

NEIGHBORHOOD WATER WATCH: UTILIZING VOLUNTEERS TO MONITOR LOCAL WATERWAYS – PRIVATE EYES ON PUBLIC WATERS

Jason Ulseth and Michael Meyer

AUTHORS: Upper Chattahoochee Riverkeeper, Atlanta, GA 30318.

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The Neighborhood Water Watch is a program founded and managed by Upper Chattahoochee Riverkeeper, maintained by neighborhood groups in the watershed, and is growing through a combination of community networking and citizen activism. Upper Chattahoochee Riverkeeper's (UCR) mission is to advocate and secure the protection and stewardship of the Chattahoochee River, its tributaries and watershed, in order to restore and preserve their ecological health for the people and wildlife that depend on the river system. The Neighborhood Water Watch (NWW) acts as eyes and ears on the ground, working with groups and individual citizens to help monitor the tributaries that flow into the Chattahoochee River for signs of high levels of bacterial contamination. Many streams are polluted with these high levels of bacteria due to cracked and overflowing sewers, failing septic systems, and urban runoff. The Neighborhood Water Watch program is an essential component in its mission to protect and restore the Upper Chattahoochee watershed. UCR's involvement in the community and open dialogue with local governments and community leaders make it possible for such programs to be successful, accessible to the public, and capable of growth.

The Neighborhood Water Watch Program has multiple objectives including: increasing public awareness of water quality issues, providing citizen groups with tools and training to protect their local waterways, forming new partnerships between citizen groups, non-profit organizations, and government agencies, collecting quality baseline data, and addressing and resolving poor water quality detected during monitoring. The aim is to eliminate pollution coming from cracked and overflowing sewers, failing septic systems, and urban runoff in streams so that the Chattahoochee River and its tributaries can better support wildlife and recreation needs. In addition, citizens are better educated about to potential risks of recreational contact with these surface waters. By collecting and analyzing stream samples weekly UCR is able to assess which areas are most threatened, post public warnings when necessary, and contact local governments with data and lab results from EPA approved equipment.

The EPA approved equipment, an IDEXX total coliform and E. coli testing and quantifying system using Colilert-18, provides the most probable number (MPN) of E. coli colonies per 100 milliliters (ml) of water. These results, ranging from less than 50 MPN to more than 250,000 MPN, indicate when sewage may be

contaminating waterways. Fecal coliform bacteria, including E. coli, are a group of bacteria that inhabit the intestinal tract of warm-blooded animals. The presence of fecal coliform bacteria in water indicates fecal contamination of the water by a warm-blooded animal and harmful bacteria associated with fecal contamination may also be present. Elevated bacteria levels are a common indicator of sewage leaks and spills into waterways and the data can indicate the number and type of pathogens present in the water. Atlanta's citizens are concerned about the condition of the water running through their neighborhoods. Educating the public about what specific problems Atlanta's streams are facing is an important element in involving private citizens and groups. Some of the urban streams being currently monitored include: Nancy Creek, Proctor Creek, Nickajack Creek, Tanyard Creek, Burnt-Fork Creek, Clear Creek, Peachtree Creek, and North and South Fork Peachtree Creeks. By involving a diverse base of volunteers from neighborhood associations, civic groups, and schools, more areas are monitored and more information is collected and made available.

The public visibility and great networking capability of UCR has allowed it to launch the Neighborhood Water Watch program with a great deal of success. Many of our volunteers have contacted our office to learn more about the NWW program after reading about it at events or on the web site www.chattahoochee.org where a link to a new interactive map will allow visitors to see test locations and their most recent E. coli data. UCR has created a poster board and other visual aids, accompanied by oral presentations which explain the program to possible interested parties. E-mails are also sent to local neighborhood associations and community leaders telling them about the program and asking for help. Volunteers who have committed to regular sample drop-offs at the Atlanta office are trained for collecting samples. Sample collection has been made easy by choosing sites accessible by pedestrian friendly bridges in targeted areas such as downstream of confluences and outfalls. A supplied sample bag is lowered into the stream channel in a simple cup tied to a rope. Once the samples have been collected, volunteers place them on ice in the provided lunch coolers and deliver them directly to UCR's laboratory for analysis. In the UCR lab, samples and data are processed, logged, and uploaded to the web for public viewing. Continually high E. coli results indicate reoccurring or constant pollution sources and are reported

to the local municipality and EPD by the Upper Chattahoochee Riverkeeper's Technical Programs Director. Also data is also uploaded into EPD's Adopt-A-Stream database.

People have a vested interest in seeing their community healthy. The motivation to provide help is derived from the ease of participation and the satisfaction of results. UCR's Neighborhood Water Watch program gives people the means to participate in urban stream monitoring and be active in restoration. It is essential to the restoration of the Chattahoochee River that Atlanta's urban streams are monitored and protected from sewage contamination. With the help of generous donors, grants, and people willing to give their time, UCR can continue to sustain programs like Neighborhood Water Watch. With expanding support the NWW can monitor more areas, expand its outreach and education methods, and respond to threats as they arise with clear supportable data. Concerned citizens ready to help retrieve water samples from local urban streams and the state of the art EPA approved lab equipment and resources of UCR allow a great deal of ground to be covered. With these mechanisms in place the task of tracking pollution in a large metropolitan area such as Atlanta is simplified.