

## Welcome to CRWC's Student Monitoring Program

Across the watershed, students and teachers are learning about water quality issues and helping protect their community's water resources by becoming volunteer water quality monitors. They are analyzing water samples for dissolved oxygen, nutrients, pH, temperature, and a host of other chemical constituents; evaluating the health of stream habitats and aquatic biological communities; inventorying physical stream-side conditions and land uses that may affect water quality; cataloging and collecting river, lake and beach debris, restoring degraded habitats, and making community presentations.

State and local agencies/organizations use volunteer data to screen for water quality problems, establish trends in waters that would otherwise be unmonitored, and make planning decisions. Students and teachers benefit from learning more about their local water resources, identifying what conditions or activities might be contributing to pollution problems, and working with clubs, environmental groups, and state or local governments to address problem areas.

Most people do not realize the impact that their everyday behaviors have on water quality and the environment. A majority of the public believes that someone else, industry, or government is the primary cause of water pollution, when in fact; the major nonpoint sources of pollution are from our own cars, yards, driveways, and daily behaviors. Finding and stopping the sources of pollution before they reach the Clinton River are important steps in keeping our water supply clean. By monitoring the Clinton River and its tributaries, we are educating the future generations of decision makers and voters about the importance of the resource.

People must be educated before these changes can occur. Focusing on individual behavior changes can greatly reduce, and perhaps even eliminate, some of our greatest water quality threats. People must be motivated to get involved and gain the experiences that provide them with the necessary tools to be effective stewards of the watershed. Although this program is not the sole prescription for the watershed's problems, it is the necessary first step in any treatment. The benefits of this type of education are invaluable, and compliment every ongoing water quality project in the Clinton River watershed and southeast Michigan.

The Student Monitoring Program combines aspects from a number of established volunteer monitoring programs to provide a comprehensive monitoring program designed specifically for the Clinton River watershed.

### Goals and Objectives

*The goals of the program are to:*

- Use the Clinton River watershed as the focus to provide the opportunity for an interdisciplinary approach to education
- Foster stewardship of the Clinton River and its tributaries among students

- ➔ Provide the opportunity for students to become life-long learners and responsible citizens
- ➔ Provide credible information on the water quality of the system to local decision makers

*Objectives of the SMP are to:*

- ➔ Develop student analytical and problem solving skills
- ➔ Provide awareness to students and volunteers of the chemical, physical, and biological characteristics of rivers and their importance to individuals' daily lives
- ➔ Monitor the surface waters of the Clinton River basin using chemical, physical, and biological indicators of water quality
- ➔ Identify land uses which contribute pollution to surface waters in the basin
- ➔ Develop action plans to be implemented by students and volunteers to address identified sources of pollution
- ➔ Incorporate water quality data into a watershed based river quality database that can be readily used by state and local decision-makers in formulating development decisions that affect the Clinton River, its tributaries, and related land uses
- ➔ Develop a computer network to share water quality data, information, and concerns among program participants.

### **Student Monitoring Program Agreement**

*You and your class agree to:*

- ➔ Have one teacher attend a teacher training session within one year of beginning the program.
- ➔ Complete all 9 tests of the National Sanitation Foundation Water Quality Index, as well as the Pollution Tolerance Test using benthic macroinvertebrates, during the Fall and Spring Monitoring Day.
- ➔ Turn in a water sample to a wastewater treatment plant by the day's end so it may be tested for fecal coliform, phosphates, total suspended solids and *E. Coli* where applicable.
- ➔ Have a teacher and 3-10 students attend and present their results at the annual Student Congress.
- ➔ Report monitoring results to CRWC within 2 weeks of testing.
- ➔ Plan and implement an "action project" to create awareness and/or help protect and restore the Clinton River.
- ➔ Complete a program evaluation form every year after the spring sampling.

*The Clinton River Watershed Council agrees to:*

- ➔ Provide at least one teacher training session annually.
- ➔ Organize a Fall Monitoring Day for the last Wednesday in September and a Student Congress for the last Thursday in October.
- ➔ Organize a Spring Monitoring Day for the first Wednesday in May.
- ➔ Maintain and provide a directory of participating schools to the teachers.
- ➔ Provide assistance and support to facilitate all facets of participation in the program.
- ➔ Provide at least one in-class presentation on the Clinton River and its watershed.
- ➔ Draft a yearly program evaluation during the summer.