



2010 MWMC Carl Weber Award – Dr. Sally G. Hornor

Sally began as scientific director of Severn River Association's Operation Clearwater in 1989, sampling typically 20 sites on the river each summer. Results were published each summer in the "SRA Log" newsletter. Beginning in 2004, Sally posted results on the web, thus expanding access to results beyond SRA membership. Due to web posting and newspaper articles, other river associations requested that Sally include them in bacterial monitoring, including South River Federation, West/Rhode Riverkeeper, and Advocates for Herring Bay.

Sally often gives talks to varied audiences about sources of fecal bacteria and ways to reduce input, and works with a variety of groups to expand bacteria monitoring. Here are some recent examples. In summer 2010, she worked with Spa Creek Conservancy to add enterococci monitoring to the St. Mary's High School Biology curriculum. A state-wide NSF funded program called "MD Bio" has a van that travels to high schools around the state, spending a week at each school doing science projects. Sally did a 45 minute radio interview on bacterial water quality for FM 107.9 (WFSI - Family Radio Network) on Aug 21, 2010. She has also given several talks and presented posters at MWMC on this work.

Sally's success with monitoring bacteria in Maryland waters came to the attention of the World Bank, which is using Sally's expertise on a "citizen science" project in West Africa. She is working with the Magothy River Association to develop bacteria and other monitoring methods that could be used in West Africa to improve public health and fisheries monitoring. This includes setting up a nutrient analysis lab at AACC that will be used both to test methods that could be used in Africa, and also to analyze Magothy water samples for Total Nitrogen and Total Phosphorus.

Several groups have been able to use high enterococci counts to help them obtain funding from CBT or NFWF to improve stormwater management, or to make other changes to reduce bacteria levels. For instance:

- Bacteria data helped the South River Federation obtain a large grant to retrofit stormwater from the Davidsonville Animal Shelter and Church Creek. Saefern is a Severn River community that has used these data for obtaining CBT grants to install a Keith Underwood designed stormwater conveyance that helped reduce bacteria levels in Clements Creek.
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- High bacteria levels near the Sherwood Forest main pier (near Brewer Pond on the Severn) were used to trace the source up a ravine nearby to find and repair a leaking septic system. The result was lower bacteria levels and safer swimming.
- High bacteria levels at the beach in Oyster Harbor, south of the mouth of the Severn River, were attributed to waterfowl that congregated there to eat sea lettuce (*Ulva*) on the beach. Control measures reduced the waterfowl populations and then the bacteria levels.

Sally is active in several local environmental groups, serving on several of their boards, where she shared her expertise on water quality, watershed planning, and land protection issues. Some of these include:

- Severn River Commission (SRC)
- Severn River Association (SRA)
- Magothy River Association (MRA)
- Magothy River Land Trust (MRLT)
- Watershed Stewards Academy (WSA)

Sally has been on the board of the MWMC since 2008. Recently she has been discussing the role of MWMC as a clearing house for both citizen and professional aquatic scientists to post data. MWMC is considering revising their “clickable map” with a map that would make data on water monitoring available to everyone.

Sally is very passionate about helping people know more about the bacteria in their local waterways, and has been very successful in raising awareness of bacteria issues across Anne Arundel County, Maryland, and beyond (World Bank project in Africa).