

## 2012 Stream Health Evaluation Program (SHEP)

Nine sites were monitored in the Elm Creek watershed in 2012. Results from the 2012 monitoring will be available in mid-2013. To view the latest available reports go to [www.hennepin.us](http://www.hennepin.us), keyword SHEP.

In 2008, Hennepin County Environmental Services (HCES) partnered with the Elm Creek Watershed Management Commission to initiate a new stream monitoring program. The program consists of three elements:

- **River Watch** focuses on stream monitoring using High School students in their classroom setting to gather data.
- The **Wetland Health Evaluation Program (WHEP)** recruits adult volunteers to monitor biological health of wetlands throughout the County.
- Using the same parameters as WHEP, the **Stream Health Evaluation Program (SHEP)** started monitoring streams in the fall of 2008. The pilot program consisted of one team of adult volunteers monitoring seven sites in the Elm Creek Watershed.

Staff from HCES partnered with Three Rivers Parks District staff to choose the SHEP sites for monitoring within the Elm Creek Watershed. The sites chosen were at one time part of the River Watch program and also within the Park district boundaries.

The protocol used in SHEP is the ‘multi-habitat’ method which has been adapted for volunteer use by the United States Environmental Protection Agency. To download the manual visit [www.epa.gov/volunteer/stream](http://www.epa.gov/volunteer/stream).

All samples are collected by the SHEP team and processed using EPA methods. Identification is to the Family level and 100% of the samples are checked for accuracy by HCES staff. Data is entered into an excel spreadsheet and appropriate indices are calculated. Evaluation is performed using the multi-metric approach.

The Hennepin County SHEP team also participated in using a new protocol for volunteers monitoring the cast skins of Chironomidae. Along with the traditional macroinvertebrate sample, the team used a technique developed by UM Entomologist Dr. Len Ferrington. Dr. Ferrington spent an afternoon with the team training them on sampling protocols. The samples were preserved and analysis will be performed in conjunction with Dr. Ferrington’s lab.

HCES will be working with a Master’s student from Dr. Ferrington’s lab and an employee of RMB Laboratories to hold a summer-long training session with the ultimate result being an identification key for volunteer use. Trained volunteers will then be able to identify these samples to the Genus/Species level for a finer assessment of water quality.

