



SIMPLE STEPS  
YOU CAN TAKE  
TO PROTECT OUR WATER

This program made possible thanks to a generous contribution from the Blue Water Project.



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**BIG CREEK LAKE**, also known as Converse Reservoir, is the main source of drinking water for almost 70% of Mobile County's population and a portion of Baldwin County. Built in 1952 to supply residents with water for generations to come, the lake provides an abundant and enviable supply of quality water. In fact, the 3,600-acre reservoir holds 17-billion gallons of water and is continually fed by rainfall, area streams and groundwater, making it extremely important to prevent pollution of land surrounding Big Creek Lake, known as its watershed. How each of us uses the land and streams in Big Creek Lake's watershed impacts the quality of our drinking water.



*Photography by: Mike Carmichael*



*Bird photography by: Mike Carmichael*



*Big Creek Lake is more than a body of water; it's a haven for those who enjoy fishing, boating and wildlife watching. Gopher tortoises (image courtesy U.S. Fish & Wildlife) and bald eagles make their homes here.*

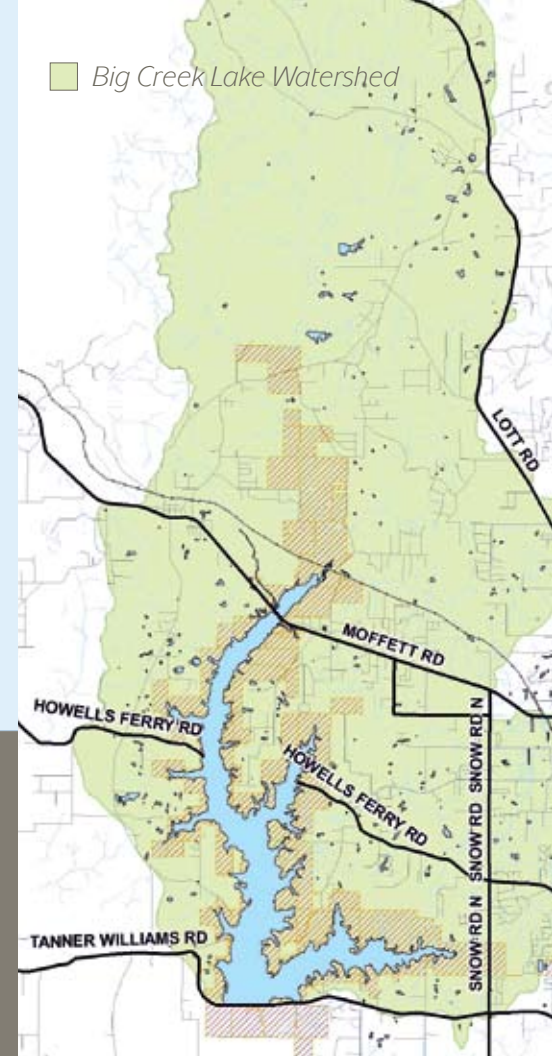


## AS OUR COMMUNITY EXPANDS, SO DOES THE POTENTIAL FOR POLLUTION.

Just how much land area is included in the Big Creek Lake watershed? You might be surprised to know it encompasses about 103 square miles. Most of this land is rural and forested, but residential and commercial growth continue to expand here. To heighten community awareness and participation in protecting the watershed, Mobile Area Water & Sewer System (MAWSS) and Alabama Coastal Foundation encouraged the formation of the Big Creek Resource Alliance in 2006. This insightful group of area business leaders and residents have worked for several years to develop a community-based management plan. The innovative plan identifies and provides strategies to prevent negative impacts to the watershed, including educational workshops throughout the community. For a copy of the Big Creek Lake Watershed Management Plan, visit [www.mawss.com](http://www.mawss.com).

### Streams Supplying Water to Big Creek Lake:

Big Creek ♦ Jackson Branch ♦ Juniper Creek ♦ Collins Creek  
Long Branch ♦ Boggy Branch ♦ Crooked Creek ♦ Hamilton Creek





## HOW OUR HABITS CAN BECOME POLLUTION

Each time it rains, water is absorbed into the ground where pollutants can be filtered out naturally. This is an important process known as groundwater recharge. When we cover pervious surfaces with impervious materials (including pavement, asphalt and concrete), two problems can occur: we interfere with the natural filtration process, and we increase the amount of untreated water in our water supply. Rainwater that cannot be absorbed in the ground is forced to travel elsewhere, creating a powerful downhill current that picks up all objects in its path. Known as “storm water”, it goes directly into local waterways untreated, including oil, grease, litter, animal waste and other pollutants. This is called non-point source pollution, and it’s considered the No. 1 threat to Alabama’s coastal areas. Non-point source pollution has many origins in our daily lives:

- ✦ Construction
- ✦ Paved Roads, Parking Lots and Driveways
- ✦ Farming and Gardening
- ✦ Fertilizers and Pesticides
- ✦ Septic Tanks

## TYPES OF POLLUTION

### Sediments

Sediment is completely natural and generally is not a problem in small amounts. The issue arises when large amounts of sediment are released at one time, overloading natural systems. Increased erosion and sedimentation are the most serious threat to water quality. Farming—whether commercially or locally in the form of a backyard garden—disturbs the earth and increases the amount of sediment, debris and chemicals flowing into our water supply. Unpaved roads and construction sites are also significant



## Sediments and Erosion, *WHAT YOU CAN DO:*

- ✦ Control soil erosion on your property by planting ground cover, especially at the base of steep slopes, to slow the rate of runoff and trap pollutants.
- ✦ Install silt fencing or other erosion control measure when disturbing natural landscapes on a slope.
- ✦ Encourage local governments to develop construction erosion/sediment control ordinances in your community.
- ✦ When boating, avoid producing wakes within 500 feet of shore.
- ✦ Leave a vegetative buffer of at least 40 feet between projects that disturb the landscape and waterways.

sources of sedimentation, as heavy rains wash localized erosion into the streams and creeks that feed Big Creek Lake. Sediment smothers the aquatic habitat and, in extreme cases, can lead to increased treatment costs for drinking water.

## Fertilizers and Pesticides

Fertilizers, including nitrogen and phosphorus, are vital for plant growth but can stimulate undesirable algae growth at elevated concentrations in Big Creek Lake. How do they reach the lake? Heavy rains wash fertilizers, pesticides, herbicides, heavy metals and petroleum products from automotive fluids and parking lots. Fertilizers and pesticides are potentially dangerous to water users, as treatment processes may not be designed to remove these contaminants.





## Fertilizers and Pesticides, *WHAT YOU CAN DO:*

- ✦ Do not use more fertilizer than you need and avoid using it within 75 feet of a wetland or water body.
- ✦ Don't apply fertilizers if the forecast calls for heavy rain.
- ✦ Use organic fertilizers: blood meal, worm casings and compost are great for plants and easy on the earth.
- ✦ Use natural or nontoxic pesticides, such as insecticidal soap, copper fungicide, or dishwashing soap.
- ✦ Make your yard a haven for birds and beneficial insects to help you reduce pests.
- ✦ Use a broom to sweep your driveway, garage or sidewalk instead of using water.
- ✦ Use a bucket of water to wash your bike or the family car and rinse quickly with a hose.





## Pathogens

Pathogens include disease-causing bacteria and viruses primarily associated with the presence of fecal matter. Sources include failing septic systems, wastewater treatment plant (WWTP) overflows, boat sewage and animal waste.

## Grease

Grease blockages, caused by putting grease and greasy products down the drain, are a major cause of sewer overflows which can pollute area waters. MAWSS' grease recycling program, "It's Easy to be Ungreasy," is the answer! Just pick up a free recycling container from any MAWSS grease recycling center, fill it with your used cooking grease and oil, then return it and get another. With more than 20 MAWSS grease recycling locations, it's easy to find one near you. For a complete list of locations, visit [www.itseasytobeungreasy.com](http://www.itseasytobeungreasy.com) or call 251-694-3100. Always wipe out grease from pots and pans before washing them, and dispose of greasy paper towels in the garbage.



## Pathogens, *WHAT YOU CAN DO:*

- ✦ Keep heavy vehicles and plant roots away from septic-tank field pipes.
- ✦ Inspect and pump your tank every 3-5 years as recommended by a licensed septic tank contractor.
- ✦ Conserve water use so your septic system is not overloaded.
- ✦ Keep the following out of your drain: grease, household chemicals, paper towels, cigarettes and coffee grounds. Each of these impedes septic system functions.
- ✦ Scoop your pet waste and dispose of it in the garbage.
- ✦ Never discharge sewage into a body of water for any reason.



## Litter, *WHAT YOU CAN DO:*

- ✦ Never put trash anywhere but in a secure trash can.
- ✦ Take a trash bag with you when you go for a hike or a boat ride and pick up items along the way.
- ✦ Avoid leaving trash in the bed of trucks, as it can easily escape when the vehicle is in motion.

*There is no excuse for littering. Be part of the solution and speak up when you see people littering.*

## BE PART OF THE SOLUTION: SHARE WHAT YOU KNOW

Because the sources of water pollution are so varied and difficult to identify, becoming more mindful of our activities is important. But sharing our knowledge with neighbors, friends and our community is even more important. Spread the word and help keep Big Creek Lake Watershed an abundant natural resource for everyone to enjoy.



Founded in 1993, the Alabama Coastal Foundation is a 501(c)(3) non-profit organization serving South Alabama. The organization's mission is to improve and protect Alabama's coastal resources by identifying and solving problems through cooperation, participation and education. ACF accomplishes this mission by focusing on priority environmental issues in the region, such as community education workshops, environmental education initiatives for students and habitat enhancement. ACF conducts a variety of education and habitat projects throughout Mobile, Baldwin and Washington Counties. For more information about these projects, visit [www.joinacf.org](http://www.joinacf.org).



The Royal Bank of Canada Blue Water Project is a funding initiative that supports projects that protect drinking water supplies and general watershed protection. By encouraging collaboration between diverse entities, the Blue Water Project aims to create an understanding of the value and vulnerability of water resources through education and projects that directly benefit water quality in a tangible way. To learn more, visit [www.rbc.com/environment/bluewater](http://www.rbc.com/environment/bluewater).



The Mobile Area Water & Sewer System provides safe drinking water and sanitary sewer service to the Mobile metropolitan area. As a rate-supported public utility, MAWSS is committed to protecting public health as well as the health of our environment. MAWSS programs, in this regard, include the Gopher Tortoise Preserve, Water Quality Monitoring, Grease Recycling and Community Education. To learn more, visit [www.mawss.com](http://www.mawss.com).





## DISCOVER MORE WAYS TO PROTECT YOUR WATER.

Contact the Alabama Coastal Foundation office to arrange an educational presentation or discussion with your club, church or business group.



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