June 29, 2009

Conservation Horizons

Pike County Conservation District

Monitoring the Health of Pike County's Streams

The Pike County Conservation District (PCCD) has been monitoring the quality of the County's surface waters since 1987 to establish baseline knowledge of water quality and to monitor changes over time. Since 1991, the District's monitoring program has included biennially sampling approximately 45-50 sites. Macroinvertebrates, the insects living in the bottom of streams, are sampled each spring and fish are sampled each fall using proven procedures and methods. The populations observed are then evaluated and reported upon.

PCCD added some new procedures and new sampling schedules in 2009 to accommodate new State and Federal Methodology. This "new" Water Quality Monitoring Program has incorporated several procedural and evaluative methods recommended by the U.S. Environmental Protection Agency and adopted with modifications by the Pennsylvania Department of Environmental Protection (DEP). These procedures, known as Rapid Bioassessment Protocol III were started in conjunction with a new scoring metric known as Index of Biotic Integrity (IBI). These changes in procedure and schedule will provide the District with the ability to continue collection of valuable data, streamline data collection, reduce costs and time required in the field, and provide the District an increased ability to plan and budget for any additional future changes in the program.

Approximately fourteen different Macroinvertebrate sites and five different Fish sites will be sampled each year. The sampling program allows for a long term evaluation of the health of watersheds in Pike County. The organisms which call these waterways home tell us a great deal about the water quality present throughout the year and not just for that specific moment in time. This is extremely beneficial because it allows for data collection at one time instead of repeatedly throughout the year. Despite the benefits from these new procedures and methods the program will still face challenges.

An invasive species dubbed "Rock Snot" or "Didymo" was discovered in the Upper Delaware River in 2006 and has since been discovered in several other streams within the Upper Delaware Corridor (but none in Pike County as of yet). Rock Snot is an extremely invasive algae that takes over stream bottoms and smothers the natural plant and insect

communities which exist there. Without these native plants and insects the fish populations which depend on them will suffer from lack of food and habitat. This algae is very easily transported by recreational boaters and fishermen/women. A single cell of Rock Snot can remain alive for up to two months in moist conditions such as those found in fishing waders or a Personal Flotation Device (PFD) following use in an infected waterway. Folks using fishing and boating gear in different waterways should use the simple "Check, Clean, Dry" method of prevention and be sure their gear is fully dry for 48 hours prior to moving it to another waterway.

Despite the ever-present threats from invasive species and land development activities, Pike County has been fortunate, with some exceptions, to maintain stream and waterway health. Pike County's watersheds are all afforded the highest levels of protection by the PA DEP. Of our eighteen sub-watersheds, five currently have a designated use of Exceptional Value (EV) which is the highest level of protection. The remaining thirteen are one step below EV and are designated as High Quality Cold Water Fishery (HQ-CWF). With continued vigilance by resource management agencies, local governments and the general public, we can maintain these fantastic water resources and ensure that they remain clean and healthy for generations to come.

May Question: How long has the Pike County Conservation District been monitoring the quality of the County's surface waters?

May Answer: See article above

June Question: What is the "Check, Clean, Dry" method used to prevent the spread of "Rock Snot"?