

CITIZEN GUIDE
TO
ALABAMA RIVERS

Black Warrior

and

Cahaba

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Citizen Guide to Alabama Rivers

- Volume 1 Black Warrior and Cahaba*
- Volume 2 Alabama, Coosa and Tallapoosa*
- Volume 3 Chattahoochee and Coastal Plain Streams*
- Volume 4 Tennessee*
- Volume 5 Escatawpa, Mobile and Tombigbee*

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COVER. *Locust Fork River.*

PHOTO: BETH MAYNOR YOUNG

About these Guides

Alabama's rivers, streams and lakes are priceless in terms of the ecological, economic and social benefits they provide.

The purpose of this guide is to offer an introduction to the unique history and environmental significance of Alabama's River Basins and invite further investigation into Alabama's abundant but vulnerable water resources.

It is hoped that these guides will enhance the dialogue between citizens and key decision makers and help us move toward strategies of how to best manage and protect Alabama's waters.



PHOTO: ALLISON BUSBY

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Unlabeled Photos and Graphics: Alabama Water Watch

THE WATER ENVIRONMENT

The World's Water Supply

If all the Earth's water fit into a **one liter** container,

- ❖ **970 mL** of the container would be saltwater
- ❖ **30 mL** (nail polish container) would be freshwater which includes: water vapor, lakes, rivers, polar ice caps, and groundwater.
- ❖ Only **2 drops** of freshwater are in lakes and rivers.



Alabama's Rich Water Resources

- Alabama contains more than 77,000 miles of streams, 3.6 million acres of wetlands and 560,000 acres of lakes, ponds and reservoirs.
- Alabama has more navigable rivers (1,438 miles) than any other state.
- River systems which flow through Alabama are the fourth largest in North America, exceeded only by the Mississippi, Yukon and Columbia River systems.
- About 8% of water in the continental U.S. originates or flows through Alabama.

What is a Watershed?

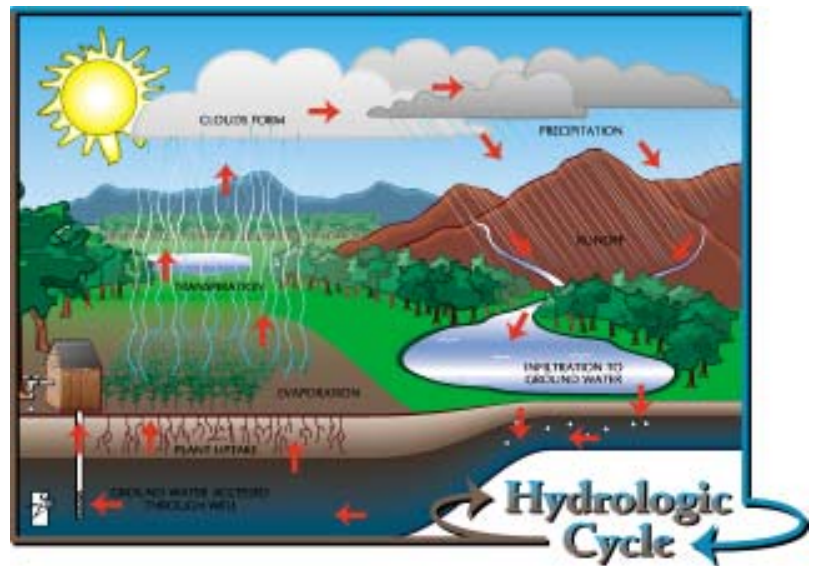
A **watershed** is the total land area that drains to a common point, such as a river, a lake or the ocean. Watersheds come in many sizes.

Very large watersheds are also called **drainage basins**. For example the Alabama, Black Warrior, Cahaba, Coosa, Tallapoosa and Tombigbee River watersheds are all part of the greater Mobile Basin. Everyone lives in a watershed, no matter how far they are from a river or lake.



The Mobile Basin is the largest watershed in Alabama, draining 3/4 of the water flowing through the state.

PHOTO: MOBILE BAY NATIONAL ESTUARY PROGRAM



The Hydrologic Cycle, or the Water Cycle, links land, air and water within a watershed. PHOTO: STEPHEN ADDUCI AND PERDUE PESTICIDE PROGRAMS

Nature's Water Recycling Program

When rain falls to the earth, it sinks into the ground (**infiltration**), returns to the air (**evaporation** and **transpiration**) or flows over the land surface (**runoff**). Surface runoff carries dissolved and suspended substances, such as chemicals and sediment. Land use activities in a watershed directly affect both *water quality* and *quantity*. Water supplies are not limitless. No *new* water is ever created, it only recycles.

THE RIVER BASINS

The Black Warrior and Cahaba Rivers are the only two river basins with their headwaters and mouth in Alabama.



The Black Warrior Basin (in blue) covers 6,392 square miles, nearly three times the area of the Cahaba Basin.

The William B. Bankhead National Forest is Alabama's largest. It covers 180,000 acres and spreads over most of Winston County and north into Lawrence County. It is home to Alabama's only nationally designated Wild and Scenic River, the Sipsey Fork.

Within the Bankhead Forest is the Sipsey Wilderness, 26,000 acres specially protected to restore and preserve the natural conditions of the area. A maze of ridges, canyons and streams gives it the name, "land of a thousand waterfalls."

The second and third longest free-flowing rivers in Alabama are the Mulberry Fork and Locust Fork tributaries that combine to form the Black Warrior River at the Jefferson/Walker county line.

Smith Lake was created in 1961 and covers 21,200 acres. It is the deepest reservoir in Alabama and has a trophy striped bass fishery.

A cold water trout fishery is located just below Smith Lake Dam. Every 60 days 3,000 rainbow trout are released.

The Holt Dam and the William Bacon Oliver Lock and Dam are located near Tuscaloosa, home of the University of Alabama. Tuscaloosa was the state capital from 1926 to 1946.

The last lock and dam is the Armistead I. Seldon, commonly called the Warrior Dam.

The John Hollis Bankhead Lock and Dam is the first dam on the main stem of the Black Warrior River. This dam flooded the world's largest stand of Shoal Lilies.

Inland Lake on a tributary of the Locust Fork is an important water supply to Birmingham.

A small reservoir was built on Village Creek in 1890 and served as Birmingham's original water supply until it became too polluted for consumption.

The streams within the Black Warrior Basin flow through 15 counties (Jefferson, Walker, Tuscaloosa, Hale, Greene, Marshall, Etowah, Blount, Morgan, Cullman, Lawrence, Winston, Fayette, Bibb, and Perry) before draining into the Tombigbee River near Demopolis.

Construction of a series of four locks began in 1895 on the Black Warrior River to provide "river highways" to Mobile. These original locks were replaced by larger dams to increase navigational depth. The power of the Black Warrior River was later harnessed with turbines to generate electricity.

The Birmingham metropolitan area receives over half of its water supply from the Cahaba River. Approximately 53 million gallons a day are withdrawn from the Cahaba River for drinking water.

The Cahaba River begins as a small spring-fed stream on Cahaba Mountain where it makes its way through St. Clair County and Trussville before draining to Birmingham.



The Cahaba River Basin (in blue) encompasses 1,870 square miles and is the longest free-flowing river in Alabama.

Lake Purdy is a vital source of Birmingham's water supply, especially in the dry months.

The "Lost World" of Alabama

The Bibb County Glades covers 303 acres and is home to over 60 rare plants. The dwarf horse-nettle, thought to be extinct since the early 1880's, was recently rediscovered. Eight newly described plants and dozens of rare aquatic species make this a biological "lost world," and one of the greatest concentrations of rare plants in the southeastern U.S.

South of Centreville, the Talladega National Forest (Oakmulgee Division) encompasses much of the watershed.

The upper part of the Cahaba River journeys through steep banks and rocky shoals until it crosses the Fall Line, a geologic boundary marking the end of the Appalachian Mountains and the beginning of the Coastal Plains.

The streams within the Cahaba Basin flow through eight counties (Jefferson, Tuscaloosa, Bibb, Dallas, St. Clair, Perry, Chilton, and Shelby) before entering the Alabama River at Selma.

The lower part of the Cahaba River transitions so dramatically that it might be mistaken for a different river entirely. Its meandering path slows down, widens and deepens, creating beach-like sandbars and cypress swamps.



CAHABA RIVER. PHOTO: BETH MAYNOR YOUNG

The Cahaba River has been described as the heart river of Alabama, the crown jewel of the Mobile River system, an island of harmony in a busy world.

Sometimes called "the most floated river in Alabama," the Cahaba River is frequently used by canoeists, fishermen and others for recreation. Tom Foshee's book, Canoe Trips in Alabama, is a classic guide to the Cahaba River.

Life Along the Rivers

The Black Warrior River is named after the Indian Chief Tascaluza (Tuscaloosa). In the Choctaw language *tashka* means “warrior” and *lusa* means “black.”

When the Spanish explorer, DeSoto, forced Chief Tascaluza to accompany him to the town of Mabila for supplies and women, Indians loyal to the chief resisted. The resulting Battle of Mabila in 1540 was one of the bloodiest conflicts between Indians and Europeans.

Another name for the Black Warrior River in the 1700’s was *Apotaka hacha*, meaning “border river,” since it served as the boundary between Choctaw, Chickasaw and Creek Indian territories.



LOCUST FORK RIVER AT SWANN BRIDGE. *One of the most popular whitewater runs in the state.* PHOTO: BETH MAYNOR YOUNG

Covered Bridges in the Black Warrior Basin

Blount County features three covered bridges:

- ❖ Horton Mill Covered Bridge, 70 feet above Calvert Prong near Oneonta, is higher above water than any other covered bridge in the U.S.
- ❖ The 95-foot long tin-topped Easley Covered Bridge spans Dub Branch.
- ❖ Swann Covered Bridge extends 324 feet over the Locust Fork River.

Cullman County has the largest covered truss bridge:

- ❖ Clarkson-Legg Covered Bridge stretches 270 feet across Crooked Creek off Highway 278.

Prehistoric Empires

Over 20 flat-topped earthen mounds spread over 317-acres have been dated to the prehistoric Mississippian era, before DeSoto’s arrival in Alabama in 1540. An extensive empire of mound-building Indians existed along a 50-mile swath of the Black Warrior River, from Tuscaloosa to Demopolis.

Moundville, described by *National Geographic* as “the Big Apple of the 14th century,” was the single largest community north of Mexico during the 14th century and today is regarded by archaeologists as the best preserved prehistoric settlement in the eastern U. S.



SQUAW SHOALS (1913). *Historic photo of Squaw Shoals which was the world’s largest stand of Shoal Lilies.* PHOTO: W.S. HOOLE
SPECIAL COLLECTIONS LIBRARY, UNIVERSITY OF ALABAMA

The Sloss Furnaces, designated a National Historic Landmark, served Birmingham from 1881 to 1971. In its prime, the furnaces were used to heat coal, limestone and ore and turned out 400 tons of finished pig iron a day. The ironworks now serve as a massive walk-through museum portraying the city’s industrial past.

River commerce has always been important on the Black Warrior River. In the 1870’s there were 118 boat landings. Goods from throughout the region, including north Alabama and Tennessee, were brought by flatboat to Tuscaloosa for shipment to Mobile. After 1820, steamboats replaced the use of flatboats. The export of coal to Mobile was the key to development of the region, with cotton playing a close second.

The Cahaba River derived its name from the Choctaw word *oka* meaning “water” and *aba* meaning “above.” The Choctaw and Creek Indians drew their territorial boundaries with the Cahaba River.

Alabama’s first governor, William Wyatt Bibb, chose a site at the mouth of the Cahaba River for the first capital, Cahawba, in 1820. The site was chosen for its riverine beauty, springs of good water, prospect of health, ability to support navigation and its access to extensive and fertile country.

The Cahaba ends its 190-mile journey in the Black Belt region, cutting through the fossil-rich Selma chalk beds before flowing into the Alabama River at the ruins of Cahawba, now a ghost town.



CAHABA RIVER. “*This is just the right size river, too big to wade, too small to boat and perfect to canoe.*” *John C. Henley III* PHOTO: BETH MAYNOR YOUNG

Alabama - “Arsenal of the Confederacy”

While coal defined the rapid developing years of the Black Warrior Basin, iron became the symbol of progress in the Cahaba Basin. The raw materials for iron production were abundant: water, iron ore, timber for charcoal, and coal from the 360 square mile coal field at Piper. During the Civil War, six iron furnaces were built in Alabama: Tannehill (1859), Brierfield (1861), Little Cahaba/Brighthope (1863), Irondale (1863) and Oxmoor (1863). These furnaces produced more iron than all other Southern states combined, giving Alabama the name “Arsenal of the Confederacy.”

The Tannehill Ironworks, begun in 1836, is now a 1,500 acre Historical State Park. It was an iron plantation that utilized approximately 600 slaves to forge the iron, cut the timber and grow the food necessary to support the large industry. The furnaces were destroyed by Wilson’s raiders in the final hours of the Civil War in 1856.

The first surface coal mine in Alabama, the Cahaba field, began operation in Bibb County in 1815. The first underground mine was established in Shelby County in 1856.

NATIVE SONS AND DAUGHTERS

Famous folks from the Black Warrior and Cahaba Basins include:

- ❖ **Fannie Flagg** (Birmingham) - actress and writer, *Fried Green Tomatoes at the Whistle Stop Cafe*
- ❖ **Emmylou Harris** (Birmingham) - country singer
- ❖ **Erskine Hawkins** (Birmingham) - jazz composer and trumpet player, most popular WWII era song, *Tuxedo Junction*
- ❖ **Coretta Scott King** (Marion) - civil rights leader
- ❖ **Willie Mays** (Westfield) - professional baseball player
- ❖ **Margaret DeBardleben Tutwiler** (Birmingham) - U.S. Ambassador to Morocco
- ❖ **Lurleen Burns Wallace** (Tuscaloosa) - first female governor of Alabama

SPECIAL PLANT

Alabama ranks tenth in the nation for the most types of native plants and animals. There are over 4,000 species of plants, 850 species of animals (including birds, mammals, reptiles, amphibians, and fish). Of these plants and animals, 122 are threatened or endangered.



KRAL'S WATER PLANTAIN, *Sagittaria secundifolia*. Grows on rocky creek beds and nearby slopes in the West Sipsey Fork. PHOTO: THREATENED AND ENDANGERED SPECIES OF ALABAMA: A GUIDE TO ASSIST WITH FORESTRY ACTIVITIES

The Black Warrior River supports 126 species of fish, many of which are at risk. In 1974, 78 species of fish were documented in the Sipsey Fork, an incredibly high number for such a small watershed.

The endangered Vermillion Darter (*Etheostoma chermocki*) is only found in a five mile portion of Turkey Creek in Jefferson County.



WATERCRESS DARTER, *Etheostoma nuchale*. PHOTO: THREATENED AND ENDANGERED SPECIES OF ALABAMA: A GUIDE TO ASSIST WITH FORESTRY ACTIVITIES

Watercress Darter National Wildlife Refuge

This refuge is located within the city limits of Bessemer near Valley Creek. The seven acres of vegetation and the quarter acre spring-fed pond were set aside to protect the endangered Watercress Darter. The refuge is small and delicate but vital to the survival of this beautiful fish.



CAHABA SHINER, *Notropis cahabae*. This fish is only found in the Cahaba River and the Locust Fork of the Black Warrior River. PHOTO: THREATENED AND ENDANGERED SPECIES OF ALABAMA: A GUIDE TO ASSIST WITH FORESTRY ACTIVITIES

The Triangular Kidneyshell mussel (*Ptychobranthus greeni*) was once widely distributed throughout the entire Mobile River system but is now found only in the Sipsey and Locust Fork Rivers.



FLATTENED MUSK TURTLE, *Sternotherus depressus*. Found only in the Black Warrior River system, north of Tuscaloosa. PHOTO: MALCOLM PIERSON

The state's largest tree is a 500-year old, 150-foot tall Yellow Poplar (*Liriodendron tulipifera*) located in the Bankhead National Forest. The Choctaw name for the poplar is *Sipsi* (Sipsey).

PLANTS AND ANIMALS

plants and animals. According to The Nature Conservancy, there are (including nearly 250 species of freshwater mussels) in Alabama. Endangered, more than any state except California and Hawaii.

- Water drop icon American Rivers reported the Cahaba River as one of the ten most endangered rivers in North America.
- Water drop icon The Nature Conservancy ranks the Cahaba Basin as the 29th most critical out of 2000 total basins in the U.S.

The Cahaba River provides a unique variety of habitats for plants and animals. The diversity of aquatic species in the Cahaba River is significant on a world scale with the river harboring a greater number of fish species per mile than any other river in North America. Many of these fish have colorful names such as the Frecklebelly Madtom (*Noturus munitus*), the Goldline Darter (*Percina aurolineata*) and the Speckled Chub (*Machybopsis aestivalis*).



SNAILS. Various types of snails are found in the Cahaba Basin. PHOTO: RANDY HADDOCK

“The Cahaba cradles diversity of life at risk.”

Katherine Bouma
Birmingham News reporter



FRECKLEBELLY MADTOM. Inhabits rocky riffles, rapids, and runs of medium to large rivers. PHOTO: DOUG DARR

Changes in land use patterns and water quality have led to the extinction of many species in the Cahaba Basin. For example, only about 64% of the 42 mussels that lived in the Cahaba can be found today.

The Cahaba Shiner (*Notropis cahabae*) which existed in a 76-mile stretch of the river, is now only found in a 15-mile area. The Blue Shiner (*Cyprinella caerulea*) once existed in a 60-mile range in the Cahaba River but has not been found recently.

PHOTO: MALCOLM PIERSON



Thirty-two plants found along the river are on the endangered or threatened species list including the Alabama Croton (*Croton alabamensis*) shown above and the Shoal or Cahaba Lily (*Hymenocallis coronaria*) shown at right.



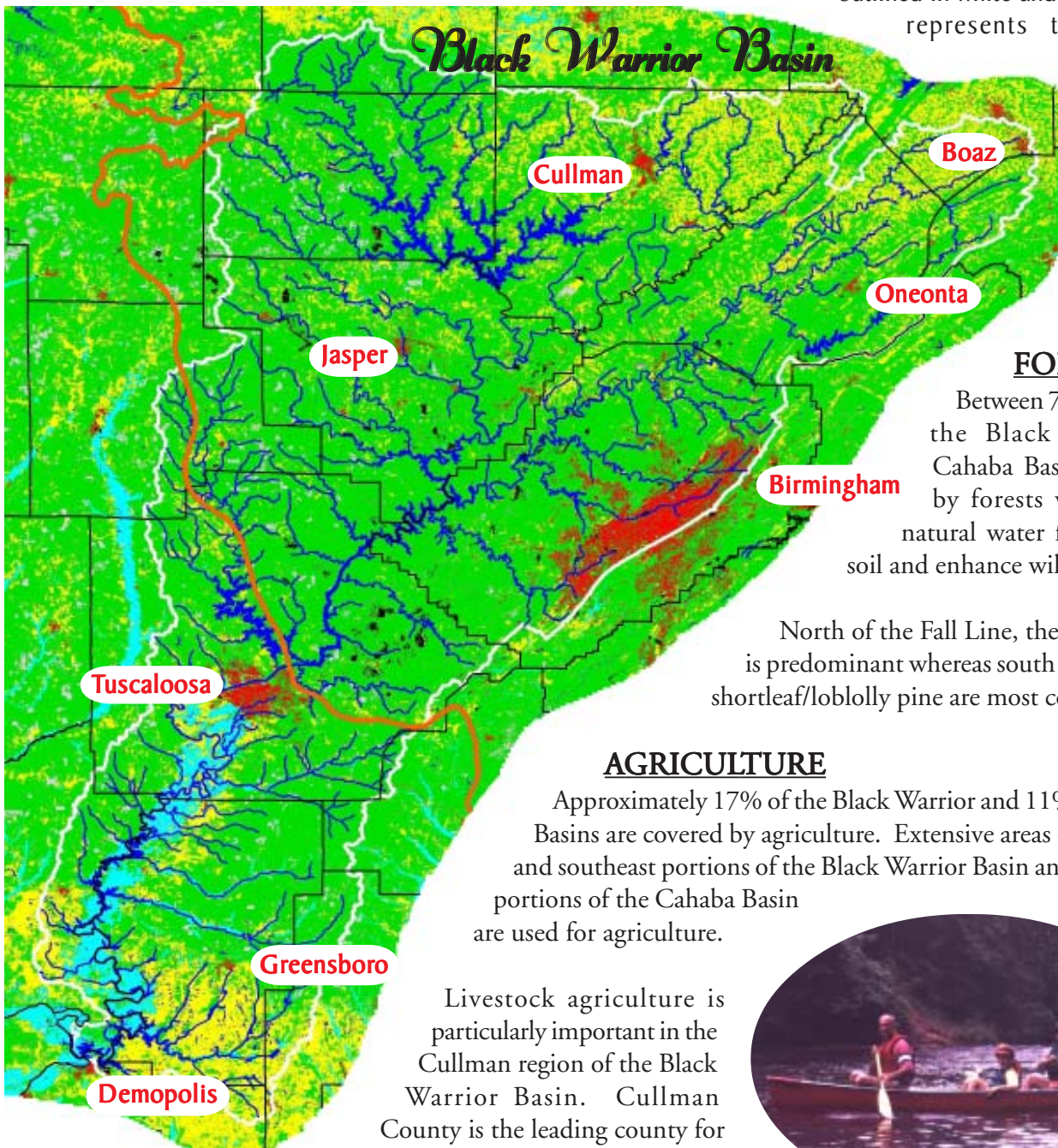
PHOTO: RUSSELL WRIGHT

The flowers of the Shoal Lily, which appear in April and May, are pollinated by a nocturnal, hawk moth.

Land Use in the River Basins

The water quality and quantity of the Black Warrior and Cahaba Basins are influenced by a variety of urban and rural land uses. Land features and use patterns are revealed in satellite images, as shown on these pages. River basins are

outlined in white and the orange line represents the Fall Line (prehistoric seashore).



FOREST

Between 75% and 77% of the Black Warrior and Cahaba Basins are covered by forests which serve as natural water filters, conserve soil and enhance wildlife.

North of the Fall Line, the oak/pine forest is predominant whereas south of the Fall Line, shortleaf/loblolly pine are most common.

AGRICULTURE








Approximately 17% of the Black Warrior and 11% of the Cahaba Basins are covered by agriculture. Extensive areas of the northeast and southeast portions of the Black Warrior Basin and the southwest portions of the Cahaba Basin are used for agriculture.

Livestock agriculture is particularly important in the Cullman region of the Black Warrior Basin. Cullman County is the leading county for chicken production in the U.S., producing 164 million chickens per year. Cotton and soybeans are primary row crops of the basins.



CANOEING ON A TRIBUTARY OF THE BLACK WARRIOR RIVER

LAND USE PERCENTAGES

	Black Warrior	Cahaba
 Forest	74.6	77.0
 Agriculture	16.8	10.9
 Urban/Suburban	2.1	3.1
 Clearcut/Barren	1.4	2.0
 Wetland	3.4	6.1
 Water	1.5	0.7
 Quarry/Mining	0.3	0.4

URBAN/SUBURBAN

The Birmingham metropolitan area contains over one million people, nearly 1/4 of Alabama's population. This city straddles the divide between the Black Warrior and Cahaba Basins and is expanding at a particularly rapid rate in the Cahaba Basin.

Population growth in the Cahaba Basin is the highest in the state. Although urban/suburban areas comprise only 3% of the total land use in the basin, they are a driving force in shaping water quality conditions in the upper portion.

Urban centers in the basins, including Birmingham, Tuscaloosa and Cullman, impact water quality by such things as stormwater runoff and soil erosion from construction sites.

WETLAND

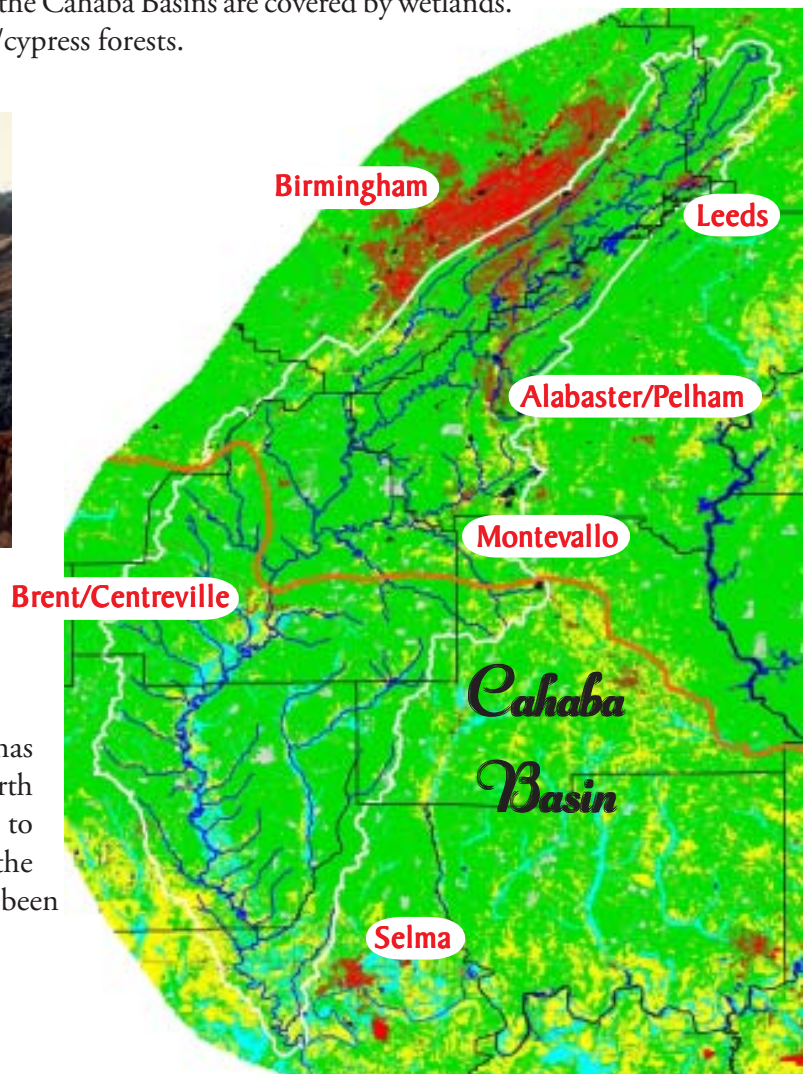
Wetlands are abundant in both basins below the Fall Line, where the rivers widen and meander. Approximately 3% of the Black Warrior and 6% of the Cahaba Basins are covered by wetlands. Common wetland vegetation consists of oak/gum/cypress forests.



A COAL STRIP MINE TYPICAL OF THOSE IN THE BLACK WARRIOR AND CAHABA BASINS

QUARRY/MINING

The middle portion of the Black Warrior Basin has been the largest, southern coal-producing area in North America. Coal bed methane extraction continues to be a major industry. Total land cover of mining in the basins is small but environmental impacts have been large.



Balancing Economy and Environment in the River Basins

Abundant water, timber, rich soils, coal deposits and other natural resources have been important for boosting Alabama's economy, creating jobs and providing necessary products for all of us. The way these natural resources are used may cause environmental problems that negatively affect human health and our quality of life. More than half of these problems come from nonpoint source pollution that enters streams from broad areas of both urban and rural portions of a watershed. Possible problems may include...

Agriculture

- ❖ Excess nutrients and bacteria from animal wastes
- ❖ Runoff of pesticides and other chemicals from cropland and pastures



PHOTO: LARRY RANA

Concentrated animal feeding operations (CAFOs), such as poultry and swine feedlots produce tons of animal waste per year in Alabama. Animal wastes in streams may result in excess algal growth and low oxygen levels that harm aquatic life.



PHOTO: KEN HAMMOND

Dams

- ❖ Changes in natural river flow patterns and levels
- ❖ Drastic water temperature changes and low oxygen levels from deep water releases from reservoirs

Streams of the Black Warrior Basin have been altered by locks and dams. The natural flow patterns, water levels and critical habitats such as shallow riffles and shoals were changed, and the free upstream movement of aquatic species was reduced or eliminated.



PHOTO: ALABAMA POWER COMPANY

Forestry Practices

- ❖ Erosion and runoff from loss of land cover

Erosion and sedimentation has been a problem in Alabama as far back as colonial settlement. In the 1930's, the Soil Conservation Service, now called the Natural Resources Conservation Service (NRCS), was formed to address erosion problems and other land use issues.



SOIL EROSION AND STREAM SEDIMENTATION FOLLOWING A FOREST CLEARCUT. PHOTOS: RUSSELL WRIGHT

Industrial Discharge

- ❖ Toxic chemicals such as PCBs
- ❖ Mercury and other heavy metals



AN INDUSTRY PIPE IS A POINT SOURCE DISCHARGE.

Over 100 industries are permitted to release treated wastewater into the Cahaba River.

Acid mine drainage (AMD) is caused by leaching of metals from coal mines and has severely impacted many streams in the Black Warrior and Cahaba Basins.

Mining

- ❖ Soil erosion, sedimentation and stream turbidity
- ❖ Toxic metal runoff
- ❖ Acidic water from active or abandoned mines



Yellowboy (iron oxide) in stream.



SUSPENDED METAL PRECIPITATES DOWNSTREAM OF A MINE.

PHOTOS: ALABAMA COOPERATIVE FISH & WILDLIFE RESEARCH UNIT

“As paved and hard surfaces sprawl across the watersheds, less open space is left for water to soak down and filter through to the groundwater or springs that feed the river.”

Randy Chafin

Birmingham Water Works

Urban/Suburban Development

- ❖ Erosion and sedimentation from construction sites
- ❖ Storm water runoff (oil, litter, etc.) from streets and parking lots
- ❖ Lawn and garden fertilizer runoff
- ❖ Inadequate and failing septic systems



RUNOFF FROM STREETS AND LAWNS ENTERS STORM DRAINS AND FLOWS DIRECTLY TO STREAMS UNTREATED



CONSTRUCTION SITES EXPOSE LARGE AMOUNTS OF SOIL

Rapid urbanization and development in and around Birmingham is taking a toll on the diverse ecosystem of the rivers.



IMPROPER MAINTENANCE OF SILT FENCES CONTRIBUTES TO SOIL EROSION

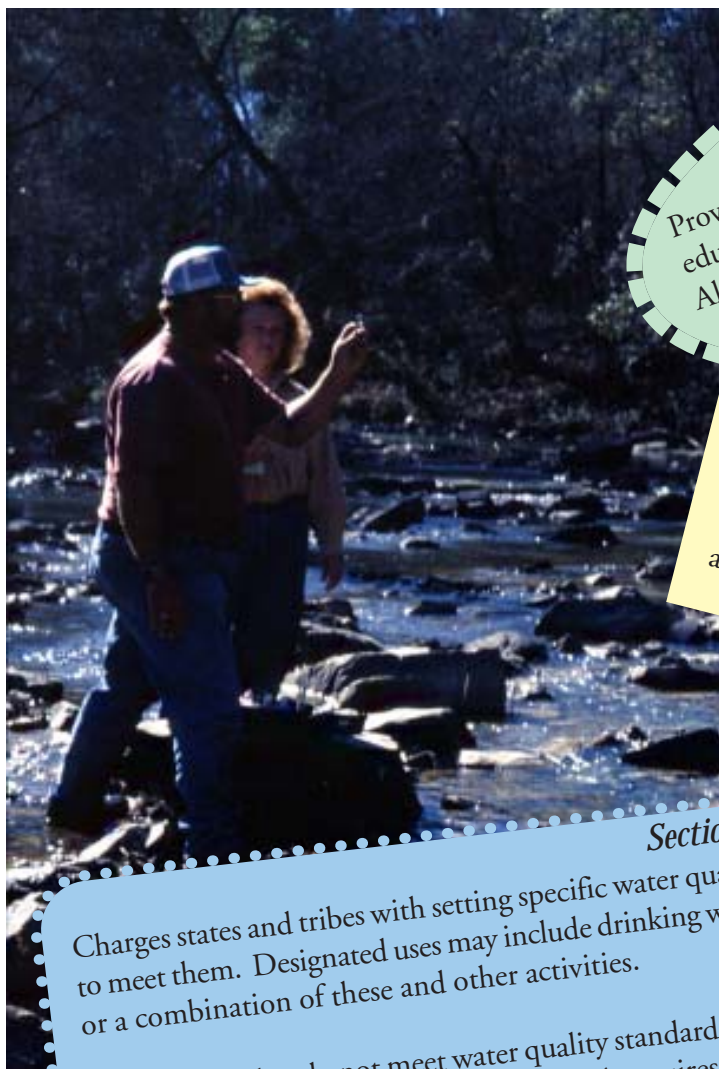
Best Management Practices (BMPs) and good planning can reduce or eliminate these problems. Specific BMPs for land use activities may be obtained from the NRCS, the Alabama Soil and Water Conservation Districts, the Office of Surface Mining, the Alabama Cooperative Extension System or ADEM.

WATER POLICY, LAW AND CITIZEN INVOLVEMENT

There are many water policies and laws from various federal, state and local agencies that are sometimes difficult to understand. Virtually all water quality protection laws in Alabama stem from the Federal Clean Water Act, enacted by the U.S. Congress in 1972. The quality of many streams and lakes has improved dramatically with cooperative effort by federal, state, tribal and local governments and the general public to implement activities that restore and maintain the integrity of the nation's waters. Much work remains to be done, however, particularly with nonpoint source pollution.

The Clean Water Act is subdivided into many sections that influence Alabama's water.

Three of the main sections are:



Section 319
Provides federal funds through the U.S. EPA to ADEM for educational and technical assistance and programs such as Alabama Water Watch and the Clean Water Partnerships. (www.epa.gov/region4/water/nps/grants/index.htm)

Section 305
Requires an assessment of waterbodies every two years to determine whether designated uses are being met. The Biennial Water Quality Report to Congress, or the 305(b) Report, provides summary information about the quality of the state's waters.

Section 303
Charges states and tribes with setting specific water quality criteria and developing pollution control programs to meet them. Designated uses may include drinking water, recreation, aesthetics, irrigation, fishing, swimming or a combination of these and other activities.

Waterbodies that do not meet water quality standards for their designated water use classification are included in a 303(d) list (www.epa.gov/waters). EPA requires ADEM to develop total maximum daily loads (TMDLs) for each waterbody included on the 303(d) list. The TMDL is the maximum quantity of a pollutant that can enter a waterbody without adversely affecting the designated use classification of the waterbody.

Partnerships of local, citizen-based and governmental groups have a high potential for restoring degraded habitats and protecting water quality.

Citizens can do much to protect their watershed by:

- ❖ Becoming aware of key water issues
- ❖ Becoming part of a citizen group
- ❖ Neighbor-to-neighbor persuasion to reduce pollution
- ❖ Being the “eyes and ears” for lake/stream changes and pollution
- ❖ Raising local awareness and public outreach
- ❖ Advocating for policy changes and enforcement
- ❖ Participating in watershed-based protection plans including the TMDL process



The Alabama Clean Water Partnership was created in 1998 to coordinate stakeholders for the restoration and protection of river basins in accordance with the Clean Water Act. A resulting Watershed Management Plan for each basin would represent the diverse interests of local concerned citizens, landowners, public officials, industries and agencies. Citizens may contact ADEM to become involved in the:

Black Warrior River Basin Clean Water Partnership

or

Cahaba River Basin Clean Water Partnership

Many citizen groups have formed within the Black Warrior and Cahaba Basins, and several also monitor water quality with the Alabama Water Watch program**. Although citizen groups come and go, the groups below have existed for several years and have provided significant input for environmental protection.

*Acmar Moody Environmental Justice Society***

*Alabama Environmental Council***

Alabama Rivers Alliance

Bayview Lake Cleanup Association

Black Warrior/Cahaba Land Trust

*Cahaba Basin Project/Judson College***

*Cahaba River Society***

Committee for the Preservation of the Lake Purdy Area

*Five Mile Creek Action Committee***

*Friends and Advocates of the Little Cahaba, Organized***

Friends of Buck Creek Watershed

Friends of Hurricane Creek

*Friends of Locust Fork River***

*Friends of Mulberry Fork***

*Friends of Shades Creek***

*Friends of the Little Cahaba River***

*Friends of Valley Creek***

*Hanceville High School Envirothon Team***

Hurricane Creek Watershed Forum

Lake Tuscaloosa Preservation Association

*Montevallo Area Water Watch***

*Old Mill Trace Homeowners Association***

People Helping Patton Creek

*Sierra Club, Cahaba Chapter***

Smart Growth Coalition

*Smith Lake Civic Association***

*Smith Lake Environmental Preservation Committee***

Society to Advance the Resources of Turkey Creek

Turkey Creek Watershed Association

Village Creek Human and Environmental Justice Society

Want More?

For further information about Alabama's waterways or how to get involved in protecting your watershed, contact:

Alabama Cooperative Extension System
www.aces.edu

Alabama Department of Agriculture and Industries
www.agi.state.al.us

Alabama Department of Environmental Management
334-271-7700
www.adem.state.al.us

Alabama Department of Conservation and Natural Resources
www.dcnr.state.al.us

Alabama Soil and Water Conservation Committee
334-242-2620

Alabama Water Watch
888-844-4785
www.alabamawaterwatch.org

CAWACO Resource Conservation and Development Council
205-251-8139

Geological Survey of Alabama
www.gsa.state.al.us

Legacy, Inc.
800-240-5115
www.legacyenvd.com

National Agricultural Library - Water Quality Information Center
www.nal.usda.gov/wqic

Natural Resource Conservation Service
www.ga.nrcs.usda.gov/al/fieldstaff.html

Stormwater Management Authority, Inc.
205-325-1440
www.swma.com



“In 1819, when Alabama entered the Union, its leaders designed a great seal that featured the state’s waterways. In adopting this symbol they affirmed their belief that the future of Alabama lay with its rivers. It did, and it still does.”

*Harvey Jackson, III
Rivers of History*

The Nature Conservancy of Alabama
205-251-1155
<http://nature.org/states/alabama>

Office of Surface Mining
205-290-7282 ext. 16
www.osmre.gov

The Water Course (Alabama Power Company)
800-280-4442

U.S. Environmental Protection Agency
www.epa.gov

U.S. Fish and Wildlife Service
www.southeast.fws.gov

U.S. Geological Survey
www.usgs.gov