

## **Program overview**

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Participants are involved in the program through a daylong workshop. Workshops will be scheduled around the state in areas where either the state has requested additional monitoring or where there is a high level of public interest. These workshops are open to the public and will be advertised in West Virginia magazines, newspapers and state and private agency publications.

Workshops are designed to educate citizens on pollution problem recognition and on site regulations and programs pertaining to pollution abatement, such as the West Virginia Pollutant Discharge Elimination System and the West Virginia Nonpoint Source Management Plan. A classroom style presentation is used to show stream pollution problems, monitoring techniques, examples of macroinvertebrates and restoration practices. An on-site, hands-on demonstration in the biological stream monitoring technique is provided after the slide show. Participants then return to the workshop location and register to monitor a specific stream station(s).

## **Training, parameters and frequency of collection**

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Training workshops will consist of a lecture at the stream site by the program coordinator on the concept of a watershed and the relationship between land use and water quality. A lecture is then given on the techniques for selecting the appropriate habitat to conduct the biological benthic survey. An explanation of what constitutes a riffle area is given along with information on rock, the importance of leaf in finding shredder organisms and techniques for positioning the kick-seine for best results. A lecture is given on West Virginia state programs including West Virginia's Nonpoint Plan and the role of the DEP.

Program staff will demonstrate the monitoring technique with assistance from workshop participants. After benthic samples are collected, are removed from the net using a variety of methods and placed in trays of water so that they can easily be observed. Organisms are then placed in magnifier boxes and given to workshop participants for identification. Workshop participants are instructed in identification techniques that focus on the morphology of the organisms; examples include the number of legs, types and location gills, antenna, segmentation, size and behavior characteristics including preferred habitat and movement. Materials are provided to aid in identification.

After monitors have been instructed on the skills necessary to properly identify macroinvertebrates, they are asked to identify the specimens in the sample and record them properly on the survey form. Then they are given a chance to look over preserved specimens of all the major stream macroinvertebrate groups found within the state. Monitors are thoroughly instructed in the identification skills necessary to identify all major groups of stream-dwelling organisms.