



Section 1

Using the SMART About Water Curriculum

SMART About Water Training Curriculum and Toolkit

The SMART About Water Training Curriculum and Toolkit have been developed for use in implementing the SMART About Water Program. The SMART acronym stands for Strategic Management and Available Resources and Technology. This concept summarizes the primary goal of the SMART Program: stimulating voluntary, community-based source water protection planning efforts in small communities (populations 3,300 and fewer) by focusing on wastewater solutions first. The Curriculum and Toolkit are designed to help you achieve that goal. Be sure to read the SMART About Water Briefing Paper provided in this Curriculum for a brief overview of the program. (See Tab 2, “Background Info: SMART”)

SMART’s New Social Marketing Perspective on Source Water Protection

The SMART About Water program seeks to build on existing source water protection planning efforts in the U.S. by integrating an important new perspective: social marketing. The social marketing approach strives to make it as easy as possible for people to change or adopt new behaviors, and to do so for *their own* reasons, rather than for *our* reasons. In other words, the SMART program challenges us, as trainers and assistance providers, to facilitate a change in people’s behaviors—specifically, getting people to undertake voluntary source water protection planning activities focused on solving wastewater problems—by making those new behaviors relevant and meaningful to *them*.

What does that mean? The Chesapeake Bay Program, which used social marketing techniques to change local residents’ lawn fertilizing behaviors to protect water quality in the Bay, provides a good example. Program developers had to know what would motivate the people they were trying to reach. Consider the following scenarios:

“Ask your community if water quality is important to them. They’ll likely say yes. After all, most people in the U.S. take abundant, clean, fresh water for granted.

Ask if they know that poor water quality, caused in part by septic tank failures and leachate, and fertilizer and pesticide run-off, endangers aquatic and avian ecosystems and wetlands wildlife, and their response is that somebody should do something about that.

Ask if they know that poor water quality endangers their Friday night crab dinner, and they’re likely to take action. That’s what the Chesapeake Bay Program found out with their “Save the crabs—then eat’em” campaign.

After years of messaging to get Chesapeake Bay area residents to change their use of fertilizers and pesticides on their lawns citing a severe decline in the health of the Bay, the Program re-framed the problem in a manner that spoke to personal concerns. The blue crabs that the Chesapeake is well known for will disappear, unless everyone chips in to help.

“...Showing how someone personally benefits by a new behavior works...Changing the time of year to fertilize was one of the key message points. At the end of the campaign more than 40 percent of people surveyed planned to alter when they fertilized.” (Hoffman, 2008)

This SMART About Water curriculum provides information and strategies to help you do the same in the communities where you’ll be working.

SMART About Water’s Target Audiences

The SMART About Water Program and services, including this Curriculum and Toolkit, are targeted to eight priority audiences. Those audiences, in order of priority are:

1. elected officials/mayors/county commissioners
2. licensed operators/community water systems
3. homeowners/landowners
4. watershed groups/associations
5. homeowner associations
6. septic installers/service providers
7. special interest groups/civic groups
8. non-community water systems

These audiences were identified by SMART About Water’s National Design Committee at the SMART National Workshop held on April 29-30, 2008 in Washington, DC. This committee is comprised of more than forty experts in the areas of source water and wellhead protection planning, wastewater, drinking water, technical assistance, small community and rural issues, finance, regulations, and training. The committee determined that these eight groups are most critical for source water protection planning with regard to addressing wastewater as a first threat to drinking water sources.

The National Design Committee identified additional relevant information about each of these audiences that can be used to inform the National Environmental Services Center (NESC) and the Rural Community Assistance Partnership’s (RCAP’s) interactions with these audiences—whether through training, technical assistance, outreach, or product development and distribution. The types of information identified for each audience include:

- Roles/Responsibilities and Characteristics
- Training Delivery Outcomes (knowledge, skills, and abilities)
- Motivators (wants, needs, drivers)
- Effective Delivery Formats
- Effective Recruitment Strategies
- Existing Useful Training Materials and Resources, and Materials that Need to be Developed

These recommendations are provided in the “Audience Reference Sheets” (Tab 10) section of this curriculum. The reference sheets provide a wealth of information and ideas for reaching out to SMART’s eight priority audiences, facilitating their involvement in the SMART About Water training, obtaining their buy-in, and moving them to action.

How to Use These Training Materials

SMART Training Curriculum

The training curriculum materials are comprehensive in nature and address the primary components and topic areas that are relevant to the SMART About Water Program. Specifically, these materials are designed to serve four primary purposes:

1. To be used by RCAP staff members to train their RCAP co-workers about the SMART About Water program and help them develop skills and knowledge in the program’s key content and outreach areas.



2. To be used by RCAP field staff as a resource they can use, adapt, borrow from, and/or supplement to train SMART's priority small system and small community target audiences.
3. To serve as a reference tool to help insure that the primary SMART About Water concepts, goals, objectives, outcomes, and identified priority audiences are readily accessible and available to those implementing the program.
4. To provide a standardized approach to training delivery and technical assistance efforts across the country.

The major topic areas in the Curriculum are:

- Using the SMART About Water Curriculum
- Background Information: SMART About Water
- SMART Evaluation Forms and Methodology
- Module 1: Intro to SMART About Water--The SMART Goal, Program Concepts and Outcomes
- Module 2: Source Water Assessments: Federal and State Perspectives
- Module 3: Source Water Protection Planning: Components and Process
- Module 4: Protecting Source Water through Strategic Wastewater Management
- Module 5: Using Social Marketing to Achieve SMART About Water Goals
- Tracking and Reporting RCAP Activities and Deliverables
- Audience Reference Sheets
- SMART Toolkit Resource List and Additional Resource List
- National Design Committee Member List

Training Delivery Outcomes

The Training Delivery component of the SMART About Water Program has six outcomes. The RCAP trainers and assistance providers who deliver training to the eight priority audiences in the 245 small systems/communities are responsible to train to the six specified outcomes:

1. Local officials heightened awareness and understanding of their system's source water assessments
2. Increased knowledge about how to conduct planning and obtain community support
3. Understanding the connection between source water protection and wastewater treatment
4. Awareness of information resources available to officials
5. Awareness of volunteer organizations that can provide assistance
6. Increased calls for technical assistance received by NESC and RCAP

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SMART Key Curriculum Topics At-a-Glance

Training curriculum materials have been designed to help the trainer or assistance provider achieve these outcomes. A summary of the training topics is provided below.

Module 1: Introduction to SMART About Water-- The SMART Goal, Program Concepts and Outcomes

Training Goal: Ensure that participants gain a thorough understanding of the SMART About Water program and how using this approach and voluntarily developing source water protection plans will benefit them and their community.

Topics

- Framing the approach: the overriding principles in SMART: (1) community resilience, (2) interrelatedness, (3) interdependency, (4) social marketing, (5) financial capacity
- EPA grant requirements: primary goal and objectives
- EPA grant requirements: strategies for implementing SMART and expected outcomes
- RCAP staff and the SMART training outcomes

Module 2: Source Water Assessments-Federal and State Perspectives

Training Goal: Ensure that participants gain an understanding of the Source Water Assessment and Protection Program and their community water system's source water assessment.

Topics/Federal: Protecting Sources of Drinking Water

- Goal: Improve source water quality through comprehensive source water protection
- Source Water Assessment Program (SWAP) and SWAP basics
- Key source water assessment elements and availability
- U.S. EPA Region 3 Source Water Assessment Findings
- Strategic actions
- Integrating federal, state, local actions
- Wellhead Protection Programs
- Resources and funding

Topics/State: Review of West Virginia's Source Water Assessment and Protection Program

- WV Susceptibility Assessment Reports
- Moving from assessment to implementation
- Barriers to implementing source water protection plans
- WV SWAP—next steps, and recommended steps at the local level
- Ranking potential contaminant sources
- WV SWAP—protection measures
- Measuring progress

Module 3: Source Water Protection Plans: Components and Processes

Training Goal: Ensure that participants gain a thorough understanding of the source water protection planning process, and obtain the knowledge and tools they need to identify and motivate key stakeholder groups and complete and implement plans to protect their drinking water.

Topics

- Potential costs of source water contamination
- Elements of a good source water plan and how each of the elements fits into the overall plan
- The importance of source water protection planning for the local water source
- Steps involved in completing a source water protection plan, including working with stakeholder groups, involving the public, managing potential contaminant sources—including wastewater—and implementation

Module 4: Protecting Source Water through Strategic Wastewater Management

Training Goal: Ensure that participants gain an understanding of the connection between source water protection and wastewater treatment, and how they can protect their source water through strategic wastewater management.

Topics

- Protecting drinking water from wastewater contamination
- Introduction to wastewater treatment
- Onsite wastewater treatment overview
- Advanced treatment
- Problem characterization/moving to action
- Maintenance and management

Module 5: Using Social Marketing to Achieve SMART About Water Goals

Training Goal: The goal of this session is to teach participants about social marketing and to help them apply social marketing principles to their work as a part of the SMART program..

Topics

- Introduction to social marketing
- The Four Ps of social marketing: Product, Price, Place, Promotion
- Social marketing is strategic
- Social marketing is audience and outcome focused
- Social marketing addresses barriers
- Social marketing and stages-of-change
- How SMART is using social marketing
- SMART About Water's eight priority audiences
- Five stages of social marketing

SMART Toolkit

The Curriculum is accompanied by a SMART Toolkit that includes a variety of resources—fact sheets, worksheets, DVDs, CD ROMS, flyers, articles, and other products that can be used to train and assist SMART priority audiences. The resources in the Toolkit were selected based on their relevance to SMART topics, and their relevance and appropriateness for the eight priority audiences.

A list identifying Toolkit Resources as well as a list of Additional Recommended Resources is included in the “Toolkit Resource List” section of this Curriculum.

Adapting the SMART Curriculum and Toolkit to Meet Local Needs

Each community and training situation across the country is unique. In some communities you may decide to make a 30-minute presentation to the local Rotary Club. In another location, you may invite water board members, local officials, and watershed groups to attend a half-day or full-day workshop.

This curriculum addresses the major items that the end audiences need-to-know to begin voluntary source water protection planning in their communities. In order to accommodate local training needs and provide materials that can be used in different ways and in different situations, the curriculum is organized according to discrete topic areas, or modules. Each module is a stand-alone package with its own goal, objectives, PowerPoint, content, and activities. These modules are intended to serve as the basis for developing subsequent training that you’ll deliver in the field. The training program you design may use one or more modules as they are, or use bits and pieces from various modules.

Example 1

You may decide to present the full curriculum to your small community audience, or you can cluster one or more modules for a more targeted approach.

Example 2

Another option is to extract or mix-and-match key components from several modules, based on the needs of a particular community and the learning objectives you intend to accomplish. For example, if your audience includes stakeholders who are ready to begin working on a source water protection plan, you would likely use some information from the “Source Water Protection Planning” module and the “Source Water Protection through Strategic Wastewater Management” module.

Example 3

Conversely, if your audience is totally unaware of its local wastewater pollution problems and how source water protection planning could help them, you might pull key components from the “Introduction to SMART About Water” session, combined with information about the connection between wastewater pollution and the community’s drinking water, and a few tips for engaging local stakeholders by using social marketing techniques.

The important point to remember is that these materials can be used in a variety of ways to meet the unique needs of the communities and target audiences with whom you work, as well as the key messages you intend to relay.

While it's important to adhere to SMART About Water's strategic focus and concepts, as stipulated by the program's proposal and agreement with the funding agency (U.S. EPA), your use of this Curriculum should be guided by your own experience, expertise, goals, and needs, as well those of the communities with whom you work. When appropriate, you should feel free to add, develop, and use your own materials.

The Lesson Plans

Lesson plans are included with each module. The lesson plans offer information, resources, reminders, and suggestions that you can use as you plan and prepare to deliver the training. Keep in mind that your lesson plans will likely need to be tailored for each audience you train. A Sample Lesson Plan, with brief descriptions about its purpose and how it can be used, is provided in the next couple of pages.

SAMPLE LESSON PLAN

SESSION:*Introduction to SMART About Water***TRAINING GOAL**

The training goal states the goal the trainer should achieve as a result of teaching the topic.

SAMPLE GOAL: Ensure that training participants gain a thorough understanding of the SMART About Water program and how it will benefit their community.

TRAINING OUTCOME

The training outcome states what the trainer should strive to accomplish in teaching a particular topic to the target audiences, as required by the objectives, outputs, and outcomes of the SMART About Water proposal and contract with U.S. EPA.

SAMPLE TRAINING OUTCOME: *Trainer/assistance provider's presentation should energize and motivate the participants to get engaged in SMART's source water protection planning efforts! Your interaction with the target audience should achieve the following SMART objective and outcome:*

Objective: *Stimulate voluntary planning activities among small and very small community water systems and non-community water systems with a specific focus on untreated wastewater from failing septic and sewer systems.*

Outcome: *An increased number of calls for technical assistance received by NESC and RCAP.*

BACKGROUND INFORMATION

Background information provides suggestions and information that may help you better understand the topic, or help frame the topic in a more meaningful way.

SAMPLE BACKGROUND INFORMATION: *Be familiar with the local wastewater issues, facts, and figures, before presenting wastewater information to the community. In many small and rural towns, addressing multi-jurisdictional issues will be the primary challenge.*

LEARNING OBJECTIVES

Learning objectives state what the learner should know or be able to do as a result of participating in the training session. Objectives may differ among audiences or communities. Be sure to determine the learning objectives before you deliver the training, and design and deliver the training to meet the objectives.

SAMPLE LEARNING OBJECTIVES: *As a result of the training, participants will be able to:*

- *Explain the purpose of the SMART About Water program,*
- *Describe the community-based nature of SMART About Water SWPP efforts*
- *Identify the purpose and importance of applying social marketing concepts to SWPP outreach and training activities.*

LEARNING ACTIVITY

The learning activity is an individual or group exercise designed to help accomplish one or more learning objectives. It gives learners the opportunity to discover, demonstrate, and apply what they have learned. Learning activities are a useful way to help learners apply new information or skills to real world or job-related situations.

SAMPLE LEARNING ACTIVITY: Community Awareness About Water Pollution

Length: 20 minutes

Materials Needed: Paper, pens for groups; flipchart and markers for trainer

Process: Break participants into groups of three-five people. Ask participants to list three types of pollution that are contaminating their drinking water source. For each pollution source, have participants answer the following questions: “Does the polluter know his pollution is running into our drinking water source (river, lake, well)? Is this a problem or not? Why?”

Ask each group to select one pollution source and report their analysis back to the larger group.

Ask the larger group: “What does this tell us about the consciousness of community members about their impact on our drinking water?”

Summarize the key messages on the flip chart. Ask for questions, respond and make clarifications.

KEY MESSAGES FOR DIFFERENT TARGET AUDIENCES

This component of the Lesson Plan reminds the trainer to be sure to identify the audiences and carefully consider their specific wants, needs, and motivators. Craft the message, training, and activities accordingly. Remember to refer to the “SMART Audience Reference Sheets” in this curriculum for ideas, as well as learning as much as possible about the local stakeholders and local issues.

SUGGESTED HANDOUTS

Providing handouts to the learners is a good way to provide additional information and resources they can refer to and use back on-the-job. Be selective in choosing the handouts—provide only what the learner needs-to-know. In this case, less is more. In many situations, it is suggested that the trainer provide relevant, local information to the participants. For some topics, trainers may have appropriate materials on hand. For other topics, it may take a bit of time and research to find or develop the appropriate materials or information.

An effective strategy for using handouts in a training session is to guide the learner through the use of the handout. For example, point out its purpose, have the learners read all or part of it, and discuss how it can be used.

SAMPLE HANDOUT: Create and hand out a one-page fact sheet highlighting information from the local Source Water Assessment, such as the percentage of failing septic systems in the community, the location of these systems, and their impact on the drinking water source. Be sure to incorporate social marketing ideas in crafting the message. For example, based on your target audience, determine if it’s best to point out that the pollution could get into the drinking water and make people sick or that pollution is degrading aquatic and avian ecosystems.

POSSIBLE AGENDA

It's a good idea to provide your training participants with an agenda so they know what to expect in the session. The agenda generally provides a list of topics and the associated amount of time you plan to spend on the topic. You'll note that this SMART Agenda builds in time for participants to complete the "Participant Sign-In Sheets, and to administer the Pre-evaluation and Post-evaluation Forms. It is critical to dedicate time during the session for training participants to complete these evaluation instruments.

SAMPLE AGENDA:

Introduction to SMART About Water

Approximate Time to Deliver Session:	_____ hours/minutes
Welcome and Introductions	_____ minutes
Complete Registration Form	_____ minutes
Complete Pre-assessment	_____ minutes
Topic A	_____ minutes
Topic B	_____ minutes
Topic C	_____ minutes
Activity #	_____ minutes
Other	_____ minutes
Complete Post-assessment	_____ minutes
Summary, Feedback	_____ minutes

POWERPOINT AND CONTENT

A PowerPoint presentation has been developed that can be used as is or adapted to meet the trainer's local needs. Detailed content to be taught is listed in the "Notes" sections of the PowerPoints, unless otherwise noted. Some PowerPoints include all key content within the slides. In some cases, two sets of PowerPoints are available: one for use in a train-the-trainer session, one for use with the end target audiences.

“Please see the “SMART PowerPoint CD-ROM” for electronic copies of the PowerPoint Presentations. Note that some of the modules include two sets of PowerPoints. In addition, “Module 4: Source Water Protection through Strategic Wastewater Management,” includes eight sets of PowerPoints, along with additional files that provide background information for the trainer.”

Other Resources Included in this Curriculum

Background Information on SMART About Water

A number of resources providing background information about the SMART About Water Program are included in the “Background Information: SMART About Water” section of this Curriculum. Be sure to familiarize yourself with the information. Items include:

SMART Briefing Paper

A briefing paper developed by NESC that provides a brief overview of the SMART About Water Program.

SMART About Water Proposal

The fourteen-page proposal of the SMART About Water program that has been accepted and approved by the funding agency (U.S. EPA).

Summary List of SMART Outputs and Outcomes

Provides a list of SMART About Water goals, objectives, outputs, and outcomes, as outlined in the contract between NESC and the U.S. EPA.

RCAP Statement of Work for the SMART About Water Program

Lists deliverables and work to be performed by RCAP for the SMART About Water program, as stated in the contract between NESC and RCAP.

ASDWA Notice to State Source Water Coordinators Announcing SMART About Water

On May 8, 2008, the Association of State Drinking Water Administrators (ASDWA) sent a letter via email to each State Source Water Coordinator to inform them about the SMART About Water Program, alert them to the fact they their state RCAP affiliate would be contacting them to discuss the SMART About Water program, and encourage each State Source Water Coordinator to meet with RCAP to discuss SMART About Water efforts in their states. Please note the SMART program requires RCAP staff to contact each state’s Source Water Coordinator before conducting source water protection planning efforts.

SMART Evaluation Forms

The evaluation and other forms that RCAP field staff will administer to training participants at every training session are located in the “SMART Evaluation Forms” section of this document, along with instructions for their use. **It is critical for RCAP field staff to make sure the forms are completed and the data returned to RCAP Headquarters, which will provide copies to NESC.** This information will be used to assess the NESC and RCAP’s success in achieving the SMART About Water Program’s goals, objectives, outputs, and outcomes.

The methodology being used to evaluate the SMART Program is called “Stages-of-Change.” To read about this methodology, and to see the Evaluation Forms, please see the “SMART Evaluation Forms” section of the Curriculum. *(Please note that some of the evaluation tools are still in development. RCAP headquarters will provide new forms and instructions as they become available.)*

RCAP Reporting Procedures and Tools

Information RCAP staff members need-to-know about tracking and reporting activities and deliverables is included in Section 9: RCAP Reporting/Tools and Procedures.



Electronic Copies

Electronic copies of all components of the Curriculum, PowerPoint presentations, and Toolkit are provided on CD-ROMS for your convenience. PowerPoint templates featuring the SMART About Water Logo, along with the logos of NESC, RCAP, and the EPA, are also provided. We request that you use these SMART templates in your training in order to maintain a consistent look and feel to the visuals.

SMART About Water Flyers and Other Outreach Materials

Two SMART flyers developed by NESC are included in this Curriculum. Electronic copies will be provided on the accompanying CD-ROM. In addition, NESC will post these flyers on its SMART About Water Web site: <http://www.nesc.wvu.edu/smart/>

Please be sure to provide these flyers to the end audiences and others in the communities you work with. It's important to promote RCAP and NESC services to these audiences, and provide them with contact info for calling or inquiring about our services.

SMART About Water Web site: <http://www.nesc.wvu.edu/smart/>

The SMART About Water Web site provides information about resources available for protecting source water through strategic wastewater management. These resources include

- articles from NESC publications (On Tap, Small Flows Quarterly, and Pipeline);
- products such as case studies, finance/management, operation maintenance and management, public education, and regulations;
- Frequently Asked Questions about source water;
- A source water glossary;
- And links to partnering agencies and their resources—RCAP's Safe Drinking Water Trust and Rural Matters, and U.S. EPA.

The SMART Web site will be updated with new information and products, including new tools and resources for the SMART Toolkit, throughout the project period, through June 2009.

References

Hoffman, J.R., Spring/Summer 2008. *Using Social Marketing for Water Source Protection: Bringing "out of sight, out of mind" to the top of one's mind.* Small Flows Magazine. National Environmental Services Center, WV. V 9, n. 1. Pp. 18-20.