

APPENDIX





Water Quality Agencies & Organizations

FEDERAL AGENCIES

US Environmental Protection Agency (EPA)

The mission of the EPA is to protect human health and the environment. Since 1970, the EPA has been working for a cleaner, healthier environment for the American people.

US EPA Region 4
Sam Nunn Atlanta Federal Center (SNAFC)
61 Forsyth St. SW
Atlanta, GA 30303-8960
Phone: (404) 562-9900 (Region 4, Alabama)
www.epa.gov

Other EPA links

- Water information: www.epa.gov/environmental-topics/water-topics
- Mobile Bay National Estuary Program: www.mobilebaynep.com/who_we_are/our_history/
- Surf Your Watershed: www.epa.gov/waterdata/surf-your-watershed

Natural Resources Conservation Service (NRCS)

With the mission of “Helping People Help the Land,” the NRCS provides products and technical and financial assistance to better enable people to be good stewards of the nation’s soil, water, and related natural resources on nonfederal lands.

Main address

USDA, NRCS, Office of the Chief
1400 Independence Ave. SW, Room 5105-A
Washington, DC 20250
Phone: (202) 720-7246
www.nrcs.usda.gov

Alabama address

3381 Skyway Dr.
Auburn, AL 36830-6443
Phone: (334) 877-4500 (Alabama NRCS state office)
www.nrcs.usda.gov/wps/portal/nrcs/site/al/home

Other NRCS links

- Watershed protection and flood prevention: www.nrcs.usda.gov/programs/watershed
- Environmental Quality Incentives Program: www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip
- Easement programs: www.nrcs.usda.gov/programs/wrp

Office of Surface Mining Reclamation and Enforcement (OSMRE)

An office of the Department of the Interior (DOI), OSMRE was founded by a provision in the Surface Mining Control and Reclamation Act of 1977. The bureau is tasked with balancing the nation’s demand for coal with the well-being of the environment. The Alabama Surface Mining Commission (ASMC) is Alabama’s primary state regulatory body.

1849 C St. NW
Washington, DC 20240
Phone: (202) 208-2565
www.osmre.gov/index.shtm

Tennessee Valley Authority (TVA)

The Tennessee Valley Authority is a corporate agency of the United States that provides electricity for business customers and local power companies. It receives no taxpayer funding. In addition to operating and investing its revenues in its electric system, TVA provides flood control, navigation, and land management for the Tennessee River system. It also assists local power companies and state and local governments with economic development and job creation.

Main address

400 West Summit Hill Dr.
Knoxville, TN 37902
Phone: (865) 632-2101
www.tva.gov



Alabama address

307 Clinton Ave., Suite 300
Huntsville, AL 35801
Phone: (256) 430-4804 (Cherokee, Colbert, DeKalb, Franklin, Jackson, Jefferson, Lauderdale, and Marshall counties)
(270) 846-7001 (Cullman, Lawrence, Limestone, Madison, Morgan, and Winston counties)
www.tva.gov/Economic-Development/Our-Team/Our-Regional-Development-Specialists/Alabama-Region

US Army Corps of Engineers (USACE)

With environmental sustainability as a guiding principle, the USACE works to strengthen the nation's security by building and maintaining infrastructure and providing military facilities where service members train, work, and live. They also protect America's interests abroad by using engineering knowledge to promote stability and improve quality of life.

Main address, Mobile District

109 Saint Joseph St.
Mobile, AL 36602-3630
Phone: (251) 690-2505
www.usace.army.mil

US Forest Service (USFS)

The mission of the US Forest Service is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

Main address

US Forest Service
1400 Independence Ave. SW
Washington, DC 20250-0003
Phone: (202) 205-8333
www.fs.fed.us

Alabama address

Dagmar Thurmond, Acting Forest Supervisor
2946 Chestnut St.
Montgomery, AL 36107
Phone: (334) 832-4470
www.fs.usda.gov/alabama

Other USFS links

- Watersheds, fish, wildlife, air, and rare plants:
www.fs.fed.us/biology
- Ecosystem management: www.fs.fed.us/emc

US Fish and Wildlife Service (USFWS)

A bureau of the Department of the Interior, the US Fish and Wildlife Service is the principal federal agency responsible for conserving, protecting, and enhancing fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

Main address

1849 C St. NW
Washington, DC 20240
Phone: (800) 344-WILD
www.fws.gov

Alabama Ecological Services Field Office

1208 B Main St.
Daphne, AL 36526-4419
Phone: (251) 441-5181
www.fws.gov/alabama

Other USFWS links

- National Wetlands Inventory: <http://wetlands.fws.gov>
- Division of Environmental Review: www.fws.gov/ecological-services
- Habitats: www.fws.gov/habitat

United States Geological Survey (USGS)

The USGS serves the nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.

Main address

USGS National Center
12201 Sunrise Valley Dr.
Reston, VA 20192
Phone: (703) 648-4000
www.usgs.gov

Other USGS links

- Water quality data for Alabama: <https://waterdata.usgs.gov/al/nwis/qw>
- Underground water data for Alabama: <https://waterdata.usgs.gov/al/nwis/gw>
- USGS activities in Alabama: <https://al.water.usgs.gov/index.html>

STATE AGENCIES

Alabama Department of Agriculture and Industries (ADAI)

ADAI provides regulatory control over product and business entities, and movement and application of goods and services for which applicable state and federal laws exist and strive to protect and provide service to Alabama consumers.

1445 Federal Dr.
Montgomery, AL 36107
Phone: (334) 240-7100
<http://testagi.alabama.gov/home>

Alabama Department of Conservation and Natural Resources (ADCNR)

ADCNR is an executive and administrative department of the State of Alabama created by statute. The commissioner, appointed by the governor as a member of the cabinet, advises the governor and legislature on management of freshwater fish, wildlife, marine resources, state lands, state parks, and other natural resources.

64 N Union St.
Montgomery, AL 36130
Phone: (334) 242-3486
www.outdooralabama.com

Alabama Department of Economics and Community Affairs (ADECA)

ADECA's mission is to build better Alabama communities. One important division of ADECA is its Office of Water Resources (OWR), which exists to efficiently and effectively allocate the state's ground and surface water resources. In order to accomplish this, OWR advises lawmakers, conducts research, and directs and participates in programs and activities that promote Alabama's water interests.

Alabama Department of Economic and Community Affairs
Attn: Office of Water Resources
PO Box 5690
Montgomery, AL 36103-5690
Phone: (334) 242-5100
<http://adeca.alabama.gov/Divisions/owr/Pages/default.aspx>

Alabama Department of Environmental Management (ADEM)

The mission at ADEM is to ensure a safe, healthful, and productive environment for all citizens of the state. ADEM administers all major federal environmental laws, including the Clean Air Act, Clean Water Act, and Safe Drinking Water Act, and federal solid and hazardous waste laws.

1400 Coliseum Blvd.
Montgomery, AL 36110-2400
Phone: (334) 271-7700
www.adem.state.al.us/default.cnt

Other ADEM links

- Alabama Nonpoint Source Management program: www.adem.state.al.us/programs/water/nps/npsMgmt.cnt
- Public participation in environmental permitting: <http://adem.alabama.gov/MoreInfo/permittingInfo.cnt>
- Water quality: <http://adem.alabama.gov/programs/water/waterquality.cnt>
- ADEM data and maps: <http://www.adem.state.al.us/emaps.cnt>
- Local hazardous waste contacts: <http://adem.alabama.gov/programs/land/default.cnt>
- Emergency disposal of solid waste: www.adem.state.al.us/programs/water/waterforms/EmergencyDisposalofSolidWaste.pdf

Alabama Department of Labor (ADOL)

This state department oversees all business activities and manages unemployment in Alabama.

Under the inspections division is the mining division, which deals with abandoned mine land reclamation, mining safety and inspection, and surface mining of nonfuel minerals.

Alabama Department of Labor
Attn: Inspections Division, Mining
649 Monroe St.
Montgomery, AL 36131
Phone: (334) 309-9050
<https://labor.alabama.gov/Inspections/Mining>

Alabama Department of Public Health (ADPH)

ADPH is the primary health agency for the state of Alabama. Their mission is to promote, protect, and improve the health of Alabama's citizens and communities. They fulfill this mission in part by offering environmental services.

201 Monroe St.
No. 1250
Montgomery, AL 36104
Phone: (800) 252-1818
www.alabamapublichealth.gov/index.html

Other ADPH link

- Soil and onsite sewage: www.alabamapublichealth.gov/onsite/index.html

Alabama Forestry Commission (AFC)

Established as a state agency in 1924, the Alabama Forestry Commission has a three-fold function: to protect Alabama's forests from all harmful agents; to service and help landowners to carry out responsible forest management on their property by using professional technical assistance that benefits themselves, their land, and society; and to educate the general public about the value of Alabama's forests in ensuring both a healthy economy and environment. AFC also assists with emergency responses following natural disasters.

513 Madison Ave.
Montgomery, AL 36104
Phone: (334) 240-9300
www.forestry.alabama.gov/Default.aspx

Alabama Soil and Water Conservation Committee (ASWCC)

The ASWCC works to promote healthy soil, fishable and drinkable water, sustainable forests, and clean air to cultivate a prosperous farming industry and improve quality of life for all Alabama citizens. Locally led, nonregulatory entities authorized under state law (known as soil and water conservation districts) are managed by district administrative coordinators and a voluntary board of supervisors. The organization works with private landowners to implement conservation practices on their land, creating a unique private-public partnership.

600 S. 7th Street, Suite 1
Opelika, AL 36801
Phone: (334) 745-4791 (Lee County District)
<https://alconservationdistricts.gov>

Alabama Surface Mining Commission (ASMC)

The ASMC is the primary entity that regulates all surface and underground coal-mining activities in the state. It draws its authority from the Federal Surface Mining Control and Reclamation Act of 1977.

1811 2nd Ave.
Jasper, AL 35501
Phone: (205) 221-4130
<http://surface-mining.alabama.gov/index.html>

Geological Survey of Alabama (GSA)

Founded in 1848, the GSA is an agency that collects data on Alabama's natural resources. They explore and evaluate mineral, water, energy, biological, and other resources, while conducting basic and applied research in those fields.

420 Hackberry Ln.
Tuscaloosa, AL 35401
Phone: (205) 349-2852
www.gsa.state.al.us

UNIVERSITY/EXTENSION SERVICES

Alabama Cooperative Extension System (ACES)

The Alabama Cooperative Extension System operates as the primary outreach organization for the land grant functions of Alabama A&M and Auburn Universities. ACES exists to help people and communities improve their quality of life and economic well-being. One division of Alabama Extension deals with natural resources.

600 S. 7th St., Suite 4
Opelika, AL 36801
Phone: (334) 749-3353
www.aces.edu/main

Auburn University Water Resources Center (AUWRC)

AUWRC is a division of the Alabama Agricultural Experiment Station of Auburn University (AAES). The mission of AUWRC is to facilitate successful collaboration among Auburn University faculty and staff on multidisciplinary water-related research, outreach, and teaching, and to facilitate the active involvement of private citizens in the stewardship of water resources.

Some entities with similar functions to AUWRC's include the University of Alabama's Alabama Water Institute (<http://ovpred.ua.edu/alabama-water-institute>) as well as Troy University's Center for Water Resource Economics (www.troy.edu/about-us/phenix-city-campus/life-culture/center-water-resource-economics.html).

Auburn University Water Resources Center
Hubbard Center for Advanced Science, Innovation,
and Commerce
559 Devall Dr.
Auburn University, AL 36849
Phone: (888) 844-4785
<http://aaes.auburn.edu/wrc>

Other AUWRC links

- Animal waste management: <http://aaes.auburn.edu/wrc/projects-research/animal-waste-management>
- Alabama water resources: <http://aaes.auburn.edu/wrc/projects-research/alabama-water-resources-research-institute/links/>
- Funding opportunities: <http://aaes.auburn.edu/wrc/resource/opportunities/>

Alabama Water Watch (AWW)

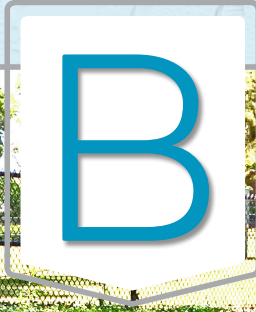
Alabama Water Watch (AWW) is a citizen-volunteer water quality monitoring program covering all of the major river basins in Alabama. Their vision is to have a citizen monitor on every stream, river, lake, and coast in Alabama. AWW is a program of Auburn University Water Resources Center and receives support from a number of different organizations, including Alabama Extension

Auburn University Water Resources Center
Hubbard Center for Advanced Science, Innovation,
and Commerce
559 Devall Dr.
Auburn University, AL 36849
Phone: (888) 844-4785
www.alabamawaterwatch.org

Other AWW links

- AWW Map Data: www.alabamawaterwatch.org/water-data/awwmap
- Radial search: <https://web.auburn.edu/aww/Charts/maps/awwRadialMap.html>

APPENDIX





Community Activities for Your Watershed

As an official Alabama watershed steward, you have the opportunity to make a difference in your community, to raise awareness about issues in your watershed, and to participate in local watershed management and protection activities. The following is a list of activities that you can be a part of either as an individual or as a local watershed action group. The activities are roughly arranged by easiest to hardest to participate in or to organize.

FORM A WATERSHED ORGANIZATION IN YOUR COMMUNITY

Ultimately, water quality and watershed protection are the responsibility of the individuals and communities residing in the watershed. Forming a watershed organization or watershed group in your community will help to raise awareness of water issues and help to foster action to improve water quality.

If a group already exists in your community, contact the group and volunteer to help. To find out if a group exists, visit the River Network's "Who Protects Water?" map: www.rivernetwork.org/membership/map-who-is-protecting-your-water/.

Once a group is formed, consider looking at the EPA's resources for watershed planning (www.epa.gov/nps/resources-watershed-planning) and the Partnership Resource Center (www.fs.usda.gov/prc) to gain access to hundreds of references for resources available to local community groups engaged in local watershed management.

LEARN ABOUT YOUR WATERSHED

Start by using EPA's Water Topics page to find your watershed address and learn about its water quality issues: www.epa.gov/environmental-topics/water-topics. From there you can research other topics:

- Learn how to protect healthy watersheds through landscape approaches at www.epa.gov/hwp.
- See Alabama real-time water data, river basin maps, flood and drought data, and much more at the US Geological Survey website at www.usgs.gov/science/regions/southeast/alabama?qt-states_l2_landing_page_tabs=0#qt-states_l2_landing_page_tabs.
- Check to see if any waterbodies in your watershed are listed on Alabama's 303(d) list. See the Alabama Integrated Report for CWA Sections 305(b) and 303(d) at www.adem.state.al.us/programs/water/waterquality.cnt.
- Learn about and map specific watersheds by using the StreamStats tool at <https://streamstats.usgs.gov/ss>. StreamStats is a web application that provides access to an assortment of geographic information systems (GIS) analytical tools that are useful for water-resources planning and management, and for engineering and design purposes. The map-based user interface can be used to delineate drainage areas for user-selected sites on streams. It can then gather basin characteristics and estimates of flow statistics for the selected sites anywhere this functionality is available.
- Hydrologic and Water Quality System (HAWQS) Version 1.0 is a web-based interactive water quantity and water quality modeling system that can assist states, local governments, and citizens with water quality protection decision-making.
- HAWQS provides users with interactive web interfaces and maps; pre-loaded input data; outputs that include tables, charts, and graphs; a user's guide, and online development, execution, and storage of a user's modeling projects.
- Find HAWQS here: <https://www.epa.gov/waterdata/hawqs-hydrologic-and-water-quality-system>

CREATE A WATERSHED DISPLAY

Displays can be developed for local fairs, festivals, public libraries, and community events to raise awareness and spread the word about water quality protection in your watershed. Your display could be a colorful poster full of pictures from different areas in your watershed. And it can provide information about important issues facing your watershed. Part of your display could even be an actual watershed model.

Visit EPA's "Build a Watershed Model" website for more information: http://water.epa.gov/learn/kids/drinkingwater/activity_grades_9-12_buildyourownwatershed.cfm.

SPREAD THE WORD THROUGH AN ADVERTISING CAMPAIGN

An effective way to get the word out about water quality issues in your watershed is to advertise. Options include mass mailings, fliers, public service announcements, watershed fact sheets, and newspaper articles. It is a great way to raise awareness in the community, get more individuals to join your watershed group, and encourage people to take personal action to protect your watershed's resources.

Take advantage of available resources:

- local professionals and community officials (mayors, judges) who might be willing to contribute their time
- local newspapers and magazines. Request coverage and/or special sections for your group to post information and report activities.
- real estate and homeowner's association newsletters
- free inserts in utility bills
- public service announcements and community radio hours

Seek examples of letters, fact sheets, and fliers, then create some for your watershed and distribute them.

GIVE A PRESENTATION TO A SCHOOL CLASS

By teaching children early about their watershed, we can produce the watershed stewards of tomorrow. Plus, it is often said that the best way to reach adults is through their children.

Plan with teachers in the community to make water education a part of their classroom curriculum. A simple and short classroom presentation can make a difference. You can tell students what a watershed is and discuss threats to water quality. Highlight things that kids and parents can do to protect water quality. Gather materials

and set up the classroom for hands-on activities. Once the presentation and materials are gathered, the program can be offered over and over again. If all goes well, teachers will be requesting water education instead of you asking to present it.

There are many national water education programs for youth where you can get ideas:

- **USGS Water Science School** provides links to numerous water-science topics and educational materials, such as maps and posters. See <http://water.usgs.gov/edu/>.
- **Give Water a Hand** is a national watershed-education program designed to involve young people in local environmental service projects. See www.partnersforcleanstreams.org/educational-publications/give-water-a-hand-business-campaign.
- **Project WET** (Water Education for Teachers) is an award-winning nonprofit water-education program and publisher. The program is designed to facilitate and promote awareness, appreciation, knowledge, and stewardship of water resources through dissemination of classroom-ready teaching aids and the establishment of internationally sponsored Project WET programs. See www.projectwet.org.
- **EPA's Resources for Students and Educators about Nonpoint Source (NPS) Pollution** provides games and links to educational materials that teach children about pollution and the environment. This site features Darby Duck and the Aquatic Crusaders and Masterbug Theater. See <http://water.epa.gov/polwaste/nps/kids/index.cfm>.

BECOME A VOLUNTEER OR A WATER QUALITY MONITOR

Help to collect water quality data and build stewardship for your local waterbody. **Alabama Water Watch (AWW)** is a good way to do this. AWW is an organization of trained volunteers who work together by collecting water samples from local waterbodies. By training volunteers to do the essential work of collecting reliable chemical and bacteriological data, AWW aims to improve water quality and policy.

Founded in 1992, Alabama Water Watch is a program of the Auburn University Water Resources Center. AWW and its thousands of volunteers have been responsible for collecting over 90,000 water records in Alabama. See Appendix A for AWW's contact information.

You also can go to the **Alabama Rivers Alliance** volunteer page to connect with volunteer opportunities in your area. Alabama Rivers Alliance is a statewide network of groups working to protect and restore all of Alabama's water resources through building partnerships, empowering citizens, and advocating for sound water policy and its enforcement. <https://alabamarivers.org/volunteer>

ORGANIZE A STREAM OR RIVER WALK

This is a great way to bring a group of citizens together to make visual observations and assessments on the condition of a waterbody. If problems or concerns such as trash, debris, or other sorts of pollution are discovered, work with the city and/or county to organize a cleanup for that waterbody.

You also can evaluate the health of a stream by finding and identifying macroinvertebrates during your walk. Print out an identification chart for macroinvertebrates at www.dep.wv.gov/WWE/getinvolved/sos/Documents/Benthic/WVSOS_MacroIDGuide.pdf.

For additional macroinvertebrate identification cards, see <http://vitalsignsme.org/macroinvertebrates>.

ORGANIZE A STORM DRAIN MARKER OR STENCILING PROJECT IN YOUR COMMUNITY

Storm-drain stenciling is a great way to remind community members that storm drains dump directly into your local waterbodies. Visit the EPA's stormwater website at www.epa.gov/npdes/npdes-stormwater-program. Also consider creating door hangers, press releases, videos, and publications that can be distributed for your event.

For more information on storm drain stenciling in Alabama, see ADEM's "Storm Drain Stenciling Activity" publication at www.adem.state.al.us/programs/water/nps/files/stormdrainstenciling.pdf.

For more information on how to host an event for storm drain marking, see the University of Rhode Island's list of resources at <https://web.uri.edu/riss/take-action/in-your-community/storm-drain-marking>.

ORGANIZE OR JOIN IN A COMMUNITY CLEANUP OR RECYCLING DAY

Keep Alabama Beautiful is an organization whose mission is to enable volunteers throughout Alabama to improve litter prevention practices, recycling, beautification, and community greening efforts. For more information, visit <http://keepalabamabeautiful.org>.

HOST A COMMUNITY WATERSHED WORKSHOP OR WATERSHED FESTIVAL

You can sponsor a community workshop or watershed festival to raise awareness of water quality issues in your watershed. Think about the following questions:

- Are there members of the community with experience in public teaching or education?
- Are local professionals available to speak?
- What community organizations or businesses might serve as potential audiences for speakers?
- Who might cosponsor a workshop for the public?

CREATE A COMMUNITY RAIN GARDEN

A rain garden is a neat little garden that is built to reduce runoff and filter sediment and other pollutants before they can enter your local waterways. It is built as a place to direct stormwater from roofs, driveways, and parking lots so it can soak into the soil and be used by plants.

For more information on rain gardens, visit the Rain Garden Network at www.raingardennetwork.com. Read instructions on how to construct a rain garden in the *Low Impact Development Handbook for the State of Alabama* available at www.adem.state.al.us/programs/water/waterforms/LIDHandbook.pdf.

INSTALL RAIN BARRELS IN YOUR COMMUNITY

A rain barrel is a system that collects and stores rainwater from the roofs of buildings. If not collected, the water runs off into storm drains and streams. A rain barrel collects water and stores it for when you need to water your plants, wash your car, and do other activities that require water. The EPA estimates that rain barrels can save homeowners 1,300 gallons of water during peak summer months!

- For more information on how to build and install rain barrels, go to the EPA's website for examples and instructions at www.epa.gov/soakuptherain/soak-rain-rain-barrels. Also see the sections on "Rainwater Harvesting" in the *Low Impact Development Handbook for the State of Alabama* available at www.adem.state.al.us/programs/water/waterforms/LIDHandbook.pdf.

CONDUCT A COMMUNITY SOIL-OR WELL-TESTING CAMPAIGN

This is a great way to bring your community together to test soil and the water quality of your local water wells.

Having the soil from lawns tested is an important first step in determining exactly how much, if any, fertilizer is needed on individual lawns, landscapes, or gardens. Fertilizers should be applied carefully and at the proper rate and time to prevent the negative effects they can have on waterways in your community and state.

A water quality testing campaign for private well owners can be a great tool for encouraging proper management of the land so that both surface and groundwater resources are protected.

The Auburn University Soil, Forage, and Water Testing Laboratory can provide guidance on taking soil and water samples and also analyze and provide results of your samples (fee based). Visit the lab's website at www.aces.edu/anr/soillab for more information. You also can write or call the number and address below:

Soil, Forage, and Water Testing Laboratory
ALFA Building
961 S. Donahue Dr.
Auburn University, AL 36849-5411
Phone: (334) 844-3958
Fax: (334) 844-4001

JOIN A STAKEHOLDER WORK GROUP FOR WATERSHED MANAGEMENT OR TMDL PLANS

Stakeholder involvement in the development and implementation of watershed protection plans or total maximum daily load (TMDL) plans is absolutely vital. It is a great way to get your voice heard and to bring about positive change for your local waterbodies. Volunteer your expertise, or time and energy, to contribute to these important watershed protection activities and to get involved in making a difference.

Find out if a watershed protection or TMDL is planned in your watershed by visiting the ADEM website at www.adem.state.al.us/programs/water/nps/resources.cnt. For information about current TMDLs, visit www.adem.state.al.us/programs/water/approvedTMDLs.htm.

GET YOUR PUBLIC WATER SYSTEM INVOLVED IN A SOURCE WATER PROTECTION PROGRAM

The Alabama Rural Water Association (ARWA) is a conduit for the USDA's Source Water Protection Program (SWPP), which aims to help rural public water systems by eliminating sources of pollution and educating community members. For more information on how to get involved with an SWPP in your rural area, contact ARWA.

Alabama Rural Water Association
2576 Bell Rd.
Montgomery, AL 36117
Phone: (334) 396-5511
Fax: (334) 396-7090
Email: arwa@alruralwater.com
www.alruralwater.com

GET FUNDING TO HELP PROTECT YOUR WATERSHED

To sustain public education efforts and do some of the bigger tasks, you'll likely need a funding source. Think about writing a grant to support your local outreach efforts. Start by going to the *Catalog of Federal Funding Sources for Watershed Protection* at <https://goo.gl/9KP9Zd>.

The EPA has an Environmental Education Grants Program. Information is available at <http://www2.epa.gov/education/environmental-education-ee-grants>. Also talk with city and county officials about other funding sources in your community or watershed.

DEVELOP YOUR WATERSHED MANAGEMENT PLAN

A Watershed Management Plan is a focused effort to bring together all the different stakeholder groups (city, county, business, industry, agriculture, homeowners, etc.) to work together to plan for the future of a watershed. It requires the dedication of significant time and energy, but the end result is a shared plan that everyone can help to implement with the goal of ensuring a healthy watershed.

To learn more about watershed planning, see the EPA's "Resources for Watershed Planning" at www.epa.gov/nps/resources-watershed-planning.

APPENDIX





Resources by Topic

WATER QUALITY ON THE WEB

Alabama Water Quality Report for Clean Water Act Section 305(b) and 303(d) List

305(b) Report. This biennial report to the Environmental Protection Agency describes the status of Alabama waters based on historical data on surface water and groundwater quality. See www.adem.state.al.us/programs/water/waterquality.cnt.

303(d) List. This list identifies Alabama waterbodies that are not meeting standards set for their use. See www.adem.state.al.us/programs/water/waterquality.cnt.

BEST MANAGEMENT PRACTICES

EPA Stormwater Best Management Practices Study.

This includes technical information on BMP performance measures, BMP design criteria, monitoring issues, costs, and benefits of implementing BMPs. See www.epa.gov/waterscience/guide/stormwater.

International Stormwater Best Management Practices (BMP) Database. This provides scientifically sound information regarding the design, selection, and performance of urban stormwater BMPs. See www.bmpdatabase.org.

Irrigation Best Management Practices. This is an online information source for irrigation BMPs created by the Irrigation Association. See www.irrigation.org/IA/Advocacy/Standards-Best-Practices/Landscape-Irrigation-BMPs/IA/Advocacy/Landscape-Irrigation-BMPs.aspx?hkey=93b546ad-c87a-41b8-bf70-8c4fd2cff931.

Managing Stormwater Best Management Practices. This interactive website was created by Greenworks TV. It includes several videos and other types of information on stormwater BMPs. See <http://greenworkspc.com/works/stormwater-2>.

National Menu of Stormwater Best Management Practices. This powerful search engine was created by the EPA for stormwater BMPs. See www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu.

NRCS Farm Conservation Solutions. This provides information on some common conservation practices and how they help to improve a farm and the environment. See www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs.

Alabama's Best Management Practices for Forestry.

This handbook is produced by the Alabama Forestry Commission. See www.forestry.alabama.gov/Pages/Management/Forms/2007_BMP_Manual.pdf.

DRINKING WATER

Drinking Water Contaminants Standards and Regulations. This EPA site provides a list of drinking water contaminants and their maximum contaminant levels (**MCL**), as well as information regarding drinking water standards, priority rule-making, regulatory infrastructure, and additional links. See www.epa.gov/dwstandardsregulations.

Basic Information About Your Drinking Water. The EPA provides drinking water information for each state as well as links to safe drinking water organizations in the country. See <http://www.epa.gov/safewater/dwinfo/index.html>.

EPA Public Notification for Drinking Water Systems. Public notification is intended to ensure that consumers are immediately alerted if there is a serious problem with their drinking water that may pose a risk to public health. See www.epa.gov/dwreginfo/public-notification-rule.

EPA Source Water Protection. This site provides information on protecting drinking water sources. See <http://water.epa.gov/infrastructure/drinkingwater/sourcewater/protection>.

NSF Drinking Water. This website provides information on drinking water contaminants, home water treatment, testing protocols, rainwater collection, and more. See www.nsf.org/consumer-resources/water-quality/drinking-water.

Alabama Drinking Water. See www.adem.state.al.us/programs/water/drinkingwater.cnt.

EMERGENCY RESPONSE

The Alabama Emergency Management Agency (AEMA). This state agency provides the citizens of Alabama with the resources and knowledge they need to be ready for all manner of emergencies. See <https://ema.alabama.gov>.

ADECA's Office of Water Resources. They issue frequent drought declarations. For information concerning your area, visit <http://adeca.alabama.gov/Divisions/owr/Pages/default.aspx>.

Saving Towns through Asset Revitalization (STAR). This program is designed to encourage smart growth initiatives and offers a helpful publication about disaster preparedness. See www.aces.edu/pubs/docs/U/UNP-0071/UNP-0071.pdf.

ENVIRONMENTAL FACTS

EPA Envirofacts Data Warehouse. This national information system provides a single point of access to data extracted from seven major EPA databases. See www.epa.gov/enviro.

FUNDING SOURCES

Catalog of Federal Funding Sources for Watershed Protection. This offers a searchable database of financial assistance sources (grants, loans, cost-sharing) available to fund a variety of watershed protection projects. See <https://goo.gl/9KP9Zd>.

EPA Targeted Watersheds Grants Program. This program awards capacity-building grants to support local watershed efforts and model watershed projects. See www.epa.gov/hwp/healthy-watersheds-consortium-grants-hwgc.

GLOSSARIES

EPA Terminology Services (TS). This offers a single resource of environmental terminology. See https://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/home.do.

USGS Water Science Glossary of Terms. This contains a helpful list of water-related terms. See <https://water.usgs.gov/edu/dictionary.html>.

GROUNDWATER MANAGEMENT

ADEM Groundwater Protection and Cleanup. This branch of ADEM administers the Underground Storage Tank (UST) Program and the Underground Injection Control (UIC) Program. See www.adem.state.al.us/programs/water/groundwater.cnt.

GSA's Groundwater Assessment Program. This program was created to investigate the occurrence, availability, and quality of the state's waters. See www.gsa.state.al.us/gsa/groundwater.

MAPPING/DATABASE TOOLS

EPA BASINS (Better Assessment Science Integrating Point and Nonpoint Sources). This multipurpose environmental analysis system integrates a geographical information system (GIS), national watershed data, and state-of-the-art environmental assessment and modeling tools into one convenient package. See www.epa.gov/ceam/better-assessment-science-integrating-point-and-non-point-sources-basins.

EPA Enviromapper for Water. This powerful online mapping tool will map watersheds, impaired waters, assessed waters, beaches, discharge zones, and other features for any state, county, or town in the United States. See www.epa.gov/emefdata/em4ef.home.

EPA Water Quality Data (WQX). This is the EPA's repository for water quality, biological, and physical data. See www.epa.gov/waterdata/water-quality-data-wqx.

EPA Watershed Assessment, Tracking and Environmental Results (WATERS). This powerful mapping tool allows users to view data from many EPA databases and find geography-specific water quality information. See www.epa.gov/waters.

USGS's National Water Quality Assessment Project (NAWQA). This project provides a wide array of national maps relating to water quality. See <https://water.usgs.gov/nawqa/digmap.html>.

Maps of Alabama. The University of Alabama has produced a large assortment of Alabama maps related to agriculture, climate, and physical features. See <http://alabamamaps.ua.edu/contemporarymaps/alabama/index.html>.

NONPOINT SOURCE POLLUTION

EPA Polluted Runoff Resources. This EPA site provides information about various topics relating to nonpoint source pollution, including information for students, funding opportunities, publications, and outreach. See www.epa.gov/OWOW/NPS.

EPA Stormwater Program. This site contains technical and regulatory information about the NPDES stormwater program. It is organized according to the three types of regulated stormwater discharges and provides links to stormwater outreach materials. See <http://water.epa.gov/polwaste/npdes/stormwater/index.cfm>.

ADEM's Nonpoint Source Pollution Program. This program offers resources on NPS pollution and management. See <http://adem.alabama.gov/programs/water/npsprogram.cnt>.

PARTNERSHIPS

Partnership Resource Center. PRC provides online resources to build vibrant partnerships and effective collaborations for the nation's forests, grasslands, and other special places. The website is a joint project of the National Forest Foundation and the USDA Forest Service. See www.fs.usda.gov/prc.

POINT SOURCE POLLUTION

EPA National Pollutant Discharge Elimination System (NPDES). This site contains technical and regulatory information about the NPDES permit program. See www.epa.gov/npdes.

RAINWATER COLLECTION

"Rainwater Harvesting for Irrigation Water." This article from the Alabama Cooperative Extension System provides information needed for constructing a rainwater collection system. See <https://store.aces.edu/ItemDetail.aspx?ProductID=13666> and <https://www.aces.edu/blog/topics/lawn-garden-urban/rainwater-harvesting-for-irrigation-water/>.

Low Impact Development Handbook for the State of Alabama. This handbook has a section on rainwater harvesting. See www.adem.state.al.us/programs/water/waterforms/LIDHandbook.pdf.

SMART GROWTH

EPA Smart Growth. This website provides helpful information on smart growth, including facts, benefits, examples, and publications. See www.epa.gov/smartgrowth.

TOTAL MAXIMUM DAILY LOAD (TMDL)

EPA Total Maximum Daily Load Program. This is a clearinghouse for all things TMDL, including an introduction and access to policy/program documents, technical support documents, sample TMDLs, litigation status, and more. See www.epa.gov/tmdl.

ADEM Total Maximum Daily Load Program. This site provides information on ways to improve water quality in impaired and threatened waterbodies in Alabama. See <http://adem.alabama.gov/programs/water/tmdl.cnt>.

VOLUNTEER WATER QUALITY MONITORING

EPA Volunteer Monitoring. This website provides links to volunteer-monitoring fact sheets, methods, newsletters, and conferences/events. See www.epa.gov/owow/monitoring/vol.html.

Alabama Water Watch (AWW). AWW is the largest volunteer water-monitoring organization in Alabama. See www.alabamawaterwatch.org.

WATER CONSERVATION

Water Conservation and Management. This site is provided by the Alabama Cooperative Extension System. See www.aces.edu/natural-resources/water-resources/conservation/index.php.

Alabama Soil and Water Conservation Committee's Educational Resources. This site provides information about helpful opportunities to learn more about natural resource conservation. See <https://alconservationdistricts.gov/education>.

WATERSHEDS

EPA Watershed Academy. Online training modules cover various watershed topics from watershed hydrology to water law and policy. See www.epa.gov/watertrain.

EPA Surf Your Watershed. This service help you to locate, use, and share environmental information on your watershed or community. See <http://cfpub.epa.gov/surf/locate/index.cfm>.

EPA Window to My Environment. This powerful web-based tool provides a wide range of federal, state, and local information about environmental conditions and features in your region.

See <http://www3.epa.gov/enviro/myenviro>.

EPA Watershed News. This publication of EPA's Office of Wetlands, Oceans, and Watersheds provides timely information to groups working at the watershed level. See www.epa.gov/owow/watershed/news.html.

EPA Water. This site contains vast amounts of information on many water topics and issues. See <http://water.epa.gov>.

EPA Watershed Information Network. Find ways to get involved in your watershed and learn more about your watershed. See www.epa.gov/owow/watershed/.

National Watershed Network. This is a registry of locally led watershed partnerships working to meet local goals through voluntary actions.

See www.ctic.purdue.edu/Know%20Your%20Watershed/National%20Watershed%20Network/.

NRCS Watersheds. See www.nrcs.usda.gov/wps/portal/nrcs/main/al/water/watersheds.

USGS Science in Your Watershed. This is a clearinghouse for all sorts of information related to watersheds. See <http://water.usgs.gov/wsc/index.html>.

USGS Water Science for Schools: Information on many aspects of water, along with pictures, data, maps, and an interactive center where you can give opinions and test your water knowledge. See <https://water.usgs.gov/edu/>

WATERSHED HYDROLOGY

EPA Water Cycle. This interactive flash movie details each step of the water cycle.

See www.epa.gov/safewater/kids/flash/flash_watercycle.html.

NASA Observatory Hydrologic Cycle. This site offers interactive step-by-step lessons on the hydrologic cycle. See www.nasa.gov/audience/forstudents/5-8/features/Observatory_Feat_5-8.html.

USGS Water Cycle. This site contains information related to the water cycle.

See <https://water.usgs.gov/edu/watercycle.html>.

WATER LAW

General Water Quality Information. This site offers FAQs about water rights, laws, and regulations. See www.aces.edu/natural-resources/water-resources/faq/subject.php?code=136.

EPA Laws, Regulations, Policy, Guidance, and Legislation. This site offers links to all sorts of information regarding water law and policy. See www.epa.gov/laws-regulations.

Environmental Regulations and Laws. This site offers links to the full texts of ADEM's environmental regulations and laws.

See www.adem.state.al.us/alEnviroRegLaws/default.cnt.

WATERSHED MANAGEMENT PLANS

Handbook for Developing Watershed Plans to Restore and Protect Our Waters. See www.epa.gov/nps/handbook-developing-watershed-plans-restore-and-protect-our-waters.

WATERSHED PUBLICATIONS AND PRODUCTS

After the Storm. This is a 30-minute video program about watersheds coproduced by the EPA and The Weather Channel.

See <https://archive.org/details/gov.epa.841-c-06-001>.

Getting in Step: A Guide for Conducting Watershed Outreach Campaigns. This handbook and companion video helps local and state agencies and watershed groups conduct effective watershed outreach campaigns. See <https://goo.gl/tKGhmA>.

Handbook for Developing Watershed Plans to Restore and Protect Our Waters. This handbook helps communities, watershed organizations, and others develop and implement comprehensive watershed protection plans. See www.epa.gov/sites/production/files/2015-09/documents/2008_04_18_nps_watershed_handbook_handbook-2.pdf.

Protecting Water Resources with Smart Growth. This site offers 75 innovative approaches to help communities protect water resources and achieve smart growth. See www.epa.gov/smartgrowth/water_resource.htm.

All EPA publications can be obtained for FREE by calling the National Service Center for Environmental Publications (NSCEP) toll-free at (800) 490-9198 or by sending an email to: nscep@bpa-lmit.com. To search for other EPA publications, visit www.epa.gov/nscep. Use the search feature on the left-hand side to find publications by topic or title.

WATER QUALITY

USDA NIFA National Integrated Water Quality Program. This is a national program of the National Institute of Food and Agriculture designed to create and disseminate knowledge about water quality across the country. See <https://nifa.usda.gov/program/national-water-quality-program>.

USDA Water Quality Information Center. The center provides electronic access to information on water quality and agriculture. The center collects, organizes, and communicates the scientific findings, educational methodologies, and public policy issues related to water quality and agriculture. See www.nal.usda.gov/waic.

WATER QUALITY MONITORING

Water Quality Monitoring Strategy. This site is produced by the Alabama Department of Environmental Management. See www.adem.state.al.us/programs/water/wqsurvey/WQMonitoringStrategy.pdf.

Volunteering. This site by Alabama Water Watch offers information about how to become a volunteer water quality monitor. See www.alabamawaterwatch.org/get-involved/get-certified-as-a-water-monitor.

BEACON. This site, sponsored by the EPA, provides annual monitoring information about beach water quality. See <http://watersgeo.epa.gov/beacon2>.

WATER QUALITY PARAMETERS

BASIN Water Quality Terminology. This site provides links to helpful information concerning water quality parameters. See <http://bcn.boulder.co.us/basin/natural/wqterms.html>.

Kentucky Water Watch Water Quality Parameters. This site contains helpful information on important water quality measurements. See www.state.ky.us/nrepc/water/wcparint.htm.

Water on the Web. This is an online water quality primer featuring the principle types of water quality problems as well as in-depth descriptions of water quality parameters. Search Appendix C: Water on the Web at <http://waterontheweb.org/under/waterquality/index.html>.

WATER QUALITY STANDARDS

ADEM's Water Quality Standards. This site offers information on Alabama surface water quality standards. See www.adem.state.al.us/programs/water/waterquality.cnt.

EPA Water Quality Standards. This source offers all kinds of information on water quality standards. See www.epa.gov/waterscience/standards.

EPA Water Quality Standards Database. This provides access to EPA and state water quality standards information in text, tables, and maps. See http://water.epa.gov/scitech/swguidance/standards/wqshome_index.cfm.

EPA National Assessment Database. This site provides a summary of state-reported water quality information and allows the user to view assessments of individual waterbodies. See https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryID=23869.

WATER QUANTITY

Alabama Extension Drought Website. This site provides needed information to Alabama citizens during times of water scarcity. See <http://drought.aces.edu>.

National Drought Mitigation Center. This program, based at the University of Nebraska-Lincoln, helps people and institutions to develop and implement measures to reduce societal vulnerability to drought. See www.drought.unl.edu.

USDA Climate Hub for the Southeast. This site offers information about the state of the climate and water availability in the southeast, especially as it affects agriculture. See www.climatehubs.oce.usda.gov/hubs/southeast.

USGS Real-Time Water Data for the Nation. Find real-time flow data for all streams and rivers in the United States. Real-time data typically are recorded at 15- to 60-minute intervals, stored onsite, and then transmitted to USGS offices every 1 to 4 hours, depending on the data relay technique used. See <http://waterdata.usgs.gov/nwis/rt>.

WATER QUALITY REPORTING

The following information may be used for reporting water-related problems in Alabama.

In the event of an emergency (fish kill, petroleum discharge or spill, active illegal dumping, sunken vessel, etc.):

- Notify the Alabama Emergency Management Agency (AEMA) state warning point at (800) 843-0699 or (205) 280-2312. AEMA will notify the county EMA and the correct ADEM field office directly.
- Notify the National Response Center at (800) 424-8802. They will notify a host of federal and state agencies, including ADEM.

In the event of a complaint (sewage discharge, sedimentation issues, BMPs not being observed, other pollution, etc.):

- Go to ADEM at www.adem.state.al.us. Click the “complaints” link. You also can report anonymously at (334) 271-7700.

For all other problems, including broken water lines, blocked domestic drains and sewers, sewage odors in urban areas, or overflowing manholes, contact your local municipal water department, private septic service, or county health department.

WELLS

Groundwater. See www.adem.state.al.us/programs/water/groundwater.cnt.

Private Drinking Water Wells. This site offers helpful information about private drinking water wells, including basic information, human health information, and precautions to ensure the protection and maintenance of private drinking water supplies. See www.epa.gov/safewater/privatewells/index2.html.

Well Water. This site provides private well owners with general information on water quality and the special needs of well-water users. See www.nsf.org/consumer/drinking_water/dw_well.asp?program=WaterTre.

Groundwater Wells. This site provides information on the different types of groundwater wells. See <https://water.usgs.gov/ogw>.

Wellowner.org. This is a one-stop resource for information relating to private water-well systems and groundwater. See www.wellowner.org.

WETLANDS

Wetlands. This site provides information on protecting, restoring, and monitoring wetlands. See www.epa.gov/owow/wetlands.

USFWS National Wetlands Inventory. This provides information on the characteristics, extent, and status of the nation’s wetlands and deepwater habitats and other wildlife habitats. See www.fws.gov/nwi.

Wetlands International. This nonprofit organization is dedicated solely to wetland conservation and sustainable management. See www.wetlands.org.

Wetlands Regulation Center. This provides information on the laws, policies, and regulations concerning activities regulated under Sections 401 and 404 of the Clean Water Act in waters of the United States, including wetlands. See www.wetlands.com.

