



Small wastewater, water systems deal with security concerns, training needs

by Ann Murray
NETCSC Contributing Writer

Since the terrorist events of September 11, 2001, water-related agencies and organizations have pushed security issues to the top of their agendas. Even though highly orchestrated attacks on U.S. water and wastewater systems are improbable, security breaches—including terrorist acts—are possible. Since September, water and wastewater systems of all sizes have been evaluating their security procedures and taking measures to safeguard their facilities and prepare for future emergencies. These efforts have led to an increased demand for training on security-related issues.



Participants discuss security measures for small drinking water systems during a pilot offering of Assessing Vulnerabilities: Security for Small Water Systems held in February in Flatwoods, West Virginia. The course delivery was co-sponsored by the National Drinking Water Clearinghouse and the National Environmental Training Center for Small Communities. Photo by Jill A. Ross.

Although large metropolitan drinking water systems have been the primary focus for security training and emergency planning, organizations are also providing guidance and training to smaller systems. "Recognition of security risks, the mechanics of putting together vulnerability assessments, and the use of emergency plans will be high-priority issues for smaller systems," says Andy Bielanski, an environmental engineer and small water systems expert with the U.S. Environmental Protection Agency's (EPA) Water Protection Task Force.

All systems face risks

According to results from Presidential Decision Directive 63 (PDD-63), which was issued in 1998 and required an assessment of

the vulnerability of the nation's critical infrastructure, the country's water and wastewater systems are susceptible to physical, cyber, biological, chemical, and radiological threats. PDD-63 reports that these types of threats can disrupt both drinking water and wastewater treatment systems, causing significant damage

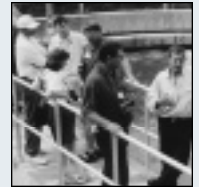
to facilities and affecting the health and well-being of communities and their citizens.

Central Intelligence Agency reports continue to place metropolitan water systems on alert as potential targets for more choreographed, politically-motivated terrorist attacks. However, according to the article, "The Who, What, Why and How of Counter-terrorism Issues," by Gay Porter *continued on page 4*



The Environmental Training Institute for Small Communities

2002



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August 5 - 9, 2002
Morgantown, WV

See pages 7 - 14
for details.

NETCSC posts security training calendar online

The National Environmental Training Center for Small Communities (NETCSC) now provides an online calendar of security-related training events for water and wastewater treatment system personnel.

"NETCSC is compiling and maintaining a security training calendar on its Web site to assist local government officials, plant managers, and operators in locating training to help upgrade security at their plants," says John Hoornbeek, NETCSC director.

To access the security calendar, visit NETCSC's Web site at www.netc.wvu.edu and click on the red "Security Information" graphic. To submit information for the calendar, send information to Craig Mains, NETCSC training specialist, at cmains@wvu.edu. Please include a description of the training event, location, date, registration fees, and contact information (including a Web site address, if available).



The National Environmental Training Center for Small Communities (NETCSC) is located at West Virginia University and was established in 1991 with funds from the U.S. Environmental Protection Agency.

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E-news

Boise State EFC offers financial software programs

Two financial software programs that will be helpful to small water and wastewater systems are available from the Environmental Finance Center (EFC) at Boise State University in Idaho.

“Ratio 8™ is a handbook and spreadsheet tool that water systems



can use to monitor their financial condition over time,” says Bill Jarocki, EFC director. This program also helps small systems identify key financial capacity trends and think about how daily decisions affect financial condition. Designed to complement any accounting and reporting system, Ratio 8™ focuses on eight financial areas: operations, revenue, liability, sales, expenses, assets, debt, and accounts receivable. This program is available at no charge from the EFC.

“CAPFinance™ is a water and wastewater system asset inventory and financial planning model that systems can use to figure out how much money is needed from rates for system replacement,” says Jarocki. An easy-to-use, icon-driven software program, CAPFinance™ provides a simple method of accounting for capital assets and analyzing funding options for renewing and replacing these assets. CAPFinance™ costs \$225 and discounts are available for bulk orders.



Manuals for both programs can be downloaded from the EFC’s Web site, located at <http://sspa.boisestate.edu/efc>, for those interested in previewing the programs prior to ordering.

To request a free copy of Ratio 8™ or to purchase a copy of CAPFinance™, contact Lynda Robinson at the center at (208) 426-1567 or via e-mail at lrobinso@boisestate.edu.

Calendar of Events

American Water Works Association's Annual Conference & Exposition

June 16 – 20
New Orleans, LA
(800) 926-7337
(303) 347-6156
www.awwa.org

National Association of Environmental Professionals' 27th Annual Conference

June 23 – 26
Dearborn, MI
(863) 679-3852
(877) 679-3913
www.naep.org

National Environmental Training Association's 24th Annual Conference & Workshops/National Environmental Health Association's Annual Education Conference & Exhibition

June 29 – July 1
Minneapolis, MN
(602) 956-6099
(303) 756-9090
www.ehs-training.org
www.neha.org

Solid Waste Association of North America's Sixth Annual Planning and Management Symposium

July 10 – 12
Halifax, Nova Scotia
(800) 467-9262
www.swana.org

National Association of Counties' Annual Conference

July 12 – 16
New Orleans, LA
(202) 393-6226
www.naco.org

National Environmental Training Center for Small Communities' 2002 Environmental Training Institute for Small Communities

August 5 – 9
Morgantown, WV
(800) 624-8301
(304) 293-4191
www.netc.wvu.edu

Association of State and Interstate Water Pollution Control Administrators' Annual Meeting 2002

August 11 – 13
Richmond, VA
(202) 898-0905
www.asiwpca.org

Water Environment Federation's WEFTEC 2002 75th Annual Conference & Exposition

September 28 – October 2
Chicago, IL
(703) 684-2400
www.wef.org

International City/County Management Association's Annual Conference

September 29 – October 2
Philadelphia, PA
(202) 289-4262
www.icma.org



New NSFC poster depicts small community wastewater options

The National Small Flows Clearinghouse (NSFC) recently published a new educational poster, *Wastewater Collection and Treatment Systems for Small Communities*. This colorful poster focuses strictly on wastewater treatment technology options for small communities.

Constructed wetlands, rotating biological contactors, trickling filters, drip irrigation, and alternative collection systems are a few of the 26 technologies featured.

One side of the poster illustrates a typical small community and the types of systems it might use. The flip side contains line drawings and a brief description of each system.

Subdivisions, schools, churches, restaurants, parks, shopping centers, and other small-flow situations can use the technologies

described in the poster. Systems are categorized by collection, effluent dispersal, subsurface dispersal, pretreatment, primary treatment, secondary treatment, advanced/tertiary treatment, disinfection, package plants, sludge treatment/disposal, and general wastewater treatment.

The poster is an easy-to-understand educational tool for environmental trainers and wastewater professionals working with the general public, school children, or others who may not have a technical background.

To order, call the NSFC at (800) 624-8301 or (304) 293-4191, or send e-mail to nsfc_orders@mail.nesc.wvu.edu. Request Item #WWPSPE65. The cost is \$1.25 plus shipping. 📧

NDWC publishes 2002 Outreach Resource Guide

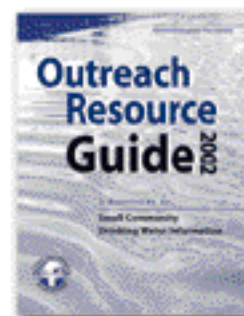
The National Drinking Water Clearinghouse (NDWC) recently released its 2002 *Outreach Resource Guide: A Directory of Small Community Drinking Water Information*. This updated directory lists more than 80 federal agencies and national organizations with water-related interests.

Each entry in the guide includes the organization's address, contact information, Web site address, water activities, and any publications they produce. For example, the listing for the U.S. Department of Agriculture's Rural Utilities Service (RUS) shows that RUS provides financial help to rural areas in the form of grants and

loans and that RUS funds the Rural Water Circuit Rider Program. In addition, the guide provides contact information for each RUS state office.

The guide also provides contact information and descriptions for membership and public service organizations, such as the National Rural Water Association.

To order a free copy of the 66-page 2002 Outreach Resource Guide, call the NDWC at (800) 624-8301 or (304) 293-4191, or e-mail ndwc_orders@mail.nesc.wvu.edu. Request Item #DWBKGN36. 📧



NSFC releases onsite system summary on CD-ROM

The National Small Flows Clearinghouse (NSFC) recently released a new CD-ROM that provides information about onsite wastewater systems in all 50 states. Titled *A Summary of the Status of Onsite Wastewater Treatment Systems in the United States During 1998*, this CD is a follow-up to a report the NSFC published in 1993.

Data from local agencies and health departments are summarized by state and then compiled into a national summary. State reports are grouped by U.S. Environmental Protection Agency region. Both the state and national summaries include the following information:

- data about the local agencies contacted and which ones responded,
- new onsite system permits,
- failing systems and repair permits,
- new system installation/construction costs,
- inspection and maintenance programs, and
- licensing/certification programs.

In addition, the CD includes a statistical comparison of data from 1993 and 1998, as well

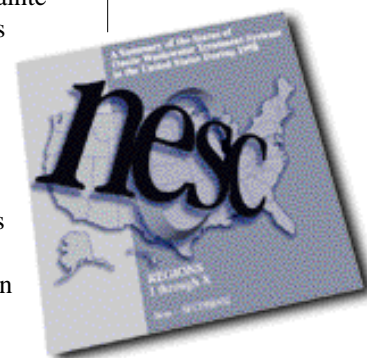
as data relevant to the jurisdiction of maintenance/management districts, regulations enforcement, and drinking water well testing. The appendix contains a copy of the survey questionnaire.

Wastewater professionals will be able to use this report as a convenient statistical reference or for trend analysis in their state, region, and nation.

The 1998 survey is available only on CD-ROM and requires Adobe Acrobat Reader®. The CD costs \$10 plus shipping. Request Item #SFCDDH02.

The complete 1993 survey, *A National Small Flows Clearinghouse Summary of Onsite Systems in the United States, 1993*, is also available in book form free from the NSFC while supplies last. Request Item #WWBKGN89.

To order the 1998 data on CD or the 1993 report, call the NSFC at (800) 624-8301 or (304) 293-4191, or send e-mail to nsfc_orders@mail.nesc.wvu.edu. 📧



Small wastewater, water systems deal with security concerns, training needs

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DeNileon published in the May 2001 issue of *Journal AWWA*, an American Water Works Association magazine, vandals, angry “insiders” (disgruntled employees or former employees), activist groups, or domestic terrorists are more likely threats to both large and small water and wastewater operations than international extremist groups.



NETCSC served as a West Virginia host for the Webcast, Water Security in Your Community: How Local Government Managers Can Prepare for the Unexpected, held March 14. Hosted by the International City/County Management Association's Local Government Environmental Assistance Network, the Webcast focused on managerial issues related to water security and provided an overview of steps necessary to prepare for an unforeseen event. Photo by C. Metzgar.

Water and wastewater system personnel also need to be aware of how security breaches of other infrastructure systems can impact their operations, and be prepared to deal with an array of possible scenarios. Ronald Dick, director of the Federal Bureau of Investigation's (FBI) National Infrastructure Protection Center, discussed the interdependence between water and wastewater systems and other key infrastructure in issues of security before the U.S. House of Representatives' Committee on Transportation and Infrastructure in October 2001. “If power is interrupted or withdrawn, it affects the entire water system. To a lesser degree, telecommunications service outages or system degradations would affect remote control access to pivotal systems, and a disruption to the nation's transportation infrastructure could delay the delivery of needed chemicals for water purification.”

What can small systems do?

“There is no complete way to prevent security breaches,” says Geri Ramsier, a former engineering scientist with the National

Drinking Water Clearinghouse (NDWC). “Therefore, it is the responsibility of systems to be prepared to deter and respond.”

EPA and state drinking water programs agree that now is the time for all small systems to scrutinize their facilities and pinpoint needed improvements in security and emergency preparedness. EPA recommends that small water and wastewater systems take steps immediately to protect their operations and, consequently, the health and safety of their communities.

Some recommendations EPA Region 1 and EPA's Water Protection Task Force offer include:

- Prepare (or update) an emergency response plan.
- Post updated emergency 24-hour numbers at facilities.
- Develop close relationships with local law enforcement, emergency response, and public health officials.
- Fence and lock all facilities and vulnerable areas.
- Lock all entry gates and doors, and set alarms to indicate illegal entry.
- Install good outside lighting.
- Identify existing and alternate water supplies, and maximize the use of backflow prevention devices.
- Use source water assessment information to work with businesses and homeowners having potential sources of contamination in order to lessen the threat to the source.
- Lock monitoring wells.
- Control access to storm sewers, sanitary collection systems, computer networks, and control systems.
- Conduct employee background checks.
- Ensure all employees are aware of communications protocols.
- Provide customer service staff with training to handle telephone threats.
- Develop clear protocol and chains of command to report and respond to threats.


Groups and agencies that deal with drinking water issues stress that security concerns can be mitigated through active awareness, planning, and readiness. For example, small drinking water system operators need to understand their treatment and distribution systems before a security breach occurs. They also must be able to detect irregularities in their treatment and disinfection processes.

continued on next page

U.S. Congress responding to security concerns



In December 2001, Congress passed a \$20 billion supplemental appropriations bill that provided the U.S. Environmental Protection Agency (EPA) with nearly \$176 million for anti-terrorism efforts. In response to the heightened need for security at drinking water and wastewater treatment facilities, at press time Congress also is considering legislation that addresses public health security and vulnerability assessments.

Under the Public Health Security and Bioterrorism Response Act of 2001 (H.R. 3448), each community water system serving more than 3,300 people must conduct an assessment of system vulnerability to a terrorist attack or other intentional acts that would disrupt a system's ability to provide a safe and reliable supply of drinking water. Water facilities would assess pipes and physical conveyances, physical barriers, water collection, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems, and the use, storage, or handling of various chemicals. For systems serving fewer than 3,300 people, the EPA would provide guidance to community water systems about how to conduct vulnerability assessments, prepare emergency response plans, and address threats from terrorist attacks or other intentional disruptive actions. The bill also would authorize \$120 million for the EPA to protect drinking water systems against chemical, biological, and radiological attacks. The Senate version of the bill does not include a provision for vulnerability assessments. As of this writing, representatives from the House and Senate are meeting to work out their differences. 

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Local decision makers, on the other hand, need to recognize that security breaches can occur and develop appropriate steps to prevent them if possible and deal with them if necessary. To this end, the National Environmental Training Center for Small Communities (NETCSC) and its partner programs at the National Environmental Services Center (NESC) are working to address the training needs of both small system operators and local officials. (See article on page 6 for additional information.)

Wastewater training also needed

The Water Environment Federation (WEF) and its member associations are collaborating with the Association of Metropolitan Sewerage Agencies (AMSA) and governmental agencies to provide wastewater utilities with training, tools, and information to ensure effective planning and emergency preparedness.

Eileen J. O'Neill, Ph.D., WEF's assistant deputy director of technical programs, believes a review of security recommendations will be useful in helping any size utility manage its risk of economic loss or environmental damage.

"While many recommendations may seem like common sense and obvious when pointed out, they are not consistently being implemented," says O'Neill. "They represent good business practices and will help a utility to be better prepared to face extreme events—natural or man-made—as well as reduce the

impacts from more chronic problems, such as vandalism."

While some of the specific risks at water and wastewater utilities may differ, O'Neill points out that the principles of risk evaluation and management remain the same. "The initial focus, understandably, has been on training water utility managers," she says. "The need now is for outreach to wastewater utilities—communicating many of the same principles with examples and applications relevant to wastewater systems."

Training needs to be made available to smaller community systems now, says O'Neill. "The larger utilities—whether water or wastewater—will likely have implemented or are planning to implement security-related measures. Outreach to medium and smaller utilities will be important and the involvement of organizations, such as the NETCSC, will be important for reaching smaller communities with tailored materials."

Funding for security

According to Ramsier, anecdotal information indicates that the September 11 terrorist attacks caught many systems—particularly smaller ones—without a usable emergency response plan in place. Consequently, the terrorist attacks are serving as a catalyst for state and federal regulatory agencies and training organizations to help utilities get their emergency plans up and operational. Funding also

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Security training, resources available

U.S. Environmental Protection Agency/Water Environment Federation: U.S. Environmental Protection Agency-sponsored training workshops were held around the country in March, April, and May. Developed for wastewater utility managers by the Water Environment Federation, these one-day workshops addressed critical areas of concern, including how to decrease security threats and how to react in the event of a crisis. The principles the workshops covered included helping utility professionals prepare to assess and prioritize utility vulnerabilities to assets, including physical plants, knowledge base, employees, information technology, and customers. For more information, call (703) 684-2400 or visit www.wef.org/pdffiles/securityschedule.pdf.

Association of Metropolitan Sewerage Agencies: The Association of Metropolitan Sewerage Agencies' (AMSA) Winter 2002 Conference provided key tools and guidance to help municipalities assess and prioritize competing infrastructure and security concerns. For those managers and municipality officials unable to attend the seminars, AMSA will release its *Risk-Based Vulnerability Assessment Software Tool* this spring. This comprehensive and easy-to-use package will help wastewater professionals assess their utility's vulnerabilities, develop priorities based upon cost and feasibility of remediation, and determine potential solutions for the prioritization of vulnerabilities.

AMSA also has released *Asset-Based Vulnerability Checklist for Wastewater Utilities* and *Legal Issues in a Time of Crisis Checklist*. For more information about these publications, visit AMSA's Web site located at www.amsa-cleanwater.org.

National Environmental Services Center: National Environmental Services Center (NEESC) programs are developing two security-related training products—a security training module for local officials and a course designed specifically for small drinking water system operators.

The National Environmental Training Center for Small Communities (NETCSC) is developing a security-related training module, "Preparing for the Unexpected: Security for Small Water Systems," for its training curriculum, *Managing a Small Drinking*

Water System: A Short Course for Local Officials. This course will present strategies for securing and preparing the small drinking water system to handle a security breach or an unforeseen incident, including natural disasters, internal threats (such as a disgruntled employee), and external threats ranging from vandalism to terrorist attacks. Key strategies include assessing system vulnerabilities, putting security measures in place, and preparing an emergency response plan. The course also will address the administrative aspects of implementing and overseeing these efforts and will provide worksheets and resources for use on the job. For more information about this training module, contact Sandra Fallon, NETCSC training specialist, at (800) 624-8301 or (304) 293-4191, extension 5582.

Developed by the National Drinking Water Clearinghouse (NDWC) with targeted assistance from NETCSC, *Assessing Vulnerabilities: Security for Small Water Systems*, is a one-day course that will help small system operators learn about security measures and assist them in preparing vulnerability assessments. For more information about the course, contact Mary Stewart, NDWC senior program administrator, at (800) 624-8301 or (304) 293-4191, extension 5511.

Information Sharing and Analysis Center: By the end of 2002, a water and wastewater Information Sharing and Analysis Center (ISAC) will be available to U.S. water and wastewater utilities via the Internet. The ISAC is a tool critical infrastructure personnel can use to access information about activities that may impact day-to-day operations. Information shared via the ISAC may include threats that have been detected; vulnerabilities that have been discovered; viable resolutions to incidents, threats, and vulnerabilities; and reports on incidents that have occurred.

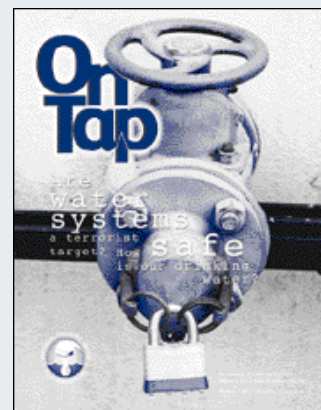
Developed by the Association of Metropolitan Water Agencies (AMWA), in conjunction with the EPA and the Federal Bureau of Investigation, the ISAC is open to water and wastewater systems of all sizes that receive application approval and pay an annual fee. For more information about the water and wastewater ISAC, visit AMWA's Web site located at www.amwa.net/isac/.

Special On Tap looks at security issues

A special issue of *On Tap*, the quarterly magazine published by the National Drinking Water Clearinghouse (NDWC), looks at security issues related to small drinking water systems. The Winter 2002 issue is titled "Are water systems a terrorist target? How safe is our drinking water?"

The issue addresses developing security and crisis-communication plans and includes an article about where systems may find available funds to conduct vulnerability assessments or implement other security measures. It also includes a special four-page pull-out section: "Safety Tips: Security Preparedness Measures."

To obtain a free copy of the Winter 2002 security issue of *On Tap* (Item #DWQUNL04), call the NDWC at (800) 624-8301 or (304) 293-4191. The issue also may be viewed and downloaded from NDWC's Web site located at www.ndwc.wvu.edu/.





The Environmental Training Institute for Small Communities 2002

"Public Health and Environmental Quality: Small Communities in the 21st Century"

Presented by:

*The National Environmental Training Center
for Small Communities (NETCSC)*

August 5 – 9, 2002

Training Site:

Mountainlair Conference Center
West Virginia University
Morgantown, West Virginia

This comprehensive environmental training event is designed for:

- small community assistance providers,
- local decision makers,
- state regulatory officials,
- environmental consultants and trainers,
- community development professionals, and
- others interested in small community health and environmental management.

The 2002 Environmental Training Institute features:

- affordable training specifically designed to meet small community needs;
- four training tracks with 20 different training events;
- a new security training course created for small community officials;
- access to national experts in the environmental field;
- opportunities to network with professionals across the country;
- the opportunity to preview training materials, videos, and educational resources; and
- access to an Exhibit Hall featuring services, resources, demonstrations, and consultants available to help small community trainers, assistance providers, and local officials.

Participants in this premier training event will enhance their abilities to improve public health and environmental conditions in the communities where they work.



August 5 – 9, 2002

Morgantown, West Virginia





DRINKING WATER TRACK

- A** ***Preparing for the Unexpected: Security for Small Drinking Water Systems***
Monday, August 5, 9 a.m. to 5 p.m.
This course will present strategies for securing and preparing the small drinking water system to handle a security breach or an unforeseen incident, including natural disasters, internal threats (such as a disgruntled employee), and external threats ranging from vandalism to terrorist attacks. Key strategies include assessing system vulnerabilities, putting security measures in place, and preparing an Emergency Response Plan. The course also will cover the administrative aspects of implementing and overseeing these strategies. Worksheets and resources will be provided for on-the-job use. (Course attendees may need to provide identification and may be required to comply with other basic security measures.)
- B** ***Building the Technical Capacity of a Small Drinking Water System***
Monday, August 5, 9 a.m. to 5 p.m.
This course will examine the local official's role in overseeing the technical operations of a small drinking water system. It will review basic water treatment facilities and processes, and address the administrative aspects of source water issues, source water protection, treatment and distribution processes, and key operation and maintenance procedures, including sampling/testing, operator training, record keeping, and system evaluations and assessments.
- C** ***Local Officials' Responsibilities for Providing Safe Drinking Water***
Tuesday, August 6, 8:30 a.m. to 11:30 a.m.
This course will cover local officials' responsibilities for overseeing a community's small drinking water system, providing safe drinking water, and protecting public health. Participants will discuss potential drinking water problems, compliance concerns, liability issues, system management, and resources available to help small communities.
- D** ***Financial Management for Small Drinking Water Systems: The Basics***
Wednesday, August 7, 8:30 a.m. to 5 p.m.
This course will explain basic financial management practices that will help local officials run a small drinking water system like a business and achieve and maintain financial capacity. Participants will learn about budgeting, accounting options, rate structures, setting and changing rates, cost recovery techniques, and annual audits. The course will also provide tools and strategies for assessing financial capacity.
- E** ***Building the Managerial Capacity of a Small Drinking Water System***
Thursday, August 8, 8:30 a.m. to 5 p.m.
This course focuses on key administrative and management practices that will help small drinking water systems achieve and maintain managerial capacity. Topics include business plans, capital improvements planning, restructuring, managing staff, and key elements of communicating with the public.
- F** ***Preparing for the Unexpected: Security for Small Wastewater and Drinking Water Systems***
Friday, August 9, 8:30 a.m. to 5 p.m.
This course will present strategies for securing and preparing the small wastewater or drinking water system to handle a security breach or an unforeseen incident, including natural disasters, internal threats (such as a disgruntled employee), and external threats ranging from vandalism to terrorist attacks. Key strategies include assessing system vulnerabilities, putting security measures in place, and preparing an Emergency Response Plan. The course also will cover the administrative aspects of implementing and overseeing these strategies. Worksheets and resources will be provided for on-the-job use. (Course attendees may need to provide identification and may be required to comply with other basic security measures.)



WASTEWATER TRACK

- G** ***Assessing Wastewater Options for Small Communities***
Monday, August 5, 9 a.m. to 5 p.m. and continued on Tuesday, August 6, 8:30 a.m. to 11:30 a.m.
This introductory course features wastewater treatment options for communities of less than 10,000. Participants will learn to assess community needs and resources, develop wastewater facilities, select and work with consulting engineers, identify important regulatory requirements, choose wastewater technologies, and ensure ongoing system viability.
- H** ***Wastewater Treatment Plant Tour***
Wednesday, August 7, 8:30 a.m. to noon
A tour of a small wastewater treatment plant will allow participants to learn more about centralized wastewater treatment and how to deal with wastewater in a rapidly expanding suburban area. This .75 MGD plant, which uses two oxidation ditches, replaces nine package plants, a small extended aeration plant, and a number of septic systems. Participants will also discuss long-term operation and maintenance costs. (Course attendees may need to provide identification and may be required to comply with other basic security measures.)



I **Alternative Onsite Wastewater Systems and a Unique Drinking Water System in a Remote Area Tour**

Wednesday, August 7, 1:15 p.m. to 5 p.m.

This field trip will showcase six different alternative onsite systems that provide wastewater treatment for a county park. Technologies include septic tanks used with a constructed wetland, a drip irrigation system, a low-pressure pipe dosing system, a recirculating sand filter, gravelless trenches, contour chamber trenches, and a sand-lined trench. The tour will also stop at West Virginia University's Natural Resource Center where participants will see an innovative onsite wastewater treatment system and a unique drinking water system that serve this remote facility. Safety issues also will be discussed throughout the tour.

J **Alternative Onsite Wastewater Treatment Technologies**

Thursday, August 8, 8:30 a.m. to 5 p.m.

This course highlights alternative onsite wastewater treatment technologies. Instructors will outline the advantages and disadvantages of differing onsite wastewater technologies as well as discuss site characteristics, special uses, installation, initial costs, and long-term maintenance costs and management requirements. Participants will gain an appreciation of the range of technologies that may be used to treat wastewater in small community settings.

K **Emerging Perspectives on Decentralized Wastewater Management**

Friday, August 9, 8:30 a.m. to noon

Onsite wastewater management practitioners and experts will discuss the growing need for onsite wastewater system management in the 21st century. Participants will have the opportunity to ask questions, offer comments, and interact with instructors and other participants. The session will cover lessons learned, problem-solving, and national resources for small community onsite wastewater system management.



INFRASTRUCTURE TRACK

L **Water and Wastewater Cost Recovery Principles**

Monday, August 5, 1:15 p.m. to 5 p.m.

This half-day course will outline the basic principles of utility rate setting with an emphasis on keeping the utility self-sustaining. Participants will discuss cost allocation, budgeting, planning for maintenance and replacement, determining revenue requirements, and recovering operating and capital costs through user rates.

M **Regulatory Update: Recent and Upcoming Requirements for Small Communities**

Wednesday, August 7, 8:30 a.m. to noon

This workshop will provide an update on recent and upcoming regulatory requirements applicable to communities of less than 10,000. A variety of water and wastewater regulations will be covered to help participants understand the range of requirements now affecting small communities.

N **Governmental Accounting Standards Board (GASB) 34: Implications for Small Community Local Officials and Managers**

Wednesday, August 7, 1:15 p.m. to 5 p.m.

This course explains GASB 34—a relatively new accounting standard issued by the Governmental Accounting Standards Board—and specifically how it will affect environmental management efforts in small communities. Participants will discuss how GASB 34 will impact the way all government entities must account for their activities and present financial statements, compliance dates and issues, and tools and techniques for moving toward this new way of doing business.

O **Capital Improvements Planning for Water and Wastewater Systems**

Thursday, August 8, 8:30 a.m. to noon

This half-day session will explain how a capital improvements plan (CIP) can help water and wastewater utilities become sustainable. The instructor will outline the steps used to develop a CIP while emphasizing the importance of sound managerial and financial practices. Participants will learn how to build public support for a CIP.



For Additional Information

Visit NETCSC's Web site, located at www.netc.wvu.edu for the most up-to-date information about the Institute. Specific questions about the 2002 Institute should be directed to NETCSC staff listed below at:

NETCSC

Phone: (800) 624-8301
or (304) 293-4191

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Phone extension 5581

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Video View and CD-ROM View

Jessica Hannah

Phone extension 5527

E-mail: jhannah@wvu.edu

Literature Table

Randy Levelle

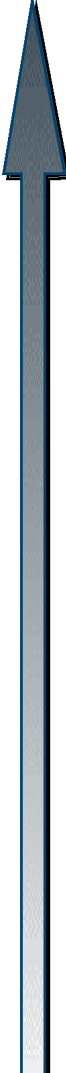
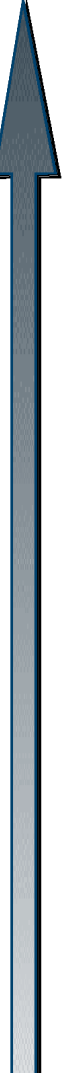
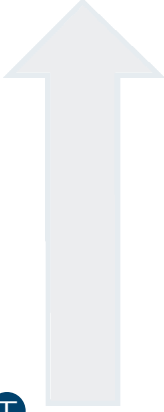
Phone extension 5539

E-mail: rlevelle@wvu.edu

2002 Environmental Training I

"Public Health and Environmental Quality"

Schedule

	Monday, August 5		Tuesday, August 6			
	9 a.m. – Noon	1:15 p.m. – 5 p.m.	8:30 a.m. – 11:30 a.m.	11:45 a.m. – 3 p.m.	3:15 p.m. – 5 p.m.	
Drinking Water Track	A Preparing for the Unexpected: Security for Small Drinking Water Systems	B Building the Technical Capacity of a Small Drinking Water System	C Local Officials' Responsibilities for Providing Safe Drinking Water			
Wastewater Track	G Assessing Wastewater Options for Small Communities					T Exhibitor Demonstrations and Resource Presentations
Infrastructure Track		L Water and Wastewater Cost Recovery Principles				
Training Assistance Track			P Implementing Proactive Technical Assistance in the 21st Century			

LUNCH
(on your own)
Noon – 1:15 p.m.

"An Evening with Exhibitors" Reception
5 – 7 p.m.

Networking Luncheon
11:45 a.m. – 12:45 p.m.

Welcome & "Small Community Needs in an Era of Change" Panel Discussion
1 – 3 p.m.

**Register early—
space is limited!**

For information/to register:

- call (800) 624-8301 or (304) 293-4191, ext. 5536
- fax (304) 293-3161 (Attn: Sandy Miller)
- e-mail smiller2@wvu.edu
- online at www.netc.wvu.edu

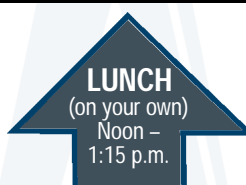
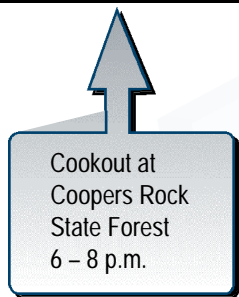
Institute for Small Communities

“Small Communities in the 21st Century”



Schedule

Wednesday, August 7		Thursday, August 8		Friday, August 9	
8:30 a.m. – Noon	1:15 p.m. – 5 p.m.	8:30 a.m. – Noon	1:15 p.m. – 5 p.m.	8:30 a.m. – Noon	1:15 p.m. – 5 p.m.
D Financial Management for Small Drinking Water Systems: The Basics		E Building the Managerial Capacity of a Small Drinking Water System		F Preparing for the Unexpected: Security for Small Wastewater and Drinking Water Systems	
H Wastewater Treatment Plant Tour	I Alternative Onsite Wastewater Systems/Unique Drinking Water System in a Remote Area Tour	J Alternative Onsite Wastewater Treatment Technologies		K Emerging Perspectives on Decentralized Wastewater Management	
M Regulatory Update: Recent and Upcoming Requirements for Small Communities	N GASB 34: Implications for Small Community Local Officials and Managers	O Capital Improvements Planning for Water and Wastewater Systems		U Exhibitor Demonstrations and Resource Presentations	
			R GASB 34 for Trainers and Assistance Providers	S Model Environmental Training Programs that Reach Local Officials	
		C Training and Presentation Skills to Reach Adult Learners			



Sponsored by the National Environmental Training Center for Small Communities

Please note that the program for the 2002 Environmental Training Institute is subject to change. Visit NETCSC's Web site at www.netc.wvu.edu for the most up-to-date information about the Institute.





TRAINING ASSISTANCE TRACK

P

Implementing Proactive Technical Assistance in the 21st Century

Tuesday, August 6, 8:30 a.m. to 11:30 a.m.

This half-day session will help environmental assistance providers learn the difference between reactive and proactive approaches to providing technical assistance. The instructor will highlight successful models of proactive assistance to small communities. Participants will discuss staff readiness, organization philosophy, management, and strategies to document and illustrate success.

Q

Training and Presentation Skills to Reach Adult Learners

Thursday, August 8, 8:30 a.m. to 5 p.m.

This session features a proven and systematic instructional development process for creating training programs and curricula. Attendees will learn about analysis techniques such as needs assessment, creating learning objectives, using different training methods (case studies, role-playing, instructional games, and work sessions), effective delivery of instruction, and evaluation based on learning objectives.

R

Governmental Accounting Standards Board (GASB) 34 for Trainers and Assistance Providers

Thursday, August 8, 1:15 p.m. to 5 p.m.

This course is designed to help assistance providers and environmental trainers explain what GASB 34 means and why communities should comply with this new accounting standard. Participants will learn to explain to non-accountants how the new standard will affect their day-to-day operations and how it will change the look and information provided in their reports.

S

Model Environmental Training Programs that Reach Local Officials

Friday, August 9, 8:30 a.m. to 3 p.m.

During this interactive session, participants will be able to meet and ask questions of the local officials, assistance providers, and trainers who are running some of the most successful environmental training programs for local officials in the country. These experts will discuss the nuts and bolts of how they started their programs and how their programs work. They will address outreach efforts to attract local officials, locating quality training materials, participant demographics, dealing with the logistics of training, creating successful partnerships, locating funding to cover training costs, delivering and evaluating training sessions, and determining the actual post-delivery impacts on small communities.



ADDITIONAL PROGRAM HIGHLIGHTS

“An Evening with Exhibitors” Reception

Monday, August 5, 5 p.m. to 7 p.m.

This reception will open the 2002 Institute Exhibit Hall for the week. Participants will be able to meet national trainers, consultants, engineering scientists, and others while they view the many products and resources on display.

Networking Luncheon

Tuesday, August 6, 11:45 a.m. to 12:45 p.m.

This working lunch will provide an informal forum for Institute attendees to learn about small community needs and training. Participants will have the opportunity to exchange ideas with instructors, each other, and Institute alumni. Participants will be able to offer their ideas on small community needs and will be invited to commit to addressing small community needs using skills and knowledge gained during the 2002 Institute. Participant efforts will be highlighted by NETCSC during the course of the year through its publications, Web site, and other means.

Welcome and Panel Discussion “Small Community Needs in an Era of Change”

Tuesday, August 6, 1 p.m. to 3 p.m.

Institute attendees will hear a panel of national experts address small community needs in the early 21st century. A period for questions, answers, and exchange will follow the panel presentations.

T U

Exhibitor Demonstrations and Resource Presentations

Tuesday, August 6, 3:15 p.m. to 5 p.m. and Friday, August 9, 8:30 a.m. to noon, 1:15 p.m. to 3 p.m.

Throughout the week, participants will have several opportunities to see live demonstrations and resource presentations about water, wastewater, and training-related products and services provided by private industry representatives and environmental training and assistance organization staff. Participants will be able to meet with these experts and learn about state-of-the-art water, wastewater, security technology, and/or training resources.

Cookout at Coopers Rock State Forest

Wednesday, August 7, 6 p.m. to 8 p.m.

Participants will be able to experience nature in a relaxing forest setting and enjoy an evening of good food and music with other Institute attendees and trainers.

Please note that the contents of the program, sponsorship, participation, exhibits, or the mention of trade names, commercial products, or companies does not necessarily reflect the views and policies of the U.S.

Environmental Protection Agency, nor does it constitute or imply endorsement by the National Environmental Training Center for Small Communities, West Virginia University, the Office of Sponsored Programs, or other sponsoring agencies.



Institute Exhibit Hall

Institute Exhibit Hall

Open Monday, August 5, 5 p.m. through Friday, August 9, 3 p.m.

The 2002 Institute Exhibit Hall will showcase products, services, publications, and resources related to small community wastewater, drinking water, solid waste management, curriculum development, training delivery, and distance learning. Attendees are welcome to drop in throughout the week for refreshment breaks and to examine the state-of-the-art security equipment, training resources, and technology on display.

The Institute Exhibit Hall will feature:

Reading Room —Attendees may preview NETCSC curricula and resources for possible purchase as well as talk with training specialists and expert trainers who have used the materials in their work with small communities.

Resource Display —This area will showcase training curricula and supporting resources, guides, and training aids designed for small communities.

Poster Corner —Attendees will be able to browse the selection of job aids and posters available through the National Environmental Services Center. These include operator troubleshooting guides and job aids, community education tools, local official job aids, and public school educational programs.

Literature Table—Free resources from organizations throughout the country will be available at this table, including the four publications the National Environmental Services Center publishes. Co-sponsoring organizations are invited to submit materials for this area as well.

Resource Station —This area will provide access to the databases the National Environmental Services Center operates. These include bibliographic, consultant, manufacturer, facility, and regulations databases. Training specialists will be available to provide assistance.

Video View—This area offers participants the opportunity to preview videos that support NETCSC curricula and Institute training sessions. Participants may also bring their own training videos to share with colleagues.

CD-ROM View—This area will allow Institute attendees the opportunity to try out various training resources available on CD-ROM.

Information Technology Services —Participants will be able to check and send e-mail, search the Internet, and print documents in this area. Both PC and MAC computers will be available.



GENERAL INFORMATION

Continuing Education Credit

West Virginia University (WVU) will offer official Continuing Education Units (CEUs) for each Institute session. Job-specific CEUs provided by individual states will be posted on NETCSC's Web site, located at www.netc.wvu.edu. To discuss applications for approval of CEUs for a specific state and/or job function, please contact MaryAlice Dunn, NETCSC training specialist, by June 30, at (800) 624-8301 or (304) 293-4191, extension 5538, or via e-mail at mdunn@wvu.edu.

Certificate of Completion

All Institute participants will receive a Certificate of Completion. Participants must sign the participant list for each session attended to verify attendance and be eligible for a certificate.

Cancellation Policy

Notice of cancellation is required in writing and must be received by July 26, 2002, to be eligible for a refund. A cancellation fee (20 percent of total payment) will be retained on all cancellations. No refunds will be given after July 26, 2002. Registrants canceling after July 26, 2002, and registrants who fail to attend are liable for full registration fees. Registrants who cannot attend may enroll a substitute without penalty.

Location and Parking

The 2002 Institute will be held at the Mountainlair Conference Center located on West Virginia University's downtown campus in Morgantown, West Virginia. Services available at the Mountainlair include a food court, café, recreation facilities, and lounge. An adjacent public parking garage (fee-per-hour/day) is available to participants. (Please do not park in "WVUPermit Only" lots between 7 a.m. and 4:30 p.m. weekdays.)

Transportation

Morgantown is 80 miles south of the Pittsburgh International Airport. Commuter air service to Morgantown is available. WVU's Personal Rapid Transit (PRT) system provides transportation to all WVU campuses and downtown. The PRT will run Monday, August 5, to Thursday, August 8, from 6:30 a.m. to 6:15 p.m. Cost is \$0.50 per one-way ride. A free shuttle service will be available to the Mountainlair Conference Center, the four hotels listed at right, tours, and cookout. Shuttle schedules will be available at each hotel's registration desk and the Institute registration desk.



Lodging

The following Morgantown hotels offer special rates for Institute attendees. (Please mention "NETCSC" when making reservations.)

Clarion Hotel Morgan

127 High Street
(304) 292-8200
\$84 (double occupancy)

Register by July 31

Located four blocks from the Institute in Morgantown's downtown shopping and dining district. Institute shuttle service available.

Holiday Inn

1400 Saratoga Avenue
(304) 599-1680
\$79 (single occupancy)

Register by July 31

Institute shuttle service available.

Hampton Inn

1053 Van Voorhis Road
(304) 599-1200
\$77 (double occupancy)

Register by July 31

Located three blocks from two Personal Rapid Transit (PRT) stations. Institute shuttle service available.

Friends Inn

452 Country Club Road
(304) 599-4850
\$43 (double occupancy)

Register by July 31

Located three blocks from two Personal Rapid Transit (PRT) stations. Institute shuttle service available.

PARTICIPANT REGISTRATION 2002 Environmental Training Institute for Small Communities
August 5 – 9, 2002 • Morgantown, West Virginia
presented by The National Environmental Training Center for Small Communities



For information/to register:

Mail/Phone
 National Environmental Training Center
 for Small Communities
 P.O. Box 6064, West Virginia University
 Morgantown, WV 26506-6064
 (800) 624-8301 or (304) 293-4191, ext. 5536

Fax
 (304) 293-3161 (ATTN: Sandy Miller)

E-mail
 smiller2@wvu.edu

Online
 www.netc.wvu.edu

Your Affiliation (please check all that apply):

<input type="checkbox"/> National/Regional Organization	<input type="checkbox"/> Community
<input type="checkbox"/> Manufacturer/Environmental Co.	<input type="checkbox"/> Congress
<input type="checkbox"/> Congressional Staff	<input type="checkbox"/> Operator
<input type="checkbox"/> Contractor/Developer/Builder	<input type="checkbox"/> Press/Mass Media
<input type="checkbox"/> Consultant/Engineer	<input type="checkbox"/> Private Citizen
<input type="checkbox"/> Local Health Department	<input type="checkbox"/> Regional District
<input type="checkbox"/> Educational Institution	<input type="checkbox"/> Senate
<input type="checkbox"/> Federal Agency	<input type="checkbox"/> Senate Staff
<input type="checkbox"/> Federal EPA	<input type="checkbox"/> Service District
<input type="checkbox"/> State Agency/Government	<input type="checkbox"/> Indian Tribe
<input type="checkbox"/> International Agency	<input type="checkbox"/> State Organization
<input type="checkbox"/> Legal Profession	<input type="checkbox"/> Training Organization
<input type="checkbox"/> Real Estate Organization	<input type="checkbox"/> Library
<input type="checkbox"/> Local Government	<input type="checkbox"/> Financial Institution

Your Interest/Expertise (please check all that apply):

<input type="checkbox"/> Adult Education	<input type="checkbox"/> Planning/Management
<input type="checkbox"/> Design	<input type="checkbox"/> Public Education
<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Regulations
<input type="checkbox"/> Enforcement/Compliance	<input type="checkbox"/> Research
<input type="checkbox"/> Finance	<input type="checkbox"/> Security
<input type="checkbox"/> Non-Point Source	<input type="checkbox"/> Solid Waste
<input type="checkbox"/> Operation/Maintenance	<input type="checkbox"/> Training
<input type="checkbox"/> Outreach	<input type="checkbox"/> Wastewater

PLEASE PRINT:

First Name: _____ MI: _____ Last Name: _____

First name as it should appear on your name tag: _____

Title: _____

Company/Organization: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Country: _____

Phone #1: _____ Phone # 2: _____

Fax: _____

E-mail: _____

Web Site: _____

Co-sponsor ID# (if applicable): _____

Special needs (please specify): _____

Exhibitor? Yes No

Do you plan to use the free Institute hotel shuttle service? Yes No

Have you attended NETCSC's Environmental Training Institute in the past?
 Yes: No:

If yes, please indicate which year: 2000 2001

How did you learn about the 2002 Environmental Training Institute?
 Please check all that apply:

<input type="checkbox"/> From a colleague	<input type="checkbox"/> Fax	<input type="checkbox"/> E-mail	<input type="checkbox"/> Phone call
<input type="checkbox"/> Pipeline	<input type="checkbox"/> E-train	<input type="checkbox"/> On Tap	<input type="checkbox"/> Small Flows Quarterly

Other publication (please specify): _____

Brochure News media NETCSC Web site

An Organization's Web Link (please specify): _____

Other (please specify): _____

The following activities are included in the participant registration fee.
 However, an **RSVP** is requested to reserve your space at the event.

I will attend "An Evening with Exhibitors" Reception. Yes No

I will attend the Networking Luncheon. Yes No

I will attend the Cookout at Coopers Rock State Forest. Yes No

Make Your Session Selections Here:
 You must pre-register for each session you wish to attend. Please enter the code for each session you will attend.
 See schedule on pages 10 and 11 for session codes (e.g., A, B, C)

Monday, August 5	Tuesday, August 6	Wednesday, August 7	Thursday, August 8	Friday, August 9
AM: _____	AM: _____	AM: _____	AM: _____	AM: _____
PM: _____	PM: T _____	PM: _____	PM: _____	PM: _____

PARTICIPANT REGISTRATION FEE:
 Please check the registration option of your choice. Please register early as session occupancy is limited.

	Early Bird Fee (By July 1)	Regular Fee (After July 1)
Full-Week Participation (5 days):	<input type="checkbox"/> \$299	<input type="checkbox"/> \$359
One-Day Participation:	<input type="checkbox"/> \$83 per day (x ___ days)	<input type="checkbox"/> \$123 per day (x ___ days)

Payment/agency purchase order and registration must be received by July 1 to qualify for the early bird savings. Registration fee includes attendance at all Institute sessions selected, training materials and handouts for each session, Exhibit Hall admittance, and morning and afternoon refreshment breaks. Optional course materials may be available at the Institute for an additional fee.

TOTAL PARTICIPANT REGISTRATION FEE: _____

PAYMENT METHOD (Please indicate form of payment):

Personal Check Agency Check Agency Purchase Order

Please make checks payable to **WVU Research Corporation**.

Credit Card:
 (Type of Card: MasterCard VISA Discover)

Name on Credit Card: _____

Card Number: _____

Expiration Date: _____

Signature: _____

Required for credit card payment.

Registration confirmation will be issued upon receipt of Participant Registration.

TOTAL PAYMENT SUBMITTED: _____



Wyoming training initiative a success

by Jill A. Ross
E-train Editor

Local officials in small towns across Wyoming are being educated about their responsibilities for managing drinking water systems thanks to a team effort of several people who learned how to train local officials and are partnering with a state association to deliver training throughout the state.

The training team—made up of Bill Urbigkit, director of public works for Riverton; Brian Mark and Phil Stump, engineers with the Wyoming Department of Environmental Quality; and Stan Reib, former mayor of Chugwater—is working with the Wyoming Association of Municipalities (WAM) to offer training on a regular basis to local officials. Since January 2001, the team has trained 192 mayors, council members, clerks/treasurers, managers, and small water system operators.

“People just love it,” says Mark. “During the trainings we can see the information just click with the mayors and those people who are not in the water industry.” Participant evaluations consistently rate the training as excellent.

How it began

This training effort began when Urbigkit, Mark, and Reib attended the National Environmental Training Center for Small Communities’ (NETCSC) Environmental Training Institute for Small Communities in August 2000. There they learned about several NETCSC training curricula and how to present the material to local officials through train-the-trainer workshops.

They were particularly impressed with NETCSC’s newest course, *Managing a Small Drinking Water System: A Short Course for Local Officials*, and when they returned home developed a plan to offer the course throughout the state in conjunction with WAM’s regularly scheduled conferences. The course’s modular format has worked well for the training team. According to Urbigkit, they offer several modules at a time and hope to cover the whole curriculum, and then start the cycle over again.

Delivered in four-hour blocks, the training sessions have been piggybacked onto regularly scheduled WAM events. Ginger Newman, WAM communications and training coordinator, takes care of the logistics and promotions for each training session, which is a great help to the training effort.

Off to a good start

WAM offered a pilot training session in January 2001 in Cheyenne as part of its elected officials workshop. This session covered the first two course modules—“Local Officials’ Responsibilities for Providing Safe Drinking Water” and “Regulatory Requirements.”

“The first training session was a test run,” says Mark. “We needed to know if local officials saw a benefit from this kind of training.”

Apparently they did. “The local officials’ responses to the training session were overwhelmingly positive,” says Urbigkit. Reib agrees. “You could tell that this was pertinent and timely information,” he says.

The team followed up on the success of their first session by presenting two more modules during WAM’s annual convention held in June 2001 in Green River. There they discussed the basics of a drinking water system and operation and maintenance issues.



Wyoming local officials have responded enthusiastically to training about their responsibilities for managing small drinking water systems. Photo courtesy of Brian Mark, Wyoming Department of Environmental Quality.

Financial management was the topic of a training session held during WAM’s fall workshop in Powell in September 2001. This session focused on record keeping, bookkeeping, master business plans, utility budgets, rate setting, accounting models, cost recovery, building customer support for rate increases, GASB 34 (Governmental Accounting Standards Board Statement 34), and annual audits.

This module was especially well received by local officials. One participant remarked, “It’s the best preparation I—as a newly elected official—have received on municipal finances. I feel so much better!”

It’s been a good experience for the trainers as well. “It’s been great. The materials are just excellent and we’ve gotten nothing but positive comments,” says Urbigkit. “It’s fun actually. We have such good interaction among participants.”

continued on page 20



Web resources abound for emergency, security planning

by Chain-Wen Wang, Ed. D.
NETCSC Contributing Writer

In response to heightened concern that drinking water and wastewater treatment facilities in the U.S. may be vulnerable to terrorist attacks, many government agencies and organizations now provide tools and information through their Web sites to help system personnel deal with emergency planning and security issues. While the impetus for these actions originated in the events of September 11, the availability of this information has the added benefit of helping water and wastewater systems increase their readiness to prevent and respond to other types of incidents including vandalism, in-plant accidents, and natural disasters.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) provides valuable information, resources, and links at its Web site, which is located at www.epa.gov. Under “Key Topics” or “Browse EPA Topics” on the home page, click on “Emergencies” to see an alphabetical list of topics, which include “Accidents,” “Counter-Terrorism,” “Emergency Preparedness,” “Emergency Response,” “Natural Disasters,” and “Reporting.” Each topic area has links to recommended EPA Web pages.

For information about terrorist attacks, go to www.epa.gov/swercepp/cntr-ter.html to view information about how to prepare for or respond to terrorist threats. EPA fact sheets, reports, briefings, and brochures, as well as non-EPA documents, can be viewed and downloaded by clicking on “Publications.” “External Links” contains a list of sites that provide timely and useful information. Links are available for various EPA offices, the National Response Team, the National Domestic Preparedness Office, the Department of Defense, the National Security Agency, the Federal Emergency Management Agency, the National Security Institute, the Terrorism Research Center, and the International Policy Institute for Counter-Terrorism.

For information about protecting drinking water and wastewater systems, visit EPA’s Office of Water Web site located at www.epa.gov/safewater. Under “In the news...” click on “Security of the Nation’s Drinking Water” to access the document, *What is Being Done to Protect the Nation’s Water Infrastructure?* Scroll down the page to locate

information about financial assistance, training, vulnerability assessment tools, and other security-related topics.

Centers for Disease Control

The Centers for Disease Control and Prevention’s (CDC) Web site, located at www.bt.cdc.gov/, provides extensive information about many different threats that may arise from bioterrorism. It includes fact sheets about a variety of infectious agents as well as CDC health alerts, advisories, and updates. Site topics include “Preparation & Planning,” “Emergency Response,” and “Training.” The site also posts information about events, meetings, and conferences relevant to safety and a list of notification procedures for state and local public health officials.

Federal Bureau of Investigation

The Federal Bureau of Investigation’s (FBI) Web site, located at www.fbi.gov/, contains a vast amount of information about terrorism. Information specifically about emergency preparedness can be found in the article, “Threat of Terrorism in the United States.” Site visitors may find this document and others by typing “counterterrorism” into the site’s search window. The site also outlines various types of international and domestic terrorism so that systems and organizations may be aware of the types of threats that may exist.

American Water Works Association

The American Water Works Association’s (AWWA) Web site at www.awwa.org provides a variety of information and resources about security. Select “Featured Products” under “AWWA Bookstore” to view a list of security and preparedness resources available from AWWA, including *Water System Security: A Field Guide* and the video *Source Water Security and Protection*. Select “Downloadable Publications” and then click on “Security, Safety, & Training” to access a list of documents available in electronic format. Site visitors may also click on “Events” and type “Security” in the search window to see AWWA’s list of upcoming security training events.

National League of Cities

Visit the National League of Cities (NLC) Web page at www.nlc.org and select “Homeland Security” to access information and resources about community preparedness for *continued on next page*



continued from previous page

unexpected events. The NLC guide, *Domestic Terrorism: Resources for Local Governments*, which is a valuable tool for helping communities review and update their preparedness plan, is also available on this site.

Water Environment Federation

Visit the Water Environment Federation's (WEF) Web site at www.wef.org and select "Water & Wastewater Security" to learn about WEF's wastewater infrastructure security workshop series. Information about related resources, Web sites, and links also is available. To see a list of printed resources, click on "Security & Preparedness Resources from WEF."


National Safety Council

The National Safety Council's (NSC) Web site, located at www.nsc.org, provides information, tools, and contacts about safety, health, and environmental issues. Select "Emergencies & Disasters" to see a list of articles, resources, downloads, links, and NSC products, including NSC's *On-Site Emergency Response Planning Guide*.

National Environmental Training Center for Small Communities

The National Environmental Training Center for Small Communities (NETCSC) provides an online calendar of security-related training events for water and wastewater treatment system personnel. To access the security calendar, visit NETCSC's Web site at www.netc.wvu.edu and click on the red "Security Information" graphic.

National Drinking Water Clearinghouse

The National Drinking Water Clearinghouse (NDWC) provides a collection of articles, checklists, phone numbers, and Web sites that provide information about protecting small water systems against potential threats. Visit www.nesc.wvu.edu/ndwc/ndwc_index.htm and click on "NDWC Offers Water System Protection & Security Resources" to view the complete list of resources. You may download the information directly from NDWC's site or link to the original sites to download files. 

Small wastewater, water systems deal with security concerns, training needs

continued from page 5

is being made available to help utilities with this task.

As a result of the terrorist attacks, EPA has received additional fiscal year 2002 appropriations from Congress to support counter-terrorism activities. A \$20 billion supplemental appropriations bill (H.R. 3338), passed by Congress in December 2001, allocated more than \$8 billion for homeland security and nearly \$176 million to EPA for anti-terrorism efforts.


EPA has already set aside \$83 million of these additional funds to help drinking water systems perform vulnerability assessments and prepare or upgrade emergency response plans. Two-thirds of the \$83 million—approximately \$54 million—will go to public drinking water systems serving 100,000 or more people for vulnerability assessments.

According to EPA's Bielanski, approximately \$23 million will be used to "support small and medium drinking water utilities and to support the development of utility emergency operating plans."

EPA's Water Protection Task Force is meeting with water organizations as well as with large utilities and representatives from the

small and rural water sector. "We're talking about the best strategies to deliver security and emergency response information and training to the tens of thousands of small communities in this country," says Bielanski.

Although water systems are not currently required by law to perform vulnerability assessments, legislation the U.S. House of Representatives recently passed would amend the Safe Drinking Water Act to require vulnerability assessments for all drinking water systems that serve more than 3,300 people. (*See article on page 5.*)

According to Susan Gilbertson, associate director of EPA's Water Protection Task Force, EPA also plans to make approximately \$4 million available to wastewater utilities for training and tools related to vulnerability assessment and emergency response. According to an EPA press statement, while most of the funding will be allocated to large-scale systems, the agency plans to "work cooperatively with states, tribes, and appropriate organizations to further develop and disseminate tools and support security efforts at small and medium [-sized] drinking water and wastewater systems." 

Small water system video series available

A new video series for operators and managers of small water systems is now available from the Office of Water Programs at California State University in Sacramento (CSUS).

"This video training series provides small water system operators and managers with the knowledge, skills, abilities, and judgment essential to safely operate and maintain their facilities as well as manage their facilities using appropriate financial strategies," says Kenneth Kerri, Ph.D., P.E., CSUS professor emeritus and consultant.

The *Small Water System Information Video Series* includes 10 separate videos and a *Learning Booklet* outlining the highlights of each video, data recording forms, example calculations, and other information difficult to present in a training video. The booklet also includes a list of suggested assistance sources as well as a list of references and Web sites for additional information.

The 10 videos include:

Role Importance—This video provides an overview of the series and emphasizes the important role small public water system operators and managers play in safeguarding public health by delivering safe water. It demonstrates how their jobs are essential to preventing waterborne diseases and guarding the public against exposure to toxic chemicals. (27 minutes)

Surface Water Treatment I—This video covers safety, worker right-to-know laws, source considerations and monitoring, and the following treatment methods in package plants: intakes, coagulation, flocculation, sedimentation, filtration, corrosion control, and disinfection. Turbidity samplings and measurement also are discussed. (59 minutes)

Surface Water Treatment II—This video emphasizes how to safely operate and maintain package plants. It features membrane plants and flocculation and filtration plants as well as how to troubleshoot problems. (44 minutes)

Groundwater Treatment I—This video discusses source considerations, monitoring, well-head protection, pumps, and disinfection. (59 minutes)

Groundwater Treatment II—Since many small communities obtain their drinking water from groundwater pumped from wells, this video trains operators how to evaluate the need for disinfection, apply disinfectants, use treatment processes designed to control iron and manganese, and use water softening processes to remove excessive hardness. (41 minutes)

Storage and Distribution—This video covers storage of treated water; maintenance of storage facilities; water distribution systems and

their maintenance; leak detection; and cross connection control in irrigation systems, sinks, labs, and boiler rooms. It also provides operators with instructions about how to safely enter confined spaces and water distribution system requirements to meet fire protection standards. (59 minutes)


Monitoring—This video helps operators learn that water quality, both physical and chemical, is a good indicator of existing or potential problem areas and needs to be monitored regularly for clues to problems. Topics covered include sample collection, sampling location and frequency, sample containers, disinfection residuals, sample storage and transport to the lab, interpretation of lab results, and concentration time (CT) calculations. (47 minutes)

System Management—This video addresses a multitude of system management activities including maintenance, record keeping, reporting requirements, and computer use. It covers the task of administering the Lead and Copper Rule, and includes a discussion of requirements for lead-free water coolers and the need to avoid using brass fittings with lead or copper plumbing fixtures. The video also discusses how to handle complaints, how to benchmark self-assessments, and who to contact for assistance. (55 minutes)

Financial Administration—This video deals with specialized activities including finances, operation and maintenance budgeting, capital improvement programs, equipment replacements and life expectancy, funding sources, and how to apply for financial assistance. (41 minutes)

Emergency Response—This video addresses emergency planning for natural disasters—floods, fires, earthquakes, and tornadoes—and water system failures. Topics include how to plan for and respond to emergencies, what types of equipment will be needed in major emergencies, sources of bottled water, and how to work effectively with local emergency assistance offices. (19 minutes)

The *Small Water System Information Video Series* costs \$100 and includes one copy of the *Learning Booklet*. The *Learning Booklet* costs \$33 if purchased without the videos. The video series is also available as a correspondence course that can be taken as a mail-in course or as an online course. Cost is \$40 for the course.

For more information about the video series or the correspondence course, contact the CSUS Office of Water Programs at (916) 278-6142 or wateroffice@csus.edu, or visit its Web site located at www.owp.csus.edu. 

trainingresources



Editor's Note: The following products are available from the National Environmental Training Center for Small Communities (NETCSC). To order, write to NETCSC, West Virginia University, P.O. Box 6064, Morgantown, WV 26506-6064; call (800) 624-8301 or (304) 293-4191; fax (304) 293-3161; or e-mail netc_orders@mail.nesc.wvu.edu.

National Onsite Demonstration Program Phase II Summary Reports

Developed by the National Onsite Demonstration Program

Six new reports that summarize the activities of communities that participated in Phase II of the National Onsite Demonstration Program (NODP) are now available. Established in 1993, the NODP supports demonstrations of innovative and alternative onsite wastewater technologies to protect public health and the environment in small and rural communities. Each summary report includes a diagram of the systems and discusses the sites, installation, key treatment objectives, operation and maintenance, monitoring, and cost of the projects. The reports also describe public education efforts, lessons learned from the projects, and ordinances that were passed. These reports will be useful for anyone developing or delivering onsite wastewater training.

Education, Technology, and Management System Demonstrations in Rural Vermont

Item #DPBLGN01 (24-page report) \$3.50

Demonstration of Innovative Onsite Wastewater Systems in the Green Hill Pond Watershed of Rhode Island

Item #DPBLGN02 (14-page report) \$2.25

An Innovative Technology and Management District Demonstration in an Impaired Watershed in Southern Pennsylvania

Item #DPBLGN03 (10-page report) \$1.95

A Demonstration of Innovative Treatment and Disposal Technologies in Environmentally Sensitive Karst Terrain Near Rock Bridge Memorial State Park, Missouri

Item #DPBLGN04 (10-page report) \$1.95

Monongalia Management and Maintenance Partnership Project (3MP), Monongalia County, West Virginia

Item #DPBLGN05 (10-page report) \$1.95

Demonstration of Innovative Treatment and Disposal Systems in the Former Coal-Mining Town of Burnett, Washington

Item #DPBLGN06 (18-page report) \$2.65

Assessing Wastewater Options for Small Communities: for Local Officials

Developed by the National Environmental Training Center for Small Communities

This training curriculum is designed to help local officials evaluate their community's current and future wastewater treatment needs and implement appropriate solutions. Topics include:

- introduction to wastewater,
- facility development,
- viability and assessment of a treatment system,
- regulatory requirements,
- selecting and working with consulting engineers,
- selecting wastewater technologies,
- project financing, and
- project commitment.

This curriculum addresses the basics of wastewater collection, treatment, and dispersal without showing favor to a particular technology. The course may be adapted for a particular audience or community. Trainers report that it is easy to use and requires minimal preparation time.

Appendices contain overhead masters, system assessment instruments, information about wastewater technologies, and additional resources. The training package includes a Trainer's Manual, a Participant Guide, and a Microsoft Powerpoint® presentation developed from the overhead masters (available in both PC and MAC formats).

Item #TRTPCD06 (Complete Package) \$79

Item #TRTGCD33 (Trainer's Manual) \$45

Item #TRPMCD34 (Participant Guide) \$46

Item #TRSWCD35 (Powerpoint 3½" Floppy Disk) \$10

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Wyoming training initiative a success

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Sixty-five local officials attended the most recent training session, which was held in February in Cheyenne as part of WAM's elected officials workshop.

Both of the modules presented—"Administrative Management Practices" and "Managing People"—were well received. "People loved it," says Mark.

Plans for the future

With approximately \$156,000 secured through the Wyoming Drinking Water State Revolving Fund (DWSRF) technical assistance set aside to fund this training effort, the training team plans to continue offering sessions in partnership with WAM.

"Each session gets better and attendance increases," says Mark. "We hope to keep reaching as many elected officials and decision makers as possible with different material each time. Ultimately we'd like to be able to reach every decision maker with every module."

For more information about Wyoming's training efforts, contact Mark at (307) 777-6371 or bmark@state.wy.us or Urbigkit at (307) 856-2227 or burbigkit@riverton.wyoming.com.

For more information about Managing a Small Drinking Water System: A Short Course for Local Officials, contact Sandra Fallon, NETCSC training specialist, at (800) 624-8301 or (304) 293-4191, extension 5582, or sfallon@wvu.edu.

Cut or copy this coupon and send it to the *E-train* editor at the address below or fax it to (304) 293-3161.



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