



Alabama Rivers & Streams Network and Cawaco RC&D

Alabama Rivers & Streams Annual
Meeting

January 18, 2023





SO.....
What is
Cawaco?

The RC&D Program was developed (1979) based on the premise that local people, working together, can identify and solve problems and realize opportunities that will enhance the quality of life in their area.



Purpose

SOURCE: Bylaws



To carry out plans of action for the accelerated conservation development and proper use of the area's resources resulting in an improved economic and physical environment.



Secure the necessary technical, financial, education, and other services required to develop and apply a plan.

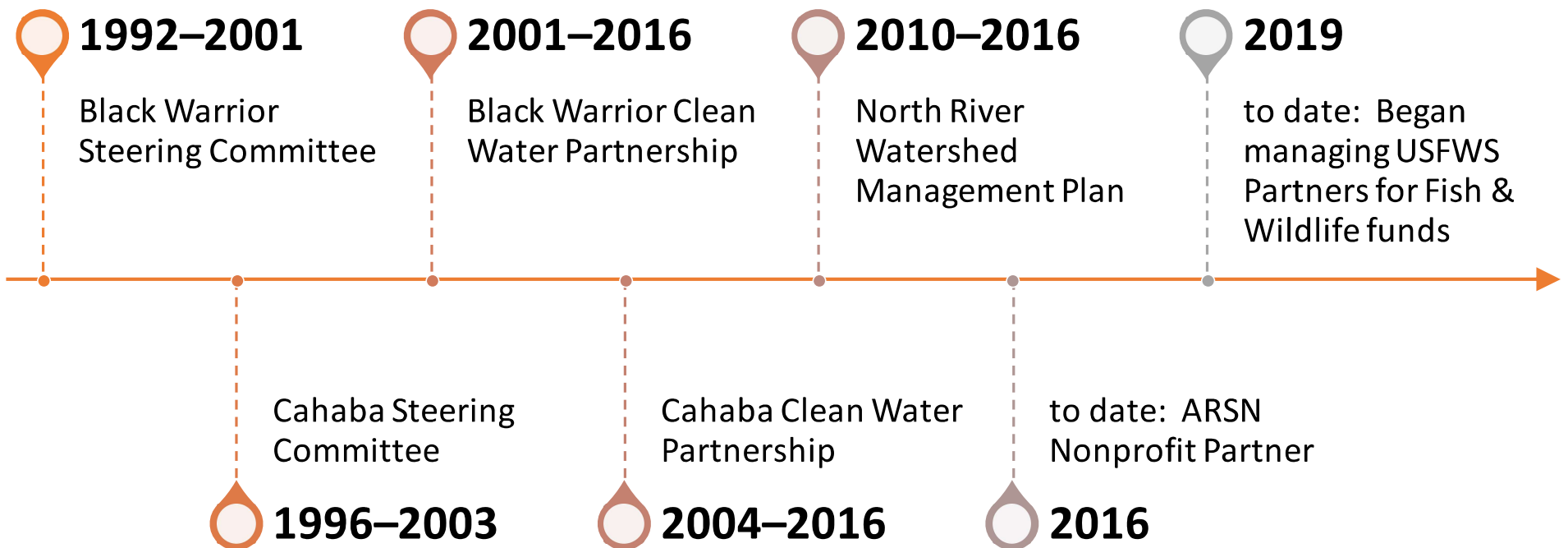
RC&Ds

Councils provide a focal point of local leadership

Bring together private citizens and local, state and federal agencies



WHERE WE'VE BEEN



SO.....
What does
Cawaco
have to do
with ARSN?





Cawaco acts as the nonprofit partner, providing administrative and project support on behalf of ARSN.

ADMINISTRATIVE SUPPORT

Holds the Alabama
Rivers and Streams
Network trademark

Receives and
provides accounting
for donations





PROJECT SUPPORT

Assists partners in developing projects

Assists partners in implementing projects

Assists partners in securing financial resources

Provides grant and contract management services



Takes on the responsibility to see that projects are:

- **Completed on time**
- **As stated in the proposal**
- **Within budget**
- **Ensure proper accounting and reporting**

Assumes the risk/liability of the project



Current and
Recently
Completed Projects
Supporting the
Alabama Rivers &
Streams Network

Project details may be covered by lead partners in other presentations.



#21-034 Big Canoe Streambank Stabilization

PROJECT DESCRIPTION: Stabilize and enhance approximately 400 total linear feet of stream bank on Big Canoe Creek near the town of Ashville in St. Clair County, Alabama.



Before

COMPLETED



#21-034 Big Canoe Streambank Stabilization



Before

While the project was within designated CH for eight listed mussel species, only one of these species, **Southern Clubshell (*Pleurobema decisum*)** has been confirmed in proximity to the project site

COMPLETED



#21-034 Big Canoe Streambank Stabilization



After

COMPLETED



#21-034 Big Canoe Streambank Stabilization



After

COMPLETED

#21-034
Partners for
Fish & Wildlife

Big Canoe
Streambank
Stabilization



\$58,119



\$38,081

TOTAL PROJECT: \$96,200

COMPLETED

#21-043 Urban Darter Project

The Birmingham Metropolitan area is home to three federally listed species of percids: Watercress Darter (*Etheostoma nuchale*), Vermilion Darter (*Etheostoma chermocki*), and the Rush Darter (*Etheostoma phytophilum*).

Because these species are geographically restricted to an area that has long been subjected to development pressures and industrial perturbations, partnership-driven protection and enhancement of their fragmented habitats has been and will continue to be invaluable to their overall persistence and recovery.



Watercress
Darter



Vermilion
Darter



Rush Darter



#21-043
Urban Darter
Project
Education

Urban Darter Training at Turkey Creek

by Rachel McGuire | Nov 12, 2021 | In The Field

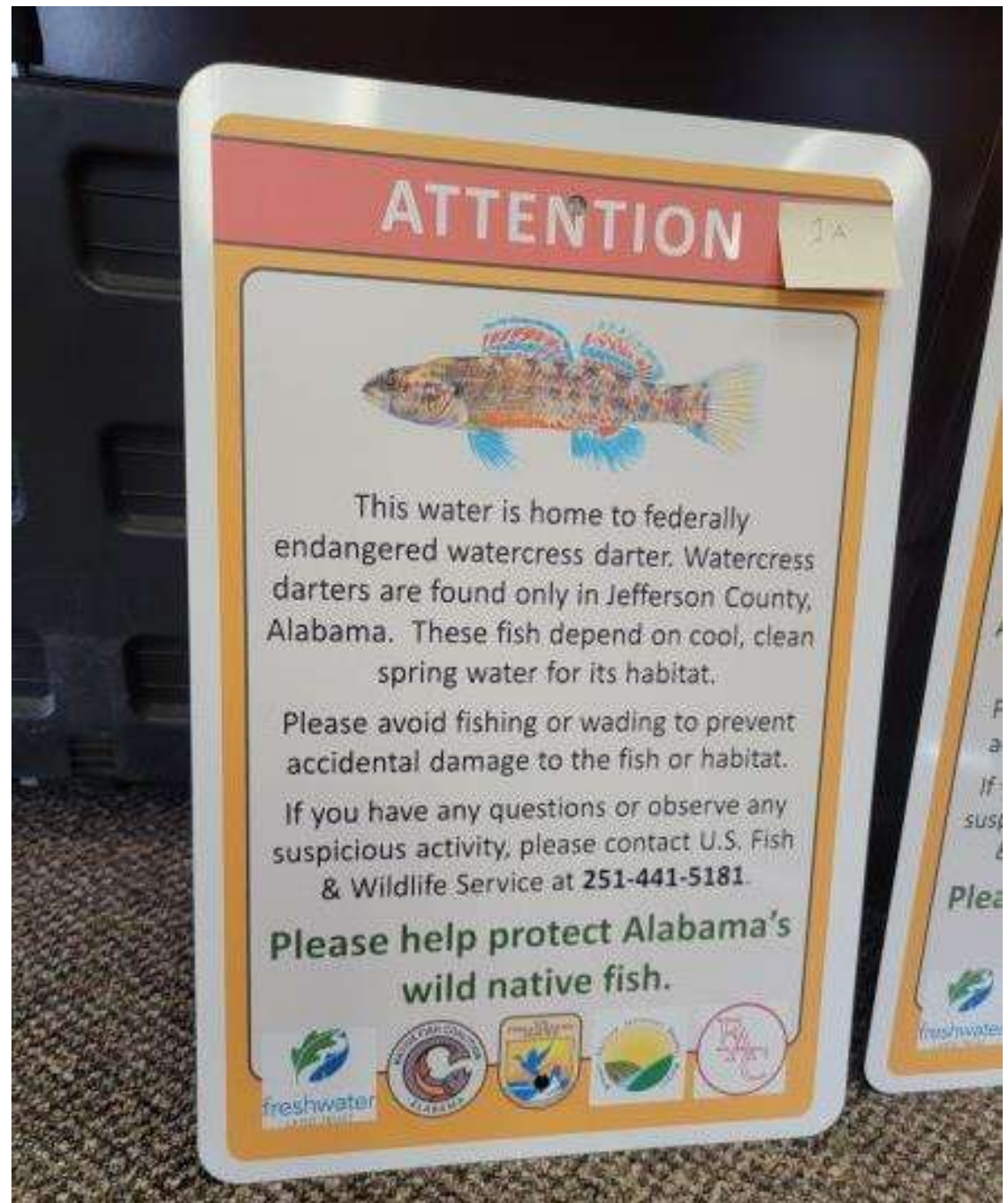


by Rachel McGuire

Several Auburn University Water Resources Center (AUWRC) team members attended an Urban Darter Training in the [Turkey Creek Nature Preserve](#) in October 2021. The training was hosted jointly by the U.S. Fish and Wildlife Service, The Nature Conservancy, [Geological Survey of Alabama](#), Alabama Department of Environmental Management, [Alabama Forestry Association](#), [Cawaco RC&D](#), [Freshwater Land Trust](#), and the Turkey Creek Nature Preserve.

#21-043 Urban Darter Project Education

Darter Signage
to be placed at
darter habitats
in Jefferson
County





#21-045 Strategic Habitat Internships and Alabama Streams and Network Support

PURPOSE: Support experiential learning, develop the next generation of conservationists and coordinate partnership opportunities.

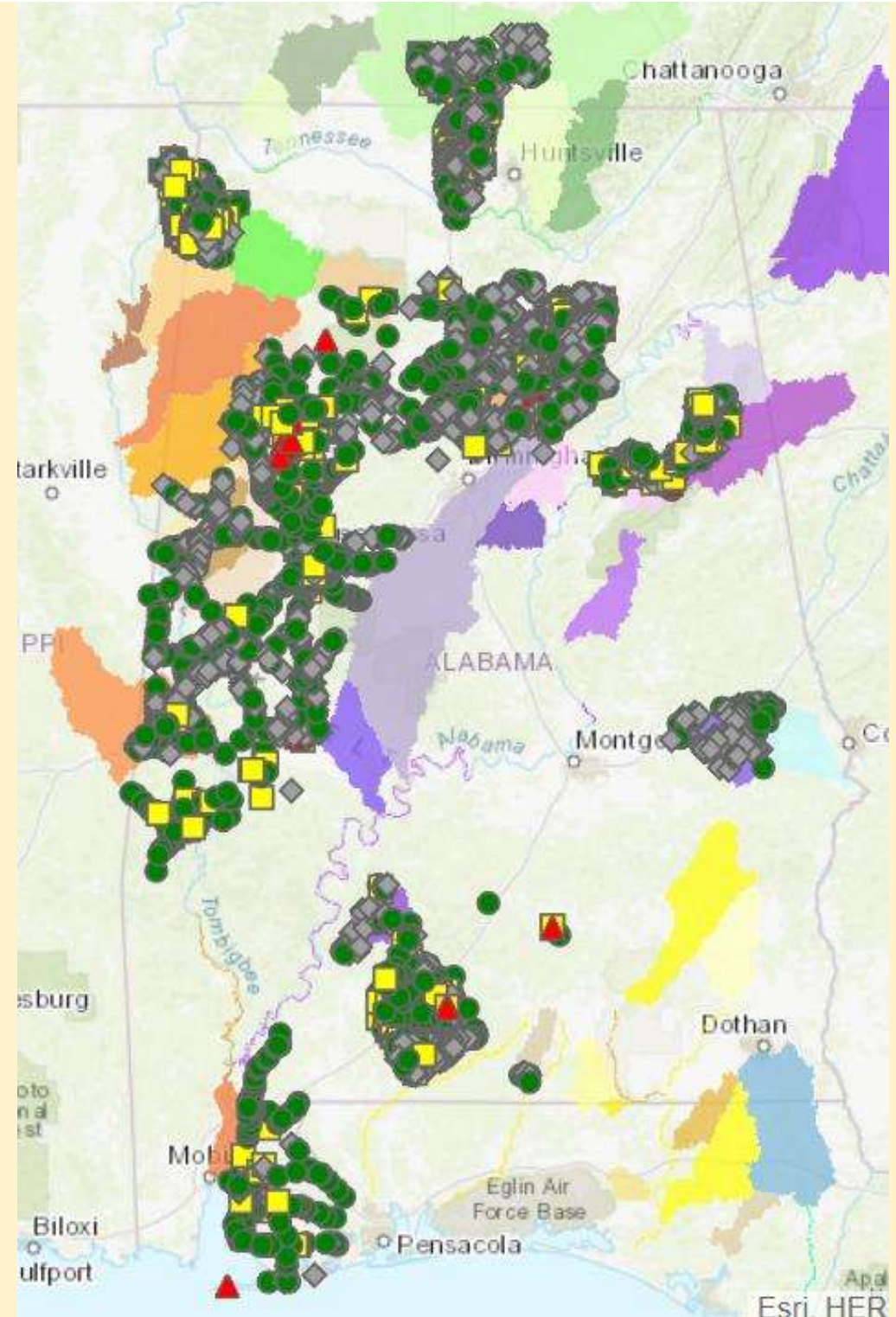
Added:

- Two (2) interns from the University of Alabama are being mentored by Geological Survey of Alabama
- Four (4) interns from Auburn University are being mentored by the Auburn University Water Resource Center



#21-045 Strategic Habitat Internships and Alabama Streams and Network Support

**Internships populate SHU
Mapper.**





#21-058 Trispot Fish Passage

Assist the USFWS in implementing a National Fish & Wildlife Foundation Grant to remove two (2) large culverts from a known Trispot spawning site and replace with an appropriate structure. Monitoring will be performed pre- and post-construction at the site and in other areas.



#21-058 Trispot Fish Passage

Conservation Fisheries, Inc. (TN) tagged Trispots to track habitat and migration patterns.



#21-058 Trispot Fish Passage

Construction estimated to be completed by Summer 2023

#21-061 Choccolocco Creek Fish IBI

This project will conduct standardized Index of Biological Integrity (IBI) surveys based on fish community sampling in 2021. Information will be gathered regarding the presence, density, and abundance of fish species in the assessment area in the context of habitat quality.

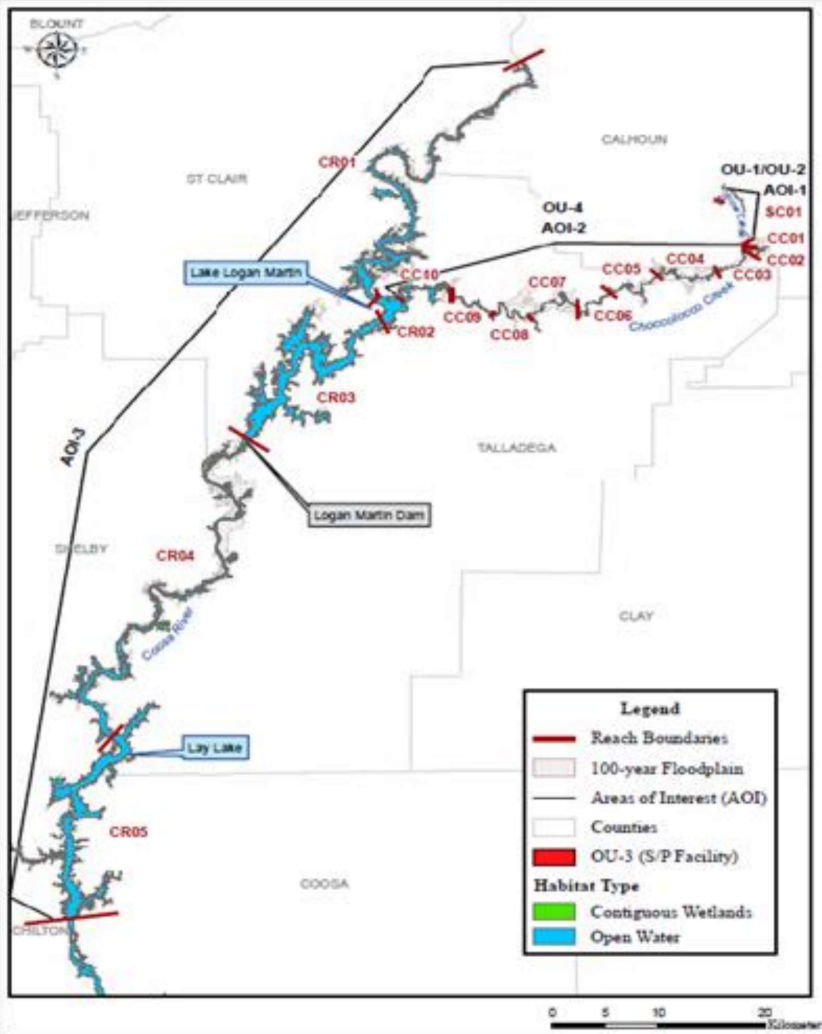
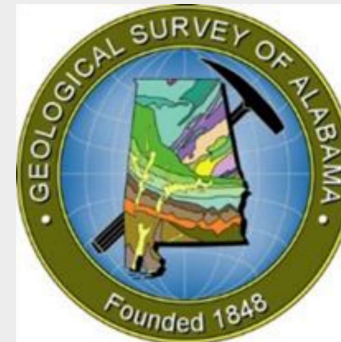


Figure 1. Anniston PCB Assessment Area.





#22-001 USFWS Coal Darter SSA



Geological Survey of Alabama will perform surveys to fill in data gaps on range, distribution, and abundance for the Coal Darter within two geographic regions, thereby supplying higher quality data for Species Status Assessment analyses, leading to better informed decision makers for listing recommendations.



The Nature
Conservancy



#22-063 Lower Alabama River Study

Contract with Dr. Pat O'Neil to assist The Nature Conservancy in completing a fish by-pass feasibility study in the Lower Alabama River watershed.

Big Wills Creek Dam Removal



USFWS Agreement #F22AC03498

October 17-24, 2022

COMPLETED

PARTNERS

- USFWS Fish & Aquatic Conservation (Funding)
- USFWS Partners for Fish & Wildlife (Project Management)
- Cawaco RC&D (Financial Management)
- City Of Gadsden
- CJ Restoration LLC
- S&ME, Inc.
- Coosa Valley RC&D

COMPLETED



#22-068 Big Wills Creek Dam Removal

The Gadsden Times

NEWS

Gadsden City Council approves removal of low-head dam where two died in 2015



J.J. Hicks

The Gadsden Times

Published 9:00 p.m. CT June 1, 2022

The Gadsden City Council on Tuesday authorized an agreement with the U.S. Fish and Wildlife Service and Cawaco RC&D for removal of a low-head dam at at 3916 Brooke Ave. that played a role in two deaths in 2015.

COMPLETED



#22-068 Big Wills Creek Dam Removal

In 2017, the City of Gadsden (City) contracted with a private consulting firm (S&ME, Inc.) to conduct a feasibility study and provide information for potential design plans to remove a dam located on Big Wills Creek in Etowah County, Alabama. The proposed effort was necessitated because of the safety and human health hazards potentially present at the dam site. Specifically, the hydrologic regime is greatly altered within this reach of Big Wills Creek. As such, conditions at the dam, especially during periods of increased flow, can pose hazardous conditions. Several fatalities have occurred at this site due to drowning. While multiple factors potentially led to each fatality, the hydraulics at this specific site are still a cause for concern. Thus, the City of Gadsden wanted to try and resolve such concerns.

Results from the feasibility study indicated that the potential removal of the dam would likely be cost prohibitive for the City to address in the immediate future due to funding constraints and operational priorities. For this effort to move forward, additional partners with specific skill sets and experiences would be needed.

In 2021, conversations between multiple partners were initiated to discuss potential assistance on this proposed project. After several meetings, site visits, and discussions, it was determined that Cawaco RC&D and the USFWS Fisheries and Aquatic Conservation (FAC)/Fish Passage and Partners for Fish and Wildlife (PFW) Programs could be the potential partners to help move this effort forward.

COMPLETED



#22-068 Big Wills Creek Dam Removal



COMPLETED



#22-068 Big Wills Creek Dam Removal



COMPLETED



#22-068 Big Wills Creek Dam Removal



COMPLETED

#22-068 Big Wills Creek Dam Removal



COMPLETED

PR Event: October 28, 2022

Media Coverage from ABC 33/40

- [City of Gadsden removes dam near Big Wills Creek to help prevent future accidents](#)



COMPLETED

PROJECTS IN PROGRESS



#22-002 Alabama Aquatics Habitat Restoration Statewide Partners for Fish & Wildlife Projects

BMP	LOCATION	AMOUNT
Streambank Stabilization		
	Locust Fork, Bear Creek, Paint Rock River	\$253,000
Barrier Removal		
	Little Canoe Creek, Blackwater Creek	\$305,000
Alternative Watering Source		
	Valley Creek	\$35,000

Funding will assist the USFWS in developing and implementing on-the-ground projects that improve habitat for at-risk species.



Trispot Darter Cooperative 3 for 1 Barrier Removal



COMPLETED

#23-002 Trispot Darter Cooperative 3 for 1 Barrier Removal



Project Overview

The *Trispot Darter (Etheostoma trisella) Cooperative (3-for-1) Barrier Removal Project* (Project) is part of a larger collaborative effort between multiple partners, including private landowners. A priority site has been identified that restricts upstream migration to potential spawning habitats for the Trispot Darter. The Project will consist of removing a concrete pipe culvert (~ 36 in. diameter) and replacing it with a bottomless arch structure on a private road crossing of an unnamed tributary to Little Canoe Creek located in St. Clair County, Alabama.

The unnamed tributary is an intermittent stream that partially traverses through property owned by a private timber management company. Survey efforts by U.S. Fish and Wildlife Service (USFWS) staff and other partners have identified this area as a priority project site due to proximity of historic and recent occurrence records for Trispot Darter.

COMPLETED

#23-002 Trispot Darter Cooperative 3 for 1 Barrier Removal



Landowner Cooperation

The Project and the two additional restoration projects are located on property owned by a private timber management company. These additional sites also have recent records for Trispot Darter below the respective structures/barriers. The private timber company has agreed to restore these two sites as a cost-share to this specific funding request.

COMPLETED

#23-002 Trispot Darter Cooperative 3 for 1 Barrier Removal



Three Trispot Darter Barrier Removal Project Sites

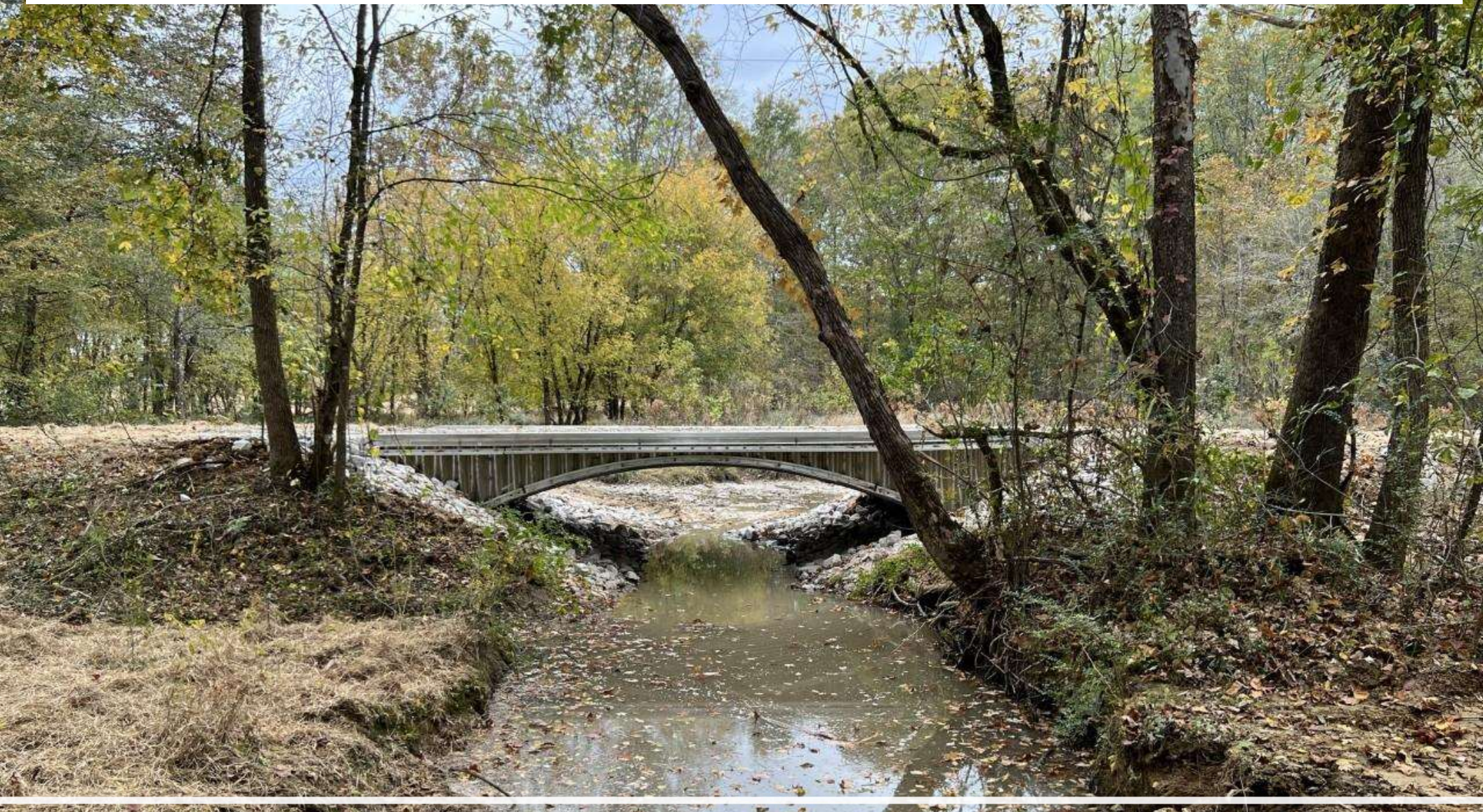


COMPLETED



Pre-Construction: Culvert Replacement

COMPLETED



Post-Construction: Culvert Replacement

COMPLETED



What else
does
Cawaco do?



CAWACO

RO&D

COUNCIL

CAWACO PROJECTS



RC&D Grows Gardens

Provides resources to school and community gardens throughout the State

#22-055 & #22-057 RC&D Grows Gardens

Every RC&D Council in the state participated and supported new and continuing gardening efforts that include education, community participation, volunteerism, providing food to food deserts and school lunch programs as well as meals on wheels.

AMRV RC&D Garden



AMRV RC&D Garden



Coosa Valley RC&D – Hobson City Garden



Gulf Coast RC&D – Dickson School Garden





Mid-South RC&D – Greenville Senior Center



Tombigbee RC&D – Stillman Foundation Community Center





Northwest RC&D – Brilliant Elementary



Cawaco Projects
led by

Francesca Gross,
Environmental
Specialist



Cool Green Trees



JEFFERSON COUNTY
DEPARTMENT OF HEALTH
ALABAMA



CAWACO
RC&D
COUNCIL

PROPOSAL

Cawaco Resource Conservation & Development Council, Inc. developed a program to assist the Jefferson County Department of Health in addressing climate change by identifying and mitigating urban heat islands in the Greater Birmingham area.

This program will implement components identified in [Cool Green Action Plan](#) completed in March 2020, which prioritized areas in Jefferson County with the following overlapping characteristics: urban heat islands, flooding, low tree canopy cover and low income which would benefit from improved green infrastructure. It is the intention of **Cool Green Trees** to utilize local resources when available such as native tree stock and local contractors.

PURPOSE

- Identify and mitigate Urban Heat Island (UHI) areas in Jefferson County.
- To assist the Jefferson County Department of Health (JCDH) in implementing resolutions:
 - Public Health Threat of Climate Change and Health Department Sustainability Plan, April 13, 2022. Trees Birmingham would complement JCDH's internal sustainability by serving as an 'offset' for the climate impact of its own operations.
 - Sustainable Industrial-Residential Buffers Fund

PARTNERS

Jefferson County
Department of
Health

UAB School of
Public Health

Alabama Forestry
Commission Urban
and Community
Forestry Program

City of
Birmingham

City of Bessemer

Birmingham
Botanical Gardens -
Centennial Trees
Program

A Story Map by UAB



Cool Green

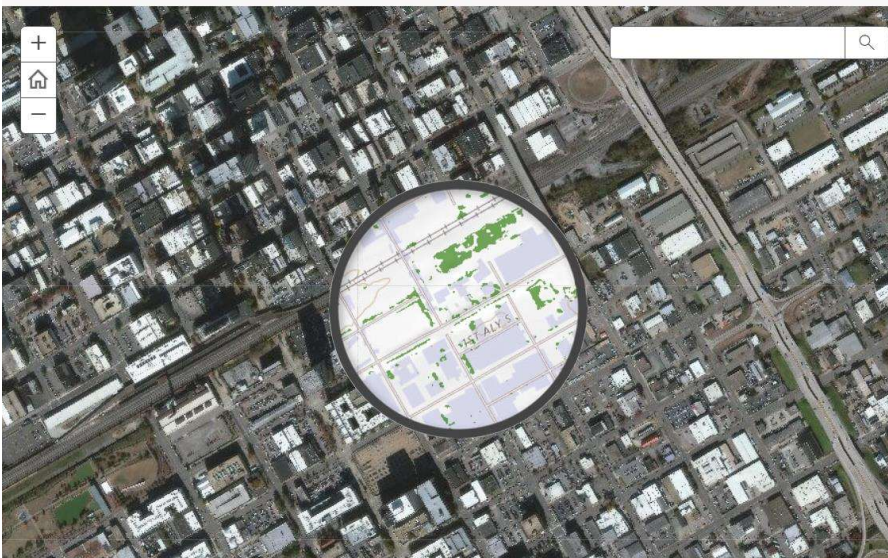
The Data-Driven Case for More Trees

The benefit of planting more trees is three-fold:

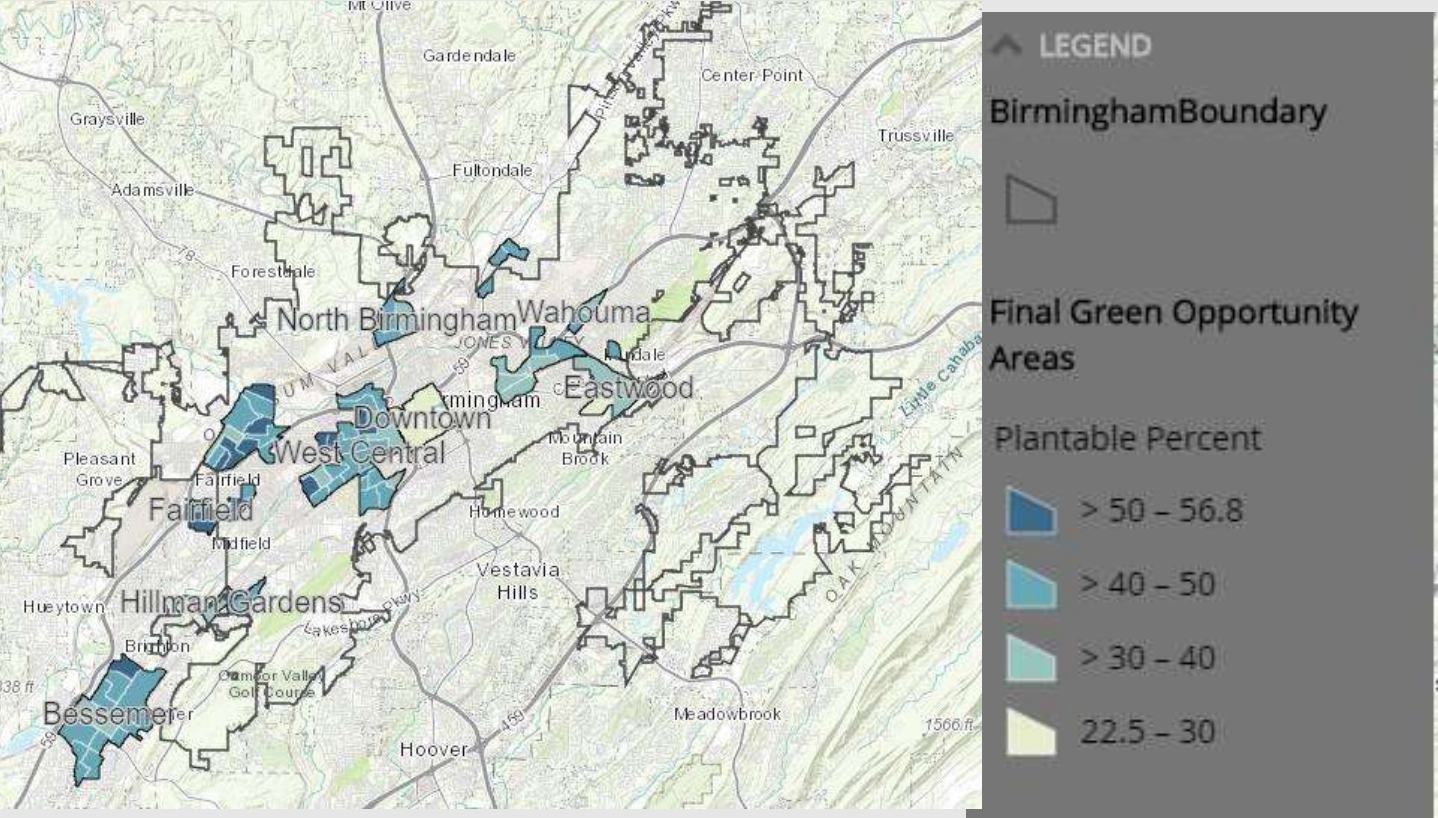
- Reduce summer urban heat island effects
- Reduce local flooding
- Improve air quality

The following series of maps demonstrate the positive impact of trees (shade trees cooling summer temperatures, roots absorbing stormwater, and tree leaves attracting particulate pollution).

The layers of branches and leaves that shade the ground is called a “canopy.” Or more simply, shade! Trees can reduce noise, buffer pedestrians from traffic, and cool summer temperatures, making urban spaces more livable. **The map to the right shows the tree canopy in Birmingham - drag the "spyglass" around to see tree canopy under the aerial map.**



Identified Critical Urban Heat Islands in Jefferson County





The World Games
2022 BIRMINGHAM, USA



140 Trees Planted in Birmingham: The World Games

Partners: Vulcan Materials
Company, East Thomas
Neighborhood

Our goal: Plant more trees



CAWACO
RCD & D
COUNCIL

RC&D Builds Trails (Tool Trailer)

Tools were used by Freshwater Land Trust, Turkey Creek Nature Preserve, Birmingham Urban Trail Society, Southeastern Climbers Association, The Nature Conservancy, Cawaco RC&D, Alabama Department of Conservation and Natural Resources and Alabama State Parks on trails throughout the Cawaco service area.



The Tool Trailer houses tools available to assist volunteers in building or maintaining trails, removing invasive species, and disaster recovery.

A photograph of a dirt trail winding through a forest. The ground is covered with fallen yellow and brown leaves. The trees are green, suggesting a late summer or early autumn setting. The trail is made of dark soil and gravel, and it curves through the woods.

RC&D Builds Trails (Tool Trailer)

- 44 acres of privet cleared,
- 34,500 feet of trail was cleared or maintained, and
- 134 volunteer hours worth \$40,526.80 were logged.

AARCDC GRANTS



Cawaco RC&D provides small grants to schools, communities and nonprofits that promote conservation and education regarding the area's natural resources.

The grant program is managed by Patti Pennington, Program Manager

River Restoration Nursery

Friends of Locust Fork River (FLFR) built a hoop house, a storage shed and a workstation to grow seedlings. Native plants, trees, and shrubs will be used to landscape the Grand Staircase river access on the Locust Fork River (Blount Co.)



Refreshing 20th Street North

REV Birmingham

Funding purchased 31 trees, including Aeryn Trident Maple, Winterking Hawthorne, Urbanite Ash, Australis Bay Magnolia, Nuttall Oak, and Willow Oak. Trees were identified based on the full landscape plan created by the project landscape architect.



Cawaco Internships

Internships were provided to two high school and three college students and provided on-the-job training opportunities at Turkey Creek Nature Preserve, Freshwater Land Trust and Jones Valley Teaching Farm.



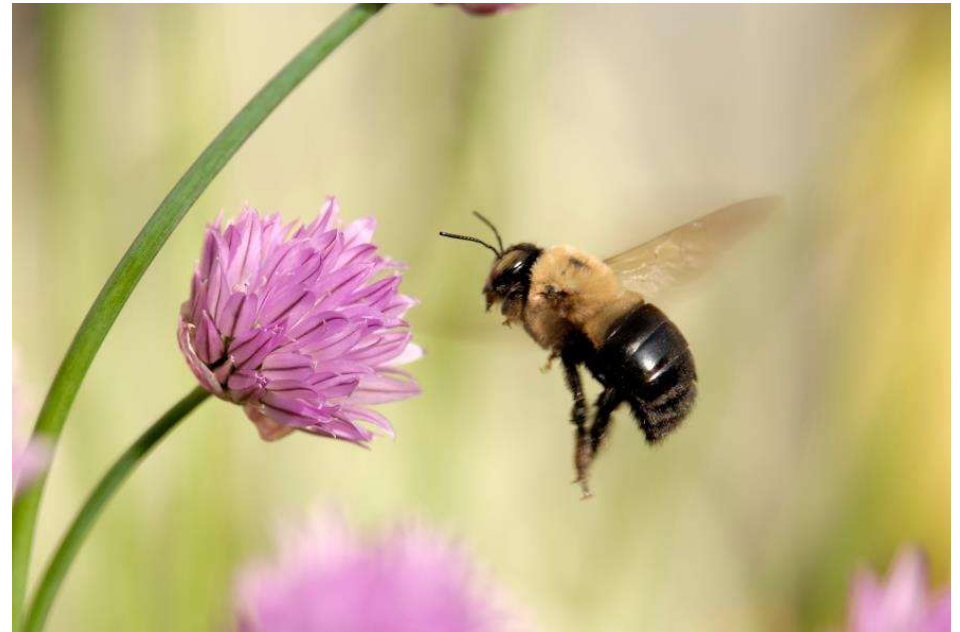
Shelby HS HOPE Instructional Garden

- Shelby FFA students built a School/Community Garden that is utilized by the school Ag department and special needs classes. The HOPE Garden works in conjunction with the local Taziki's restaurant to teach students job skills as well as providing them with employment when eligible.



Some of the world's
greatest feats were
accomplished by
people not smart
enough to know they
were impossible.

Doug Larson



CAWACO
RC&D
COUNCIL

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