Objective 4: Protect the biological diversity and ecological integrity of the County in both the Rural Area and Development Areas.

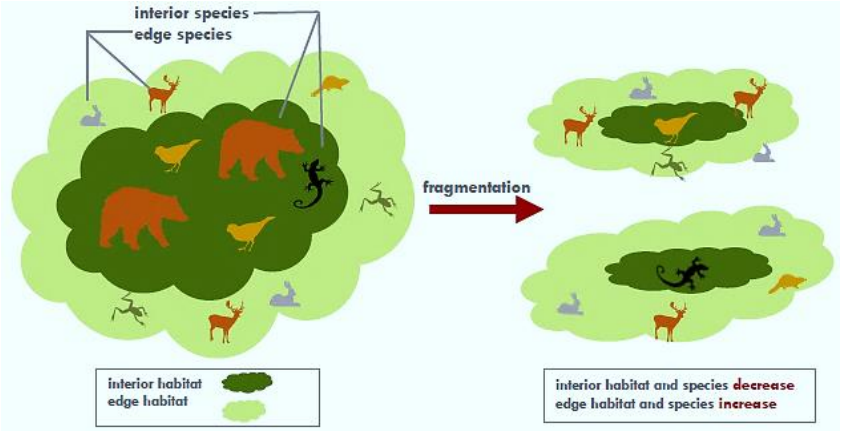
Biological diversity, or ~~(~~ "biodiversity" for short~~)~~, has been defined as "the diversity of life in all its forms, and at all levels of organization" (Hunter 1996). While there are numerous ways to think about how life and all organisms are organized, the most common ways of viewing biodiversity include species diversity, genetic diversity, and ecosystem diversity. Biodiversity is sometimes described as the totality of genes, species, and ecosystems of a region. ~~is the variety of living organisms that inhabit a particular area or ecosystem.~~

The health of biological systems is often indicated by the amount of native variety they contain. Native species have evolved to live in their current habitats and, generally, the more diverse a system is, the healthier it is. The breadth of species creates strength for all species; when a species is lost, it signals a change that may affect all species.

~~Worldwide, human life depends on the products of living organisms. Whether these animals, plants, or microorganisms are wild or domesticated, they provide food, medicine and industrial products essential to mankind. These products form the backbone of the world's economy. That is, fisheries, forestry, agriculture, and other industries depend on animals and plants, and therefore rely directly on a diversity of biological resources. Soil bacteria are essential for productive farmlands. Other bacteria provide crucial vitamins and enzymes. Biodiversity of species, landscapes, and ecosystems also provides for ecological services, such as retention of clean water, production of oxygen, consumption of carbon dioxide, resistance to parasites and disease organisms, control of agricultural pests, facilitating pollination, and critical recycling of inorganic nutrients upon which all natural productivity depends.~~Biodiversity is important to human populations for numerous and diverse reasons. In a narrow but critical sense, we depend on the services that ecosystems, and the living things found in them, provide. Ecosystem services refer to the many benefits that humans receive, at no direct economic cost, from natural environments and functioning ecosystems. Some essential ecosystem services include purification of air and water, pollination of crops and natural vegetation, generation and renewal of soil and fertility, and mitigation of floods and droughts. Healthy, functioning ecosystems provide many other benefits and also contribute greatly to the quality of life of County residents.

Protection of biodiversity is important in both the Development Areas and the Rural Area. Because the quantity of resources is ~~so~~ much greater in the Rural Area, most of the efforts in protecting biodiversity are focused there~~in the Rural Area~~. However, Development Areas are very important for conserving biodiversity. They are home to a number of key species and ecosystems. ~~Different efforts to protect biodiversity exist for the Development Areas, such as identifying key species or systems that might be impacted by new development and considering how they should be protected.~~ Preservation of environmental corridors, such as those shown on Parks and Green Systems plans in Development Area Master Plans, helps to maintain biodiversity in the Development Areas. Equally important is the preservation

of wooded corridors that extend from the Rural Area into the Development Areas. Developing and maintaining a diverse, connected urban forest can provide important biodiversity resources as well as many other environmental and societal benefits.

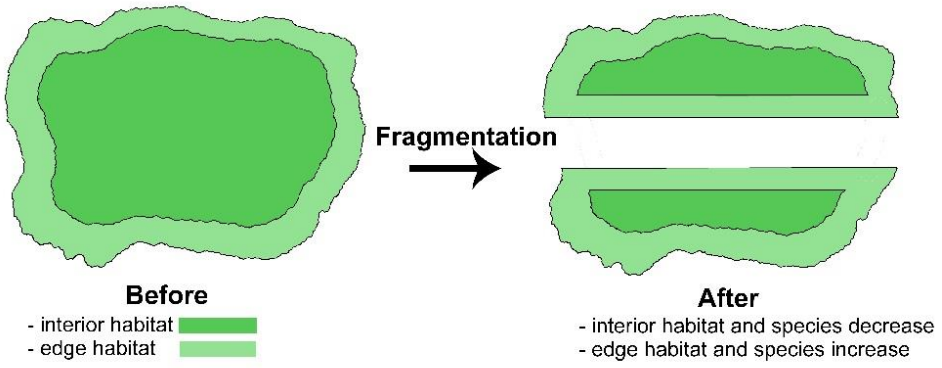


There are a variety of threats to biodiversity, ranging from the local to the global scale. An ongoing threat in Albemarle County and beyond is habitat fragmentation. When large patches of habitat are fragmented into smaller areas, species dependent on large "interior" habitats or large ranges cannot survive.

As shown in Figure 4, which depicts the potential results of a new road or utility right-of-way being constructed, the amount~~size~~ of ~~the~~ interior habitat is reduced, minimizing area for food, cover, and movement. This negatively impacts many wildlife species found in the County that rely on interior habitat. Examples include forest interior breeding birds, such as the cerulean warbler and scarlet tanager, that are harmed by nest predators and nest parasites that are common in edge habitat. Some amphibians are also impacted by the loss of interior habitat, including the red-spotted newt and eastern red-backed salamander.

Figure 4 also illustrates that the oveall amount of habitat is often reduced by fragmentation. Species that require large areas of habitat, such as the bobcat and river otter, may be negatively impacted. The increase in edge habitat often benefits many commonly occurring species, such as white-tailed deer, raccoon, and opossum. While these and other common species are important components of biodiversity, they can present problems too. Vehicle-wildlife collisions are perhaps the most serious issue. The County and its residents can work closely with agencies and County partners, such as Virginia Department of Game and Inland Fisheries, in reducing human-wildlife conflicts.

Figure 4: Illustration of Habitat Size and Fragmentation

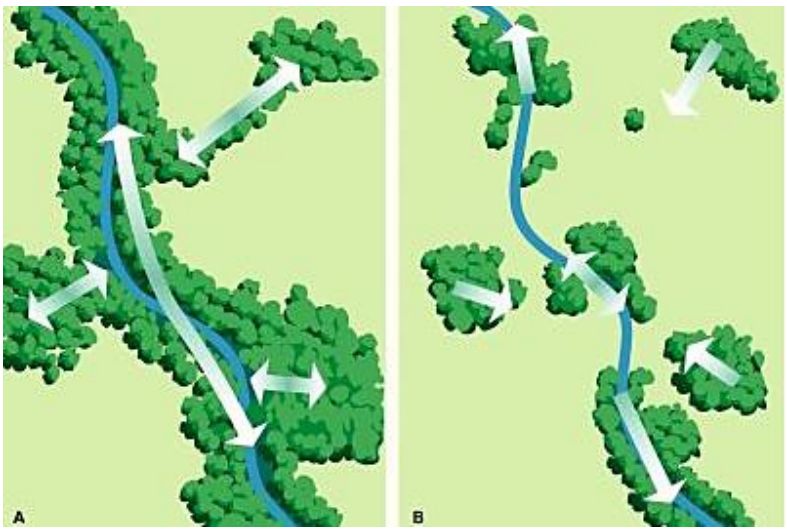


Fragmentation also reduces viability for species. Loss of safe passages between habitats (shown in picture B of Figure 5) prevents species from reaching needed habitats or recolonizing habitats that have lost those species. Connectivity of habitat is critical for healthy, functioning ecosystems.

Source: Linfield College Department of Sustainability, Linfield, OR. Used with permission.

Subdivision of parcels into smaller parcels is conceptually distinct from habitat fragmentation and has been referred to as "parcelization" (Downing 2016). However, parcelization often leads to habitat fragmentation. Parcelization and subdivision of land can result in the size and/or shape of parcels that are generally usable only for residential purposes, thus complicating land management for forestry, agriculture, or conservation.

Figure 5: Illustration of Habitat Range and Connectivity



A: A well connected landscape. B: A poorly connected landscape.
Source: Federal Interagency Stream Restoration Working Group (FISRWG)

Conversion of wildlife habitat to land uses that remove the key elements for survival result in many fewer native species and pose the greatest threat to biodiversity. As discussed in the Rural Area Chapter (page 18), there is potential for much residential development in the Rural Area, which could negatively affect biodiversity.

Aquatic habitats are also degraded by soil erosion when land is cleared for development. As a result, aquatic life declines and affects the health of rivers and streams. Any effort to protect the quality of ecosystems must include both terrestrial (land-based) and aquatic (water-based) ecosystems.

~~While the most important areas for biodiversity are in the Rural Area, the Development Areas also have a role to play in biodiversity protection. The most important features to protect in the Development Areas are wooded riparian areas, wetlands, and habitat corridors~~.

Strategy 4a: Implement~~Develop~~ an Action Plan for Biodiversity ~~to~~that includes protection of significant areas of biological importance in the County.

The Natural Heritage Committee (formerly the Biodiversity Committee) was appointed by the Board of Supervisors in 2005 to create and maintain the County's Biodiversity Assessment, advisee the Board of Supervisors, the Planning Commission, and County staff on applying biodiversity information to land-use decision-making, and support biodiversity education in the County. Their mission is to help maintain and restore the County's native biological diversity and provide a healthy environment for the citizens of Albemarle County. ~~This Committee will provide guidance to County staff to develop a plan of action. Developing the plan should also include other experts and volunteers.~~

After adoption of the 2015 Comprehensive Plan, County staff worked with the Natural Heritage Committee to develop a Biodiversity Action Plan which is included in the Reference Documents section of this document (***hyperlink***). Included as Reference Documents and part of the plan are an Executive Summary, Appendices, and maps. The Biodiversity Action Plan builds upon work conducted by the Biodiversity Work Group from 2002-2004. The work group was created as a temporary body and developed a biodiversity report for Albemarle County in 2004. That report, a summary report, and appendices are also available in the Reference Documents section.

~~The first step in planning for biodiversity protection is a landscape-level analysis. Such an analysis would incorporate data on the County's landforms and on the location and quality of habitats, including fragmentation and connectivity, as well as the current level of biodiversity. Aquatic biodiversity should also be addressed through a sub-watershed analysis. The landscape approach focuses on a wide scale (square miles rather than square feet) and on the management of major land features (e.g., forest blocks, watersheds, urbanized areas) to conserve biodiversity. The goal of these analyses would be to identify priority areas for conservation and restoration so that the County's policies and resources could be used to protect biodiversity in the most effective manner. Important landscape features can be prioritized for conservation measures (such as conservation easements) or for restoration efforts.~~

~~The action plan can be developed from the inventory and analysis. The plan should contain the map of important landscape features and individual species occurrences that can be included in the County's Geographic Information System. When made widely available, County staff and the public can use the information for conservation purposes as well as reviewing requests for legislative approvals. The plan should recommend incentives and policies that would encourage land uses and conservation approaches to support the County's landscape management goals for each area of the County. Aquatic conservation should also be addressed through land management techniques designed for specific watersheds. It should also contain a set of indicators of biodiversity status that can be tracked.~~

~~The County should establish concrete goals for the Albemarle landscape, including targets for overall forest cover, the preservation of existing forest blocks, and the restoration or establishment of additional forest blocks or corridors. The County should also use the StreamWatch analysis of the relationship between land use (particularly forest cover and impervious surfaces) and water quality to classify stream health in the County's watersheds, and to develop appropriate management approaches for them.~~

~~The plan should also include recommendations for incentive programs to encourage landowners to protect habitats on their property. Homeowners can contribute to biodiversity protection by protecting habitat fragments on their properties and by using native plants for landscaping. Incentives can encourage landowners to work with the County to work toward successful habitat protection.~~

~~When completed, the action plan should be presented to the Board of Supervisors for adoption into the Comprehensive Plan. From that action plan, the Natural Heritage Committee can develop a list of short-term conservation targets. The plan should be revised periodically to reflect changes in the landscape and the conservation status of important areas of the County.~~

The Biodiversity Action Plan (BAP) provides both a broad overview and detailed information about biodiversity in the County. A key component of the plan is a spatial analysis of the Albemarle County landscape and the habitat it contains. Figures 6, 7, and 8 illustrate some of the data, analysis, and results of the plan. These figures correspond to Maps 1, 2, and 4 respectively in the BAP.

The BAP affirms the need to minimize and reduce habitat fragmentation County-wide by maintaining existing habitat connectivity. It promotes establishing new connectivity where possible and appropriate. It identifies non-native invasive species and climate change as significant threats to biodiversity both locally and on grander scales. It builds and expands upon recommendations in Objectives 1, 5, and 6 of this Chapter that call for protecting and preserving water resources, retaining mountain resources, retaining and improving land cover near rivers and streams, and protecting wetlands. The BAP also highlights the need to restore impaired or degraded ecosystems. Returning these systems to better health and functionality is often possible and a very important conservation tool.

The BAP should be reviewed and updated on a regular basis to account for changing conditions and to incorporate new knowledge and data. The BAP was intended to cover a five year period and should be reviewed and updated as needed in 2023.

The strategies that follow provide specific ways to protect and conserve biodiversity in Albemarle County. Since most of the County land is in private ownership, a strong community-based stewardship approach toward the County's natural resources will be a tremendous asset in effectively implementing the strategies.

Strategy 4b: Use existing tools (e.g., conservation easements), develop strategies, and implement new conservation programs to protect lands in the three conservation focus areas, other conservation targets (e.g., examples of the five key ecosystems described below, large forest blocks or other intact, important habitat), and lands that can serve as habitat corridors or connections among important habitat areas.

The BAP identifies three areas of the County that are rich in biodiversity and have significant conservation value (see Figure 8). Conserving lands and resources within the three focus areas – Northwestern Albemarle, the Southern Albemarle Mountains, and the Rivanna River Corridor - prioritizes efforts and should maximize conservation effectiveness. There is significant potential for enhanced conservation through good stewardship and land management in these focus areas. The total acreage of the areas is approximately 156,539 acres. Approximately 12% of the land is publicly owned, approximately 88% is in private ownership, and approximately 20% of the privately owned land is under conservation easement.

Five types of ecosystems are also identitifed as key for conserving biodiversity: 1) forests, 2) outcrops, bluffs, and other xeric habitats, 3) relict Piedmont prairies and grasslands, 4) rivers, streams, and riparian areas, and 5) wetlands. While not as widely recognized as some ecosystems, the biological importance and historical significance of Piedmont prairies and grasslands have become better studied and understood in recent years.

These five ecosystems may be important conservation targets regardless of their location. That is, they do not need to be located within the conservation focus areas to merit protection. Similarly, lands that can connect areas of habitat may be important conservation targets regardless of location in the County. In addition to their importance as habitat, rivers, wetlands, and other water features form key connectors that aquatic species, birds, and other wildlife use to move through the landscape. Protecting riparian and wetland areas is very important in supporting healthy, functioning ecosystems and providing good water quality.

The County's conservation easement programs, Acquisition of Conservation Easements (ACE) and Albemarle Conservation Easement Authority (ACEA), can be effective tools for helping conserve biodiversity. In addition to revising the criteria for these programs to include biodiversity values (as stated in Strategy 4e of this chapter), these programs should be strengthened. This is consistent with Strategy 5d of this chapter and Strategies 2b, 2d, 2e, and 2f ***(hyperlink)*** of the Rural Area Chapter.

Other land and resource protection tools should be investigated for use in Albemarle County. For example, a Transfer of Development Rights (TDR) program should be investigated as a possible method for conserving biodiversity. Lands within the three conservation focus areas and other identified conservation targets could be the focus of TDR programs. Researching a TDR program that is appropriate for Albemarle County is consistent with Strategies 1a and 2g ***(hyperlink)*** of the Rural Area Chapter.

Strategy 4c: Protect and conserve natural resources on County-owned land to enhance biodiversity.

Public lands and the ways they are managed play an important role in protecting open space, wildlife habitat, and biodiversity. Several land management practices, if implemented consistently on County-owned land, will contribute to enhancing biodiversity. Examples include controlling non-native invasive species, using locally native plants in landscaping, promoting natural plant communities on site when possible (e.g., establishing native grassland habitat in place of turf or large lawn areas), maintaining wide riparian buffers along waterways, and reducing stormwater runoff.

County parks in particular should play a critical role in conserving biodiversity. Many parks contain examples of the five highlighted ecosystems, and several current and future County parks occur within or near the conservation focus areas. If managed properly, parks can conserve large, intact areas of forest and other habitat types. Management plans for the parks should include strategies to conserve and enhance biodiversity. Simple examples include controlling access to sensitive areas, designating specific locations for non-disturbance (e.g, reducing areas maintained by mowing), and using boardwalks and signage to limit access to sensitive areas while providing unique educational opportunities. Where possible, prescribed burning can be used to promote biodiversity.

Strategy 4d: Preserve existing vegetation in areas shown as Parks and Green Systems on Development Area Master Plans.

Each Development Area Master Plan describes the importance of preserving stream corridors and other environmentally sensitive areas. These places are especially important to biodiversity as are other areas shown as Parks and Green Systems in the Master Plan maps. The Neighborhood Model principles, found in the Development Areas Chapter, describe the importance of parks, recreational amenities, and open space in creating and maintaining high quality neighborhoods. Wooded areas, riparian areas, and undeveloped well-vegetated land connecting these areas help retain habitat corridors.

Strategy 4e: Revise criteria for ACE (Acquisition of Conservation Easement Program) and ACEA (Albemarle Conservation Easement Authority, formerly the Public Recreational Facilities Authority) easement applications to more accurately identify biodiversity resources and conservation needs.

Conservation easements typically restrict development and protect agricultural, scenic, historic, and aquatic resources. They could be more effective at protecting specific habitat areas. While recognizing the value of biodiversity, current criteria for assessing biodiversity on ACE properties are limited in

scope, with biodiversity data coming into play on a very limited basis. The criteria should be revised to include additional information and data sources, including BAP data. Improved criteria will allow biodiversity to be more easily considered in evaluating properties for ACE easements. For all County-held easements, terms and language need to be developed that provide effective methods for permanently protecting specific habitat areas that support biodiversity.

Strategy 4f: Evaluate opportunities and take steps to conserve and protect high priority Important Sites in the County.

Important Sites are defined as "locations of special plant communities, unusual habitats, or species rare to scarce in the County." An initial list of Important Sites was developed by the Biodiversity Work Group in 2004. The Natural Heritage Committee (NHC) has maintained and revised the list in the ensuing years. Appendix C of the BAP provides descriptions of all 53 sites and a list of the 24 high priority sites. Map 3 of the BAP shows generalized locations of the sites.

The Important Sites represent significant opportunities for good stewardship, land management, and enhanced conservation of lands in the County. The total amound of land in the 53 sites is approximately 30,543 acres. Of this total, approximately 7% is public land and 93% is in private ownership. Approximately 23% of the privately owned land is under conservation easement. One of the 53 Important Sites is a landscape scale area of 21,588 acres. If this very large landscape scale site is not included, the remaining 52 sites represent a smaller area of approximately 9,786 total acres. They are comprised of approximately 21% public land, 79% privately owned land, and 30% of the privately owned land is under conservation easement.

Important Sites were evaluated based on their conservation value and the potential for conservation action that can be taken in the five years following completion of the BAP. The NHC intends to serve as an advocate for thirteen of the sites, working with landowners and local residents to raise awareness about them and discuss options for appropriate management and protection. Based on pending actions, the County is well positioned to positively influence activities and land management at nine Important Sites, and should take lead responsibility for them. The pending actions include development of new County parks, joint planning with the City of Charlottesville and Thomas Jefferson Planning District Commission on a Rivanna River corridor, and updating the Pantops Master Plan. The County and the NHC should share responsibility for two Important Sites. One site is adjacent to a future County park. The other site is within the Shenandoah National Park.

Strategy 4g~~e~~: Encourage the use of locally native plants in landscaping to protect and provide habitat for native biodiversity, to save water, and to connect landowners to the local ecosystem.

The term "locally native" refers to plants that are native to the central Piedmont region of Virginia. The use of locally native plants in landscaping, ~~and~~ land management, and development projects is important to protect native biodiversity against invasive species, to save water compared to plantings not adapted to the local climate, to provide additional habitat for native species, and to help connect residents to the local ecosystems. In 2012, Albemarle County Department of General Services (since renamed Facilities and Environmental Services) staff developed a native plants database and currently strives to plant at least 80% native plants in County projects. Community Development Department staff should also promote use of native plants in conjunction with the site development process.

Strategy 4h: Collaborate with resource management agencies, partners, and landowners to manage non-native invasive species to reduce their impacts and limit their spread.

The threat that non-native invasive species pose to biodiversity, agriculture, forestry, and other concerns is widely documented and accepted. Numerous state and federal agencies, nonprofit groups, and other organizations are actively engaged in trying to manage the threat. Examples include the Virginia Department of Forestry, Virginia Department of Conservation and Recreation, Blue Ridge PRISM, Thomas Jefferson Soil and Water Conservation District, The Nature Conservancy, and the Virginia Native Plant Society. Efforts on this front by the County can be significantly strengthened by collaborating with these and other organizations.

Strategy 4i: Include aquatic and riparian habitat enhancement with strategies for water quality when developing the comprehensive water resources plan.

Strategy 1c of this chapter calls for developing and implementing a comprehensive water resources plan for the County. The strategy includes stream restoration needs and strategies, public education efforts, and coordination of different County programs. This represents a logical and practical opportunity to enhance aquatic and riparian habitat as part of the comprehensive water resources plan. Biodiversity and stream health are associated with water quality. The Virginia Department of Environmental Quality designates aquatic life, as determined by benthic macroinvertebrate data, as one of six designated uses for surface waters, and thus a standard for assessing water quality.

The County's network of rivers, streams, and riparian areas are a vital component of regional biodiversity, as stated under Strategy 4b of this chapter. Greater efforts should be made to protect these resources, for purposes of both improving water quality and protecting biodiversity. Taking actions for these purposes is consistent with Objectives 1 and 6 of this chapter, Strategies 1a, 6a, 6b, and 6c of this chapter, Objective 8 and Strategies 8a and 8b ***(hyperlink)*** of the Development Areas Chapter, and Strategy 3a ***(hyperlink)*** of the Parks and Recreation, Greenways, Blueways, and Green Systems Chapter.

Strategy 4j: Increase the community's awareness of the importance of biodiversity to encourage protection of biological resources.

Volunteers and the County can support private conservation efforts by developing and disseminating educational and technical material to the general public, developers, and private land owners, including residents of the Development Areas. The material should contain information on the value of biodiversity, voluntary techniques that can be used to protect biological resources located on their land, and resources available to them. Typical examples that are often appropriate on small parcels and in urbanized areas include creating rain gardens, pollinator habitat, and xeriscaping with native plants.

Strategy 4k~~c~~: Continue to collaborate with federal, s~~S~~tate, and regional partners, who have geographic information on biological resources, to help build a biodiversity inventory.

Many f~~F~~ederal, ~~S~~state, and regional agencies ~~all~~ collect data on biological resources and work towards species protection. These data can be used in conjunction with information from the BAP and other County-generated data to develop a broad dataset on biodiversity. Developing and maintaining good working relationships with cooperating agencies and organizations is important. ~~Because the County has very limited sources of information and analysis on habitats and biodiversity, it can use the assistance and existing capacity of partner agencies if working relationships are built and maintained.~~

One very useful strategy would be to work with the Virginia Department of Transportation to design and test wildlife overpasses and underpasses to reduce the loss of wildlife to habitat fragmentation by

roads, especially between large habitat blocks. A variety of overpasses and underpass sizes can contribute to biodiversity protection, including, for example, very small tubes and tunnels that can help amphibians move between upland and wetland habitats as needed for reproduction.

Strategy 4l: Retain a position for a County staff member with expertise in conservation biology.

In the years following creation of the Natural Heritage Committee in 2005, County resources were limited and no staff was available to work with the committee. With the hiring of a natural resources staff person in December 2015, a liaison between County staff and the NHC was established. The staff position supports the NHC and made development of the BAP possible. The staff position also strengthens County efforts to improve stream health, helps monitor proposed projects for impacts to biodiversity, provides additional resources for project review, and increases County support, outreach, and education for landowners.

Staff is in a unique situation to help make the connections between science, conservation management, and planning in the County. Staff time for conservation enables the County to be more effective and ensure that resources expended on these programs are put to the best use.

Strategy 4m~~b~~: Develop indicators and monitor data that reflect the state of biodiversity in the County. Regularly repeat the land use/land-cover data-gathering process (as begun in 2009) for the purpose of monitoring landscape changes.

The state of biodiversity in Albemarle County is continually evolving. Indications of change are important in monitoring and assessing the current state, for tracking changes through time, and for effective conservation planning. Indicators may directly or indirectly reflect biodiversity resources. Examples of indicators could include the amount of land and landscape areas that are protected, the level of protection provided, indices of habitat connectivity and fragmentation, water quality and stream health data, and the status of threats to biodiversity (e.g., non-native invasive plants).

In 2007, Albemarle County, along with the Nature Conservancy, the Rivanna River Basin Commission, and StreamWatch (merged with the Rivanna Conservation Society in 2016 to form the Rivanna Conservation Alliance) funded mapping of land cover in the County and the rest of the Rivanna River watershed. The first map was completed in 2009 and is provided as a layer on the County's GIS web application. Because it is such a useful tool to track change over time, it is essential to repeat because it provides feedback on the effectiveness of conservation programs and allows conservation programs to adapt to trends in landscape changes.

~~**Strategy 4c:** Collaborate with federal, State, and regional partners, who have geographic information on biological resources, to help build a biodiversity inventory.~~

~~Federal, State, and regional agencies all collect data on biological resources and work towards species protection. Because the County has very limited sources of information and analysis on habitats and biodiversity, it can use the assistance and existing capacity of partner agencies if working relationships are built and maintained.~~

~~One very useful strategy would be to work with the Virginia Department of Transportation to design and test wildlife overpasses and underpasses to reduce the loss of wildlife to habitat fragmentation by roads, especially between large habitat blocks. A variety of overpasses and underpass sizes can~~

~~contribute to biodiversity protection, including, for example, very small tubes and tunnels that can help amphibians move between upland and wetland habitats as needed for reproduction.~~

~~**Strategy 4d:** Assess the need for hiring a County staff member with expertise in conservation biology, and/or training existing County staff in principles of conservation biology to assist in development of the Action Plan and coordination with other County actions.~~

~~When the Biodiversity Report, which may be found in the Reference Documents was developed in 2004, the County was able to provide staff to coordinate the activities of 13 residents who are also professional ornithologists, foresters, wildlife biologists, botanists, and watershed managers. However, since that time, funding cuts have limited the activities for providing support to the volunteers who are needed to create the action plan. In addition, staff time to provide input on the impacts of development on habitat is extremely limited. Staff is in a unique situation to help make the connections between science, conservation management, and planning in the County. Additional staff time for conservation would enable the County to be more effective and ensure that resources expended on these programs are put to the best use.~~

~~**Strategy 4e:** Encourage the use of native plants in landscaping to protect and provide habitat for native biodiversity, to save water, and to connect landowners to the local ecosystem.~~

~~The use of native plants in landscaping and land management projects is important to protect native biodiversity against invasive species, to save water compared to plantings not adapted to the local climate, to provide additional habitat for native species, and to help connect residents to the local ecosystems. In 2012, Albemarle County General Services staff developed a native plants database and currently strives to plant at least 80% native plants in County projects. Community Development staff should also promote use of native plants in conjunction with the site development process.~~

~~**Strategy 4f:** Increase the community's awareness of the importance of biodiversity to encourage protection of biological resources.~~

~~Volunteers and the County can support private conservation efforts by developing and disseminating educational and technical material to the general public, developers, and private land owners, including residents of the Development Areas. The material should contain information on the value of biodiversity and voluntary techniques that can be used to protect biological resources located on their land.~~

~~**Strategy 4g:** Provide information to potential land subdividers on the importance of protecting habitat when creating lots for development.~~

~~The County can help retain habitats and corridors by working with property owners early in the development process, especially in the Rural Area, to identify the benefits of protecting habitat. The County can also provide information on ways to subdivide land that provides for the most protection of habitats as well as provide information on conservation programs in the County and other agencies. More information on ways to assist property owners can be found in the Rural Area Chapter.~~

~~**Strategy 4h:** Preserve existing vegetation in areas shown as Parks and Green Systems on Development Area Master Plans.~~

~~Each Development Area Master Plan describes the importance of preserving stream corridors and other environmentally sensitive areas. These places are especially important to biodiversity as are other areas shown as Parks and Green Systems in the Master Plan maps. The Neighborhood Model principles, found in the Development Areas Chapter, describe the importance of parks, recreational amenities, and open space in creating and maintain high quality neighborhoods. Wooded areas, riparian areas, and undeveloped well-vegetated land connecting these areas helps retain habitat corridors.~~

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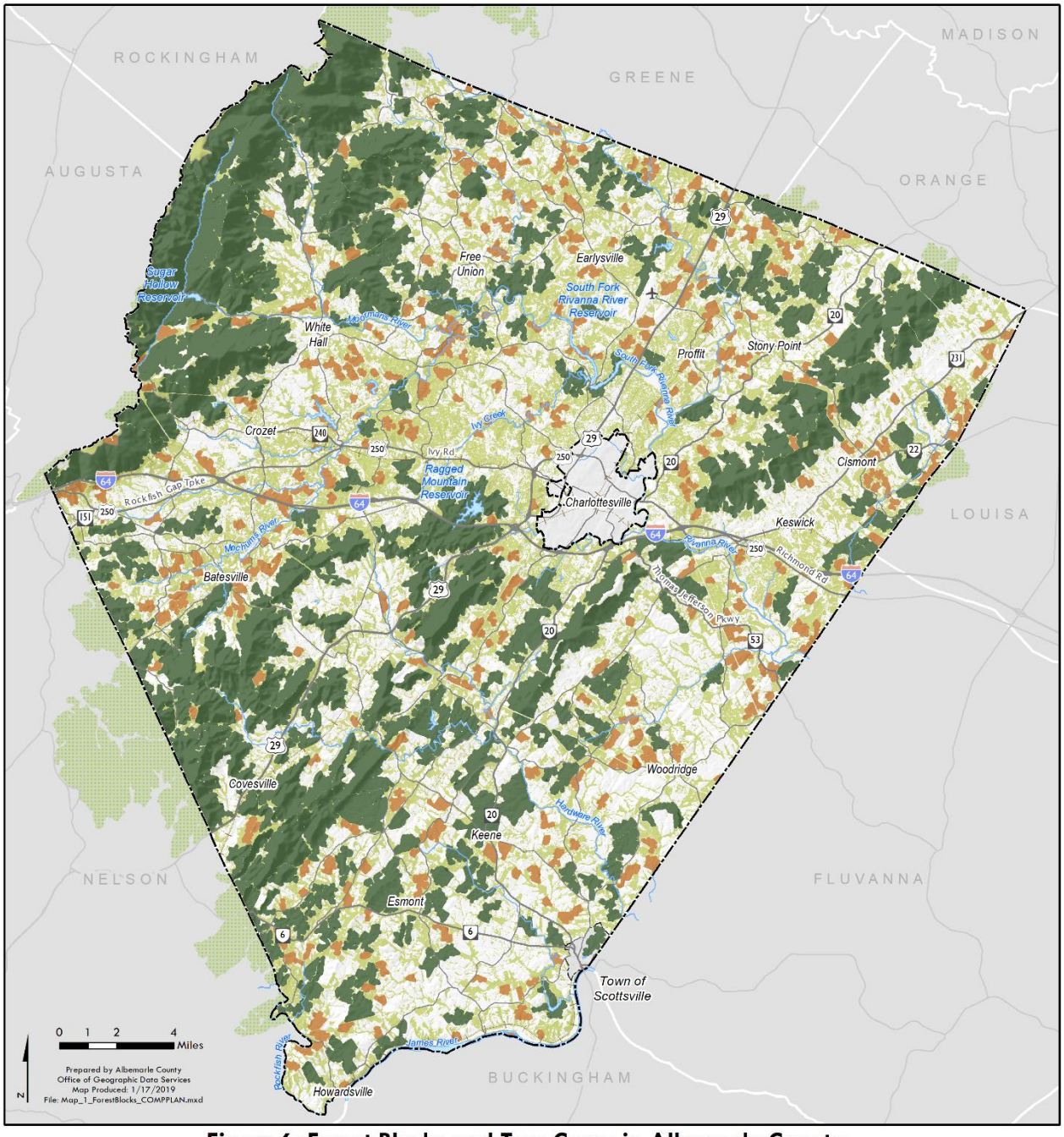

Figure 6: Forest Blocks and Tree Cover in Albemarle County

Figure 6 illustrates forested areas and tree cover in Albemarle County based on 2009 land cover data. Pine plantations were not included as forest or tree cover in this analysis.

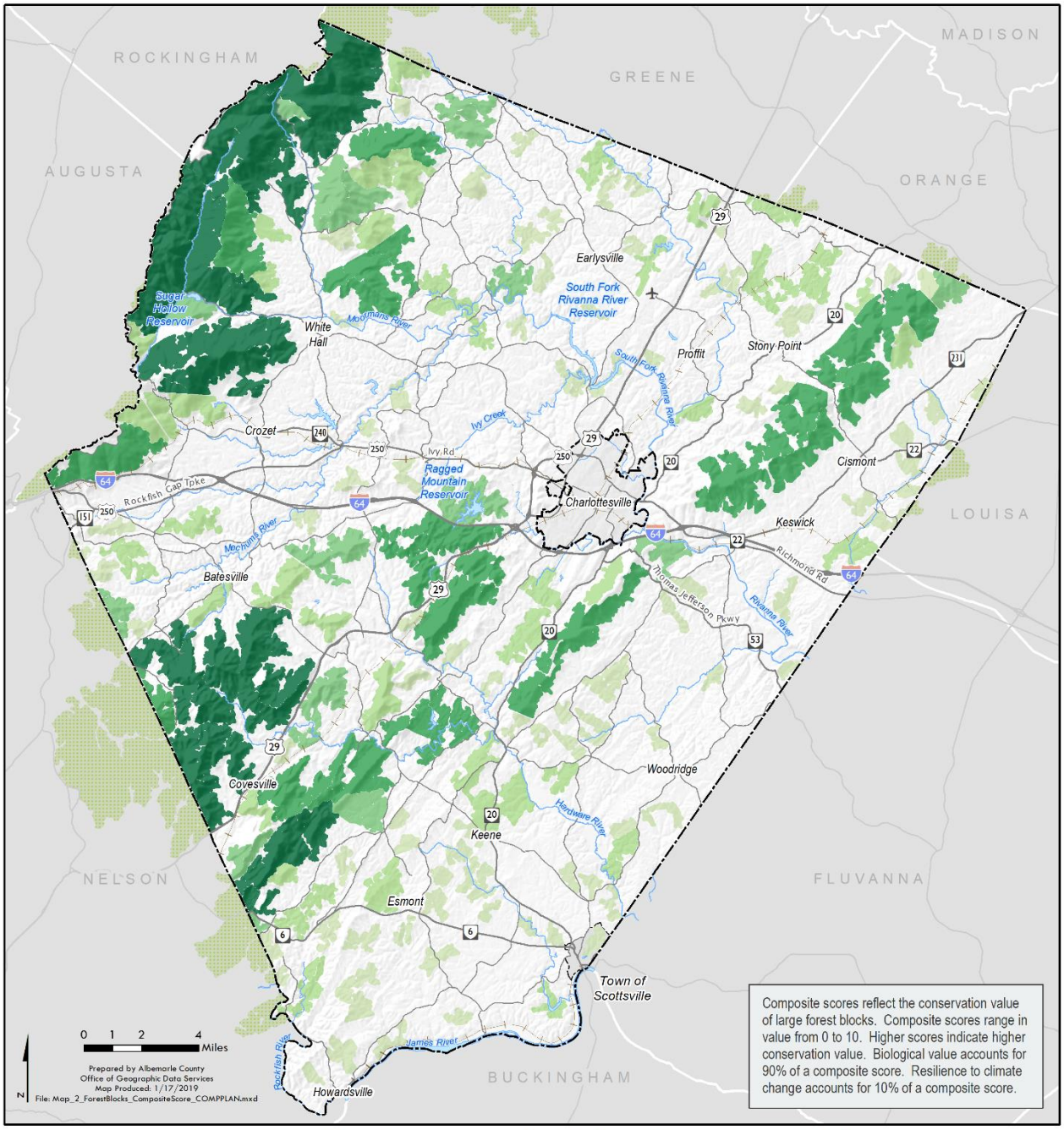

Figure 7: Ranking the Conservation Value of Large Forest Blocks

Figure 7 illustrates the composite scores of large forest blocks (blocks containing 100 or more acres of interior forest). Forest blocks were identified using 2009 land cover data.

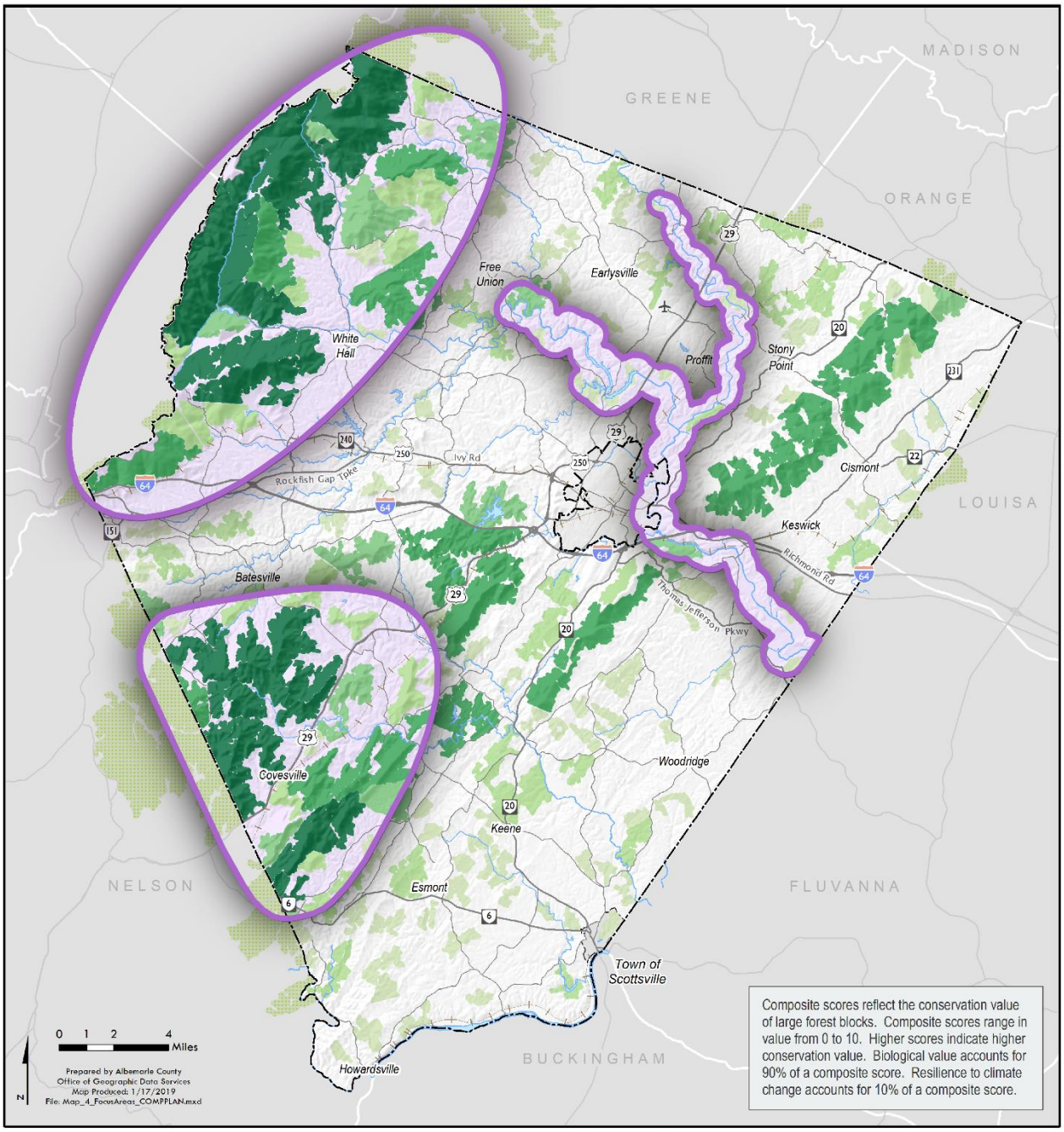

Figure 8: Conservation Focus Areas

Figure 8 depicts the three areas in Albemarle County that should be a focus of conservation activity and attention.