

# **Alabama's Erosion and Sediment Control Program History**

**Clear Water AL  
Dothan, AL  
September 26, 2024**

**Earl Norton, CPESC, CPAg, CCA, Auburn, AL  
Alabama Erosion & Sediment Control Program Specialist**

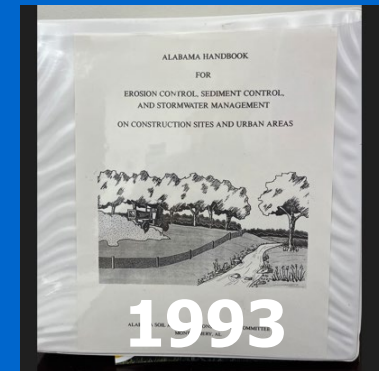
# Typical problems in the 1990's - 2000's



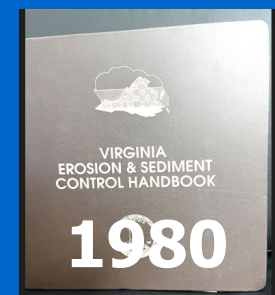
# 1993

The first AL Handbook was prepared by the USDA NRCS in 1993 at the request of the Jefferson Soil and Water Conservation District

1993 handbook had 30 BMPs sorted as “structural” and “vegetative”



Erosion and Sediment Control Handbooks of 1980 - 1990's were prepared by cities, regional planning councils, soil and water conservation entities, DNRs, others



# **Alabama needed better construction stormwater systems and installations**

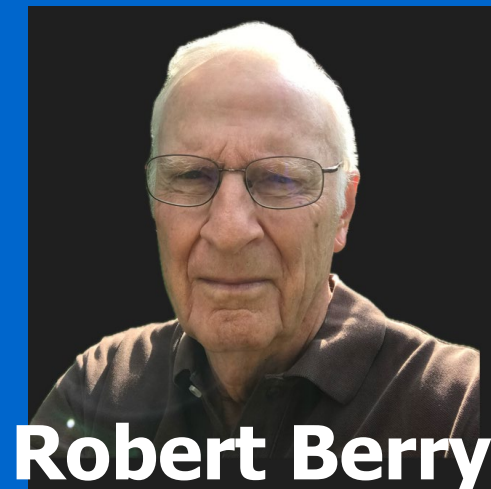
**1995**

## **Soil and Water Conservation Society - AL Chapter was a catalyst**

- **Began providing CPESC Exam Review**
- **CPESC Exam**
- **Continuing education in erosion and sediment control**

## Fall of 2000

ADEM NPS scientists Patti Hurley and Steve Foster requested that CPESCs Earl Norton and Robert Berry provide ESC training to industry staff



**September 2001**

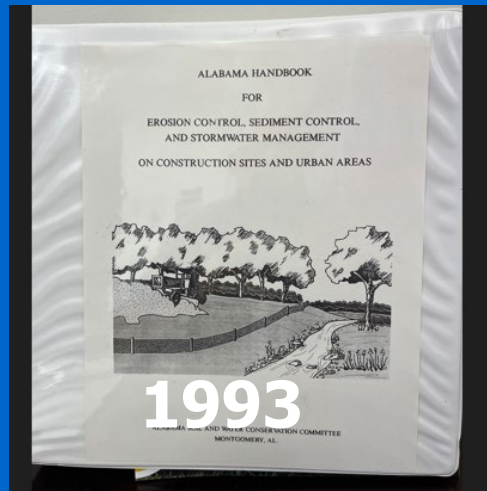
**Our Partnership Program began**

**Original Partners**

- **Alabama Soil and Water Conservation Committee (AL SWCC) - provided overall guidance**
- **AL Department of Environmental MGT (ADEM) - provided initial funding of \$10,000**
- **Soil & Water Conservation Society - AL Chapter - provided the vision plan and contracted with AL SWCC to provide dedicated technical staff**
- **Natural Resources Conservation Service (NRCS) - provided support technology**

**2021**

**A more up-to-date ESC  
Handbook to support training  
was needed**

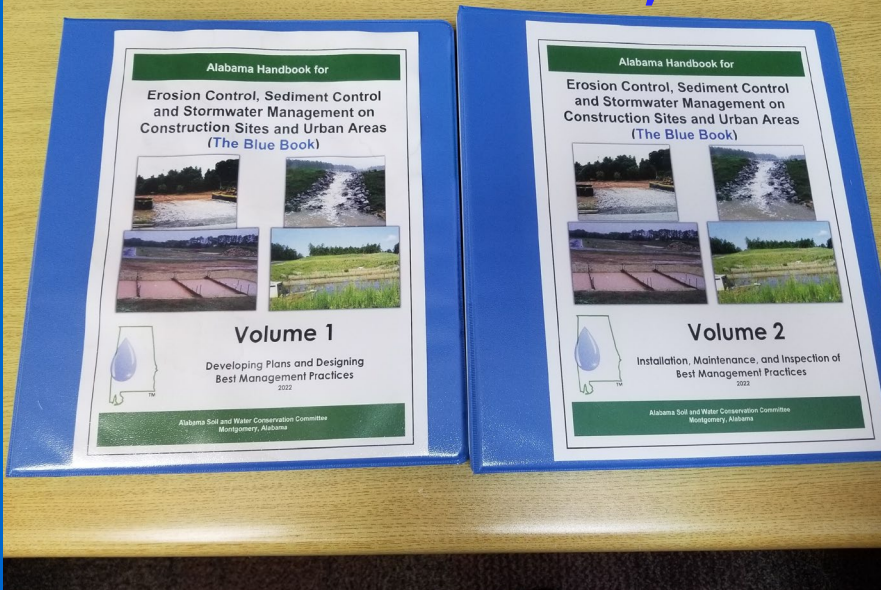


**30 BMPs needed modernizing and  
additional BMP were needed**

# Since 2001: 8 Handbook Updates

2002 (added 13 BMPs), 2003, 2004, 2006,  
2009 research-based, 2014 research-based,  
2018 research-based, 2022 research-based

## The Bluebook, 2022



- Currently **43 BMPs**
- **6 categories** sorted by **primary purpose**
- **No "approved product list"**

**Constructive comments on the contents of the Bluebook welcomed. Provide in writing to the AL Soil and Water Conservation Committee**



# 2004-2007 Field Days **Red Water Blues**

- Steep slope and channel stabilization - *hydraulic mulches, Erosion Control Blanket, Rock Riprap Swales*
- Inlet Protection in subdivisions and commercial sites – featured *various devices*
- Sediment control at site perimeters using *Silt Fence*



# Red Water Blues 2004-2007

Emphasized BMPs at house sites



**Construction Exit Pad**



**Temporary Seeding or  
Mulching all bare ground**

# 2008 – new name: Clear Water AL

- Became a 2-day event with an all-day Seminar and 2nd-day Field Day
- Included training for better Sediment Basin technology and turbidity control



**Learned that gravel packs not effective in removing fine particles and reducing turbidity**



**The better alternative: baffles, skimmer, flocculant**



## **2009 Clear Water Alabama - Bessemer** **Seminar**

**Sediment Basin designs – Perry Oakes**  
**ESC strategies - Dr. McLaughlin, NC State**  
**Low impact development (LID)**

**2010 Clear Water Alabama – Auburn**  
**More on Sediment Basins and turbidity control**

**2011 Clear Water Alabama - Birmingham**  
**Partnered with IECA for 3-day event**

**2012 Clear Water Alabama**  
**Huntsville and Spanish Fort**

# More Clear Water AL Events

2013 Birmingham

2014 Spanish Fort

2015 Tuscaloosa

2016 Madison

2018 Oxford

2017 Mobile

2019 Prattville

2020 Virtual

2021 Cullman

2022 Daphne

2023 Florence

**2024 Dothan**  
**33rd Event!**  
**17 Locations**



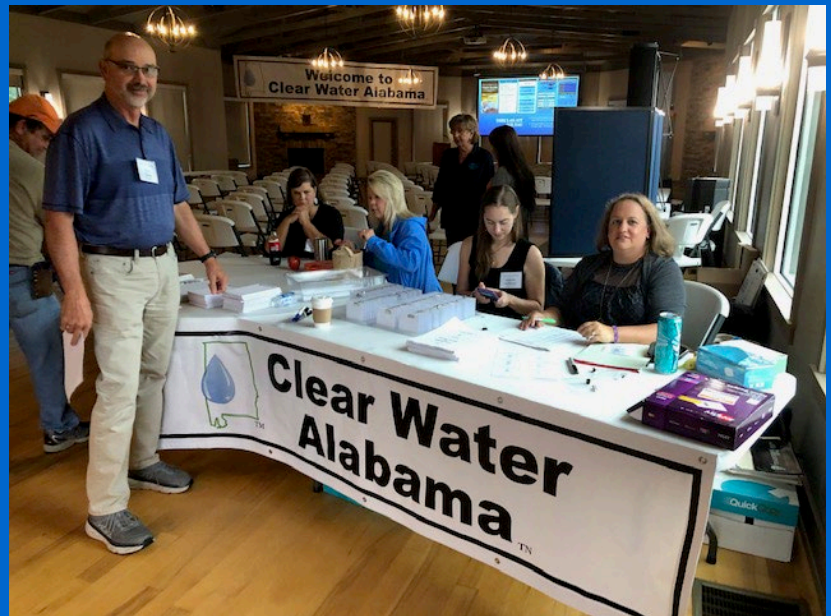
Bessemer – 1<sup>st</sup> Sed Basin with baffles, skimmer, flocculant



Prattville – tents & walking



Decatur – Tent facility at Catholic Church



Cullman – Camp Meadowbrook

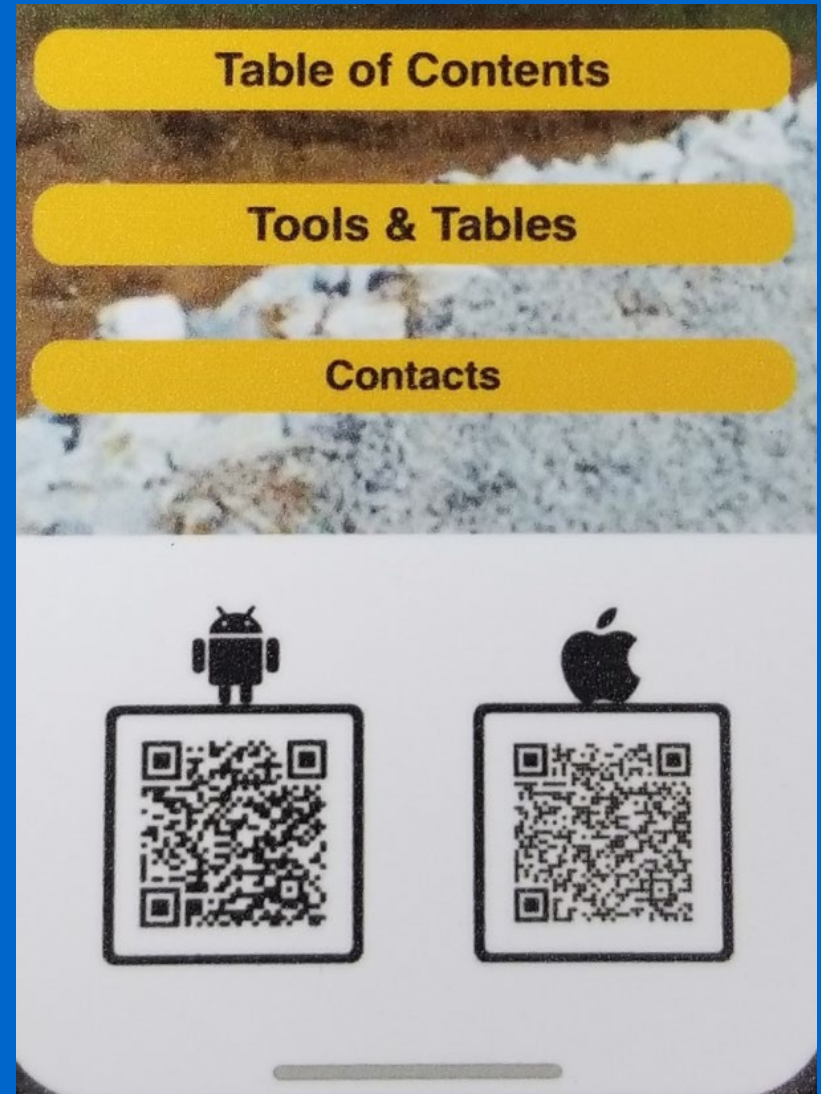
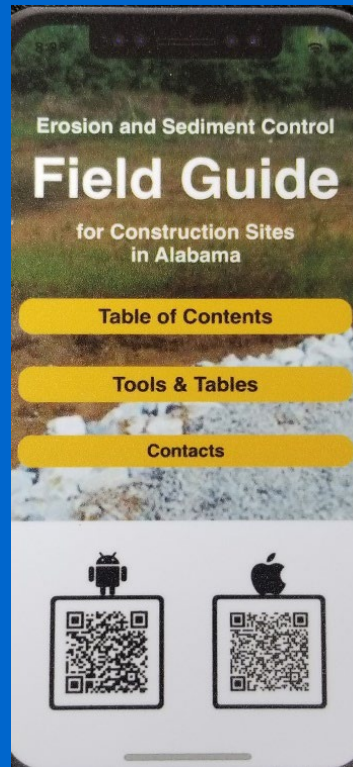
# Field Guide

**Over 20,000 copies  
distributed**

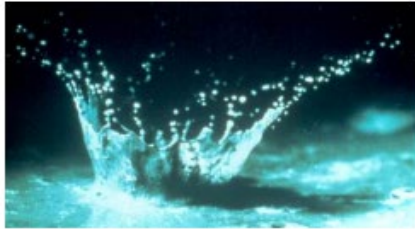
**Field Guide  
For  
Erosion and Sediment Control  
On Construction Sites  
In  
Alabama**

**Alabama Soil and Water  
Conservation Committee  
and  
Partners**

Fourth Edition, 2022



# Let's Look at Sediment!



# A "Should Read" for everyone in Alabama

**Sediment Awareness**

Alabama is blessed with abundant natural, scenic, rivers, lakes, and reservoirs. These resources should be preserved.

**What Can You Do?**

- Landowners:** Control erosion and increase soil cover to prevent runoff from your land.
- Home maintenance improvements:** Regularly maintain your septic system to prevent sewage from leaking into the ground.
- Business:** Assess if your existing development poses an increased sediment production problem.
- Construction:** Install erosion control practices to prevent sediment from your site's construction pollution prevention plan.
- Landscaping:** Assess if your yard and other outdoor areas require erosion control practices.
- Auto maintenance:** Support local and state programs of car pool, car wash, car share.

The Alabama State Department of Environmental Management is a division of the Alabama Department of Conservation and Forestry. For more information, visit [www.adm.alabama.gov](http://www.adm.alabama.gov).

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## Let's Look at Sediment!



**Sediment**

**Sediment**

**Sediment!**

**Why All The Fuss?**

We often hear, "Sediment is the nation's biggest pollutant in our streams, lakes, and water courses."

**Sediment impacts the environment. It costs land owners and local and county governments countless dollars.**

This brochure has two purposes:

- Help readers gain a better understanding of the problems associated with sediment
- Stimulate stewardship of our land and water resources

Sediment is the soil particles that are detached during the erosion process. These particles are deposited somewhere down the slope. Likely locations for sediment deposits include ditches, ponds, lakes, creeks, and rivers. Some sediment even reaches the Gulf of Mexico.

And there is more to the story. While some soil particles are deposited, other smaller soil particles can remain in the water for a long time. This water is "turbid" and damages the aquatic environment.

The impacts of sediment and turbidity can be seen in the pictures to the right.

Pictures on the back of this brochure show sites that may deliver sediment and turbid water and create problems to our waterways and the aquatic environment.

In addition to the purposes stated above, this brochure also illustrates why sediment and turbidity are considered non-point source pollutants. These pollutants come from many sites and collectively create problems that need to be addressed.

As a concerned Alabamian - review this brochure closely, and then pass it on to someone else for their benefit, and for the benefit of our land and water.

**Accelerated erosion, sediment, and turbidity:**

The natural process of erosion is accelerated by human disturbance of the land. The resulting sediment and turbidity are harmful to aquatic life in streams, reservoirs, estuaries and bays of Alabama.

Water-caused erosion produces sediments that enter local waterways and start a journey downstream, maybe to Mobile Bay or other bays in the Gulf of Mexico.

Erosion occurring in Georgia, Mississippi, and Alabama contributed to the sediment plume at right that spans from the Mobile Delta through Mobile Bay into the Gulf of Mexico.

**Environmental Problems**

**Smooths Stream Bottoms and Clouds the Water:** Sediment degrades aquatic habitat and turbidity restricts light and aquatic plant growth. This disrupts the food chain and impairs fish and aquatic insect populations.

**Reduces Populations of Sensitive Sport Fish**

Suspended sediment reduces visibility and damages fish gills, affecting the ability of fish to feed and breathe. Pollution-sensitive sport fish such as bass and broom are often replaced with more pollution tolerant and less popular carp and suckers.

**Sediment Impacts our Waterways.**

Desirable sport fish that are negatively affected by sediment:

- Black Crappie
- Largemouth Bass
- Redear Bream
- Striped Bass

**Transports Harmful Levels of Pollutants.**

Sediment carries pathogens, nutrients, and toxic materials such as heavy metals and chemicals into our waterways. These pollutants affect drinking water and surface water quality, contribute to increased water treatment costs, fish consumption advisories, and expand oxygen depleted "anoxic zones" commonly called "dead zones" in the Gulf of Mexico.

**Bridge moving sediment into the Alabama River.**

Pollutants accumulate in fish tissue and are hazardous to other organisms when consumed.

**Caddisfly** **Shiner** **Mayfly**

These aquatic insects and fish are important food sources for many sport fish found in Alabama.



# Erosion and Sediment Control Tips

(email, Blog, FB, & Instagram)

## Erosion and Sediment Control Tip #62

**“Be careful placing mulch around trees in the landscape. Mulch placed too high on the bark can cause rot and decay. About 1” of mulch is plenty around the tree, just don’t place mulch against the bark of the tree”.**



**Perry L Oakes, PE , Erosion and Sediment Control Program Coordinator, AL Soil and Water Conservation Committee**

**2013 - 319 funding from ADEM ended and AL SWCC became the financial sponsor and has continued financial support**

**The partnership program has grown to 12 entities**

**cooperating to support erosion control, sediment control, and stormwater management on construction sites**

# Clear Water AL Supporters over the Years invaluable to our program's success

**Industry** – their members, staff, funds

**Agencies and Organizations** – staff support

- Local soil and water conservation districts
- Host cities and other local governments and businesses
- ESC Program Partnership

# Special thanks to Auburn University - Stormwater Research Facility Research, Testing, Training



2024 Auburn University  
Installer Training



# **Important persons to say "Thank TO".**

## **Charlie Pritchett and Billy Bullard (deceased)**

- retired ALDOT staff that recognized significance of CPESC in late 1990s and helped connect ALDOT in 2004 to the Partnership Program and SWCS.

**Patti Hurley and Steve Foster** of ADEM for helping initiate the partnership program.

**Steve Cauthen (retired) and Bill Puckett,**  
AL SWCC Executive Directors, for guiding the Partnership and providing financial support

**John Slupecki, Skip Ragsdale, and Perry Oakes**  
for strong support in initiating **Red Water Blues in 1994** and continued support of Clear Water AL

# Thanks" to Key Long-time Supporters

**Alabama Association of Conservation District** representatives **Roger Walters** (deceased) and **Jack Wadsworth** for exceptional support of the Partnership Steering Committee.

**Sunshine Supplies. American Excelsior, and Hanes Geo staff** for their support of over 30 **Red Water Blues/Clear Water AL events.**

**Barry Fagan**, long-time member of Steering Committee and strong supporter of all aspects of our program.

**Perry Oakes** for providing strong leadership in all facets of the program since its beginning.

# Technology providers making a difference!

AL Soil and Water Conservation Committee & Partners – Funding, technology tools, and training

Soil and Water Conservation Society – AL Chapter – CPESC Course and exam, training, partnership contracts

AL Agricultural Experiment Station – Research

Auburn University – Research and Training

AL Technical Assistance Program (Auburn University) – Training

AL Water Resources Conference – Training annually

AL Vegetation Management Society – Training annually

AL Stormwater Association – Training annually

International Erosion Control Association & Southeast Chapter

**Common denominator with providers & other supporters**

**Connections with experts in their field**

**Change requires time, leaders, organizations  
technology providers and practitioners!**

## Websites for Information

AL Soil and Water Conservation Committee & Alabama Erosion and Sediment Control Partnership

<https://alabamasoilandwater.gov/alesc/>

Soil and Water Conservation Society – AL Chapter

<https://alchapterswcs.org/>

Auburn University (AU) Stormwater Research Facility

<https://www.eng.auburn.edu/research/centers/auesctf/index.html>

AL Transportation Assistance Program (Auburn University)

<https://eng.auburn.edu/atap/workshops-webinars>

AL Water Resources Conference

<https://mellbase.uce.auburn.edu/wconnect/CourseStatus.awp?&course=C240904>

AL Vegetation Management Society

[www.avmsonline.org](http://www.avmsonline.org)

AL Stormwater Association

<https://www.alabamastormwater.org/>

International Erosion Control Association and Southeast Chapter

<https://www.ieca.org/>



## Partnership Program Members

- AL Soil and Water Conservation Committee - Chair
- AL Association of Conservation Districts
- AL Associated General Contractors
- AL Chapter Soil and Water Conservation Society
- AL Cooperative extension System
- AL Department of Environmental Mgt.
- AL Department of Transportation
- AL Section American Society of Civil Engineers
- Auburn University
- Auburn University Stormwater Research facility
- Home Builders Association of AL
- USDA Natural Resources Conservation Service



# Your Partnership Staff



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[www.alabamasoilandwater.gov/ALESC](http://www.alabamasoilandwater.gov/ALESC)

# **Alabama's Erosion and Sediment Control Program History**

## **Questions**

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