs. Through a combination of presentations, group exercises, and panel discussions, participants learn how to identify driving forces, identify appropriate stakeholder involvement levels, manage cooperative group processes, and move from awareness to action.

This course is taught by Tetra Tech, Inc., with funding support from EPA's Office of Wetlands, Oceans, and Watersheds and other organizations. The course is intended for audiences responsible for implementing watershed protection efforts at the federal, state, tribal, or local level.

Getting in Step with Phase II: A Workshop for Stormwater Program Managers

This workshop is designed for small communities and other entities that must comply with the National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Permit Program. The workshop covers basic program requirements and options for developing and implementing EPA's six minimum measures that small municipal separate storm sewer systems (MS4s) must incorporate, including: public education and outreach, public participation/involvement, illicit discharge detection and elimination, construction site runoff control, post-construction runoff, and pollution prevention/good housekeeping.

This course is taught by Tetra Tech, Inc., with funding support from EPA's Office of Wastewater Management and other agencies. This course is intended for state, regional, and local officials and program managers responsible for developing Stormwater Phase II programs.

⇒ For more information, contact Melissa DeSantis or Barry Tonning at Tetra Tech, Inc., 10306
Eaton Place, Suite 340, Fairfax, VA 22030. Phone: (703) 385-6000 ext. 434; E-mail: melissa.
desantis@tetratech-ffx.com or barry.tonning@tetratech-ffx.com; Internet: www.watershed-training.net

Monitoring Workshops for the National Estuary Program

These 2-day workshops help participants in the National Estuary Program (NEP) review and revise their existing Regional Integrated Monitoring Plan, a requirement of each NEP's Comprehensive Conservation and Management Plan. Specific topics include environmental and programmatic indicators, funding issues, quality assurance, key management issues, and data management.

These workshops are sponsored by EPA's Office of Wetlands, Oceans, and Watersheds, Oceans and Coastal Protection Division. The workshops are offered in NEP study areas and are intended for local, state, and federal monitoring management and staff.

➡ For more information, contact Joe Hall, USEPA (4504T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1241, E-mail: hall.joe@epa.gov

National Environmental Training Center for Small Communities

The National Environmental Training Center for Small Communities, along with the National Drinking Water Clearinghouse and the National Small Flows Clearinghouse, is a program of The National Environmental Services Center (NESC). NESC assists small and rural communities and systems with their drinking water, wastewater, solid waste, and infrastructure security needs. NESC's staff of environmental specialists, engineers, technical writers, and environmental training specialists provide information, assistance, products, and training to help small systems and communities find solutions to the problems they face.

NESC offers several environmental training curricula and courses for small communities including Managing a Small Drinking Water System: A Short Course for Local Officials; Preparing for the Unexpected: Security for Small Water Systems; Assessing Wastewater Options for Small Communities; and Solid Waste Management Options. Environmental training courses are also offered at NESC's annual Environmental Training Institute for Small Communities, and through tailored environmental training for specific audiences.

NESC experts offer free information through a toll free number; regular publications such as the *Small Flows Journal*, *On Tap*, *E-Train*, and *Pipeline*; and through the NESC website (www.nesc.wvu.edu). NESC's commitment to address small community environmental needs is accomplished through cooperative partnerships with technical experts, environmental trainers, and other assistance providers. NESC receives funding from the U.S. EPA Office of Water, the U.S. Department of Agriculture, and other sources to provide training and technical assistance to small and rural communities.

➡ For more information, contact Sandra Fallon, NESC, P.O. Box 6064, West Virginia University, Morgantown, WV 26505-6064; Toll-free (800) 624-8301; E-mail: sfallon@mail.wvu.edu; Internet: www.nesc.wvu.edu

Nonpoint Education for Municipal Officials Training

The University of Connecticut Cooperative Extension System offers training through its Nonpoint Education for Municipal Officials (NEMO) Project. NEMO is an educational program that addresses the relationship between land use and natural resource protection, with a focus on water resources. To help create effective presentations, NEMO relies on advanced technologies like geographic information systems, remote sensing, and the Internet. In Connecticut, NEMO offers many different workshops under four main topics: (1) linking land use to water quality, (2) natural resource-based planning, (3) preservation, and (4) development. Most workshops are approximately 1 hour in length and are often followed up by individual consultation and materials to help communities get started on natural resource-based planning. Member projects of the National NEMO Network conduct similar workshops in more than 30 states and can be contacted through the Connecticut project.

NEMO is funded in part by EPA's Office of Water. The workshops are intended for local land use decision makers such as planning commissions and local government staff.

➡ For more information, contact David Dickson, NEMO, University of Connecticut Cooperative Extension, 1066 Saybrook Road, Box 70, Haddam, CT 06438-0070; Phone: (860) 345-5228; E-mail: nemo@uconn.edu; Internet: http://nemo.uconn.edu or http://clear.uconn.edu

NPDES Permit Writers' Training Course

This 5-day training course provides the basic regulatory framework and technical considerations that support the development of wastewater discharge permits required under the National Pollutant Discharge Elimination System (NPDES). A multidisciplinary faculty presents the course using a combination of lectures, case examples, and practical exercises. The course begins with an introduction

to the history of the NPDES program and its relationship to other Clean Water Act programs. Attention is given to the role of NPDES permitting within a watershed management approach. Participants then become acquainted with the regulatory requirements of the NPDES program and the tools and resources available to assist them in writing NPDES permits.

The course, presented by EPA's Office of Wastewater Management, is designed for NPDES permit writers with 6 months to 2 years of experience. Veteran permit writers and other water program staff also find the course useful and enjoyable and make up a growing percentage of course participants.

➡ For information on course scheduling, contact Betty Peterson, Tetra Tech, Inc., 10306 Eaton Place, Suite 340, Fairfax, VA 22030. Phone: (703) 385-6000 ext. 181; E-mail: betty.peterson@tetratech-ffx.com. For information on course content, contact Pravin Rana, USEPA (4203M), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 564-1909; E-mail: rana.pravin@epa.gov; Internet: www.epa.gov/npdes (Click on Training & Meetings on the right-band side)

NPDES Permits Program Overview Course for Permitees: Including New and Emerging Issues

The National Pollutant Discharge Elimination System (NPDES) permit development and issuance process requires a significant investment of resources for both the permitting authority and the permit holder. This course will provide training on the basic requirements and methods for issuing NPDES permits for the permit holder and permit writer. Its objective is to increase understanding by both parties to help reduce permit issuance time and lead to increased permit compliance.

The program, which includes lecture and discussion, provides attendees with a strong understanding of the purpose of the NPDES program, as well as the mechanics for developing, issuing, and implementing an NPDES permit. The course covers legal issues that a permit holder would have to consider and provides a synopsis and review of new innovative tools that may be used in the NPDES permit process, such as electronic tools for data organization and data analysis needed for permit issuance. There will also be discussions on new water quality approaches such as watershed-based permitting and water quality trading.

The course is taught by a team of instructors with varied experience including senior EPA headquarters and EPA regional staff as well as non-EPA experts. The course is generally offered two to four times a year in various locations around the country.

➡ For more information, contact Lara Hughes, Water Environment Federation, 601 Wythe Street, Alexandria, VA 22314-1994. Phone: (703) 684-2442; E-mail: lhughes@wef.org; or Pat Bradley, USEPA (4203M), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 564-0729; E-mail: bradley.patrick@epa.gov; Internet: www.wef.org or www.epa.gov/npdes (Click on Training & Meetings on the right band side)

Pretreatment Training: Introduction and Intermediate Topics

This training comprises two sections: The Introduction section provides the basic regulatory and technical framework that supports the development and implementation of pretreatment programs under the National Pollutant Discharge Elimination System (NPDES) and the Clean Water Act (CWA). The Intermediate section focuses on permit development and issuance for industrial dischargers. The objective of this section of the training course is to provide the framework for collecting, managing, and applying the information necessary to develop and issue individual control mechanisms (permits) to industrial dischargers. The course includes extensive discussion of the process for reviewing industrial information to determine appropriate categorization of the industry and subsequent effluent limit derivation.

This course is designed and recommended for environmental professionals responsible for developing and implementing the pretreatment program at the local level, industrial dischargers, consultants, and especially individuals with less than 2 years in a pretreatment program. It is generally held two to four times per year in various locations around the country.

□> For more information, contact Lara Hughes, Water Environment Federation, 601 Wythe Street, Alexandria, VA 22314-1994. Phone: (703) 684-2442; E-mail: lhughes@wef.org; or Jan Pickrel, USEPA, (4203M) 1200 Pennsylvania Avenue, NW, Washington, DC. Phone: (202) 564-7904; E-mail: pickrel.jan@epa.gov; Internet: www.wef.org or www.epa.gov/npdes (Click on Training & Meetings on the right-hand side)

Pretreatment Training: Intermediate and Advanced Topics

In the Intermediate section of the course, information is provided on the control of industrial discharges by focusing on permit development and issuance. There is extensive discussion of the process for reviewing industrial information to determine appropriate categorization of the industry and subsequent effluent limit derivation.

The Advanced section focuses on the development and application of pretreatment standards with a focus on local limits. The advanced course is designed and recommended for environmental professionals responsible for developing and implementing the pretreatment program at the local level, industrial dischargers, and consultants. The Advanced course assumes an intermediate level of familiarity with pretreatment program requirements and is not recommended for individuals who have not taken an introductory level course. This course is generally offered two to four times per year in various locations around the country.

□> For more information, contact Lara Hughes, Water Environment Federation, 601 Wythe Street, Alexandria, VA 22314-1994. Phone: (703) 684-2442; E-mail: lhughes@wef.org; or Jan Pickrel, USEPA, (4203M) 1200 Pennsylvania Avenue, NW, Washington, DC. Phone: (202) 564-7904; E-mail: pickrel.jan@epa.gov; Internet: www.wef.org or www.epa.gov/npdes (Click on Training & Meetings on the right-hand side)

Smart Growth Leadership Program

The University of Maryland's National Center for Smart Growth Research and Education focuses on how governments can coordinate to build sustainable communities by channeling economic and residential development in a more environmentally conscious, cost-effective manner. They offer a pilot course in Maryland and in surrounding states that can serve as the first step to help local governments work with relevant state and federal agencies to define the goals and scope of a coordination strategy for smart growth. Local governments can, at their option, plan for or develop such a strategy in an intergovernmental workshop, which could include the following:

- Sessions on issues (environment, transportation, and community development) and on leadership/negotiation skills for participants to better understand each others' work, and how their fragmented authorities can together form a big picture mosaic of smart growth
- Working groups (local, state, and federal officials for each participating locality) to draft a
 potential action strategy of procedures to coordinate authorities and programs relevant to local
 issues
- Scoping creative deals to help frame the potential action strategy

EPA's Office of Ground Water and Drinking Water (OGWDW) provided initial support for the development of this course. It is intended for staff members from special interest organizations and federal, state, and local governments to enable them to lead coordination efforts that will advance smart growth by reducing bureaucratic territorialism, unnecessary conflict, and wasteful fragmentation.

➡ For more information, contact Molly Martin, University of Maryland Center for Smart Growth Research and Education, 1112K Preinkert Field House, College Park, MD 20742-1821. Phone: (301) 405-6788; E-mail: mbmartin@umd.edu; Internet: www.smartgrowth.umd. edu/index.htm

Clean Water SRF 101

This course provides a basic understanding of how the Clean Water State Revolving Fund (SRF) program works and how it can provide funding for an extensive array of water quality-related activities to support watershed protection. With assets exceeding \$52 billion, the Clean Water SRF has become the primary affordable source for communities to finance wastewater treatment projects as well as critical watershed activities, including wetlands protection, agricultural and animal best management practices, estuaries, brownfields remediation, ground water protection, septic and decentralized systems, and other nonpoint source activities.

Participants will learn about applying for assistance, setting state funding priorities, developing creative funding mechanisms to address critical needs, designing innovative ways to solve water quality problems, using the Clean Water SRF to supplement other available funding sources, and applying case studies of successful approaches to watershed protection.

This course, sponsored by EPA's Office of Wastewater Management, is intended for watershed and Clean Water SRF managers and staff, state and local program managers, EPA regional and headquarters staff, and other interested watershed practitioners. The course may be tailored to meet particular region or state needs.

□> For more information, contact Sheila Platt, USEPA, Office of Wastewater Management, State Revolving Fund Branch (4204M), 1201 Constitution Avenue, NW, Washington, DC, 20460. Phone: (202) 564-0686; E-mail: platt.sheila@epa.gov

STORET

This 2- to 2½ -day course explains how to install, operate, and maintain EPA's modernized STORET (STOrage and RETrieval) environmental data system. STORET is a repository for water quality, biological, habitat, and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, private citizens, and others. This course also covers accessing STORET data from the STORET Warehouse using a Web browser and incorporating the data into commonly used software applications such as spreadsheets. This course is intended for STORET clients and can be customized to meet specific interests and needs.

➡ For more information, contact STORET User Assistance. Phone: (800) 424-9067; E-mail: STORET@epa.gov. Additional information, including the names and phone numbers of EPA regional office STORET coordinators, is available through the STORET Web page: www.epa. gov/storet

Stream Corridor and Floodplain Restoration

This 2-day workshop emphasizes the practical aspects of stream and floodplain restoration and is designed for professionals concerned about flooding, habitat, water quality, and erosion associated with rivers and streams. The workshop focuses on in-the-field application of restoration concepts, and it includes classroom instruction covering the principles and concepts of river restoration projects, planning and funding, project design, project construction, and monitoring.

EPA's Office of Wetlands, Oceans, and Watersheds, Wetlands Division, provided support for the initial development of this workshop, which continues to be conducted periodically by the Association of State Floodplain Managers and various partners. It is designed specifically for practicing professionals looking for a forum to learn about current restoration practices and to discuss their application to specific landscapes and conditions. The course is adapted to the landscape of each host location, but the topics offered are relevant for anyone.

➡ For more information, contact Diane Brown, Association of Floodplain Managers, 2809
Fish Hatchery Road, Suite 204, Madison, WI 53713. Phone: (608) 274-0123; E-mail:
diane@floods.org; Internet: www.floods.org

Tribal Nonpoint Source Program Workshop

This 2-day course provides information to tribes about the procedures of the Clean Water Act section 319 Program (Nonpoint Source Program), explains what is required to become eligible for section 319 funds, and demonstrates how to prepare section 319 proposals. Other topics include applying for treatment as a state status, preparing Nonpoint Source (NPS) Assessment Reports, developing NPS management programs, and preparing watershed plans. Tribes are invited to share their experiences so that others can learn from them.

This course is sponsored by EPA's Office of Wetlands, Oceans, and Watersheds, Assessment and Watershed Protection Division. EPA's objective is to hold four workshops every year around the country.

➡ For more information, contact Stacie Craddock, USEPA (4503T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1204; E-mail: craddock.stacie@epa.gov

Volunteer Monitoring for Estuaries

EPA sponsors 2- to 3-day volunteer estuary monitoring workshops nationwide to encourage volunteer monitoring in estuaries, enhance networking among programs, and improve the quality of volunteer data. In addition, the workshops help encourage and assist volunteer monitoring coordinators to be more effective in all aspects of planning and implementation of volunteer monitoring. Specific topics include methods, quality assurance, working with the news media, networking, creative funding, data management, and use of the Internet. The *Volunteer Estuary Monitoring Manual* is a useful resource for the volunteer.

The Ocean Conservancy conducts these workshops, with funding support provided by EPA's Office of Wetlands, Oceans, and Watersheds, Oceans and Coastal Protection Division. The workshops are conducted in coastal areas nationwide, particularly in areas where National Estuary Programs are located. The intended audience includes volunteer monitoring coordinators who manage a group of volunteers in monitoring estuarine areas and is limited to 50 participants.

□> For more information, contact Joe Hall, USEPA (4504F), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1241, E-mail: hall.joe@epa.gov; or Seba Shevely, The Ocean Conservancy, 1432 North Great Neck Road, Suite 103, Virginia Beach, VA 23454. Phone: (757) 496-0920

Water Quality Standards Academy

This comprehensive and highly structured basic course introduces participants to all aspects of the water quality standards program, including the interpretation and application of the water quality standards regulation; policies and program guidance; development of water quality criteria (including human health, aquatic life, bacteria, biological, and nutrient); and other aspects of the program, including designated uses, antidegradation policies, mixing zone policies, and use attainability

analyses (UAAs). States and tribes adopt water quality standards as laws or regulations. Water quality standards are the backbone of the watershed protection approach to pollution control.

EPA's Office of Science and Technology sponsors this course, which is a basic introductory course designed for those with fewer than 6 months of experience with the water quality standards program. Others can also benefit from the course, including veterans of the water quality standards program who want a refresher course.

□> For more information, go to the Web site: www.epa.gov/waterscience/ and click on the link for "Standards Academy" under "Training and Financial Assistance" or contact Tamarra Brewster, USEPA (4503T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1071; E-mail: brewster.tamarra@epa.gov

Water Quality Standards Academy for Indian Tribes

This comprehensive and highly structured basic course introduces tribal participants to all aspects of the water quality standards program, including the interpretation and application of the water quality standards regulation; policies and program guidance; development of water quality criteria (human health, aquatic life, bacteria, biological, and nutrient); and other aspects of the program. States and tribes adopt water quality standards as laws or regulations. Water quality standards are the backbone of the watershed protection approach to pollution control.

EPA's Office of Science and Technology sponsors this course, which is designed for tribal staff with fewer than 6 months of experience with the water quality standards program. Others can also benefit from the course, including veterans of the water quality standards program who want a refresher course.

In addition to this basic introductory course, EPA frequently offers training courses and workshops specifically designed for tribes.

□ For more information, contact Tamarra Brewster, USEPA (4305-T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 260-7301; E-mail: brewster.tamarra@epa.gov

Water Resource Management: A System-Wide Approach to Integrating Watersheds and Reservoir Systems

This 2½-day workshop covers reservoir limnological processes and water quality management opportunities, sampling methodologies and data collection, watershed management and in-reservoir and tailwater engineering technologies, and post-project operations and assessment. Participants acquire classroom knowledge, the workshop manual, and computer codes to aid in assessment and design.

The workshop was developed under a grant from the EPA Office of Water's Nonpoint Source Control Branch. The Environmental Laboratory and the Coastal and Hydraulics Laboratory of the U.S. Army Engineer Research and Development Center, Waterways Experiment Station, conduct the workshop, using an interdisciplinary team of engineers and scientists. The target audience for this course includes Corps of Engineers planners, engineers, hydrologists and project personnel; local and regional EPA officials; federal and state soil conservation agencies; state water pollution control agencies; state and federal fish and wildlife agencies; hydropower producers and power administrators; local lake associations and lake and reservoir managers; and municipal water associations.

□> For more information, contact Laurin Yates, U.S. Army Corps of Engineers, Engineer Research and Development Center, Vicksburg, MS 39180-6199. Phone: (601) 634-3792; E-mail: yatesl@wes.army.mil

Watershed Leadership Institutes

The Watershed Leadership Institutes empower local watershed leaders with the skills, tools, and confidence to assess, design, and implement effective programs in their home watersheds. The training combines classroom time, design exercises, and field visits to provide a comprehensive learning experience. The institutes also provide caucuses, networking, extensive online support materials, and 6 hours of consulting with Center for Watershed Protection staff once participants return home.

The Watershed Leadership Institutes include the Watershed Protection Institute (WPI) and the Watershed Restoration Institute (WRI). WPI trains watershed leaders on how to conduct local site planning roundtables and prepare small watershed plans to protect the health of less developed watersheds, particularly those with rural and newly urbanizing communities. WRI focuses on watershed restoration techniques that include stream and upland assessments to identify restoration opportunities; stormwater retrofitting; and stream restoration.

⇒ For more information, contact Rebecca Winer, Center for Watershed Protection, 8390 Main Street, 2nd Floor, Ellicott City, MD 21043. Phone: (410) 461-8323 ext. 213; E-mail: rrw@cwp. org; Internet: www.cwp.org

Watershed Leadership Train-the-Trainer Academy (Southeast Watershed Forum)

This intensive 3-day training workshop focuses on providing the information, resources, and tools to local "leaders" who agree to train others to develop land and water quality protection strategies for their communities. Attendees commit to conducting the training in at least four other organizations in their community over the next year. Attendees include watershed organizations, local government, state watershed/319 program coordinators, and stormwater managers primarily from the southeast region. Through lectures, field trips, small work-group sessions, and "lessons learned" from past graduates, attendees are immersed in the practical aspects of topics such as the following:

- Basic tools needed for land and water quality protection
- Best management practices (BMPs) that reduce the impacts of development
- · Economic incentives for smarter growth
- Assistance to communities in meeting stormwater regulations
- Facilitation of local partnerships for land and water protection
- · Consensus-based process for changing development rules
- Public negotiation and conflict resolution
- ➡ For more information, contact Christine Olsenius, Executive Director, Southeast Watersbed Forum, 1 Vantage Way Suite D-105, Nashville, TN 37228. Phone: (866) 902-7300; E-mail: co@southeastwaterforum.org; Internet: www.southeastwaterforum.org/training/default.asp

Watershed and Pre-Disaster Mitigation Planning

Watershed planning is required by various agencies, especially programs within EPA. FEMA administers several hazard mitigation grant programs and requires communities to have hazard mitigation plans in place in order to be eligible for hazard mitigation grant funds. Watershed and Hazard Mitigation Plans are all too often stand-alone documents that fail to address common issues and efforts. This 1-day workshop identifies linkages among EPA, FEMA and NRCS programs and offers guidance to state and community officials on how to link the goals and objectives and best combine watershed and pre-disaster mitigation planning efforts. Case studies of community planning successes that integrate watershed and hazard mitigation concerns are presented, along with cutting-edge community approaches such as No Adverse Impact and Green Infrastructure.

EPA's Office of Wetlands, Oceans, and Watersheds, Wetlands Division, provided support for the initial development of this workshop, which continues to be conducted periodically by the Association of State Floodplain Managers and various partners. The workshop is designed to attract local government and state agency staff involved in watershed and floodplain management and disaster mitigation planning.

□> For more information, contact Alan Lulloff, Association of Floodplain Managers, 2809 Fish Hatchery Road, Suite 204, Madison, WI 53713. Phone: (608) 274-0123; E-mail: alan@floods.org; Internet: www.floods.org

Watershed Workshops

This course is designed to train watershed managers around the country to protect, manage, and restore streams, lakes, and rivers. The course format offers single and multiday workshops, with both classroom and field time, to provide communities with specific guidance on the types and combinations of watershed protection and restoration tools available, leading to more effective local watershed protection and restoration efforts. The Center for Watershed Protection's base curriculum covers more than 60 training modules in several topic areas, including: watershed assessment, watershed planning, watershed restoration, better site design, stormwater program development, and stormwater practice design. When planning a watershed workshop, the Center for Watershed Protection works closely with a local partner to tailor the agenda to meet the needs of the local target audience, which may include watershed groups, engineers, government personnel, stormwater managers, developers, watershed planners, public officials, environmental organizations, and others interested in watershed protection or restoration.

□ For more information, contact Jennifer Zielinski, P.E., Center for Watershed Protection, 8390 Main Street, 2nd Floor, Ellicott City, MD 21043. Phone: (410) 461-8323 ext. 218; E-mail: jaz@cwp.org; Internet: www.cwp.org

Workshops for Development of Indicators for the National Estuary Programs

These 2- to 3-day workshops are designed to assist participants in the National Estuary Programs in developing indicators targeted for specific goals and objectives of their Comprehensive Conservation and Management Plans. Identification of and consensus on effective and sustainable indicators are essential to assess both the validity and effectiveness of management actions and environmental progress. Working from a list of possible indicators, participants then evaluate and prioritize the indicators for suitability for their program.

The workshops are sponsored by EPA's Office of Wetlands, Oceans, and Watersheds, Oceans and Coastal Protection Division. They are offered in NEP study areas and are intended for local, state, and federal monitoring management and staff in partnership with the NEPs.

➡ For more information, contact Joe Hall, USEPA (4504T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1241, E-mail: hall.joe@epa.gov

Internet-Based Training Opportunities



Watershed Academy Webcast Seminars

The Watershed Academy offers live Webcast seminars on a series of watershed-related topics to citizens groups, municipal leaders, and other watershed practitioners. Expert instructors are especially invited to conduct the training, and trainees participate by logging onto the Web or by calling into a

toll-free conference phone line. EPA anticipates that the Webcast seminars will be conducted approximately once a month. Preregistration notices for these seminars are publicized over electronic discussion list-servers and on EPA's Watershed Academy Web site. Although the live training is available only to a limited number of registered participants, an audio-visual file of the training will be made available after the live seminar for downloading or streaming over the Internet. Recent topics have included "Eight Tools for Watershed Protection in Developing Areas" and "Getting In Step: Developing Your Message and Publicizing It Effectively."

More information on Webcast seminars, including descriptions and schedules, can be found on the Web at: www.epa.gov/watersbedwebcasts

Watershed Academy Web-Based Training and Certificate (Watershed Academy Web)

The Watershed Academy's Web-based distance learning program, "Watershed Academy Web" (www.epa.gov/watertrain), is an educational resource for people that cannot attend live training courses. Watershed Academy Web is a set of self-paced training modules that provide a basic but broad introduction to the many facets of watershed management organized under the following themes:

- I. *Introduction/Overview*. These modules introduce the principles of the watershed approach and explain the value of working at a watershed level.
- II. *Watershed Ecology.* These modules show that watersheds are natural systems whose structure and functions provide substantial benefits to people and the environment.
- III. Watershed Change. These modules describe both natural and human-induced changes in watersheds and compare normal changes with changes of concern.
- IV. Analysis and Planning. These modules address how watershed groups can analyze problems, assess options and priorities, and develop planning solutions.
- V. Management Practices. These modules show how watershed management challenges such as urban runoff, farmland management, forestry, and other issues are addressed by techniques that reduce environmental impacts.



VI. *Community/Social Context*. These modules concentrate on the organizational, legal, and community elements of watershed management, recognizing that an organization's effectiveness and local people's support often determine success.

The goal of Watershed Academy Web's Web-based training is to provide a broad-based introduction to the watershed approach in a format available to anyone who has Internet access. The time and complexity of the modules vary, but most are at the college freshman level of instruction. Watershed Academy Web uses a variety of Web-based formats, including slide show presentations, interactive exercises, online downloadable documents, hot links to related sites, and interactive self-tests.

More than 50 modules are now on-line and more are under development. Students who complete a series of 15 modules and pass their self-tests earn the Watershed Academy Web Watershed Training Certificate. For more information, see the flyer *Watershed Academy Web-Based Training* (EPA841-F-04-001) available at www.epa.gov/owow/watershed/wacademy/wacadwebflyer.pdf.

For those with limited Internet access, a set of 44 training modules from Watershed Academy Web is available on a free CD. The CD may be used as a stand-alone product in lieu of the Internet-based courses. Single copies of the CD are available by requesting "Watershed Academy Web on CD" (EPA 841-C-03-001) from the National Service Center for Environmental Publications (NSCEP). Phone: (800) 490-9198 or (513) 489-8190; Fax: (513) 489-8695; Internet: www.epa.gov/ncepihom/.

Drinking Water Academy Electronic Workshop

EPA's Office of Ground Water and Drinking Water offers the "Drinking Water Academy's Electronic Workshop," designed to provide self-paced training modules that give a broad introduction to the many facets of the Safe Drinking Water Act. The training modules in the Electronic Workshop are organized in four sections: introductory modules, regulatory modules, technical modules, and other modules. The training materials are currently available in a slide show format as PowerPoint or Adobe Portable Document Format files. Eventually, the Electronic Workshop will include modules with interactive exercises and self-tests. For more information, visit www.epa.gov/safewater/dwa/electronic.html.

Training Materials

Information Transfer Series Publications

Through its Information Transfer Series, the Watershed Academy offers a number of technical reference materials on different aspects of implementing watershed approaches. All the publications listed below, are available at no charge from the National Service Center for Environmental Publications (NSCEP) (Phone: (800) 490-9198 or (513) 489-8190; Fax: (513) 489-8695; Internet: www.epa. gov/ncepihom/). Please include the document name and number when requesting publications. You may also download these publications from the Watershed Academy web site at www.epa.gov/owow/watershed/wacademy/its.html.

- U.S. EPA. 2004. After the Storm (VHS tape) (EPA 840-V-04-001) is a half hour television special
 about watersheds that highlights three case studies—Santa Monica Bay, the Mississippi River
 Basin/Gulf of Mexico, and New York City—where polluted runoff threatens watersheds highly
 valued for recreation, commercial fisheries and navigation, and drinking water. This video was
 co-produced by EPA and The Weather Channel.
- 2. U.S. EPA. 2003. *Getting in Step: A Guide for Conducting Watershed Outreach Campaigns* (document) (EPA 841-B-03-002) provides some of the tools that watershed practitioners need

- to develop and implement an effective watershed outreach plan. More information is available online at: www.epa.gov/owow/watershed/outreach/documents/.
- U.S. EPA. 2003. Getting in Step: A Video Guide for Conducting Watershed Outreach Campaigns (VHS tape) (EPA 841-V-03-001) is the 35-minute companion video designed to strengthen watershed outreach campaigns at all levels.
- U.S. EPA. 2003. Watershed Academy Web: Online Watershed Management Training (2-page leaflet) (EPA 841-F-04-001) describes the self-paced watershed management courses available both online and as a self-contained CD product.
- U.S. EPA. 2003. Watershed Analysis and Management (WAM) Guide for States and Communities, (EPA 841-B-03-007) provides the methods and tools for implementing the WAM process and includes eight detailed technical modules.
- U.S. EPA 2002. Community Culture and the Environment: A Guide to Understanding a Sense of Place (EPA 842-B-01-003) offers a process and set of tools for defining and understanding the human dimension of environmental issues.
- U.S. EPA. 2005. EPA Watershed Training Opportunities (EPA 841-B-05-002), features descriptions of watershed-related training opportunities conducted by both US EPA and others. It also includes information on Web-based training, publications, Web sites, and Web-based tools.
- 8. Pacific Watershed Institute, Seattle, WA. 2000. *Watershed Analysis and Management (WAM) Guide for Tribes* (HTML or ZIP format) (EPA 841-B-00-008) is a methodology document that addresses tribal and state watershed management issues.
- FISRWG, U.S. Government Printing Office, Washington, DC. 1998. Stream Corridor Restoration: Principles, Processes and Practices (EPA 841-R-98-900) developed by a multi-agency task force, is a reference manual targeted at technical practitioners and others responsible for planning, designing, and implementing stream corridor restoration initiatives.
- U. S. EPA. 1997. Top 10 Watersbed Lessons Learned. (EPA 840-F-97-001), is a compilation of notable watershed management experiences across the country that offers lessons learned in what works well and offers resources and contacts.
- U. S. EPA. 1996. Watershed Approach Framework (EPA 840-S-96-001) explains EPA's vision for watershed approaches emphasizing the state and tribal approaches that actively involve public and private interests at all levels to achieve environmental protection.
- 12. U. S. EPA. 1997. *Monitoring Consortiums: A Cost-Effective Means to Enhancing Watershed Data Collection and Analysis* (EPA 841-R-97-006) addresses coordination in watershed monitoring and contains case studies on effective ways to share monitoring costs and data.
- U. S. EPA. 1995. Watershed Protection: A Project Focus (EPA 841-R-95-003) provides a blueprint for designing and implementing local watershed protection programs.
- 14. U. S. EPA. 1995. Watershed Protection: A Statewide Approach (EPA 841-R-95-004) provides guidance for reorienting statewide water programs to a watershed approach.

Please note that older Watershed Academy documents can be accessed via the Watershed Academy Archives Web site: www.epa.gov/owow/watershed/wacademy/archives.htm.

Software

BASINS: Better Assessment Science Integrating Point and Nonpoint Sources (BASINS) is a system that can be used to perform integrated water quality and watershed analyses. It combines a geographic information system (GIS), national GIS data layers, and state-of-the-art environmental assessment and modeling tools into one convenient package. The BASINS software allows a user to quickly assess large amounts of point source and nonpoint source data in a format that is easy to understand. Installed on a personal computer, BASINS allows a user to assess water quality at selected stream sites or throughout an entire watershed.

BASINS is available for download at www.epa.gov/OST/BASINS. The BASINS Web site also provides technical support and instructions for ordering BASINS on a CD.

Software Available for Environmental Awareness: EPA Region 5 and Purdue University have published at least 44 software programs that provide information on various environmental topics. Sample topics include environmental assessments, public health, wetlands, water education, wellhead protection, best management practices for soil erosion, and many others (the full list of topics is found at: www.epa.gov/seahome/topics.html). The software is available on CD-ROM from Purdue University or can be downloaded from the SEAHOME Web site.

The complete listing of software and the latest information about upcoming releases can be obtained from the SEAHOME Web site at www.epa.gov/glnpo/seahome/. You may order the CD online through Purdue University at this Web site: www.epa.gov/seahome/cdrom.html. For more information, contact Kathy Lester at the Agricultural Communication - Media Distribution Center, 231 South University Street, Purdue University, West Lafayette, IN 47907-2094; Phone (888) 398-4636 (ask for the Media Distribution Center) or direct: (765) 494-6794; Fax: (765) 496-1540; E-mail: media.order@purdue.edu.

For information about the software itself, contact Carol Sikler, Farm Building Plan Service, Purdue University, 1146 ABE Building, Room 208, West Lafayette, IN 47907-1146. Phone: (765) 494-1174; Fax: (765) 494-1356; E-mail: fbps@ecn.purdue.edu.

Environmental Statute Review Course: EPA offers a computer-based training course (e.g., a CD-ROM) that uses animation, video, narration, and graphics to cover the general provisions of seven major environmental statutes, including RCRA, EPCRA, CAA, CWA, CERCLA, TSCA, and FIFRA. Each module contains interactive exercises and quizzes. The course is available free of charge from EPA's National Enforcement Training Institute (www.epa.gov/compliance/training/neti) for federal, state, local, and tribal environmental enforcement personnel, including attorneys, inspectors, technical staff, and investigators.

For more information, contact Alice Mims at (202) 564-6069 or e-mail mims.alice@epa.gov. The CD-ROM (NTIS Order Number: PB2001-500036) is also available for \$79 plus handling from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. Phone: (800) 553-NTIS (6847) or (703) 605-6000; Fax: (703) 605-6900; E-mail: orders@ntis.fedworld.gov; Internet: www.ntis.gov.

Midwest Spatial Decision Support System Partnership Tools: (www.epa.gov/waterspace/toolpage.btml) This Web site is designed to help disseminate information on watershed management data-and decision support-tools. The aim is to make Web-based spatial decision support systems freely available via the Internet to local officials, natural resource managers, and the general public to help manage watersheds in the Midwest and beyond. The site offers links to GIS-based decision making software tools with which users can perform an initial screening of watershed-based environmental problems, collate existing information, develop preliminary analyses, and develop informed screening

and selection of alternatives. Case-studies highlighting the application of these tools in specific contexts are also offered. These tools are designed to help communities develop a cost-effective approach to watershed management planning. The software tools on this site have been developed by universities, federal agencies, and partnerships between the two, with particular geographical emphasis on the Midwest, such as Performance and Results Management System, Digital Watershed Mapping, the Long-Term Hydrologic Impact Assessment (L-THIA), and others.

Videos

EPA has developed a series of videos on various subjects related to watershed protection and water quality standards and criteria. The video titles and a short description of each appear below, followed by ordering information.

After the Storm (EPA 841-V-04-001, specify broadcast quality Beta SP tape or VHS) highlights three case studies—Santa Monica Bay, the Mississippi River Basin/Gulf of Mexico, and New York City—where polluted runoff threatens watersheds highly valued for recreation, commercial fisheries and navigation, and drinking water. Key scientists, water quality experts, and citizens involved in local and national watershed protection efforts provide insight into the problems as well as solutions to today's water quality crisis. This co-production by The Weather Channel and EPA is intended for educational and communication purposes in classrooms, conferences, and the likes. It may also be aired on cable or other TV stations, as EPA has the full rights to the program. More information is available at: www.epa.gov/weatherchannel/.

Antidegradation Policy: A Means to Maintain and Protect Existing Uses and Water Quality (EPA 823-V-90-003) discusses the three tiers in EPA's antidegradation policy.

Development of Biological Criteria for Use in Water Quality Standards (EPA 823-V-92-003) discusses biological criteria as they relate to the water quality standards and criteria programs. Biological criteria are based on direct measures of the biological integrity of surface waters and thus provide a valuable assessment tool for evaluating the quality of the nation's waters.

Development of Water Quality Criteria and Its Relationship to Water Quality Standards (EPA 823-V-90-002) provides an overview of water quality criteria, including how they are developed.

Developing Site-Specific Criteria (EPA 823-V-95-001) discusses the development of site-specific numeric criteria for aquatic life and the role they play in the water quality standards and criteria process. It focuses on the use of indicator species criteria to develop numeric site-specific criteria.

Economic Considerations in Water Quality Standards (EPA 823-V-90-001) discusses why economics may be considered, describes where in the water quality standards process economics are considered, and discusses how economic considerations are used in the water quality standards process.

Enumeration Methods for Escherichia coli and Enterococci (EPA 823-V-86-001) explains how to sample for bacteria.

Getting in Step: A Video Guide for Conducting Watershed Outreach Campaigns (VHS tape) (EPA 841-V-03-001) is the 35-minute companion video to the guidebook of the same name (EPA 841-B-03-002, see page 18). The video reinforces the steps of strengthening watershed outreach campaigns and includes four very different examples of watershed outreach campaigns from different parts of the U.S. It is suitable for viewing by watershed stakeholders, educators, local government officials and others interested in generating watershed outreach campaigns. More information is available online at: www.epa.gov/owow/watershed/outreach/documents/.

Introduction to Water Quality Standards (EPA 823-V-92-001) provides an overview of the water quality standards and criteria programs. It discusses the three component parts of state and tribal water quality standards: uses, criteria, and the antidegradation policy.

The Problem with Shallow Disposal Systems (EPA 816-V-97-001) explains how chemical waste discharged to ground water through shallow disposal systems (Class V injection wells) can contaminate water resources. It offers simple, preventative steps that a community can take to reduce this threat to its water supply.

Sampling Ambient and Effluent Waters for Trace Metals (EPA 821-V-97-001) explains how to sample for trace metals.

TMDLs and Water Quality Standards (EPA 823-V-99-001) presents information about Total Maximum Daily Loads (TMDLs) and the role TMDLs play in implementing a state's water quality standards, including how TMDLs are authorized, their importance in the water quality-based approach to pollution control, and how they are developed. The video also discusses the important role played by states and tribes, EPA, and the public in TMDL development.

Water Quality-Based Approach to Pollution Control (EPA 823-V-91-002) provides an overview of the eight interrelated stages in the water quality-based approach to pollution control.

Water Quality Standards and 401 Certification (EPA 823-V-91-001) discusses water quality standards and the 401 certification process.

Water Quality Standards on Indian Lands (EPA 823-V-92-002) discusses the role that water quality standards play in efforts to clean up and protect the quality of the nation's waters. It discusses the criteria that must be met for a tribe to conduct the water quality standards program on reservation lands and discusses the issue dispute resolution mechanism used to resolve any unreasonable consequences that might arise when an Indian tribe and a state adopt differing water quality standards for a common body of water.

Wetlands Water Quality Standards (EPA 840-V-96-001) provides an overview on how states and Indian tribes can develop water quality standards for wetlands.

Our Water, Our Future: Saving Our Tribal Life Force Together (EPA 823-V-03-001) tells the story of two Indian tribes—the Pueblo of Acoma (New Mexico) and the Confederated Tribes of the Chehalis Reservation (Washington)—and their successful efforts to develop water quality standards for their reservations.

How to order the videos:

Selected videos are available from the Office of Water Resource Center, free of charge for loan for a period of 30 days. When ordering, use the EPA order numbers referenced next the video title. Tapes can be ordered online at www.epa.gov/ogwdw/resource/. For more information, contact the Office of Water Resource Center (RC-4100), USEPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. For more information, call (202) 566-1729 or e-mail center.water-resource@epa.gov.

These videos are also available through the National Service Center for Environmental Publications (NSCEP) (Phone: (800) 490-9198 or (513) 489-8190; Fax: (513) 489-8695; Internet: www.epa. gov/ncepihom/). Please include the video title, format if applicable, and number, when requesting publications.

EPA's Watershed-RelatedWeb Sites



Adopt Your Watershed (www.epa.gov/adopt)

This Web site offers users the opportunity to learn about citizen-based watershed restoration and protection efforts in their local area. Through an online catalog, users can find watershed alliances, volunteer monitoring groups, school groups, and others working on watershed stewardship. Through the Web site, groups can submit information to be included in the online catalog of registered groups, and can also receive a certificate of appreciation for their efforts. Additionally the site offers educational resources for students and teachers such as activity units designed for schools, science clubs, and camps. The Web site is designed to support citizen stewardship of the nation's water resources.

Catalog of Federal Funding Sources for Watershed Protection (www.epa.gov/watershedfunding)

This is a searchable catalog of more than 80 funding programs from federal agencies that can be used in watershed protection and restoration efforts. Users can browse a complete list of funding programs organized by federal agency or keyword, or they can search for programs according to their type of organization, the type of grant required, requirements for matching contribution, and selected keywords. A suite of details about each funding program is offered, including application deadlines, annual budget, contact address, and more.

Enviromapper

(www.epa.gov/waters/enviromapper/index.html)

EnviroMapper for Water is a Web-based Geographic Information System (GIS) application that dynamically displays information about bodies of water in the United States. This interactive tool allows the user to create customized maps that portray the nation's surface waters along with a collection of environmental data. The application can be used to view environmental information from the national level down to the community level (within one mile), and provides the ability to pan, zoom, label, and print maps. Users can also link to text reports after identifying a specific waterbody of interest. By creating a map using EnviroMapper for Water, the user can find out the health of their waterbodies.

EPA Online Discussion List-Servers (https://lists.epa.gov/read/all_forums)

EPA supports online discussion forums on a wide variety of topics including water related topics. Online discussion forums are valuable sources of information on topics including training opportunities, recent updates and developments, clarification of issues, and practical experience shared by working professionals in the field and other interested parties. An e-mail subscription is necessary to participate in a discussion forum. A discussion forum allows a subscriber to e-mail questions to, receive news from, and discuss topics in detail with others who are interested in the same topic.

This Web site is a portal to the full list of EPA forums and includes both a brief description of the forum and a link to subscribe to the forum. Some forums have more than 1000 members. Of particular interest to those in the water resources field might be "basinsinfo," "decentralized," "newsnotes," "npsinfo," "volmonitor," "waternews," "watershed-news," and "wqs-news."

EPA Watershed Patch Project

(www.epa.gov/adopt/patch)

This project is designed to encourage young people (grades 3–8) to learn about their local watershed and to motivate them to get involved in local watershed protection efforts. As the young people complete a series of activities that relate to watersheds, such as completing a stream walk with a detailed report on the stream or evaluating yard practices that contribute to runoff pollution, they become eligible for reward certificates, such as the River Rookie, Conservation Captain, Aquifer Ace, or Watershed Wizard.

Ground Water and Drinking Water

(www.epa.gov/safewater)

This site is the launch pad for a wealth of resources on drinking water resources, such as rules, databases, management information and source water protection across the nation.

Local Drinking Water Information Web Site (www.epa.gov/safewater/dwinfo.htm)

This EPA Web site offers information about drinking water across the country. Web site users can locate information such as state drinking water and source water home pages, Drinking Water State Revolving Loan Fund Intended Use Plans, local drinking water quality reports (Consumer Confidence Reports), water system violations data, and information about ways to protect drinking water sources.

National Small Flows Clearinghouse

(www.nesc.wvu.edu/nsfc/nsfc_index.htm)

This Web site provides information about innovative, low-cost wastewater treatments for small communities (those with populations less than 10,000).

The National Drinking Water Clearinghouse

(www.nesc.wvu.edu/ndwc/ndwc index.htm)

This clearinghouse offers information services about small community drinking water issues.

Office of Water

(www.epa.gov/water)

This site is a gateway to all EPA Office of Water programs including the Office of Science and Technology, Office of Wastewater Management, Office of Ground Water and Drinking Water, Office of Wetlands, Oceans, and Watersheds, and the American Indian Office.

Office of Wetlands, Oceans, and Watersheds

(www.epa.gov/owow)

This site is the heart of EPA's watershed program and a hub for links to such EPA programs as oceans and coastal protection, wetlands, estuaries, monitoring, and nonpoint pollution control.

STORET

(www.epa.gov/storet)

STORET is a data management system containing water quality information for the nation's waters. Information includes raw biological, chemical, and physical data on surface water and ground water collected by federal, state, and local agencies; Indian tribes; volunteer groups; academics; and others. All 50 states, territories, and jurisdictions of the United States are represented. The Web site offers access to both historical data in the Legacy Data Center, and STORET, which is an operational system actively populated with water quality data. Users can browse both systems interactively or create files

to be downloaded. The site also offers support for monitoring organizations that want to submit data, meta-information about the data, and other resources.

Surf Your Watershed (www.epa.gov/surf)

This EPA Web site offers an interactive map- or place-based search to locate a watershed, and provides a host of environmental and watershed information at both the state and watershed scales. The site offers opportunities for participation by allowing the public to submit information on local environmental groups, provide feedback on environmental programs, and participate in electronic discussions on water resource and management topics. Examples of information provided on the site include environmental program Web sites, citizen environmental groups, information from EPA's Envirofacts—a suite of databases that store ongoing and historical environmental data collection such as monitoring of effluent by permitted facilities, information on public water supply systems and others, information on river and wetlands restoration projects, and watershed health assessments such as statutorily mandated states' lists of impaired waterbodies. Access is also provided to the Watershed Information Network (a network of three agencies' Web sites, see below) and U.S. Geological Survey sites on streamflow, other hydrologic data in the watershed, and scientific papers related to the watershed.

The 305(b) Water Quality Report (www.epa.gov/305b)

The National Water Quality Inventory Report to Congress (305(b) Report) is the primary vehicle for informing Congress and the public about general water quality conditions in the United States. This document characterizes our water quality, identifies widespread water quality problems of national significance, and describes various programs implemented to restore and protect the nation's waters.

Total Maximum Daily Loads (www.epa.gov/owow/tmdl)

This Web site offers information about the TMDL program, including an overview of TMDLs, current rules, policy and technical documents, example TMDLs, a searchable archive of TMDL studies, and information from the assessment of impaired waters across the country.

WATERS – Watershed Assessment, Tracking and Environmental Results (www.epa.gov/waters)

This Web site is a portal to an integrated information system for the nation's surface waters. WATERS accesses water quality information that was previously available only from several independent and unconnected databases, such as those on water quality standards, water monitoring, assessment of different pollutants, fish consumption advisories, public water systems, discharge reports from permitted facilities, and others. WATERS connects the databases, and allows the user to display the information by generating maps and reports.

Watershed Academy

(www.epa.gov/owow/watershed/wacademy.htm)

This site parallels the Academy's three key activities—live training courses, Web-based training including live Webcast seminars, and publications—and contains frequently updated program and schedule information.

Watershed Academy Web

(www.epa.gov/watertrain)

This distance learning site enables any PC with Internet access to become a watershed training classroom—on any schedule, at no cost. This multidisciplinary training and certificate program was designed to cover the most important watershed management topics—those subjects about which watershed managers, local officials, involved citizens, decision makers, and others should have some basic knowledge. Fifty different modules are offered on watershed related topics.

Watershed Discussion Forum (www.epa.gov/watershedforum)

The Watershed Discussion Forum is a Web-based utility that offers watershed practitioners a platform to exchange ideas, so that innovative solutions and ideas can be easily shared in (near) real-time cyberspace. This utility allows users from around the country to post electronic messages to a discussion board, on a variety of topics that include Smart Growth/Low Impact Development, Source Water Protection, Stormwater Best Management Practices, Sustainable Financing, and Watershed Planning Tools. Through the utility users can engage in "discussion threads" by posting messages or responding to messages that may be read by all registered users of the forum. Other utilities in this forum include the ability to receive customized emails when new messages are posted in a user's area(s) of

Watershed Information Network (www.epa.gov/win)

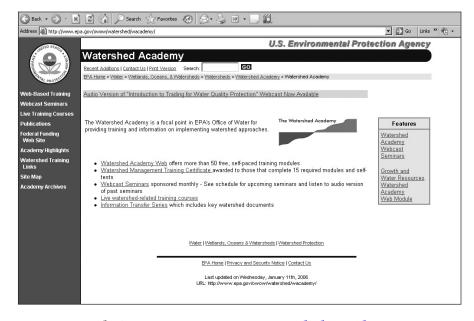
interest.

The Watershed Information Network (WIN) is a repository of information related to watersheds, includes three Web sites, each with a slightly different focus, all of which provide information on a selected watershed. Know Your Watershed is maintained by the Conservation Technology Information Center at Purdue University. It focuses on a registry of watershed partnerships working to meet local goals. Surf Your Watershed is maintained by the U.S. Environmental Protection Agency. It provides a service to help locate, use, and share environmental information about a selected watershed. Science in Your Watershed is maintained by the U.S. Geological Survey and focuses on scientific information such as streamflow, and other geographic and hydrologic data, organized by watershed.

Windows to My Environment

(www.epa.gov/enviro/wme)

This is a powerful new Web-based tool that provides a wide range of federal, state, and local information about environmental conditions and features in the user's area of choice.



Web site: www.epa.gov/owow/watersbed/wacademy/



Watershed Academy (4503T)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

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