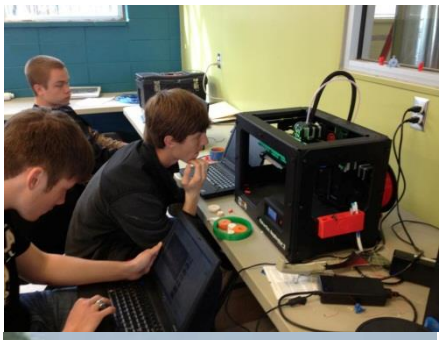
5 YEAR STRATEGIC AREA PLAN
2014-2019



Cawaco Resource Conservation
& Development Council, Inc.

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2112 11th Ave. South Suite 541 Birmingham AL 35126
Serving Blount, Chilton, Jefferson, Shelby and Walker Counties in Central Alabama.

Cawaco RC&D programs and activities are available without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status.

AREA PLAN

PURPOSE OF THE AREA PLAN

The purpose of this Plan is to provide a strategic direction for Cawaco RC&D, ensuring that resources are properly invested in area communities. This Plan assists Cawaco in remaining responsive to area communities and collaborative in efforts. Since the needs of communities within the Service Area are dynamic, this Plan must be dynamic, and will evolve as needs emerge. While the goals, objectives and strategies contained in this Plan are fairly comprehensive, they will be reevaluated annually and implemented through an Annual Plan of Work.

PLAN DEVELOPMENT

The term "*Area Plan*" is used because this strategic plan is responsive to community identified needs specific to the five-county area, or "*Service Area*", served by Cawaco RC&D. This Plan was developed through a public process to ensure that the unique needs and opportunities in the Service Area were fully addressed. Public input was solicited through surveys and later, through involvement in a workshop to form Goals, Objectives and Strategies from the survey responses. A committee of Board Members, with assistance of the Programs Manager and Executive Director worked to facilitate the public process and ultimately develop this Plan. The Alabama counties served by this Area Plan include Blount, Chilton, Jefferson, Shelby and Walker.

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RC&D…. THEN AND NOW

HISTORY OF RC&D

In 1960, the USDA piloted a program, utilizing local input, to perform a number of conservation and development activities in areas where a major social or economic downturn had occurred. Funding for the federal USDA/NRCS RC&D Program was first authorized by the Food and Agriculture Act of 1962 with the goal of providing assistance to local groups in caring for and protecting their natural resources while improving an area's economy, environment and standard of living.

Local decision-makers, usually County Commissions and Soil & Water Conservation Districts, defined the Service area and applied to USDA/NRCS to become an authorized Council Area. These Councils obtained nonprofit status and the USDA/NRCS provided a staff person to provide technical assistance for agriculture and forestry related projects.

In 2011, Congress cut all federal funding for the USDA/NRCS RC&D program, removing the USDA/NRCS staff person from Council offices. Today, local RC&Ds still maintain a close relationship with the USDA/NRCS and partner on many worthwhile projects.

PURPOSE OF RC&D

The purpose of the RC&D program is to encourage and improve the capability of local leaders to plan and carry out projects for resource conservation and community development. RC&Ds act as a focal point for implementation of projects across municipal boundaries, government programs, business interests and local volunteers. Projects relate to one of the following four areas:

- Land Conservation
- Community Development
- Land Management
- Water Management

RC&D TODAY

Resource Conservation & Development Councils are unique, non-profit organizations made up of volunteers who identify unmet needs in their communities and create cost-effective solutions that work. They are 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.

RC&D Councils are 501(C)3 non-for-profit corporations. They are not governmental entities, so typical policies and constraints of local, state, and federal government programs do not limit the types of issues they can address or the means they use. Volunteer Board Members draw from their professional expertise and community connections to determine the needs of their RC&D Council area, address those needs, and make their communities better places to live, work, and play. Nationwide, over 25,000 volunteers serve on local RC&D Councils.

ABOUT CAWACO RC&D

VISION:

To empower people to help themselves

MISSION:

Leading Central Alabama in the wise use of natural and human resources.

CAWACO RC&D BACKGROUND

Cawaco RC&D takes its name from the first two letters of the three major rivers within its area. The Cahaba, Warrior and Coosa Rivers are valuable assets, with the Black Warrior River being navigable as a 426-mile transportation route from Birmingham to the Gulf of Mexico.

The original sponsors of Cawaco RC&D were County Commissioners and members of Soil & Water Conservation Districts. On March 3, 1972, they asked for help from the US Department of Agriculture to "*improve the economy through orderly development and conservation of resources*" by establishing an RC&D area. After the USDA approved the request in July of 1972, the Cawaco RC&D service area was established in February 1974.

Cawaco RC&D received its Certificate of Incorporation on July 21, 1988, and its 501(c) (3) non-profit status in 1992. The goals and objectives at the time of incorporation were to "*provide local leadership needed for developing, making necessary amendments to and carrying out a plan for the orderly development, conservation improvement, and wise use of the area's natural resources, and to educate, collect, coordinate and disseminate information for development of human resources, thereby improving the economic opportunities for the people within the Cawaco Resource Conservation and Development Area*".

Today, Cawaco RC&D plans and implements activities that increase conservation of natural resources, supports economic development, enhances the environment, and improves the standard of living in its Council area. Many of these projects develop into partnerships between local businesses, governmental agencies and citizen volunteers.

COUNCIL STRUCTURE

A 20-member citizen Board of Directors serves as trustees representing the diversity of interest in communities. The by-laws require four members from each county consisting of a representative from the County Commission, the Soil & Water Conservation District and two At-Large members. At least one half of the Board represents At-Large Members from the communities served and no more than one-quarter may be public officials. Board members govern the policy, direction and activities of the RC&D Council.

To provide optimal input to the Staff regarding direction and goals of the Council, members of the Board of Directors serve on working committees, which include Grants, Finance, Personnel, and Executive Committee. Working Committees meet as necessary to conduct business. The Council meets quarterly to discuss the status of projects and programs and identify opportunities for cooperative projects.

Cawaco is part of the Alabama Association of Resource Conservation and Development Councils. Cawaco Council members and staff attend mid-year and annual meetings of the Alabama Association of RC&D Councils, as well meetings of the Southeastern Association of RC&D Councils/National RC&D. Board members may attend other meetings as necessary.

FUNDING SOURCES

Cawaco RC&D obtains funds through state appropriations, grant sources, and contract services. Cawaco continues to explore options to broaden its reach and become self-sustainable.

CAWACO PROGRAMS

Cawaco RC&D has two programs that are purposefully directed toward the Councils area of focus: AARCDC Grant Program and Project Development Assistance.

AARCDC GRANT PROGRAM

Cawaco RC&D administers two grant programs with funding provided by the State of Alabama: Challenge Grant and Educational Grants. Grant awards generally range between $1,000 to $5,000, with consideration given to applicants whose project serves multiple counties and/or reaches a large population.

CHALLENGE GRANTS: Provides funding to support on-the-ground projects that improve public facilities and services and demonstrate sustainable natural resource conservation or development practices. These funds are meant to be “seed grants”, where a little funding will go a long way or where there are a number of funding partners. Examples may include: stormwater facilities, first responder support, innovative wastewater applications and public recreation.

EDUCATIONAL GRANTS: Provides funding for educational projects that provide information and training in the Council’s Area of Focus. Of primary importance is environmental education, innovative sustainability practices and job skill development.

PROJECT DEVELOPMENT ASSISTANCE

Resource Conservation & Development Councils were formed to act as a focal point for implementation of projects across municipal boundaries, government programs, business interests and local volunteers. Cawaco Staff, at the direction of the Board, may be available to assist communities in solving local problems that directly address the Council’s Area of Focus. Oftentimes, these are challenging issues that require partnerships with federal and/or state agencies, local businesses and coordination of volunteers. Cawaco Staff provides assistance with project development, project coordination and, if necessary identification, application and administration of funding resources.

PLAN DEVELOPMENT

PUBLIC PARTICIPATION ACTIVITIES CONDUCTED

The Cawaco RC&D Council and staff began an outreach program in March 2013, which included public meetings, mail surveys, and a web survey located on the Cawaco website. (www.cawaco.org). The survey was emailed to various agencies, as well as stakeholders within the Cawaco five-county area. Also considered in the evaluation process were the 100+ grant applications that were submitted to the Council, which reflected the needs and concerns of the five-county area.

In addition to the surveys that were mailed and given out during meetings, surveys were also available on the Cawaco Facebook page. (https://www.facebook.com/Cawaco.RCD)

SURVEY COMMENT

"Environment and water quality need attention now -- not 10 years down the line when we cannot undo the damage that's been done. For some reason, protecting the environment is seen as counter to economic development. Yet if we destroy the natural resources that make this area unique, economic development will cease, because no one will want to live here."

SURVEY RESULTS AND STAKEHOLDER INPUT

GENERAL STAKEHOLDER CONCERNS/ISSUES

Problems, concerns and issues are discussed in the following pages. These concerns were raised by Council members and concerned citizens at public meetings and through input from individuals and groups throughout the five county RC&D resource area.

- Population growth patterns over the past twenty years affect all residents with respect to social and economic concerns.
- Concern over proper training and education of the labor force.
- The historical agricultural base is in a state of continuous and rapid decline. The number of farms, harvested croplands and the value of our farm products are declining rapidly.
- Many of the streams, lakes, and rivers in the Council area are listed on the Alabama Department of Environmental Management's 303(d) list, meaning that do not meet their water quality standards. Stormwater runoff from urbanized areas contributes to declining water quality.
- Declining State, Federal and County budgets negatively affect public services.
- Parts of the Council area are experiencing rapid growth, causing problems related to infrastructure and contributing to urban sprawl.

Question: What is it we do well?

Answer: "I love that you preserve things that will benefit future generations"

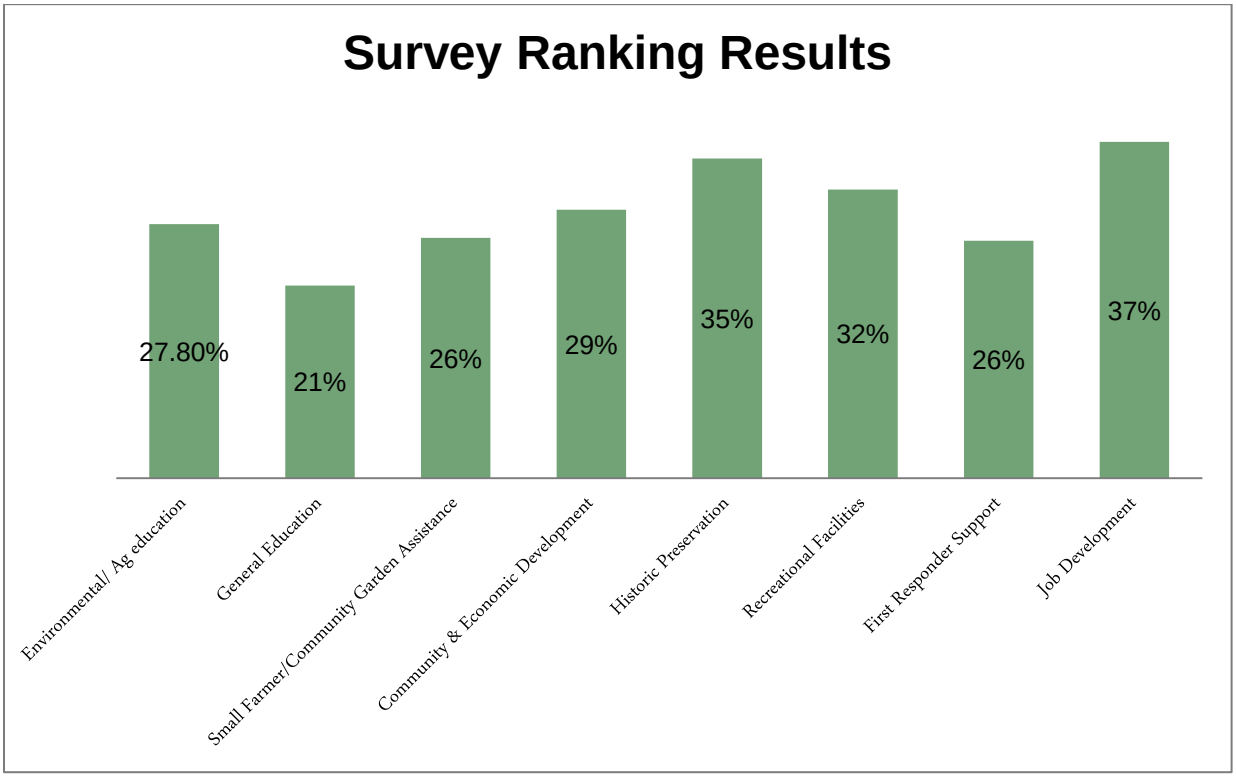
STAKEHOLDER PRIORITY RANKING

This section will provide insight into the environmental, ecological, and social conditions of the Cawaco RC&D area. The information contained below focuses on the results of identified concerns, with "1" ranked as highest concern.

Survey respondents across the service area gave priority ranking to the following areas:

1. Job Development (36.8%)
2. Historic/Natural Preservation (35%)
3. Recreational Facilities (31.6%)
4. Community & Economic Development (29.4%)
5. Environmental Education (27.8%)
6. Small Farmer/Community Garden Support and First Responder Support tied (26.3)
7. General Education (21.1)

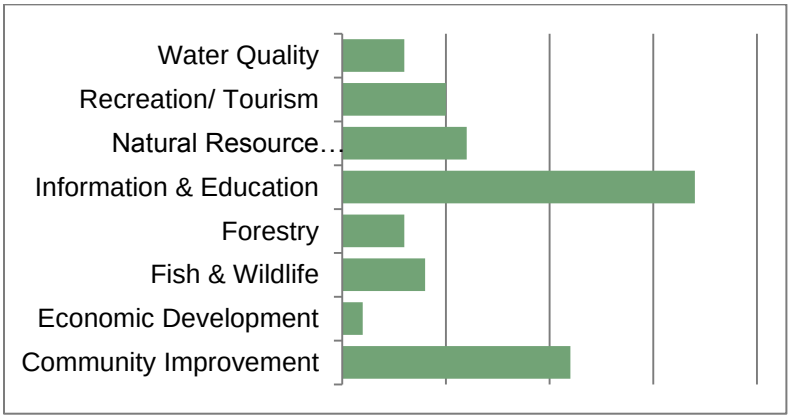
Table 1 SURVEY RESULTS: Cawaco should prioritize goals and objectives in the following manner:"



SURVEY OF CURRENT GRANT REQUESTS

An inventory of current grant applications reveals the majority of submitted and approved applications focused on education, with community improvement and natural resource improvement rounding out the top three.

Figure 1 Grant Requests Received by Category



SUMMARY OF FINDINGS

Survey and public input results were categorized into the four RC&D Program Elements. The list below reflects the priorities in order within each category in addition to recurring comments provided by individuals.

Land Management

1. Community Wide Land Management
2. Open Space Preservation
3. Farmland Preservation
4. Agricultural and Environmental Education
5. Increase Green Space
6. Parks & Recreational Areas

Land Conservation

1. Erosion and Sedimentation Practices and Enforcement
2. Utilize BMPs to Protect Water Quality on Agricultural Lands
3. Protection of Fish and Wildlife Habitats
4. Composting
5. Pollinator Education

Water Management

1. Water Conservation
2. Watershed Protection
3. Improved Water Quality
4. Riparian/Corridor Protection
5. Water Recycling

Community Development

1. Recycling
2. Trails for Recreation
3. More Walkable Communities
4. Local Food Production/Availability
5. Historic Preservation
6. More Trees and/or Green Space in Downtowns
7. Youth Retention/Education
8. Jobs
9. Community Gardens
10. Energy Conservation
11. After School Programs
12. First Responder Support

GOALS & OBJECTIVES

Development of goals and objectives for the next five years was created by prioritizing the responses from public input with the resource needs in the region, in addition to assessing the Council's self-sustainability. The Cawaco Council is dedicated to the continuation of service to the 5-county area, and realizes that service depends upon Cawaco's sole ability to raise its own funds. Therefore, the Council prioritized its goals based upon the original purpose and objectives as stated in the by-laws, RC&D authorizing elements and by careful evaluation of Council and staff requirements.

BY-LAWS PURPOSE AND OBJECTIVES

According to Cawaco RC&D's by-laws, the purpose and objectives of the organization are:

A. To develop or assist in carrying out a plans of action for the conservation, development and proper use of the area's natural resources.
B. To collect, coordinate and disseminate information and to promote educational activities that provide general or specific information of the need for orderly development and conservation of resources within the area.
C. Assist in securing the necessary technical, financial, educational, and other services required to conserve and develop natural resources.
D. Receive by purchase or gift, hold, use, and dispose of properties and items for promoting and advancing the purpose for which the organization was formed.

FOCUS AREAS

LAND CONSERVATION (LC)

Land preservation was the highest ranked issue through the public input process. Consistently, respondents emphasized that land preservation and quality of life related to green space, forest land, and resource management were important. Population projections and trends in growth validate that land use decisions are important and related to all four authorizing elements. Cawaco RC&D promotes land conservation initiatives such as conservation of open spaces, public access to outdoor recreation. Education and promotion of community planning combined with an emphasis on these initiatives ensure that current and future generations consider land conservation activities.

WATER MANAGEMENT (WM)

RC&D water management projects create opportunities to solve local problems at the local level. Oftentimes, these projects create recreational opportunities that, in turn, create jobs, making communities more attractive to development.

Cawaco RC&D Council understands the need to incorporate water conservation and improvement of water quality as a priority. Water is a primary element in our local culture and touches health, economic and community development issues. Water management will continue to be an area of focus since many streams within the Council Area do not meet their designated uses and unfunded mandates for waste water and storm water treatment will continue to be a leading issue for communities. The Council remains committed to encouraging alternative wastewater and stormwater treatment methods, habitat remediation and restoration, as well as water recycling and reuse.

COMMUNITY DEVELOPMENT (CD)

Vibrant cities and towns are at the heart of the necessity for proper land and water conservation and management. Community development issues received the most responses from public input. Comments emphasized the need for local jobs and industry and programs to bolster the local economy. Responses overwhelmingly pointed to very specific opportunities:

- More local jobs
- Youth education and retention
- The importance of local food production and availability
- Pedestrian friendly communities
- Creating local tourism to support the local economy
- Economic growth by supporting local entrepreneurs

LAND MANAGEMENT (LM)

Proper land management also provides support for land conservation, water management and community development. RC&D's emphasis upon resource conservation, including urban tree management, energy conservation and solid waste management was reflected in the public input process. Support of on-the-ground methods of conserving, developing and preserving water and land, and the proper planning of land resources, in turn, is the foundation for sustainable community development. Cawaco RC&D promotes proven, innovative agricultural, forestry and development practices.

FIVE YEAR PLAN GOALS & OBJECTIVES

GOAL 1: BECOME A HIGH-FUNCTIONING NONPROFIT AS A STRONG FOUNDATION TO SERVE OTHERS

Cawaco RC&D must be a stable, self-sustainable and high functioning nonprofit in order to best utilize Council resources (funding and staff) to improve the quality of life for area residents.

OBJECTIVE 1: COUNCIL EXCELLENCE

STRATEGY 1: By December of each year, conduct a new board member orientation/training program with 100% of new members participating. (Yearly or as necessary)

STRATEGY 2: Identify and adopt industry recommended policies, procedures and practices for governance and nonprofit management. (Yearly or as necessary)

STRATEGY 3: Develop succession plan for staff and Board Members. (By 2018)

STRATEGY 4: By September 2015, design a 5-year business model that reflects staffing levels, financial support, technology and communication resources, etc. required to successfully advance the goals and objectives of this plan.

STRATEGY 5: Update *Cawaco RC&D Board of Director Handbook*. (Yearly)

OBJECTIVE 2: COUNCIL SUSTAINABILITY

STRATEGY 1: Identify new revenue streams that are independent from State and/or grant funding. New revenues should support Council goals and objectives and provide benefit to the Council Area.

A. Develop a working committee of Board Members and outside advisors to identify potential Council revenue streams.
B. Develop business plan for the most promising projects.
C. Determine which project(s) have the greatest potential for Council sustainability that also match Council goals and objectives.
D. Develop capacity (staffing and financial capital) to implement project.

STRATEGY 2: Research and report to the Board of Directors the potential to accept donations for identified unmet area needs (restricted funds) and general Council support (unrestricted funds) revenue.

STRATEGY 3: Research and report to the Board of Directors the potential to accept additional Council dues by expanding Council membership. New members would assist in identifying community unmet needs and make recommendations for a Council consideration.

STRATEGY 4: Develop partnerships with federal and state agencies, municipalities, local foundations and nonprofits and businesses to assist in supporting Council goals and objectives.

STRATEGY 5: Evaluate current income from Council membership dues to determine sufficiency to support Council operations.

STRATEGY 6: Continue to identify, develop and apply for grant funding that supports Council goals and objectives and Council sustainability.

OBJECTIVE 3: COUNCIL VISABILITY

STRATEGY 1: By 2018, conduct a Board Member hosted constituent briefing in each County explaining Council goals, objectives, projects supported in the County and services and resources of the Council that can be utilized for future County needs.

STRATEGY 2: On a quarterly basis, review and update the Cawaco RC&D website (www.cawaco.org).

STRATEGY 3: Develop social media contacts and promote Council projects.

STRATEGY 4: Produce a quarterly, electronic media newsletters providing information regarding the Council, Council projects and promoting other resources to support community needs.

STRATEGY 5: Submit project updates to media outlets to increase Council visibility.

GOAL 2: IDENTIFY THE HIGHEST AND BEST USE OF FUNDS AND STAFF INVESTMENT TO SUPPORT COMMUNITY NEEDS AND MEET COUNCIL FOCUS

OBJECTIVE 1: IDENTIFY UNMENT NATURAL AND HUMAN RESOURCE NEEDS

STRATEGY 1: Host meeting with County officials and the Soil & Water Conservation Districts to determine natural and human resource needs in the Council area.

STRATEGY 2: Identify projects (area-wide and County) to meet identified needs where the identified unmet needs intersect the mission of the Council.

STRATEGY 3: Develop policies and procedures for projects to be submitted to the Council for consideration and investment of Staff time.

STRATEGY 4: Assist Council Members in service to their communities by coordinating projects and, if needed, identifying, developing and applying for grant funding for projects.

OBJECTIVE 2: SUPPORT PROJECTS THAT DEVELOP OR CONSERVE NATURAL RESOURCES AND ASSOCIATED OCCUPATIONS

STRATEGY 1: As opportunities arise, work with partners to identify innovative methods of conservation and restoration. Encourage or provide opportunities for education:

PARTNERS	AREAS OF INTEREST
USDA/NRCS and Soil & Water Conservation Districts, Alabama Department of Agriculture & Industries	Agriculture and Forestry
Cities & Municipalities	Stormwater Runoff, Water Conservation, Community Planning & Development
US Fish & Wildlife Service, Geological Survey of Alabama, Alabama Clean Water Partnership, Alabama Department of Conservation & Natural Resources, etc.	Habitat Improvement, Invasive Species, Watershed Planning, Watershed Restoration
Alabama Department of Labor Abandoned Mine Land Program, US Office of Surface Mining, Alabama Surface Mining Commission, Alabama Coal Association	Mineral Resources, Open Space, Stormwater Runoff

STRATEGY 2: Support workshops and field tours that provide education on these methods.

STRATEGY 3: Support demonstration projects that best provide an example of these methods.

STRATEGY 4: If possible, fund or support cost-share programs that encourage implementation of these methods.

OBJECTIVE 3: PRESERVE AND ASSIST WITH DEVELOPMENT OF PUBLIC ACCESS TO OPEN SPACE AND RECREATION

STRATEGY 1: Fund or develop funding to address identified needs of existing parks.

STRATEGY 2: Support the development of recreational trails for hiking, equestrian access, mountain biking, etc.

STRATEGY 3: Support the development of recreational canoe trails to support local economies and provide public recreational access.

OBJECTIVE 3: SUPPORT PROJECTS THAT BUILD CAPACITY FOR FIRST-RESPONDERS

STRATEGY 1: Provide support (funding and/or coordination) for area-wide first-responder training. (EMA, County Commissions)

STRATEGY 2: Provide financial match to assist first-responders in obtaining grants they could not normally get without outside assistance. (EMA, County Commissions)

STRATEGY 3: Provide financial resources to obtain needed training and equipment to first-responder organizations in limited-resource communities.

OBJECTIVE 4: SUPPORT PROJECTS THAT PROVIDE EDUCATION FOR JOB CREATION AND JOB DEVELOPMENT

STRATEGY 1: Provide support to projects that provide training to improve job skills for youth and adults.

STRATEGY 2: Encourage and/or support to projects that provide training in developing local businesses.

STRATEGY 3: Encourage and/or support local economies by connecting local goods and resources with local outlets (Example: Farm to School Programs.)

OBJECTIVE 5: SUPPORT PROJECTS THAT PRESERVE COMMUNITY CHARACTER

STRATEGY 1: Provide support to projects that provide training for asset-based community planning.

STRATEGY 2: Encourage and/or provide support for communities to development of asset-based community plans.

STRATEGY 3: Provide support to projects that preserve the historical or significant community assets. Construction projects should incorporate and demonstrate innovative and/or sustainable methods of conservation and/or restoration.

STRATEGY 5: Provide support to projects that improve access to public facilities. Construction projects should incorporate and demonstrate innovative and/or sustainable methods on conservation and/or restoration. (Example: Parking lots should consider stormwater treatment methods such as bioswales or demonstrate the use of permeable pavement.)

COUNCIL AREA

AREA ACREAGE

The Cawaco Area is located in central Alabama. It includes Blount, Chilton, Jefferson, Shelby, and Walker Counties. The area encompasses 2,602,240 acres, as indicated:

- ~ Blount County- 409,600 acres
- ~ Chilton County- 447,360 acres
- ~ Jefferson County- 715,520 acres
- ~ Shelby County- 512,000 acres
- ~ Walker County- 517,760 acres

DEMOGRAPHIC INFORMATION

POPULATION DATA AND PROJECTED ESTIMATES

The current Census Bureau data states that the estimated population in Alabama as of 2010, was 4,779,736, with 1,021,539 –or **21%** of the State population living within the Cawaco RC&D Council area. Jefferson County and the other four above named counties have been recognized as areas within the reach of metropolitan Birmingham.

Table 2 Population Data of Cawaco Counties for the Period Between 2000-2010

Incorporated Area	2000 Census Population	2010 Census Population	#Change	% Change
Blount County	51,024	57,322	6,298	12.34%
Chilton County	39,593	43,643	4,050	10.23%
Jefferson County	662,047	658,466	-3,581	-0.54%
Shelby County	143,293	195,085	51,792	36.14%
Walker County	70,713	67,023	-3,690	-5.22%

Growth population projections for 2000-2025 indicate that the population for Blount County will increase 60.1%, Chilton will see an increase of 49.1%, Jefferson County population will increase by 6%, **Shelby County an additional 85%,** and Walker County population is projected to increase 4.6%.

SOURCE: US Census Bureau and the Center for Business and Economic Research; University of Alabama

Table 3 US Census Bureau Household Income (2010)

County	Per Capita Income	Median HH income	Median Family Income	population	Number of households
Blount	$21,070	$45,549	$53,564	57,322	21,578
Chilton	$20,517	$39,486	$48,886	43,643	16,558
Jefferson	$26,529	$45,244	$57,563	658,466	263,568
Shelby	$33,978	$68,380	$81,406	195,085	74,072
Walker	$20,516	$37,191	$45,788	67,023	26,571

* Data is from the 2010 United States Census Data and the 2006-2010 American Community Survey 5-Year Estimates

Table 4 US Census Bureau Race Statistics (2010)

County	White	Hispanic	African American	Native American	Other
Blount	89.1	7.8	1.3	0.4	0.4
Chilton	81.7	7.0	9.3	0.2	0.8
Jefferson	52.1	3.6	41.8	0.1	0.4
Shelby	80.8	5.5	10.5	0.2	3.0
Walker	90.5	1.9	5.4	0.2	2.0

Table 5 Occupational Category by County

OCCUPATIONAL CATEGORY SOURCE: *Encyclopedia of Alabama.* www.encyclopediaofalabama.org	BLOUNT	CHILTON	JEFFERSON	SHELBY	WALKER
Manufacturing	16.9	15.0	8.9	7.8	13.0
Educational services, and health care and social assistance	16.8	15.2	23.5	18.7	21.6
Retail trade	11.4	12.4	11.8	12.0	14.2
Construction	10.8	13.9	6.7	8.3	9.2
Other services, except public administration	6.9	6.2	5.1	5.0	5.2
Arts, entertainment, and recreation, and accommodation and food services	6.7	5.2	7.6	7.0	6.6
Transportation and warehousing, and utilities	6.4	6.6	4.9	4.6	8.2
Professional, scientific, management, administrative, and waste management services	6.2	6.9	10.5	12.0	5.4
Finance and insurance, and real estate, rental, and leasing	4.8	5.9	9.1	10.9	3.9
Wholesale trade	4.2	4.3	4.3	5.9	3.0
Public administration	4.1	4.6	4.1	3.0	3.2
Agriculture, forestry, fishing and hunting, and extractive	3.2	2.7	0.6	1.0	5.8
Information	1.7	1.0	3.0	3.8	0.9

NATURAL RESOURCES

Located amid the southern end of the Appalachian mountains- the Cawaco RC&D service area is defined by mountains and beautiful rivers, and is famed worldwide for its unprecedented biodiversity. It is a region rich in tradition, natural heritage, history and a spirit of independence. Hardy settlers farmed the narrow, fertile bottom lands, logged the vast timber supplies, and mined the hidden resources. The area has a wealth of natural resources, including the abundant surface waters of the Black Warrior, Coosa, and Cahaba River Basins. Limestone and coal are abundant in the area, as well as prime agricultural and timberland.

Forestry and Agriculture are major contributors to the economic welfare of the Cawaco area. According to www.AlabamaAgImpact.com, a collaborative effort of the Alabama Agribusiness Council, the Alabama Cooperative Extension System, Auburn University, and other businesses and organizations, **the combined forestry and agriculture impacts for the five-county Cawaco area totaled 600 billion, and provides 86,981 jobs.** The Agriculture/forestry sector is a critical and, in many cases, indispensable component of the economies of Alabama's 67 counties.

FOREST RESOURCES

Alabama's 22.7 million acres of forestland accounts for 70% of the total land area of the state and 80% of these forested acres are owned by non-industrial private landowners. Alabama has the third most forested acreage in the 48 contiguous states, behind only Georgia and Oregon. The forest is comprised of six major forest type groups with "loblolly pine/shortleaf pine" and "oak/hickory" groups comprising the two largest components of the forest.

The ratio of urban to rural land use varies dramatically depending upon the demographic area and county. Alabama, one of the largest timber producing states in the US, has experienced tremendous change in land use in the past 30 years due to population increases, urbanization, and economic development.

Table 6 Timberland Acres By Forest Type

COUNTY	TOTAL	SOFTWOODS	OAK-PINE	HARDWOODS
Blount	224,961	101,463	39,993	83,505
Chilton	315,678	97,945	72,906	144,828
Jefferson	404,894	163,931	85,258	155,705
Shelby	344,039	144,663	70,787	128,588
Walker	389,901	158,117	58,968	172,816

SOURCE: *Forest Resource Report 2012.* Alabama Forestry Commission.

Table 7 Timber Commodities

COUNTY	PINE SAWTIMBER *mbf Scribner*	HARDWOOD SAWTIMBER *dbf Doyle*	PINE PULPWOOD *Cords*	HARDWOOD PULPWOOD *Cords*	POLES AND PILES *dbf Doyle*
Blount	5,099	1,277	52,567	33,873	14
Chilton	15,072	1,188	95,421	34,559	691
Jefferson	8,225	3,383	71,165	26,955	73
Shelby	24,073	739	106,163	23,732	203
Walker	12,767	1,456	79,573	32,518	18
Statewide	1,253,482	199,810	7,363,141	3,158,259	46,914

SOURCE: *Forest Resource Report 2012.* Alabama Forestry Commission.

Recent Forest Inventory Analysis (FIA) data estimates that growth has exceeded removals since the 1950s and the volume of timber continues to increase. The forest encompasses a wide range of ecological conditions ranging from mountainous terrain in the northern reaches of the state to coastal plains in the south. The forest provides important habitat that contributes to the rich biological diversity of both flora and fauna found in the state.

While Alabama's forests produce a wide range of services that are essential to wildlife and human well-being, they support a forest products industry that makes an important contribution to the state's economy by supplying wood products, employment, income, and tax revenue.
SOURCE: Alabama Forestry Commission

AGRICULTURE

AGRICULTURE IN THE CAWACO COUNCIL AREA

Table 8 Farm Acres, Number of Farms and African American Operated Farms Within the Council Area

	Blount	Chilton	Jefferson	Shelby	Walker
Farmland Acres*	151,298	99,975	40,420	58,810	70,448
Number of Farms*	1,414	645	470	474	629
Ave. Farm Size (acres)*	107	155	86	116	112
African American Operated Farms**	0	24	23	5	0

*SOURCE: Alabama Agriculture Statistics 2011 Bulletin 53, 2007 Census of Agriculture, and Auburn University

** SOURCE: *Quick Facts From the 2007 Alabama Census of Agriculture: Black or African American Operator Highlights, With Comparisons to 2002, Surrounding States, and the United States.* USDA National Agricultural Statistics Service: Alabama Field Office.

PRIMARY AGRICULTURE CROPS

Table 9 Primary Agricultural Crops Within the Council Area (2006)

CROP *Yield/Tons*	Blount	Chilton	Jefferson	Shelby	Walker
Cotton	0	0	0	3,600	0
Hay	33,000	26,000	10,000	9,000	27,000
Peaches	230	4,150			

SOURCE: *2007 Alabama Agricultural Statistics.* Bulletin 49. USDA National Agricultural Statistics Service: Alabama Field Office.

LIVESTOCK

Table 10 Livestock Counts Within the Council Area (2007)

LIVESTOCK	Blount	Chilton	Jefferson	Shelby	Walker
All Cattle	32,000	14,800	4,400	6,700	10,000
Beef Cows	18,500	7,700	2,500	3,700	5,200

SOURCE: *2007 Alabama Agricultural Statistics.* Bulletin 49. USDA National Agricultural Statistics Service: Alabama Field Office.

POULTRY

Alabama broiler producers marketed 1,053.4 million birds during the 2006 marketing year, a decrease from the previous year. Cullman was the leading broiler county, followed by DeKalb, Marshall, and **Blount.** Cash receipts amounted to $2.16 billion, down 10 percent from 2005. Alabama ranked third nationally in broiler production behind Georgia and Arkansas. According to the *2007 Alabama Agricultural Statistics* (Bulletin 49) compiled by the USDA Natural Agricultural Statistics Service-Alabama Field Office, Blount County produced:

Broilers *(thousand)*	54,025
Layers *(thousand)*	303
Annual Egg Production *(million)*	72.4

NURSERY AND SOD FARMING

COUNTY	STATE RANKING
Blount	30th
Chilton	23rd
Jefferson	28th
Shelby	6th
Walker	44th

SOURCE: *2007 Alabama Agricultural Statistics.* Bulletin 49. USDA National Agricultural Statistics Service: Alabama Field Office.

MINERAL RESOURCES

Counties within the Council Area have a rich mining history with current mining operations supporting area economies. Mineral resources within the Cawaco Council Area include: coal, shale, clay and limestone.

COAL RESOURCES

Alabama has four bituminous coalfields that are part of the Appalachian coal basin: the Plateau field (Blount County), the Warrior field (Blount, Jefferson and Walker Counties), the Cahaba field (Jefferson and Shelby Counties), and the Coosa field (Shelby County). A total of 9,700 square miles of the State is underlain by coal. The Plateau field is the largest coalfield, being greater in size than the other three fields combined, but has attracted little commercial mining. The majority of coal mining today occurs in the Warrior field.

The main use for Alabama coal is for electric power generation, followed by methane gas recovery and coke production. The estimated amount of recoverable coal is 3.1 billion tons, with 0.7 billion tons recoverable by underground mining and 2.4 billion tons recoverable by surface mining techniques. The Warrior coalfield is one of the four Alabama coalfields that are part of the great Appalachian coal basin. Most of the state's current mining is within the Warrior Coal Field.

In 2011, the Alabama Surface Mining Commission reported 63 active-producing coal mining operations in the State. Production reports show that bituminous coal was produced in 12 Alabama counties. Cawaco counties included Blount, Jefferson, Shelby and Walker. Approximately 4,000 people are employed in the coal industry across the State. SOURCE: *Alabama Annual Evaluation Report for the Regulatory and Abandoned Mine Reclamation Programs.* Office of Surface Mining Reclamation and Enforcement-Birmingham Field Office. 2012.

SHALE

Jefferson, Shelby and Walker Counties are underlain with geological deposits of Floyd/Neal shale. **Shale,** mined in Walker County from the Pottsville Formation, is currently used as a blending ingredient for the manufacture of brick and tile. SOURCE: *Surface Mining of Non-Fuel Minerals, FY 2000 Annual Report.* Cartwright, Walter E., Alabama Department of Industrial Relations.

CLAY

The Cordova district (regionally defined as clay production from Walker County) is one of the principal refractory clay producing areas in the eastern United States. Approximately 5.9 million short tons of clay have been mined in Walker County since 1925. Continuous production of refractory clay dates back to the early 1940s. Since 1970, a production of 107,500 short tons of refractory clay has been

mined annually in Walker County, representing about 38 percent of the state refractory clay production. At present, refractory clay is typically excavated in conjunction with coal surface mining operations; however, clay has also been produced from underground coal mining operations principally from 1941-74.
SOURCE: *Surface Mining of Non-Fuel Minerals, FY 2000 Annual Report.* Cartwright, Walter E., Alabama Department of Industrial Relations.

SAND AND GRAVEL

Within the Council Area, sand and gravel are mined in Blount and Jefferson Counties. Sand and gravel resources of the Coker Formation that occur north and south of Eldridge in western Walker County have been used intermittently for construction material (principally road fill and base material). The small area distribution of deposits limits the resource potential of sand and gravel in Walker County. Quaternary alluvium is a source of sand and gravel and was mined from the Mulberry Fork (at Cordova in the 1920s for use as molding sand.
SOURCE: *Surface Mining of Non-Fuel Minerals, FY 2000 Annual Report.* Cartwright, Walter E., Alabama Department of Industrial Relations.

SOIL & WATER RESOURCES

RAINFALL

Central Alabama has a humid subtropical climate, characterized by hot summers, mild to chilly winters, and abundant rainfall. January sees average daily high temperatures of 53.0 °F and lows of 31.8 °F. In July the average daily high is 90.6 °F and the low is 69.7 °F. The average annual temperature in Birmingham is 62 °F. The average yearly rainfall in the Central Alabama area is about 52 inches, with March being the wettest month and October the driest.

The spring and fall months are pleasant but variable, with cold fronts frequently producing strong to severe thunderstorms and occasional tornadoes to the region. The fall season features less rainfall and fewer storms, as well as lower humidity than spring, but it is also a secondary severe weather season. Historically, in the late summer and fall months, the area experiences occasional tropical storms and hurricanes due to its proximity to the Central Gulf Coast.

WATER RESOURCES

BLOUNT COUNTY

The general slope of Blount County is northwestward. Slopes range from level to more than 45 percent. According to the USDA/SCS report of 1980, out of the 409,600 total acres in Blount County, 86,069 are prime farmland. Much of this prime farmland has likely since been developed for other uses. The remaining lands in Blount County are comprised of highly erodible soils or floodplains. Floodplains in Blount County are limited to the Brown Creek Watershed in the northern part of the county, and the Big Creek watershed. The Mulberry Fork, Locust Fork, Blackburn Fork and Calvert Prong of the Black Warrior River are the major streams in the county.

While the water supply has been adequate for most of the county in previous years, with the county population increase of over 10% in less than six years, and extreme drought conditions, how the county plans its population and water service areas will be a challenge. Most incorporated areas of Blount County have water systems and some of these systems have been extended to serve nearby rural areas. Inland Lake is located in the southeastern part of the county serves as a water supply for the city of Birmingham. SOURCE: USDA Soil Survey of Blount County Alabama

CHILTON COUNTY

Clanton is the county seat and largest City in Chilton County, and is located slightly southeast of the center of the state. Many soils in Chilton County are so steep and so erodible that they are not suited to crops, pasture, or development. These areas are better suited for trees. Nearly all the soils are acid and are low in natural fertility and content of organic matter.

The eastern half of the county is drained by the Coosa River and its tributaries: the Waxahatchee, Yellowleaf, Walnut, Chestnut and Mountain Creeks. The western half is drained by the Big Mulberry, Little Mulberry, Swift, and Oakamulgee Creeks, all of which flow into the Alabama River. The Coosa River provides drinking water to the town of Clanton and wells provide water for Thorsby, Jemison, Maplesville and Verbena.

Chilton County is prone to drought conditions. However, much of the lands in the low lying areas around the prominent creeks in the county are floodplain areas and low stream terraces unsuitable for development. These areas are: Watson Creek watershed near Minooka, Dry Creek in the northwestern portion of the county, Sandy Creek, which flows through the town of Cooper, Walnut Creek near Clanton, Swift Creek, which borders Autauga County, the Little Mulberry, Oakamulgee Creek bordering Bibb and Perry Counties, and finally, the various forks of the Mulberry Creek watershed which include Bear Creek, Boyles Creek, the Western Mulberry Fork, the Middle Mulberry Fork, and Benson Creek. SOURCE: USDA Soil Survey of Chilton County Alabama.

JEFFERSON COUNTY

Soil scientists have determined that there are about 21 different kinds of soils in Jefferson County. Consequently, there is a wide variation in soil suitability for most types of land use. The contrasting land uses in Jefferson County are urban, woodland, surface mining for coal, and some agriculture.

Jefferson County is in the Appalachian Highlands, which is a major division of the United States. The southeastern part of the county is in the Tennessee section of the valley and ridge province, and the northwestern part is in the Cumberland Plateaus province.

The large metropolitan area of Birmingham and the surrounding cities in the southeastern third of the county have been developed for industrial, commercial, residential and recreational uses. Most of the well suited soils for building in the area have already been developed. The most recently developed lands are located mainly within areas that require special planning and engineering for urban uses. There are floodplains throughout the county, though mainly located in the southwestern part of Shades Valley. These soils generally have a seasonal high water table and are prone to flooding. The Cahaba River, Shades Creek, Little Shade Creek, Valley Creek, Village Creek, Turkey Creek, Black Creek, Five Mile Creek, and the Locust Fork Branch of the Warrior River are all major streams in Jefferson County.

Jefferson County receives the majority of drinking water from the Cahaba and Warrior River watersheds. Increasing burdens have been put upon the water resources of the area in recent years, since the largely urban areas of the County pump water in from surrounding areas. Extreme drought conditions and urban sprawl create a challenge for land use planners and water managers.

According to the Jefferson County Soil Survey, published in 1982, only three percent of Jefferson County soils are considered prime farmland. The original number was closer to six percent but the county has lost over half of its farmland to urban development. The remaining prime farmland is located mainly in the northwestern part of the county on a sandstone plateau near Corner.
SOURCE: USDA Soil Survey of Jefferson County Alabama, and Encyclopedia Brittanica

SHELBY COUNTY

Shelby County is the most geologically diverse area in Alabama, if not the southeastern United States. Four major geologic provinces occur in Shelby County. These are the Tennessee section of the Valley and Ridge province, the Cumberland Plateau section of the Appalachian Plateaus province, the Ashland Plateau section of the Piedmont province and the Coastal Plain province.

Shelby County has an abundant supply of water both above and below ground. Two major rivers, the Coosa and Cahaba, and their many tributaries, provide water for domestic, industrial, and agricultural use.
Of all the counties in the Cawaco service area, Shelby County has experienced the majority of the population growth and urban sprawl, resulting in a loss of prime farmland.

WALKER COUNTY

Walker County is highly dissected and the landscape ranges from narrow valleys and broad plateaus. Coal has historically been the main natural resource and economic base of Walker County, and is located in the Warrior coal seam. Extensive open-pit mining constantly changes the landscape and soils. Residential areas must be landscaped properly to prevent excessive erosion. Natural fertility is low in most soils in Walker County and most of the soils are strongly acidic to very strongly acidic. Most soils in the residential areas of Walker County have been disturbed to some degree during the construction of houses, streets, driveways and utility services.
Therefore, soil properties are more varied and less predictable than before the area was disturbed.

The soils in Walker County are generally unsuitable for urban development. In some areas they are suitable but in most areas the slope, depth of bedrock, and slow permeability are limitations. Most of the soils in the county have good or fair potential for woodland, but the slope is the main management concern throughout the county. Approximately thirteen percent of Walker County is in agriculture.

Water supplies are adequate for domestic uses in most areas. There are several public water systems throughout the county, and many rural residents have wells as a source of water. Smith Dam, located on the Sipsey Fork of the Black Warrior River creates more than 8,000 acres of surface water for habitat and recreation. The Sipsey and Mulberry Forks of the Black Warrior River flow through the county, as do several other large streams, including Blackwater, Lost, and Wolf Creeks.
SOURCE: USDA Soil Survey of Walker County, and the Walker County Chamber of Commerce

PROBLEMS AND OPPORTUNITIES

303(D) LISTED STREAMS:

Section 303(d) of the Clean Water Act requires that each state identify those waters that do not currently support designated uses, and to establish a priority ranking of these waters by taking into account the severity of the pollution and the designated uses of such waters. For each waterbody on the list, the state is required to establish a total maximum daily load (TMDL) for the pollutant or pollutants of concern at a level necessary to implement the applicable water quality standards.

Table 11 303(d) Listed Streams in the Cawaco Area

Waterbody Name	River Basin	County	Uses	Causes	Size
Mulberry Fork	Black Warrior	Blount Cullman	Fish & Wildlife	Nutrients	2.52 miles
Mulberry Fork	Black Warrior	Blount Cullman	Fish & Wildlife	Nutrients Siltation (habitat alteration)	17.27 miles
Mulberry Fork	Black Warrior	Blount Cullman	Fish & Wildlife	Siltation (habitat alteration)	18.23 miles
Lost Creek	Black Warrior	Walker	Fish & Wildlife	Siltation (habitat alteration)	6.53 miles
Cane Creek (Oakman)	Black Warrior	Walker	Fish & Wildlife	Metals (Aluminum, Iron) Nutrients pH Organic enrichment (CBOD, NBOD) Siltation (habitat alteration)	7.15 miles
Cane Creek (Oakman)	Black Warrior	Walker	Limited Warmwater Fishery	Metals (Aluminum, Iron) Nutrients pH Organic Enrichment (CBOD, NBOD) Siltation (habitat alteration)	3.49 miles
Cane Creek (Oakman)	Black Warrior	Walker	Fish & Wildlife	Metals(Aluminum, Iron) Nutrients pH Organic Enrichment (CBOD, NBOD) Siltation (habitat alteration)	7.38 miles
Lost Creek	Black Warrior	Walker	Fish & Wildlife	Siltation (habitat alteration)	17.33 miles
Wolf Creek	Black Warrior	Walker	Fish & Wildlife	Siltation (habitat alteration)	38.40 miles
Old Town Creek	Black Warrior	Walker	Fish & Wildlife	Nutrients Siltation (habitat alteration)	2.71 miles
Baker Creek	Black Warrior	Walker	Fish & Wildlife	Siltation (habitat alteration)	7.01 miles
Locust Fork	Black Warrior	Jefferson	Public Water Supply Swimming Fish & Wildlife	Nutrients	6.88 miles
Locust Fork	Black Warrior	Jefferson	Fish & Wildlife	Nutrients	13.06 miles
Locust Fork	Black Warrior	Blount Jefferson	Fish & Wildlife	Nutrients Siltation (habitat alteration)	14.25 miles
Locust Fork	Black Warrior	Blount Jefferson	Public Water Supply Fish & Wildlife	Nutrients Siltation (habitat alteration)	14.86 miles
Locust Fork	Black Warrior	Blount Jefferson	Fish & Wildlife	Nutrients Siltation (habitat alteration)	18.15 miles
Locust Fork	Black Warrior	Blount	Fish & Wildlife	Siltation (habitat alteration)	27.18 miles
Dry Creek	Black Warrior	Blount	Fish & Wildlife	Nutrients Organic enrichment (CBOD, NBOD)	12.00 miles
Newfound Creek	Black Warrior	Jefferson	Fish & Wildlife	Siltation (habitat alteration)	2.76 miles
Village Creek	Black Warrior	Jefferson	Fish & Wildlife	Nutrients	17.9 miles

Waterbody Name	River Basin	County	Uses	Causes	Size
Village Creek	Black Warrior	Jefferson	Limited Warmwater Fishery	Pathogens Pesticides (Dieldrin)	12.60 miles
Village Creek	Black Warrior	Jefferson	Limited Warmwater Fishery	Pathogens Pesticides (Dieldrin)	4.04 miles
Valley Creek	Black Warrior	Jefferson	Limited Warmwater Fishery	Metals (Mercury)	0.90 miles
Opossum Creek	Black Warrior	Jefferson	Agricultural & Industrial	Metals (Mercury)	7.45 miles
Mud Creek	Black Warrior	Jefferson	Fish & Wildlife	pH Siltation (habitat alteration)	14.12 miles
Cahaba River	Cahaba	Shelby	Outstanding Alabama Water Fish & Wildlife	Pathogens	23.61 miles
Cahaba River	Cahaba	Shelby	Outstanding Alabama Water Fish & Wildlife	Siltation (habitat alteration)	23.61 miles
Cahaba River	Cahaba	Shelby	Fish & Wildlife	Pathogens	3.62 miles
Cahaba River	Cahaba	Shelby	Fish & Wildlife	Siltation (habitat alteration)	3.62 miles
Cahaba River	Cahaba	Jefferson Shelby	Fish & Wildlife	Siltation (habitat alteration)	17.46 miles
Cahaba River	Cahaba	Jefferson Shelby	Fish & Wildlife	Pathogens	17.46 miles
Cahaba River	Cahaba	Jefferson	Outstanding Alabama Water Public Water Supply	Siltation (habitat alteration)	13.45 miles
Cahaba River	Cahaba	Jefferson	Outstanding Alabama Water Fish & Wildlife	Siltation (habitat alteration)	3.13 miles
UT to Dry Branch	Coosa	Shelby	Fish & Wildlife	Nutrients	1.58 miles
Yellow Leaf Creek	Coosa	Chilton	Fish & Wildlife	Siltation (habitat alteration)	31.27 miles

SOURCE: Alabama Department of Environmental Management Alabama Water Quality Assessment, January 2012

THREATENED AND ENDANGERED SPECIES

There are a total of 39 species that are listed as threatened, endangered or candidates within the Cawaco RC&D Council Area. The table below indicates the 3 bird species, 11 clam species, 5 fish species, 8 flowering plant species, 2 mammal species, 1 reptile species and 9 snail species and their status, as well as the county location.

Table 12 Threatened & Endangered Species in the Cawaco Area

Group	*Name*	*Status*	*Counties*
Birds	Bald eagle (Haliaeetus leucocephalus)	Recovery	CH, SH
Birds	Red-cockaded woodpecker (Picoides borealis)	Endangered	CH,
Birds	Wood stork (Mycteria americana)	Endangered	CH
Clams	Orangenacre mucket (Lampsilis perovalis)	Threatened	BL, CH, JF, SH
Clams	Upland combshell (Epioblasma metastriata)	Endangered	ALL
Clams	Finelined pocketbook (Lampsilis altilis)	Threatened	BL, CH, JF, SH
Clams	Ovate clubshell (Pleurobema perovatum)	Endangered	ALL
Clams	Coosa moccasinshell (Medionidus parvulus)	Endangered	SH
Clams	Triangular Kidneyshell (Ptychobranchus greenii)	Endangered	ALL
Clams	Alabama moccasinshell (Medionidus acutissimus)	Threatened	BL, CH, JF, SH
Clams	Dark pigtoe (Pleurobema furvum)	Endangered	BL, JF, WK
Clams	Southern pigtoe (Pleurobema georgianum)	Endangered	BL, JF, SH
Clams	Southern clubshell (Pleurobema decisum)	Endangered	CH, JF, SH
Clams	Southern acornshell (Epioblasma othcaloogensis)	Endangered	JF, SH
Fishes	Watercress darter (Etheostoma nuchale)	Endangered	JF
Fishes	Goldline darter (Percina aurolineata)	Threatened	JF, SH
Fishes	Cahaba shiner (Notropis cahabae)	Endangered	BL, JF, SH, WK
Fishes	Vermilion darter (Etheostoma chermocki)	Endangered	BL, JF
Fishes	Rush Darter (Etheostoma phytophilum)	Endangered	BL, JF, WK
Flowering Plants	Georgia aster (Symphyotrichum georgianum)	Candidate	BL
Flowering Plants	Alabama canebrake pitcher-plant (Sarracenia rubra alabamensis)	Endangered	CH,
Flowering Plants	Tennessee yellow-eyed grass (Xyris tennesseensis)	Endangered	CH, JF, SH
Flowering Plants	Georgia rockcress (Arabis georgiana)	Candidate	JF, SH
Flowering Plants	Gentian pinkroot (Spigelia gentianoides)	Endangered	JF, SH
Flowering Plants	Mohr's Barbara button (Marshallia mohrii)	Threatened	ALL
Flowering Plants	Georgia aster (Symphyotrichum georgianum)	Candidate	SH,
Flowering Plants	White fringeless orchid (Platanthera integrilabia)	Candidate	WK

Group	*Name*	*Status*	*Counties*
Mammals	Indiana bat (Myotis sodalis)	Endangered	BL, CH, JF, SH
Mammals	Gray bat (Myotis grisescens)	Endangered	BL, CH, JF, SH
Reptiles	Flattened musk turtle (Sternotherus depressus)	Threatened	BL, JF, WK
Snails	Plicate rocksnail (Leptoxis plicata)	Endangered	BL, JF
Snails	Black mudalia (Elimia melanoides)	Candidate	BL,
Snails	Painted rocksnail (Leptoxis taeniata)	Threatened	CH, SH
Snails	Cylindrical lioplax (snail) (Lioplax cyclostomaformis)	Endangered	JF, SH
Snails	Plicate rocksnail (Leptoxis plicata)	Endangered	
Snails	Round rocksnail (Leptoxis ampla)	Threatened	JF, SH
Snails	Tulotoma snail (Tulotoma magnifica)	Threatened	SH
Snails	Rough hornsnail (Pleurocera foremani)	Endangered	SH
Snails	Flat pebblesnail (Lepyrium showalteri)	Endangered	SH

SOURCE: US Fish & Wildlife Service

IMPACTS FROM HISTORICAL MINING

The Warrior Coal Basin has been mined since the 1840's utilizing both surface and underground mining methods. Prior to the passage of the federal Clean Water Act (CWA) and the Surface Mining Control and Reclamation Act of 1977 (SMCRA), impacts from coal mining operations were largely unregulated. This resulted in unmitigated impacts to streams and wetlands in these watersheds resulting from siltation due to uncontrolled runoff from mined areas, release of chemical leachates from mine spoil, spoilage of mine rock and refuse in drainage courses, and mining through streams and wetlands.

Sedimentation from erosion and decrease pH are two common problems associated with abandoned mine lands. Reclamation projects attempt to remediate these problems. Oftentimes, reclamation is successful at controlling erosion. However, pH issues are difficult and expensive to remediate. Alabama has over $437.5 million dollars of unreclaimed coal features in their inventory. Many of these projects are within Cawaco Council area.

SOURCE: *Annual Evaluation Report for the Regulatory and Abandoned Mine Land Programs*. Office of Surface Mining and Enforcement-Birmingham Field Office. 2012.

LOSS OF RIPARIAN BUFFERS

Riparian areas comprise a small percentage of the landscape, yet are critical to water quality protection and to the maintenance and health of streams and aquatic habitat. These small but critically important ecosystems directly affect water quality and the quality of fish and wildlife habitat. As much as 75 percent of terrestrial wildlife species are associated with riparian areas. They can also serve as effective traps for sediment, nutrients, and other potential pollutants before they enter streams and lakes.

The condition of many riparian areas suffers from past effects and many continue to receive tremendous pressure for use. Streams and riparian zones reflect the overall health of the watershed and are often the focal point for conflicting resource demands.

DECLINING BUDGETS

City, County, State and Federal budgets have declined. The reasons are numerous but the singular result is limited funding for existing programs. In 2011, the Alabama Forestry Commission decreased their budget by 25% and again, in 2012, yet another 25%. Parks and public facilities struggle to maintain existing services and have little for improvements.

Submitted to Cawaco Resource Conservation & Development Council, Inc. Board of Directors
DATE: November 6, 2013

Approved by Cawaco Resource Conservation & Development Council, Inc. Board of Directors

Date _____

As evidenced by:

Chairman