



**KY-A-Syst for the Home**  
Environmental Stewardship  
for Homeowners

## Assessing Your Homesite

### Teaching Guide

#### Introduction:

Activities in and around your home can affect water quality, not just below the ground but in nearby lakes, streams and other bodies of water. It is important to become familiar with your homesite so that you can manage it properly to maintain good water quality.

Soil type determines where contaminants go and how water moves. Clay soils slow the downward movement of water and can stop it completely. Sandy soils allow for rapid water movement and silty soils fall in between. The ideal soil is a mixture of fine and mid-size particles that allow water to infiltrate slowly so potential pollution can be filtered.

It is also necessary to know the depth of your soil. Deep soil allows for more filtration and reduces the potential for groundwater contamination. Soils less than 3 feet in depth pose the greatest risks. Another problem in Kentucky is the possibility of breaks in the bedrock (sinkholes). Sinkholes allow water to be fed directly into groundwater without being filtered by soil particles.



Homes that are within 100 feet of surface water should take great care to prevent runoff of contaminants. Contaminated runoff is greatest during a storm, flooding, or even when watering your lawn. Runoff can pose threats to aquatic plants and animals as well as to people who will be using the surface water. The slope of the land around your home is also important. The steeper the slope, the greater the possibility that contaminated water will flow directly into surface water resources and groundwater.

Drawing a map of your homesite will help you understand your own pollution risks. While you cannot change the physical characteristics, you can minimize risks. Getting your children involved in making the map will help teach them the importance of clean water. You should pay special attention to problem areas such as improperly located septic systems, petroleum storage tanks, stockpiled animal waste, and steep slopes. Use the map and the information you learn during your evaluation to begin the process of correcting any problems you have identified.

### **Focus on Children:**

It is important that children understand the importance of clean water and what needs to be done to keep it clean. Children are most at risk for exposure to polluted water because they enjoy wading in streams or swimming in neighborhood lakes or ponds. Just because the water looks clean doesn't mean it is safe for wading or swimming. Sewage water pollution is especially hazardous to young children and can cause diarrhea, hepatitis, or internal parasites.

### **Lesson Purpose and Objectives:**

**Purpose:** This lesson is designed to assist people in protecting water quality around their home by doing a site assessment.

**Objectives:** This lesson guide contains a lot of information about how to assess your homesite to protect water quality. It may be difficult to cover all the material in one session. Therefore, you are encouraged to select a program based on the type of audience you are serving and their needs. It is best to select and focus on *only two or three* of the following objectives.

Determine what type of soil you have.

Learn the depth of your soil to bedrock.

Become knowledgeable about how close your homesite is to surface water bodies.

Understand the importance of the slope of your homesite.

Learn how to draw a map of your homesite.

Other (Please list in the space below):

### **Suggested Resources & Materials:**

The following items are available for your use in teaching this lesson. Select and use resources according to your program focus and needs. County agents should request these items in advance.

Videos (Available through the Ag. Communications video library.)

- *Into the Ground, Into the Water* (VAG-0615)
- *Water Riches (5 part series)* (VAG-1157)
- *Ground Water Basics* (VEI-1287)
- *Groundwater and Your Family's Health* (VET-0252)

## **Suggested Resources & Materials: (cont'd.)**

Other: (Please specify below.)

## **Suggested Teaching Techniques and Activities:**

Select only those activities that will help you teach the lesson. Limit selection according to your program focus, audience, and length of lesson.

Use the transparencies to give an overview of homesite water quality issues. Encourage discussion as you present the information.

- Have the participants read the Ky-A-Syst for the Home publication *Site Assessment: Protecting Water Quality around Your*. Ask them to go back through the publication and answer the questions in the boxes. Suggest participants draw a map of the homesite, paying special attention to problem areas. Encourage them to set target dates for taking action to correct any problems.
- Show the video *Into the Ground, Into the Water*. Talk about the possible threats to groundwater from dumping waste in sinkholes. Have the audience brainstorm possible solutions to sinkhole contamination.
- Invite a local Natural Resources Conservation Service employee to speak to the group. Ask him to discuss possible areas of pollution around homesites and to draw a map of a homesite for the audience. Ask him to bring the county soil survey so homeowners can determine what types of soil are in their area.
- Show the video *Ground Water Basics*. Discuss the need for individuals to do their part to protect our aquifers.
- Supply the audience with paper, pencils, and markers, and assist them in drawing a site map of the area around their home. Suggest they take the map home with them and fill in additional information as they walk around the area.
- Show the video *Groundwater and Your Family's Health*. Discuss the threat to children from contaminated water.
- Other: (Please specify below.)

### **Suggested Evaluation Techniques:**

Select the technique(s) best suited to the information you would like to obtain from your audience. Immediate evaluation will provide reaction to the presenter and program materials. Delayed evaluation will give a better indication of changed behavior and attitudes.

- ◆ At the close of the program, ask each participant to name *one* thing they learned from the lesson.
- ◆ At the end of the program, ask each participant to list something they will go home and do as a result of the lesson. Have them write the item on a piece of paper with their name and the date of the lesson. Save the papers and several weeks/months later survey the group to see if they actually did it.
- ◆ Hand out a copy of the *Help Us Serve You Better* evaluation form. Ask participants to complete the form and leave it in a specific place as they leave.
- ◆ Return to the group several weeks later and ask them to fill out the Follow-up Feedback Form and collect them as they leave. If you cannot return to the group in person, contact a representative number of the participants by phone and collect the data requested on the Follow-Up Feedback Form from each.
- ◆ Other: (Please specify below.)

#### **Reporting Impacts (*Information for County Extension Agents*):**

Use the following priority indicators and program accomplishment (PAC) codes when reporting impacts as a result of this program. Information taken from the FY01 PAC and priority indicators lists.

PAC Code 610 - Indicator:

- Number of individuals adopting practices that insure safe water.

Prepared by Denise Hoffman, Temporary Extension Associate and Kim Henken, Extension Associate for Environmental and Natural Resource Issues.

This material was developed through funding provided by the U.S. Department of Agriculture, Cooperative State Research, Education and Extension Service, Healthy Homes Project and the U.S. Environmental Protection Agency, Region IV, Children's Environmental Health Project.

Educational programs of the Kentucky Cooperative Extension Service serve all people regardless of race, color, age, sex, religion, disability or national origin.

June 2001