

Priorities and Recommendations for Natural Resources Program

December, 2016

Background:

In December 2015, a Natural Resources Manager was hired by Albemarle County. Among the manager's responsibilities was the task of developing priorities and recommendations for a Natural Resources Program. This report includes a list of priorities and recommendations for consideration by the Board of Supervisors, as well as information used in developing the list. The priorities and recommendations are presented later in this report. They were developed using ideas and input from:

- An informal Advisory Work Group (AWG) of stakeholders, representing eight organizations, that met seven times from May-September 2016. See a summary of the AWG process and results under separate attachment.
- Review of the Comprehensive Plan (approved June 2015), Strategic Plan FY 2015-2017, and priorities for the Strategic Plan FY 2017-2019.
- Discussions and conversations with County staff, community members, and interested individuals.

Highlights from the Advisory Work Group:

A complete summary of the AWG results and process is available under a separate attachment. Below are some of the highlights of the group's efforts.

Overarching Themes

- Albemarle County is blessed with an abundance of natural resources and community support for conserving them.
- Growth Management policy is wise and very important to continue.
- County should strive to make Development Areas very desirable places to live, to attract growth and development, potentially easing development pressure in the Rural Area.
- County should provide education about various topics related to natural resources - education, support and assistance for landowners.
- County should take actions to conserve natural resources through direct investment (e.g., ACE program) and, to a lesser extent, strengthening regulations. Community resources and support for natural resources should be leveraged.
- Traditional rural economy (agriculture, forestry) needs to be promoted and sustained.

Areas of Concern

- There is a lack of resources (e.g., funding, staff) and authority to adequately manage natural resources.
- Stream buffers – the lack of wooded riparian buffers on many lands and possible gaps in the Water Protection Ordinance (e.g., enforcement, what the ordinance covers).
- Threats to the Rural Area and rural economy include fragmentation (land ownership and wildlife habitat), proliferation of recreational event venues, potential unmanageable growth. (A recent article Adam Downing, Virginia Cooperative Extension, describes the issue and makes the

distinction between the fragmentation of forests and the fragmentation, or subdivision of land, which he refers to as “parcelization.”)

- The urban/rural split in the County can lead to differing needs and expectations on the part of the public and result in conflicts.

Underlying Assumptions

- The County will work in partnership with other localities, agencies, nonprofits, and organizations whenever possible to increase efficiency and success in conserving and managing natural resources.
- The County will take advantage of the numerous resources in the area – nonprofit organizations, City of Charlottesville, University of Virginia, community support, community affluence – to help steward our natural resources effectively.
- Citizen involvement and volunteers are potential significant resources to include in working toward objectives.
- Incentives for properly managing natural resources are preferred to regulations.

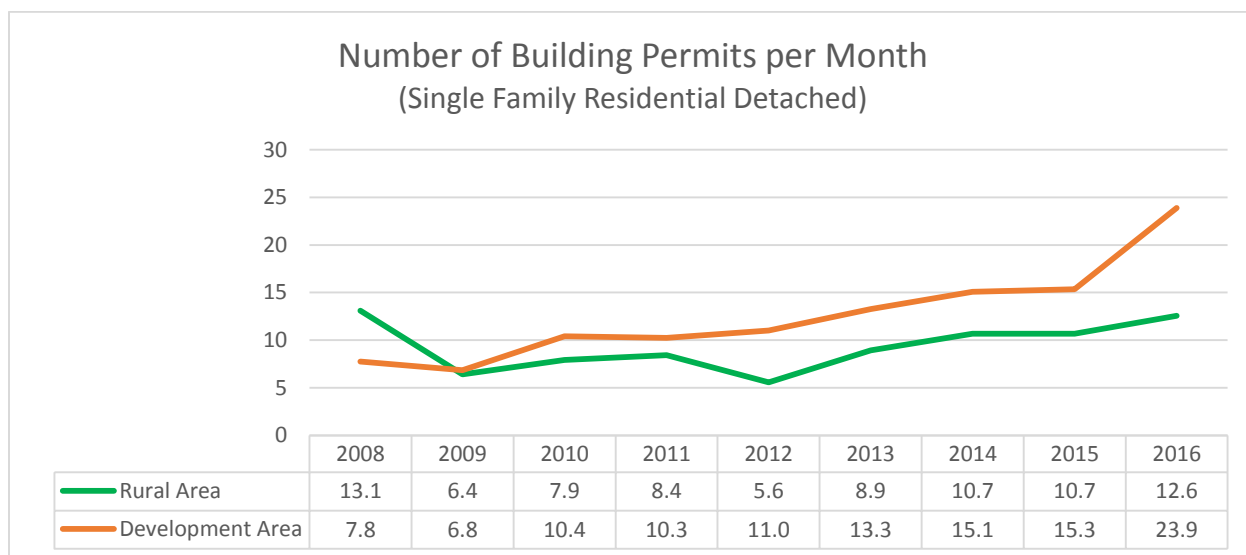
The Need for Conserving Natural Resources in the Rural Area:

Much discussion and consideration of natural resources in the County, through the AWG meetings and other venues, involves the Rural Area (RA). Given its size and extent, containing roughly 95% of the County’s land area, this is not surprising. With the exception of the Crozet Development Area, the RA contains all local public drinking watersheds in their entirety, giving added reason for this focus. The RA also provides many resource-related benefits, including numerous outdoor recreation opportunities (e.g., boating, biking, hunting and fishing), wildlife habitat, and open space – all of which contribute to local tourism (e.g., wineries and vineyards, wildlife viewing, outdoor events). Agriculture and forestry in the County also depend upon the RA.

Although the RA provides many community benefits, we should not assume that it will always be able to do so. There are a number of reasons to focus attention and efforts to conserve the RA. Though the County’s Growth Management policy encourages development in Development Areas and away from the RA, there is much development potential in the RA.

As the County’s Comprehensive Plan (Comp Plan) reports (pages 7.17-18), the Piedmont Environmental Council estimates that 45,000 new (or “theoretical”) lots can be created in the RA. These lots would be in addition to the existing 24,378 parcels (and 18,451 dwellings) at the time the Comp Plan was developed. “Theoretical” simply means it has not been verified that all these potential lots would conform to zoning and subdivision requirements.

Since late 2013, there has been an increase in development activity county-wide, including the RA. If economic recovery continues, it is likely that development activity will continue to increase, potentially returning to pre-recession levels. Given the limits that rural zoning places on construction and development, examining building permits approved for single family detached residences gives a picture of development activity and pressure in the RA. The chart below shows the average number of such building permits approved per month since 2008. Data for 2016 includes only the first three quarters of the year.



Data regarding stream health and water quality also indicate that a focus on the RA is justified. Then nonprofit group StreamWatch (which recently combined with Rivanna Conservation Society to form the Rivanna Conservation Alliance) has monitored water quality in the Rivanna River watershed since 2003. The six watershed wide assessments they completed indicate that, on average, 67% of the streams sampled do not meet Virginia water quality standards for Aquatic Life. The most recent assessment, covering the years 2012 – 2014, included 31 stream sampling sites in Albemarle County. Ten of these streams met the state water quality standards, meaning that 21 of the streams, or 68% of the County streams sampled, failed to meet the standard.

The most recent Water Quality Assessment Report from the Virginia Department of Environmental Quality, for 2014, reflects the StreamWatch data. Forty-seven stream or river segments that fall wholly or partially within Albemarle County are impaired. This means that DEQ testing indicates the water body does not meet state water quality standards. A total of 56 impairments occur in these stream and river segments. Thirty-three of the impairments are for Aquatic Life, based on benthic macroinvertebrate sampling. Twenty-nine impairments are for Recreation, due to an elevated presence of fecal coliform bacteria.

The picture of riparian areas in the RA is not encouraging. Forested stream buffers have long been recognized as an effective tool for protecting water quality while providing other benefits to the community (e.g., wildlife habitat). Stream buffers have long been an emphasis in the County, as well as in the entire Chesapeake Bay watershed and many other areas of the country.

The County's Water Protection Ordinance (WPO) contains language requiring stream buffers, woody vegetation in riparian areas, throughout the County. Generally, stream buffers are defined as land within 100 feet of perennial and intermittent streams in the RA, and land within 100 feet of perennial streams in Development Areas. Land cover data from both 2009 and 2013 indicate that improvement is needed. The table below shows the percentage of forested land contained in the stream buffer areas in the County (as defined in the WPO) and areas that lie outside of the stream buffer areas. The percentage of land within stream buffers that is forested land is not significantly different from the percentage of forested land in the County at large. From the perspective of water quality protection though, a higher percentage of forested land in stream buffers is very desirable.

	2009	2013
Percent of forested land County-wide	71.1%	71.6%
Percent of stream buffer areas (defined in WPO) that are forested	67.9%	68.0%

Priorities and Recommendations for Managing Natural Resources:

Following are priorities and recommendations for consideration by the Board of Supervisors. Recommendations are identified as current efforts of the County, an expansion of existing efforts, or proposed new efforts. These are general labels, as detailed analysis of the resources needed for each recommendation has not been conducted.

1. Continue the Growth Management Policy

Current Efforts

- Continue educating the public on why the policy is important.
- Improve conditions and quality of life in the Development Areas to make them desirable places to live and work.
 - Continue implementing Neighborhood Model principles such as developing trails and greenways that provide connectivity and travel opportunities among many destinations (e.g., large shopping centers, downtown Charlottesville, parks and recreational areas, etc.), conserving open space.
 - Continue protecting perennial streams with 100' buffers.
- Protect important resources in the Development Areas.
 - Important habitat areas, connectivity among important areas, streams, critical slopes.

New Efforts (in Development Areas)

- Promote urban forestry and develop objectives for tree canopy coverage.
- Promote the use of native plants in landscaping and gardening and the control of non-native invasive species. Work to improve the availability and affordability of native plants.
- Develop incentives to protect intermittent streams with buffers (can be less than 100' wide).

2. Promote, support and assist private landowners in conservation efforts and good land management

Expanded Efforts

- Educate the public and landowners about natural resources and related issues.
 - Disseminate information, act as a clearinghouse for the public regarding land management options and programs.
 - Provide current information on all the agencies, nonprofits, and other area organizations (including lists of private consultants, etc.) that can provide technical and/or funding assistance.

New Efforts

- Compile, develop methods and materials to address resource related issues.
- Identify gaps in the information and educational materials currently available.
- Develop informational outreach materials for people moving to the Rural Area.

- Develop incentives for landowners to create and maintain areas of native habitat.
 - Continue promoting the Land Use taxation program, Ag/Forestal Districts, and Open Space Use agreements.
 - Consider revising the Open Space category of the Land Use taxation program.
 - Reduce minimum area of land to 5 acres (from the current 20 acre minimum).
 - Develop qualifying standards for enrollment and monitoring of the land.
 - Promote the use of native plants in landscaping and gardening and the control of non-native invasive species. Work to improve the availability and affordability of native plants.

3. Strengthen conservation easement programs

Expanded Efforts

- Provide stable, dedicated funding for ACE.
 - Investigate alternative sources of funding.
- Provide stronger protection of resources when purchasing ACE easements.
 - Develop more restrictive easement terms to protect water quality.
 - Require vegetated buffers along all rivers, streams (perennial and intermittent), and wetlands.
 - Seek to exclude livestock from rivers, streams (perennial and intermittent), and wetlands when practical and possible.
 - In addition to easements on agricultural and working lands, acquire easements that focus on protecting biodiversity and natural heritage values.
 - Adjust criteria to place higher value on biodiversity and natural heritage values.
- Increase efforts to conserve land using Public Recreational Facilities Authority (PRFA) easements.
- Commit to regularly monitoring all County-held easements and enforce the terms of the easements.
- Actively promote and educate landowners about the benefits of conservation easements with the County and other regional organizations (e.g., VA Outdoors Foundation, Piedmont Environmental Council, The Nature Conservancy, VA Department of Forestry, Thomas Jefferson Soil & Water Conservation District, etc.).

4. Strengthen land protection regulations

New Effort

- Review existing lists of approved plants for site plans, Erosion & Sediment Control plans, Stormwater Management plans, mitigation plans, etc. to ensure that plants native to Albemarle County are used to the extent practicable.

5. Develop and implement on-the-ground conservation/restoration projects

New Efforts

- Identify one or more significant landscape areas and develop a project to conserve and restore the landscape (e.g., native habitat, streams, wildlife corridors) using all the tools available to the County. Seek grant funding to implement the project. Collaborate extensively with partner organizations and private landowners to accomplish this.

- Secure funding to develop a program to re-establish and maintain wooded riparian buffers. Collaborate as necessary with partner organizations and work extensively with private landowners.

Additional Considerations:

1. Biodiversity Action Plan (BAP)

Albemarle County's Natural Heritage Committee, with assistance from staff, is developing a Biodiversity Action Plan (BAP) for the County, as called for in Strategy 4a in the Natural Resources chapter of the Comp Plan. The BAP will be presented to the Board of Supervisors and will include recommendations for conserving biodiversity. Some recommendations will likely complement or expand priorities described in this report. Some features of the BAP include:

- BAP is scheduled for completion in 2017.
- BAP will include current information about biodiversity resources and important sites in the County. Recommendations will be made to help conserve biodiversity in the long term.
- BAP will need to be reviewed and updated periodically, perhaps every five years.
- BAP will review and incorporate Green Infrastructure Center grant data.
- BAP will include considerations for controlling non-native invasive species.
- BAP will include considerations for adapting to climate change.

2. Water Protection Ordinance (WPO)

As mentioned earlier in this report, stream buffers and the WPO were an area of concern for the Advisory Work Group. Many County residents are either unaware of stream buffer requirements (as authorized in the WPO) or unclear about how they work. The WPO has been revised a few times since it was adopted in 1998. The "Water Resources Protection Areas" section of the County Code prior to 1998 predates the WPO and afforded protection to streams and rivers in some parts of the County.

The AWG expressed interest in a full review of the WPO, assessing its effectiveness and clarifying its requirements, particularly in light of changes over time to the ordinance and in County efforts in education and enforcement. Legal considerations and the history of water protection efforts would be important aspects to include. Such a review could facilitate education and outreach about the WPO. The review could also lead to recommendations for changes in the ordinance and/or County policy related to it (e.g., enforcement).

Below are some of the comments made during the AWG process.

- Thoroughly review and reconsider the WPO and the County's ability and willingness to effectively enforce all sections of it.
- General public is largely unaware of stream buffer requirements, and does not understand all the details if they are aware.
- Confusion with "grandfathered" property – parcels and buildings in place in 1998, when the WPO was first adopted.
- Agriculture & forestry exclusions.
 - These lands are exempt from WPO requirements, but were not totally excluded at times in the past.
 - There was flexibility in the stream buffer requirements on agricultural land in the past.
 - There will be inconsistency if the County enforces the stream buffer requirements on non-agriculture and non-forestry land.

- Strict stream buffer requirements with strict enforcement would require significant resources, especially staff time. Would it be unenforceable?

3. Climate Change

The AWG recommends that Albemarle County address climate change in a substantive manner. This view has been echoed by many groups and individuals. A comprehensive approach to the issue is needed. As described above, the BAP will address climate change and the impacts to biodiversity. Strategy 8a in the Natural Resources chapter of the Comp Plan calls for developing a Community Resilience Plan. Such a plan will not be simple and will require the involvement of many organizations and individuals. Below are some comments related to the effort:

- A community-wide effort should begin to address climate change in areas beyond natural resources and biodiversity (e.g., emergency services, public health, economic development, agricultural and forestry interests, etc.).
- This will need to be a long term County-wide effort, involving almost all County departments and many other organizations. Much public education and involvement will be needed.
- Implement selected strategies from the 2011 report from the Local Climate Action Planning Process (LCAPP).
- Improve energy performance (generation, distribution, efficiency, eliminate waste) both internally and among the general public.
- Include both adaptation and mitigation strategies.