

NEIGHBORHOOD ADOPT-A-STREAM

Have you ever wondered about the quality of the water you boat, fish, or swim in? There is a way to know without hiring water quality experts. Cherokee County Water and Sewerage Authority (CCWSA) has Georgia Adopt-A-Stream (GA AAS) trainers who can train you to do chemical, bacteria and macroinvertebrate monitoring. This is a great way for you to do something good for the environment and your community. Homeowner associations such as Lake Sovereign have taken on the task as a group and have had great success and so can you.

It may sound difficult, but the GA AAS program was created for the regular citizen with no special science background. All test methods are provided to you to review as needed and we are available to answer questions.

Types of monitoring:

- **Chemical:** This type of monitoring looks at chemical parameters such as dissolved oxygen, pH, conductivity and temperature to give us a look at the waterways health on a monthly basis. Certain parameters fluctuate from season to season and it is important to have the data to establish trends. In order for aquatic life to survive, there are certain requirements for basic necessities to be met. Some of these necessities are the same for us, for instance they all have to have oxygen to survive. Another extremely important parameter is pH; most aquatic life requires between 6-8.5 and even minor changes can be harmful. More advanced testing is also available which include alkalinity, nitrate, ammonia and phosphate if you are interested.

- **Bacteria:** There are millions of varieties of bacteria that exist in nature and they all have a variety of sources and important roles to play in the natural world. The type of bacteria we look at in particular is E. Coli. This type is referred to as an indicator organism because it is a member of bacteria that are only found in the intestine of warm-blooded animals. The level of this bacteria will let us know whether we will get sick or not if we, or a four-legged friend, drinks from this body of water. This monitoring is also a monthly test.

- **Macroinvertebrate:** This type of monitoring looks at the diversity and abundance of a macroinvertebrate (*organism that lives in the water that can be easily viewed with the naked eye*). Since these organisms are not very mobile, they are both easy to catch and provide a good health indicator of the water quality. Each organism has a different level of pollution tolerance before they perish, so a more diverse population of organisms are better than finding an abundance of one species. Monitoring for macroinvertebrates is only recommended quarterly since these organisms do not change much from month to month and we don't want to disturb their ecosystem on a frequent basis.

In water quality monitoring there is not silver bullet kind of test that is all encompassing of water quality. Rather we rely on a series of tests that gives us a look in to the health of a body of water over time. These are "snapshots", if you will, of what is going on at that particular moment. Over time, we start to see trends develop and when we see an abnormality, it lets us know something is wrong.

We offer trainings on the AAS testing methods based on requests, though most of our availability will be Monday- Friday 8-5. Once you become a certified volunteer, we offer equipment loans for a 7-day check out.

If you have any topics you would like covered or have any questions in general, please email them to ccwsaea@gmail.com.