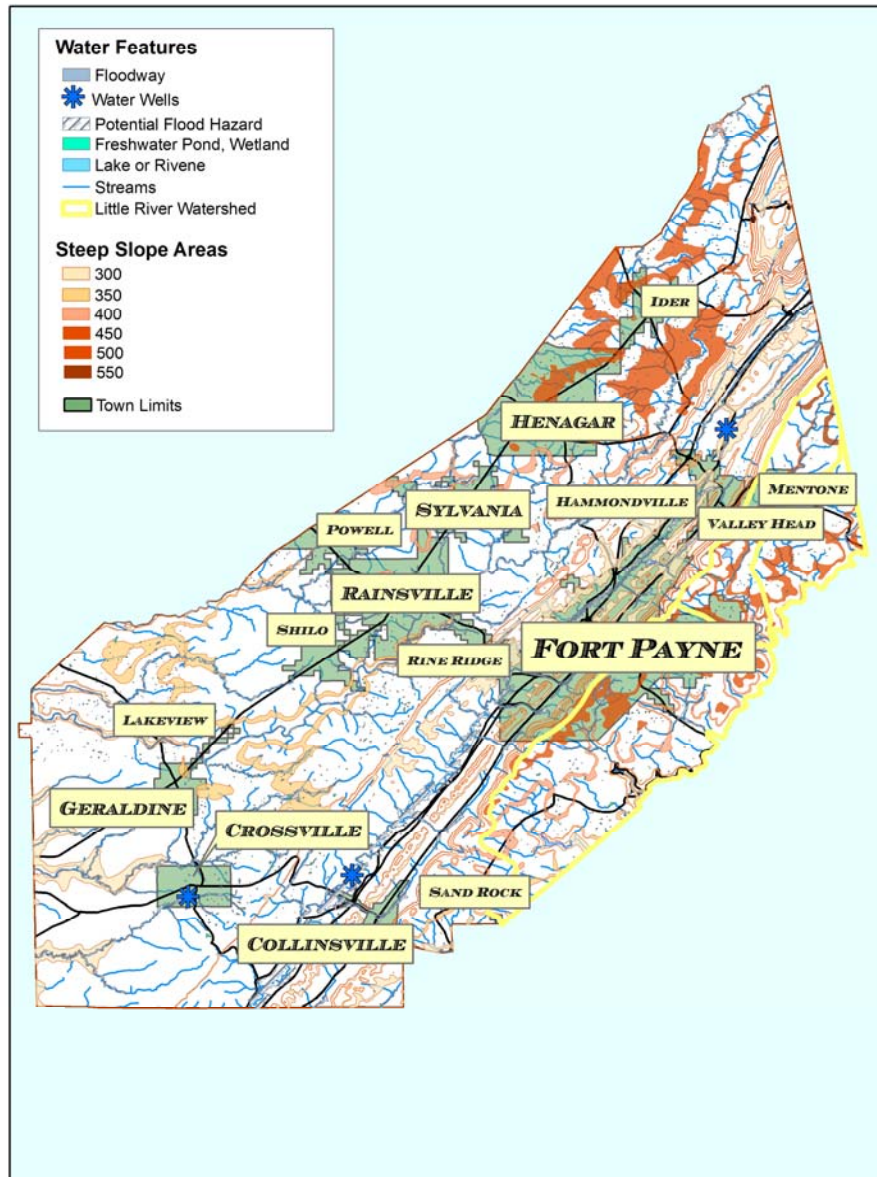


RURAL DEVELOPMENT GUIDELINES

WITH SPECIAL CONSIDERATIONS FOR WATERSHED PROTECTION



TOP OF ALABAMA REGIONAL COUNCIL OF GOVERNMENTS
SEPTEMBER 2010

**TOP OF ALABAMA REGIONAL COUNCIL OF
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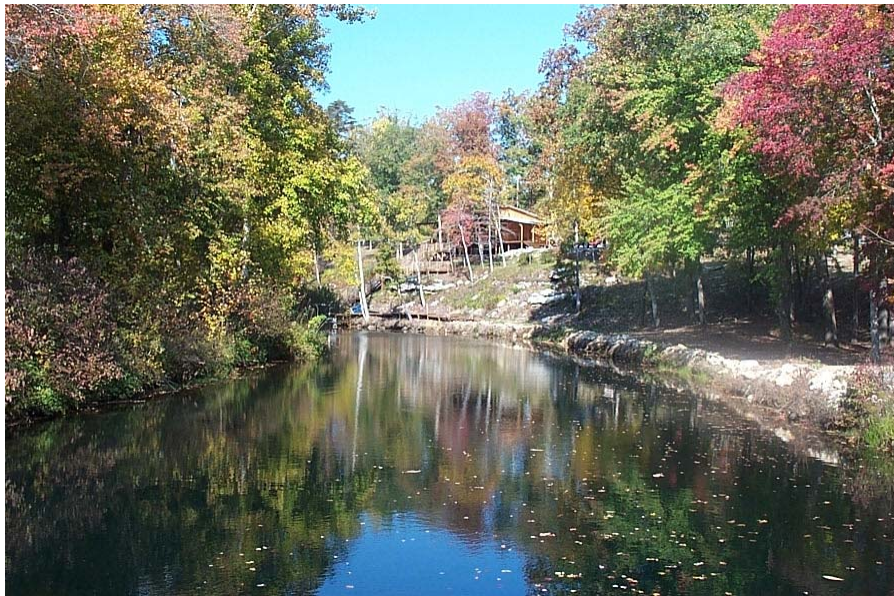
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East Fork Little River, DeKalb County

INTRODUCTION

The Land Use Study and Protection Program for the Little River Watershed that was completed in 2008 revealed that development had escalated in the rural areas and in turn was threatening water quality, scenic views and the rural character of the area. In a four year period 1,926 acres was converted to residential use and 3,475 acres were cut for timber. As observed in the field many of these construction sites and areas of timber harvesting used no Best Management Practices or were ineffective contributing to increase sedimentation in nearby waterways. Although this study was focused in the Little River Watershed this could be seen all across DeKalb County. Development will continue as the population increases and according to the Center for Business and Economic Research the population of DeKalb County is projected to increase another 14.38% between 2010 and 2020. It was recommended in the Study that Rural Development Guidelines be created for local officials to use in strengthening subdivision regulations and zoning ordinances. Therefore, the purpose of collecting and analyzing this information is to identify potential directions that could be pursued regarding the development and preservation of rural areas.

RURAL DEVELOPMENT GUIDELINES WORKSHOP

On July 21, 2010 the Top of Alabama Regional Council of Governments held a Rural Development Guidelines Workshop at DeSoto State Park in Fort Payne, Alabama. A representative from the Southeast Watershed Quality Assistance Network provided technical assistance during the workshop. In addition there was representation from the Town of Mentone, Lookout Mountain Conservancy, Mentone Realty, and local residents. Participants were provided with an overview of guiding principals for the rural areas, conservation subdivision regulations and land development for water quality. A full discussion then took place as the participants were asked to define rural character, list assets and state the greatest needs facing rural DeKalb County. Following the workshop a questionnaire was sent to all municipalities, the Alabama Forestry Commission, Fort Payne Water Works, and other community leaders. The following is a compilation of the input received during the workshop and follow up questionnaire.

What defines Rural Character?

‘To some extent, the people...their openness, rural talents: farming, food preparation and preservation, wood lore, dress, respect for nature, etc. For the most part, the land defines rural character (which of course includes rivers, streams, lakes and ponds) in its own natural beauty.’ This answer was received back on a questionnaire and truly is a wonderful description of the character of rural DeKalb County. Other comments and descriptions that were documented include:

Farmland, pastureland
Slope and ridge top forests

Stream and river corridors
No Wal-mart or large development
Openness
Low density residential development
No cookie cutter development
Development is not connected – your neighbor is a camp/farm/forest
No restrictions or ordinances

What are the most important assets?

Tourism as an industry
Quiet
Safe
Clean Water
Abundance of Wildlife
Untouched wilderness

What are the most important issues?

When asked this question a participant responded with ‘One of the biggest concerns I have in rural development is slope development i.e. trees being removed from sloped areas of mountain and over building. Also, there still are those putting in septic systems in areas that run off either down the mountain or into streams and groundwater areas.’ Other issues that were discussed are as follows:

Wildlife corridors being stressed
Native vegetation being lost
Farmland pollutants – cattle/chickens with access to streams
Commercial buildings are out of character
Parking lot pollutants
Services (trash, water, fire protection)
Strip commercial
Bury trash or illegal dumps
Over development
Pollution both water and land
Not realizing the importance of natural resources
Industrial operations in Residential Areas

What do you see as the most important needs?

Realistic planning
Legislation if needed
Capacity for enforcement and clearly defined

Awareness and Education
Identify and protecting views
Sedimentation and erosion control from construction
Correct BMPs
Infrastructure improvements
Retention of natural vegetation while developing
A plan for green corridors
Water Quality integrity
Retain riparian buffers
Temporary 10 year conservation easements
Plan for service i.e. water, sewage
Zoning laws
Property tax laws that encourage conservation
Preserve agricultural land
Landowner rights to subdivide land

Actions suggested for implementation

- a) Use Riparian buffers/ roadside buffers
- b) Map sensitive areas, natural resources
- c) Use NRCS incentives to preserve Farmland
- d) Identify agriculture that is in proximity to critical areas
- e) Parking lot design for stormwater quality use swales and bioretention areas
- f) Well Protection identifiers
- g) Illegal dumps should be closed
- h) Budget, promote environmental finance alternatives
- i) Awareness and education through web sites and handouts
- j) Implement sedimentation guidelines for developers seeking permits
- k) Maintain character through farm bill tools, conservation easements, community greenspace
- l) Water quality preservation through buffers, slope preservation, geologic protection
- m) Tourism seminar that teaches awareness of natural resources
- n) Incentives for conservation design
- o) Education about benefits of conservation design
- p) Water Conservation

GUIDELINES

After analyzing the information gathered from the workshop and questionnaire it was decided to keep it simple by creating a poster with five guidelines. A draft of the poster was presented at the Little River Watershed Stakeholder's Meeting on October 5, 2010 for review and discussion. It was decided to include additional websites for more information and list the benefits of incorporating Rural Development Guidelines. This method of distributing the guidelines is visible and more accessible than a bounded document. The poster can be framed and permanently displayed in Town Halls, community centers, or any place that is highly visited. It may also be created into a brochure that can be easily taken for further examination by interested individuals. The intent is to reach and create awareness among local officials, developers and the general public.

At the center of a poster a map depicts the steep slope areas, streams, wetlands, wells, flood zones, and all town limits in DeKalb County. This map was created using GIS and information provided by FEMA, ADEM, and USGS. It shows the actuality that DeKalb County has many waterways and steep slopes and gives credence to the need for rural development guidelines. Focusing on the top issues discussed in the workshop five principal guidelines are listed on the poster surrounding the map with a few important descriptive points under each for protection of the rural area and watersheds.

DEKALB COUNTY Rural Development Guidelines



With Special Consideration for Watershed Protection

1 Introduction

A recent land use study revealed that development had escalated in the rural areas of DeKalb County threatening water quality, scenic views and the rural character of the area. It was recommended that Rural Development Guidelines be created for developers, local officials, and the general public. This project has been funded with 604(b) funds administered by Alabama Department of Environmental Management and prepared by the Top of Alabama Regional Council of Governments. <http://tarco.org/environment.html>

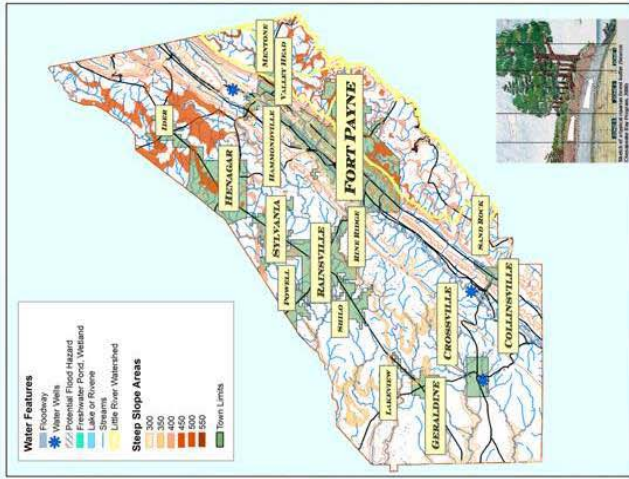
1 Preserve Rural Character

- Use Open Space Development that incorporates smaller lot sizes to minimize land disturbance, reduce construction costs, conserve natural areas, provide recreational space and promote watershed protection. The design requires a permanent dedication of 40% or more of the total development parcel as open space.
- Roads should follow the contours of the land.
- Existing rural structures (barns, silos, stone walls etc.) should be preserved.
- Utilize the Farm and Ranch Land Protection Program in Alabama which provides matching funds to purchase development rights to keep productive farm and ranchland in agricultural use.
- New construction should complement existing community character and architecture.



2 Maintain Erosion and Sediment Control at Development Sites

- Erosion control are techniques that prevent soil from leaving its original location. Sediment control are techniques that capture soil after it has been displaced from its original location.
- Use proper Best Management Practices as stated in the Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on construction sites. http://swcc.alabama.gov/pages/erosion_handbook.aspx



4 Incorporate Mountain and Steep Slope Strategies

- In steep slope areas, the development site should be limited to no more than 10 percent of total project area.
- At least 50 percent of the entire steep slope development site should be preserved as forestland.
- The Firewise program should be utilized for any homes on steep slopes.
- Only selective timber harvesting should take place on steep slopes. <http://landofskyts.com/MountainRidgeSteepSlope/LandofSky-WRS95-Final-Report.pdf>
- http://www.forestry.alabama.gov/WUI/homeowner_resources.asp?bwe=18a-9
- http://www.forestry.state.al.us/PDFs/Selling_Your_Timber_color.pdf



5 Protect Water Quality

- Keep a minimum 35 feet natural vegetated buffer on all perennial streams, intermittent streams and wetlands.
- Leave floodplains intact.
- No development within 1,000 feet of a public well
- Zone 1 (Streamside) Protect integrity of stream
- Zone 2 (Middle) Distance between upland development and stream
- Zone 3 (Outer) Filter runoff www.adem.state.al.us

Benefits

- Scenic views are preserved which draws tourism and businesses to the area.
- Clean water for drinking, fishing, and swimming.
- Farms and forests remain productive and profitable.
- Wildlife remains stable.
- Preserves our way of life for now and the future.

3 Respect Scenic Resources

- Scenic views should remain unblocked or uninterrupted.
- Sacrifice enhanced private views for scenic public views of amenities and open space.
- Conserve forested slopes, trees and native vegetation at development sites.
- Manage community parks, street rights-of-way, parking, and other landscaped areas to promote natural vegetation.
- Protect your land with a conservation easement. [www.alabamabyways.com](http://lookoutmountainconservancy.org/)
- <http://lookoutmountainconservancy.org/>



1. PRESERVE RURAL CHARACTER

Open space, pastures, farms, forested mountains, rivers, individual homes these all define rural DeKalb County. In order to protect these rural spaces Open Space Development is encouraged along with other rural design elements as follows:

- Open Space Development incorporates smaller lot sizes to minimize total impervious area, reduce total construction costs, conserve natural areas, provide community recreational space, and promote watershed protection.
- Development density remains the same as with conventional subdivisions by reducing the size of the lot and clustering the homes.
- The design requires a permanent dedication of 40% or more of the total development parcel as open space.
- Require mechanism to ensure open space are not developed in the future.
- Define allowable and unallowable uses in open space in residential developments. The following would not be considered open spaces: swimming pools, other pervious surfaces, wetlands, backyards, retention ponds, and right-of-ways.
- Open space can be managed by a third party using land trusts or conservation easements.
- Roads should follow the contours of the land.
- Structures should be placed along tree lines and wooded field edges, not in open fields.
- Existing farm roads should be incorporated into subdivision design.
- Sacrifice enhanced private views for scenic public views of amenities and open space.
- Design should incorporate existing hedgerows and tree lines.
- Lawns should be discouraged on steep slopes or wooded tracts.
- Existing rural structures (barns, silos, stone walls etc.) should be preserved.

http://www.al.nrcs.usda.gov/programs/fin_ass.html

<http://www.shawangunkridge.org/guidebook/appendices.pdf>

www.landtrustalliance.org/about/regional-programs/se/setollsresources

<http://www.epa.gov/owow/NPS/ordinance/mol3.htm>

2. MAINTAIN EROSION AND SEDIMENT CONTROL AT DEVELOPMENT SITES

Implement the use of Best Management Practices (BMPs) which are techniques that minimize erosion from rainfall and runoff thereby reducing the amount of sediment entering waterways.

- Erosion control is the first step in keeping sediment on the development or construction site. If soil is not allowed to erode there will be no sediment to control. Protect the bare soil surface from rainfall and runoff by preserving

existing vegetation, or quickly establishing new vegetative cover, straw, and immediately applying stone to areas that will be paved.

- Sediment control is the second step by capturing soil that has been disturbed from leaving the site by using silt fences, sediment basins, sediment traps, inlet protection, etc.
- Coordinate erosion and sediment control for maximum protection and maintain throughout duration of project.
- Use proper Best Management Practices as stated in the Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on construction sites.
- Each municipality is encouraged to adopt an ordinance regulating land disturbances.

http://swcc.alabama.gov/pages/erosion_handbook.aspx
<http://townofmagnoliasprings.org/ordinances.asp>

3. RESPECT SCENIC RESOURCES

Clearly defining where not to develop is the premises for protecting scenic views. These views which contribute to the economic vitality of our communities can be jeopardized with a careless decision of developer or an individual, such as clear cutting timber on the side of the mountain directly entering a town. Preserving prime scenic views is paramount for future economic benefits. Also, Litter and illegal dumping is a persistent problem that affects the view and feel of the rural area. It is linked to the economy more than individuals realize. Companies looking to relocate to a certain area take into consideration the aesthetics of the community when making their decision to move into an area.

- Scenic views should remain unblocked or uninterrupted.
- Sacrifice enhanced private views for scenic public views of amenities and open space.
- Conserve forested slopes, trees and native vegetation at development sites.
- Manage community parks, street rights-of-way, parking, and other landscaped areas to promote natural vegetation.
- Protect your land with a conservation easement.
- Use conservation easements as linkages for a green corridor
- Promote annual community clean up days

www.alabamabyways.com
<http://lookoutmountainconservancy.org/>

4. INCORPORATE MOUNTAIN AND STEEP SLOPE STRATEGIES

- In steep slope areas, impervious surfaces within the development tract should be limited to no more than 10 percent of the total project area and designers should avoid impervious (pavement) areas on steep portions of the tract.
- At least 50 percent of the entire steep slope development tract should be preserved as forestland. Forested area within individual parcels and within the streamside protection areas can be included in this percentage.
- In steep slope areas, streamside protection areas should be established on all perennial streams, intermittent streams and wetlands.
- The Firewise program should be utilized for any homes on steep slopes as recommended by the Alabama Forestry Commission.
- Only selective timber harvesting should take place on steep slopes.
- Follow Alabama's Best Management Practices for Forestry
- Ensure that timber sale contracts include provisions to protect water quality

<ftp://landofskygis.org/MountainRidgeSteepSlope/LandofSky-MRSSPS-final-report.pdf>
http://www.forestry.alabama.gov/WUI/homewoner_resources.aspx?bv=18s=9
http://www.forestry.state.al.us/PDFs/Selling_your_Timber_color.pdf

5. PROTECT WATER QUALITY

The Alabama Forestry Commission currently recommends at least 35 feet riparian buffer from the bank of the stream. A riparian buffer is the natural vegetation between the stream and development or land disturbance. The buffers protect the water quality by filtering out pollutants including sediment and pesticides. It also helps control water temperature, supports bank stability and slows runoff. The Center for Watershed Protection promotes the use of a three-zone 100-foot buffer system for optimal protection of a stream. It has three zones including a streamside zone, middle zone, and outer zone.

- Streamside zone shall be 25 feet with natural vegetation with use limited to flood control, utility right-of-ways and foot paths.
- Middle zone would be 50 feet which could be managed forest with some clearing allowed. Uses could include some recreational uses such as bike paths.
- Outer zone shall be 25 feet from any development. Forest land is encouraged but grass is permitted. Uses include lawn and gardens.
- Buffer boundaries should be clearly marked on planning maps.
- Development should not take place within 1,000 feet of a public well.
- Floodplains should be incorporated into the buffer and left intact.

Keeping a riparian buffer is probably the single most important thing that a developer or timber harvester could do to protect water quality. When a buffer is not kept it directly degrades the water quality. Furthermore, researchers at the University of Missouri determined that homeowners are willing to pay over \$6,000 to live adjacent to riparian buffers and are willing to pay over \$1,500 to live in a subdivision with riparian buffers, but not immediately adjacent to these buffers (EPA 2005).

www.adem.state.al.us

www.epa.gov

CONCLUSION

It was discovered when developing the Guidelines for Rural Development that they should be kept simple and should not be overwhelming. The ideas have been planted and with continued attention change will take place that will protect our rural heritage. Therefore this is seen as a beginning to larger concepts for the future. TARCOG has recently committed to work with the Town of Mentone using these guidelines to develop a version of conservation subdivision regulations to be adopted. This will lead the way for other Towns in DeKalb County to strengthen their regulations. A question asked “How do you see DeKalb County in 20 Years?” was answered with:

DeKalb County will be the “prime area between Huntsville, Chattanooga, Birmingham,with people moving to the area to enjoy natural resources.”

This will only be true if steps are taken now to preserve the rural areas and protect water quality with education, policies, and the support of the community.

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