Using the South Atlantic Conservation Blueprint to Improve Integration Between the Natural and Built Environments

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Introduction

This report aims to improve the ability of planners and conservation professionals to depict areas and actions of shared conservation interest near and within cities by using the South Atlantic Conservation Blueprint.

The South Atlantic Landscape Conservation Cooperative (LCC) is one of 22 LCCs (viewable at lccnetwork.org/map) that include portions of North America, the Pacific Islands, and the Caribbean, covering all U.S. states and territories. LCCs are public-private partnerships that undertake landscape-scale conservation work specific to the needs of their geographies and collaborators. Their members include federal, state, nonprofit, and private organizations. The South Atlantic LCC includes parts of six states: Virginia, North Carolina, South Carolina, Georgia, Florida, and Alabama.

The Blueprint is a “living spatial plan” that identifies shared conservation priorities across the South Atlantic LCC’s region (South Atlantic Landscape Conservation Cooperative 2017). The shared priorities reflect the work and direction of the 800 or so conservation and allied professionals that participate in the South Atlantic LCC, crossing jurisdictional boundaries and operating at the landscape scale.

The Blueprint is intended to facilitate specific conservation actions and help bring in new resources for conservation work by highlighting connections and areas of concern. To date, the Blueprint has been used in more than 40 completed projects, helping partners obtain funding, plan for public lands, and prioritize specific conservation projects. More than 100 people from nearly 50 different organizations have used, or are in the process of using, the Blueprint.

Figure 1. Blueprint 2.2 depicts three priority levels – medium, high, and highest – as well as corridors that link conservation areas.
The Blueprint can be accessed three ways: via the Simple Viewer (which summarizes Blueprint priority and indicator scores), the South Atlantic Conservation Planning Atlas (which allows the user to view and combine individual data layers), and by downloading the Blueprint into ArcGIS. While the Simple Viewer provides a high-level overview, the Conservation Planning Atlas allows users to dig much deeper into the data. Users can, among other things, view the integrity of different ecosystems, see the specific threats posed by urban growth and sea-level rise, or explore the current indicators.
Why Planners Should Integrate Local Planning with the Blueprint

Co-Benefits of Environmental Conservation for Planning

Environmental conservation is often only one of many competing priorities for local planners, if it is even a priority at all. However, even if conservation is not identified as a focus within a community, successful conservation efforts can result in a host of desirable co-benefits that help accomplish goals related to economic development, social equity, community health, and other broad priorities.

As an example of one conservation activity having multiple benefits, the state of Georgia requires vegetated buffers around riparian areas (land abutting a body or course of water) to protect water quality by reducing erosion and sedimentation. It requires a minimum vegetated buffer width of 25 feet around all watercourses and tidal waters, with the minimum width increasing to 50 feet for trout.

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<thead>
<tr>
<th>Conservation Activity</th>
<th>Results</th>
<th>Community Benefits</th>
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<tbody>
<tr>
<td>Source water protection</td>
<td>Improved water quality</td>
<td>Reduced need for water treatment facilities</td>
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<td></td>
<td>Flood mitigation</td>
<td>Increased tourism revenue</td>
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<td></td>
<td>Stormwater protection</td>
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<td>Wildlife habitat enhancement</td>
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<td>Biodiversity</td>
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<td>Recreational opportunities</td>
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<tr>
<td>Flood mitigation/stormwater management</td>
<td>Reduced frequency of flood events</td>
<td>Less costly public drainage infrastructure</td>
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<td>Smaller areas of flood events</td>
<td>Reduced flood-related costs for property owners</td>
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<td>Improved water quality</td>
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<td>Reduced erosion</td>
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<td>Reduced sedimentation</td>
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<tr>
<td>Open space and farmland preservation</td>
<td>Flood control</td>
<td>Continued production</td>
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<td></td>
<td>Water quality</td>
<td>Increased tourism revenue</td>
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<td></td>
<td>Recreational opportunities</td>
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<tr>
<td>Forest preservation and enhancement</td>
<td>Wildlife habitat enhancement</td>
<td>Reliable sources of wood fiber</td>
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<td>Timber source</td>
<td>Increased tourism revenue</td>
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<td></td>
<td>Carbon storage</td>
<td>Higher property values</td>
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<td>Stormwater retention</td>
<td>Lower energy use</td>
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<td>Recreational opportunities</td>
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<td>Increased shade</td>
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<td>Restoring coastal features</td>
<td>Wildlife habitat enhancement</td>
<td>Increased tourism revenue</td>
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<td></td>
<td>Recreational opportunities</td>
<td>Higher property values</td>
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<td></td>
<td>Improved water quality</td>
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Figure 4. This table summarizes several conservation activities, the results of those activities, and their benefits for cities and people (Naturally Resilient Communities 2017 and National Association of Conservation Districts 2010).
streams (Rhees 2016). This requirement accomplished the goal of improved water quality, and it also reduces flood risk, captures and removes certain pollutants, provides habitat for pollinators and game birds, and provides shade that moderates temperature fluctuations that affect fish spawning (Rhees 2016). The desire for clean, clear water in this case results in enhanced wildlife habitats and less frequent and severe flooding, both of which have economic benefits for communities by providing increased tourism dollars and reduced flood control spending.

**Benefits of Intra-jurisdictional and Regional Coordination**

Bringing a landscape perspective to local planning can benefit communities in multiple ways, allowing them to amplify the impact of their existing efforts while also anticipating and planning for change. Air, water, and other natural resources, along with human modifications to the landscape such as trails and other transportation systems, cross jurisdictional boundaries, underscoring the importance of linking local action to the regional scale and beyond.

APA’s [Comprehensive Plan Standards for Sustaining Places](http://planning.org) identify Responsible Regionalism as one of six principles that provide the substantive direction for comprehensive plans:

> Ensure that all local proposals account for, connect with, and support the plans of adjacent jurisdictions and the surrounding region (Godschalk and Rouse 2015, p. 18).

One of the best practices under this principle calls for coordinating local open space plans with regional green infrastructure plans:

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**ROANOKE RIVER PADDLE TRAIL**

The Roanoke River Paddle Trail is a great example of the benefits of intra-jurisdictional and regional coordination in the South Atlantic geography. The five North Carolina counties bordering the Roanoke River from the Virginia state line to the Albemarle Sound (Northampton, Halifax, Martin, Bertie and Washington Counties), along with other partners, formed the Roanoke River Partners (RPP) to advance the ecotourism potential of the area’s rich natural and cultural resources. The Paddle Trail is RPP’s flagship accomplishment, featuring 16 campsites along more than 200 miles of rivers, creeks, and swamps (NC East Alliance 2017).

Visitors from across the nation and globe book the campsites for 1,200 overnight stays each year, while about 5,000 people paddle on the river for day trips annually. The trail’s popularity has supported the growth of outdoor outfitters and guide businesses. Trail users also buy plenty of groceries, supplies, and gas in the eleven communities bordering the river. A recent study conducted by NC Growth demonstrated that RPP’s operations generate more than half a million dollars for the regional economy each year (NC East Alliance 2017).

![Figure 5. flickr user bikesandbooks, CC BY-NC-SA 2.0](http://example.com/roanoke_river_paddle_trail_photo.jpg)
Coordinating local open space plans with regional green infrastructure plans can maximize both the ecological and public benefits that green infrastructure provides and can help leverage investment in parks, greenways, trails, and other green infrastructure projects (Godschalk and Rouse 2015, p. 47).

While the term green infrastructure commonly refers to green stormwater infrastructure at the site or neighborhood scale, it is more broadly defined as a landscape–scale network that provides ecosystem services and benefits:

(Green infrastructure is) a strategically planned and managed network of wilderness, parks, greenways, conservation easements, and working lands with conservation value that supports native species, maintains natural ecological processes, sustains air and water resources, and contributes to the health and quality of life for America’s communities and people (Benedict and McMahon 2006).

**Figure 5. Blueprint implementation strategy**
This larger scale definition can be used as a framework for connecting local and regional planning efforts to the South Atlantic Conservation Blueprint. The South Atlantic landscape spans complex ecological regions (Marine, Coastal Plain, and Piedmont) across parts of six states. It also includes cities such as Atlanta, Charlotte, Raleigh, Savannah, and Tallahassee. Atlanta, Charlotte, and Raleigh are located within the Piedmont Atlantic Megaregion, one of nine urban megaregions within which the majority of the nation’s population growth and related economic activity are expected to be concentrated over the coming decades (Read et. al. 2017). Urbanization poses both direct (e.g., habitat loss) and indirect (e.g., barriers to connectivity) threats to the natural and cultural resources of the South Atlantic. Green infrastructure planning and implementation provides the opportunity to address these threats in ways that advance local planning objectives while integrating natural and cultural resources in urban areas with the South Atlantic Conservation Blueprint. Examples of resources that lend themselves to this approach include trails (e.g., the Carolina Thread Trail, which spans 15 counties in two states), habitat corridors, water supply, and air quality.

How Planners Can Integrate Local Planning Activities with the Blueprint

The Blueprint can be used as an input for and complement to the various plans, programs, and tools that planners create and use to accomplish both conservation and non-conservation goals. This section discusses the different types of plans and tools that can be integrated with the Blueprint to advance local planning. It also includes information on how to contribute local data and integrate the Blueprint with other sources of conservation data.

Types of Plans that can be Integrated

Plans with different scales and purposes can reference and build upon the Blueprint. These include comprehensive plans, park, recreation, and open space plans, green infrastructure plans, hazard mitigation and climate adaptation plans, community wildfire protection plans, and watershed plans, among others.

Comprehensive Plans

Comprehensive plans vary from state to state in both their names and contents, but in general they are formally adopted policy documents that set a long-range vision for a governmental unit. The comprehensive plan shapes public and private investment by:

- Serving as the policy foundation for development and environmental regulations, including zoning;
- Providing guidance for discretionary decisions such as public hearing requests; and
- Guiding capital investments (Godschalk and Anderson 2012).

Most of the states within the South Atlantic LCC mandate at least some degree of local comprehensive planning (American Planning Association 2017). Florida and Georgia maintain databases of
Conservation Blueprint: Improving Integration

comprehensive plans for nearly every community within those states (Florida Department of Economic Opportunity 2017 and Georgia Department of Community Affairs 2017).

The American Planning Association has adopted best practices for comprehensive planning that are built around six principles: livable built environment, harmony with nature, resilient economy, interwoven equity, healthy community, and responsible regionalism (Godschalk and Rouse 2015). Of these six principles, harmony with nature has the most direct connection to conservation work and values. Best practices in support of the Harmony with Nature principle include the following:

- Restore, connect, and protect natural habitats and sensitive lands;
- Plan for the provision and protection of green infrastructure;
- Encourage development that respects natural topography;
- Enact policies to reduce carbon footprints;
- Comply with state and local air quality standards;
- Encourage climate change adaptation;
- Provide for renewable energy use;
- Provide for solid waste reduction;
- Encourage water conservation and plan for a lasting water supply; and
- Protect and manage streams, watersheds, and floodplains (Godschalk and Rouse 2015).

Comprehensive plan vision statements, goals, and objectives related to nearly all of the best practices listed above could draw upon the Blueprint and underlying data to identify areas for conservation and protection through implementation of tools mentioned later in this report.

In North Carolina, the Legacy 2030 Comprehensive Plan identifies a list of strategies, policies, and actions to help Winston-Salem and Forsyth County become more sustainable, better designed, and

Figure 6. Legacy 2030, which won the American Planning Association’s 2014 National Planning Excellence Award: Daniel Burnham Award for a Comprehensive Plan, was promoted with a music video about population growth and comprehensive planning. Credit: APA
more fiscally responsible. One of the plan’s goals is to preserve, enhance, and protect the county’s environmental resources to produce a high quality of life and a sustainable development framework for the future (Forsyth County 2014).

**Open Space Plans**

Open space plans are functional plans that may be part of a comprehensive plan or standalone policy documents. Open space plans quantify the amount and type of publicly and privately owned open space within a community and set goals related to preserving or enhancing that open space through various regulations and programs. Planners can use the Blueprint to identify the locations and types of open space in their communities and compare that to potential threats when considering open space planning goals.

The [York County Open Space Plan](http://example.com) notes that development pressure has begun to occur in areas not served by improved roads, utilities or public services, creating sprawl and its associated traffic congestion, loss of air and water quality, and the degradation of rural, agricultural and vacant land (York County 2009). Its goal is to create an open space system throughout the county that is compatible with the plans of its municipalities as well as the goals of local, state and national organizations focused on preserving open space.

![Figure 7. Kings Mountain National Military Park and the adjacent Kings Mountain State Park in northwest York County comprise 8,365 acres and feature hiking trails, Revolutionary War monuments, fishing, camping, and living history demonstrations. Credit: flickr user dougtone, CC BY-NC-SA 2.0](http://example.com)
Park and Recreation Plans

Much like open space plans, park and recreation plans may be a component of a comprehensive plan or open space plan, or a standalone policy document. These plans may also serve as the comprehensive plan for a park district that operates separately from municipal government. They generally focus on publicly owned lands and the facilities and programs provided by the park agency. Although conservation may be a component of a park and recreation plan, the primary focus is typically on the provision of adequate facilities and services to meet the needs of the local population.

Park and recreation plans can clearly benefit from the Blueprint for open space identification, especially the Urban Open Space indicator. They may also benefit from the Low-Urban Historic Landscapes indicator. This indicator shows cultural landscapes whose cultural context has been less impacted by urban growth and includes sites on the National Register of Historic Places in relation to urban areas (South Atlantic LCC 2017). This data could be valuable for planners who are seeking to enhance the educational and cultural components of their park and recreation plans, as in the town of Cary, North Carolina’s Parks, Recreation, and Cultural Resources Master Plan (Cary 2012).

Green Infrastructure Plans

Green infrastructure plans may take on different scales depending on the size of the adopting jurisdiction, as in the city of Atlanta’s Green Infrastructure Strategic Action Plan (2010 U.S. Census population 420,425) or the Clarkesville Green Infrastructure Implementation Strategy (2010 U.S. Census population 1,733). State, regional, and county planning agencies may plan for Benedict and
McMahon’s landscape-scale network of open and natural areas, while municipalities may focus on green stormwater infrastructure that uses or mimics natural processes for capturing and treating stormwater runoff. Users who download the Blueprint data into their own GIS systems can use the ecosystem integrity scores and indicators to identify intact ecosystems within their jurisdictions as part of a landscape-scale green infrastructure plan.

**Hazard Mitigation and Climate Adaptation Plans**

Hazard mitigation and climate adaptation plans help communities prepare for and mitigate manmade and natural disasters including flooding, hurricanes, and wildfire. These types of plans align particularly well with conservation planning, as many properties are simultaneously disaster-prone and have conservation value. A 2015 study demonstrated that a program using government-funded property buyouts and ecological restorations could provide the three simultaneous benefits of reduction of flood exposure, restoration of natural resources, and efficient use of limited governmental funds (Cali et al. 2015). The Blueprint could be used to help identify these types of areas within the South Atlantic region.
The Cities of Virginia Beach, Norfolk, Portsmouth, Suffolk, and Isle of Wight County worked together to develop the regional Hampton Roads Hazard Mitigation Plan, which includes actions such as property acquisition and improved dune management (Hampton Roads Planning District Commission 2016).

Further south, but facing the same challenges as coastal communities throughout the region, Broward County, Florida was the first local government in the state to amend its comprehensive plan to provide for the Adaptation Action Areas designation (as required by Florida state law). Adopted in 2013, the Broward County Climate Change Element was a county-wide strategy to protect residents, businesses, and infrastructure from climate change impacts and promote energy efficiency and greenhouse gas reductions. Strategies from that plan were incorporated into the Climate Change Action Plan 2015, and will be included in the BrowardNext2.0 comprehensive plan that is currently under development (Broward County 2013 and 2015).

**Community Wildfire Protection Plans**

Although fires are a natural (and often essential) part of the forest landscape, they pose an increasing threat to nearby human populations. This is a challenge for development within the wildland-urban interface (WUI), which is the area where human settlement abuts forests or other wildlands (Read 2017). Adopting a community wildfire protection plan (CWPP) is one way for a community to learn about, plan for, and ideally reduce wildfire risk within and around its borders. CWPPs are local plans that identify and prioritize areas for reducing the amount of flammable materials and recommend...
actions to reduce the likelihood of structure fires (Read 2017). Additional benefits of CWPPs include allowing a community to locally define the boundary of the WUI and addressing hazard mitigation and comprehensive planning goals, such as economic development and community outreach. Conservation organizations, through restoration and maintenance of the forest landscape, play a significant role in reducing wildfire risk. The Blueprint can help planners identify potential locations to partners with these organizations on wildlife risk reduction.

In Georgia, the Columbia County CWPP and Ben Hill County CWPP are two plans developed in conjunction with the Georgia Forestry Commission to enhance public safety by raising public awareness of wildfire hazards and risks, educating citizens, and developing effective mitigation strategies and ordinances.

### Watershed Plans

Watershed plans are similar to the Blueprint in that they are defined by natural geographic boundaries, not political subdivisions. They may be required as part of an EPA-funded grant, or they may be voluntarily developed plans to improve water quality and protect water resources. The type and nature of both present and future water stressors influence planning needs, as planning regulations directly impact the amount of impervious surface area through maximum and minimum requirements for parking and density within a watershed (Nisenson 2006). Planners can use the indicators and threat layers within the Blueprint to identify and prioritize areas of concern within a watershed.

In Columbia, South Carolina, the Rocky Branch Watershed Assessment examined an extensively urbanized watershed and found riparian habitat has been fragmented or, in

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**DATA AT DIFFERENT SCALES**

In addition to local data, there are national datasets that can be used with the Blueprint. One example of a national dataset is ESRI's [green infrastructure website](https://www.esri.com), which features a tool that allows users to map and compare green infrastructure assets at the watershed, county, and state levels versus national averages (ESRI 2017). It also compares the existing amount of land used for forests, crop cultivation, and development (non-natural or cultivated areas) in 2011 to what is predicted for 2050. The site offers tools for users to locate and prioritize intact landscapes according to size, soil types, wetlands, biodiversity, and other factors. The ESRI tools show how users can use this data to help develop green infrastructure plans.
some areas, completely removed. On a larger scale, the Natural Resource Management Plan for the Greenville Watersheds looked at the existing conditions and needs of the Table Rock and North Saluda Watersheds that provide most of Greenville, South Carolina’s drinking water. These watersheds have high quality hardwood forests that support several species of concern and have a need for invasive species monitoring (The Nature Conservancy 2014).

**Using the Blueprint with Local Planning Tools**

The Blueprint can help planners determine how and where to most effectively implement many of the tools and strategies they already use to accomplish the goals and objectives set forth in the plans described above. These tools and strategies include zoning and other regulatory tools, planning for capital improvements and other types of capital investments, and programmatic tools.

Planners can use the Blueprint and indicator layers to locate important habitats within their communities and tailor conservation zoning regulations to protect those lands. They can also use the Blueprint to identify gaps and direct funding and programs to protect, enhance, and restore areas with high conservation value.

**Zoning and Regulatory Tools**

*Conservation Zoning Districts*

Conservation zoning districts limit the allowable uses within that district to those that are compatible with ecological preservation (such as public parks and forest preserves). Such zoning districts may be tailored to a specific focus, such as habitat protection. For example, Onslow County, North Carolina requires uses within its conservation zoning district to demonstrate environmental sensitivity and not substantially alter the quantity or quality of stormwater runoff or wildlife habitat. In those areas where critical and sensitive habitats and species are present, protective zoning may prohibit incompatible uses (such as industrial uses) or species-specific fencing, landscaping, and curbing requirements (Retzlaff 2007). The Harnett County Unified Development Ordinance establishes conservation districts surrounding the two rivers and major creeks to encourage the preservation of and continued use of the land in its natural state for conservation purposes, and to prohibit intrusive development.

*Conservation Overlay Districts*

Unlike conservation zoning districts, which are tied to a specific place, conservation overlay districts may be combined with an underlying residential, commercial, or industrial zoning district to add or modify regulations that preserve and protect natural features. One example is Auburn, Alabama’s Conservation Overlay District that encourages conservation subdivisions in the Lake Ogletree subwatershed. It allows for less impervious surface than elsewhere in the city and requires a minimum of 50 percent open space within a subdivision (City of Auburn 2017).

*Urban Forestry and Landscaping Standards*

Urban forestry and landscaping standards regulate vegetation on public and private property within a community and are a natural place for a community to incorporate conservation goals. Raleigh, North Carolina’s unified development ordinance explicitly states that habitat protection is one purpose of its
Over the past 20 years, tree protection ordinances have become commonplace as urban, suburban, and rural communities seek to preserve the aesthetic and environmental benefits of trees and, increasingly, their economic benefits (Duerksen et al. 2006). The Chapel Hill, North Carolina tree protection ordinance, first adopted in 1989, requires the identification and protection of trees and other vegetation from incompatible development to counteract the pressures of infill residential development (Schwab and Fesperman 2008). In densely developed neighborhoods where strict preservation requirements may restrict or prevent redevelopment, tree preservation ordinances may allow for on- or off-site mitigation or a fee-in-lieu of preservation (Duerksen et al. 2006).

**Low Impact Development Standards**

Low impact development (LID) standards require stormwater to be captured and treated at its source through green infrastructure solutions such as bioswales, green roofs, and permeable pavement. This approach mimics natural hydrologic patterns. LID may incorporate stormwater management, wastewater management, and/or street circulation and design (NAHB 2003).

LID requirements may be found in one or more places within a municipal code: the zoning ordinance, stormwater and drainage code, clearing and grading regulations, and public improvement standards.
(Carlson 2008). They may also be self-imposed by developers, as in the case of the Drover’s Road Preserve subdivision near Asheville, North Carolina. Although there were no underlying zoning regulations at the time of development, the landowners wanted to protect the natural features of the area and included roadside grass swales, bioretention areas, forested riparian buffers, stormwater wetland, and an infiltration meadow (Perrin et al. 2009). As demonstrated by the Drover’s Road Preserve developer’s choice to include LID, these practices allow for the conservation and protection of natural resources while allowing land to be developed in a cost-effective manner by reducing gray infrastructure costs (NAHB 2003).

The South Carolina Low Impact Development Atlas is an interactive web tool that has, as of May 2018, 102 mapped projects that incorporate bioretention, permeable pavement, cisterns, and other LID practices. Anyone may upload additional projects to the live atlas, which provides the opportunity to post photos and link to the project website.

**Site Design Standards**

Site design standards are provisions within a local ordinance that dictate where buildings, structures, and infrastructure may be located. These may be simple requirements, such as the maximum percentage of a building that may be occupied by structures, or they may be very specific. Riparian area buffers are one type of standard that typically applies to wetlands, perennial streams, lakes, and coastal shorelines, and may use U.S. Geological Survey maps or local evaluations of water resources to determine where they are required (Rhees 2016).

By highlighting areas that are important for a particular species, the Blueprint can help planners determine where conservation-oriented design standards may be appropriate. An example is the bird-friendly design standards that San Francisco adopted in 2011, which requires certain façade treatments and lighting on buildings that pose a hazard to birds due to their locations or architectural features (Ploetz 2013). Cherokee County, Georgia encourages master-planned residential developments to preserve green space by identifying and setting aside conservation areas prior to the delineation of transportation and residential pod layouts through its Conservation Design Community regulations.

**Open Space Dedication Requirements/Incentives**

Communities may require developments of a certain type or size to dedicate a portion of the site as open space (or pay a fee to the local government in lieu of land dedication). This may take the form of a park for active or passive recreation, or a natural area. Richland County, South Carolina requires all mixed-use and residential developments within its Corridor Redevelopment Overlay District to dedicate public, accessible open space using a formula based on development size, number of units, and/or proximity to public parks. Cities may also encourage voluntary dedication of open space or habitat protection through the use of density bonuses, which allow for more units or square footage than would otherwise be allowed on a parcel of land (Retzlaff 2007).
Capital Investment and Programmatic Tools

Local governments and planners use a wide variety of programs and projects to advance the goals of comprehensive plans and other plans. They may use open space as a buffer by acquiring open space between conservation areas and developed areas, which may then be used as a residential amenity (Susman 2017). This approach could be used to protect the wildland-urban interface, and a tool such as the Blueprint can help prioritize areas for acquisition. Other investment and programmatic tools and strategies that could use the Blueprint in a similar manner include:

- Purchase of Development Rights, such as Forsyth County, North Carolina’s [Farmland Preservation Program](https://www.forsythnc.gov/page/1577);
- Environmental Restoration Projects, such as the [North Carolina](https://www.dcr.state.nc.us/) and [South Carolina](https://www.scdNRD.gov/) oyster restoration programs;
- Tree Planting/Greening Projects, such as Roswell, Georgia’s [Tree Planting Partnership Program](https://www.roswellga.gov/trailways-urban-wildland-conservation);
- Land Conservation Programs, such as that offered by the [Alabama Forest Resources Center](https://www.alfaalabama.org);
- Forest Conservation Programs, such as the U.S. Endowment’s [Sustainable Forestry and African American Land Retention Program](https://www.ufaf.org);
- Volunteer Restoration Programs, such as those offered by [Trees Atlanta](https://www.treesatlanta.org);
- Technical Assistance Programs; and
- Educational Programs.

Using the Blueprint with Other Sources of Conservation Data

Although the Blueprint can be used in isolation, it can have an even greater impact when it is used to complement other conservation datasets. The six states within the South Atlantic LCC all have unique state-specific datasets that can be used in tandem with the Blueprint to provide consistent prioritization across the region.

Virginia

The [Virginia Conservation Vision](https://www.dcr.virginia.gov/conservation/virginia-conservation-vision), developed by the Virginia Department of Conservation and Recreation, and the [Virginia State Wildlife Action Plan](https://www.dcr.state.va.us/Conservation/Wildlife/State-Wildlife-Action-Plan), developed by the Virginia Department of Game and Inland Fisheries, are foundational sources for conservation data. Virginia is also covered by two large multi-state conservation priority datasets: 1) [Nature’s Network](https://www.naturesnetwork.org) and 2) the [Southeastern Conservation Adaptation Strategy Blueprint](https://www.scas.org). Nature’s Network, developed by the North Atlantic LCC, covers thirteen states in the Northeast. The Southeast Conservation Adaptation Strategy Blueprint integrates the South Atlantic Conservation Blueprint with the spatial priorities of neighboring LCCs, including Nature’s Network, to cover all of fifteen Southeast states.
North Carolina

The Blueprint is integrated into the North Carolina Green Growth Toolbox. This resource includes access to conservation data from the North Carolina Natural Heritage Data Explorer, model ordinances, trainings, and grants to assist local governments with land use planning projects that enhance priority wildlife conservation.

South Carolina

An earlier version of the Blueprint was incorporated into the South Carolina State Wildlife Action Plan. The South Carolina Department of Natural Resources and The Nature Conservancy are working on an updated statewide priority map using a more recent version of the Blueprint. The goal is for this updated statewide priority map to be used broadly across organizations interested in conservation.

Georgia

The Georgia State Wildlife Action Plan, developed by the Georgia Department of Natural Resources, is the main resource for conservation priority data. The Blueprint can provide complementary information, particularly for those looking for consistent priorities that cross the border into Florida or South Carolina.

Florida

Florida has a long history of conservation planning and data collection. The Florida Critical Lands and Waters Identification Project (CLIP) is the primary source for state-wide conservation priorities. The Blueprint can provide complementary information to Florida CLIP, particularly for those looking for consistent priorities that cross the border into Georgia. An integrated dataset that combines Florida CLIP and the South Atlantic Conservation Blueprint is available through the Southeast Conservation Adaptation Strategy Blueprint.

Alabama

The Alabama State Wildlife Action Plan, developed by the Alabama Department of Conservation and Natural Resources is the main resource for conservation priority data. The South Atlantic Conservation Blueprint only includes part of Eastern Alabama. It can provide complementary information, particularly for those looking for consistent priorities that cross the state border into Georgia. The Southeast Conservation Adaptation Strategy Blueprint integrates the South Atlantic Conservation Blueprint with the spatial priorities of neighboring LCCs to cover all of Alabama and surrounding states.

Contributing Local Data to Improve the Blueprint

Local planning departments typically have a great deal of information related to how land is used and regulated. This includes zoning designations and requirements, long-range land use plan designations, building permits, and public hearing records. It may also include conservation-friendly data on easements, bike routes, greenways, trees on municipal property, park locations and amenities.
Local data is necessary to measure connectivity within urban areas, filling in the gaps that national and regional datasets cannot address.

There are three major ways planners can contribute local data to the Blueprint:

1. **Contribute data to national databases:** National databases make it easier to access data in a way that’s consistent with surrounding municipalities. In particular, sharing GIS data on protected areas with PAD-US, the Nature Conservancy, or a state natural heritage program and sharing greenway and trail locations in OpenStreetMap is helpful.

2. **Support and participate in open data initiatives (i.e., that make data publicly available):** This helps make data more easily accessible for everyone, including those working to improve the Blueprint.

3. **Participate in the Landscape Conservation Cooperative:** From spending a few hours at a local meeting with other members of the conservation community to joining a 1-hour web meeting to review an indicator, there are many ways to participate in the cooperative. More information is available at [http://www.southatlanticlcc.org/](http://www.southatlanticlcc.org/), including the ability to sign up to receive the monthly newsletter.

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**OVERCOMING CHALLENGES TO INTEGRATION**

Urban communities are increasingly shaping the conservation future of the South Atlantic. The South Atlantic region, which spans from southern Virginia to northern Florida and west along the Piedmont plateau, is home to several of the fastest growing metropolitan areas in the country. Major metropolitan areas present both challenges and opportunities for conservation. The challenge of balancing natural and human uses of the area, particularly for natural greenways and corridors, mean that traditional approaches to green infrastructure and conservation are inadequate for urban areas.

To address this, the South Atlantic LCC has engaged APA’s Green Communities Center to examine how large-scale, conservation-based green infrastructure definitions and urban-scale definitions can be bridged to identify areas of shared conservation interest across the rural – urban continuum. The first task of this project consisted of identifying opportunities and challenges in the integration of local government green/blue infrastructure efforts with regional approaches like the Conservation Blueprint.

In August and September 2016, APA conducted interviews with 24 conservationists, planners, engineers, and parks professionals across the South Atlantic region to gain a better understanding of how urban green infrastructure and conservation practices are prioritized and implemented within the South Atlantic and where challenges and opportunities exist for addressing shared conservation interests across scales. On September 21-22, 2016, 25 urban planners and conservation professionals representing 17 organizations throughout the South Atlantic joined together at the Atlanta Botanical Garden to discuss their shared missions, issues, and opportunities for collaboration. The discussions with both of these groups highlighted challenges that planners face when attempting to integrate conservation issues and activities into their work. Participants identified major challenges and opportunities to work together.
**Opportunity 1: Develop a Shared Vocabulary**

A glossary of definitions would be beneficial to help establish a common language to overcome communication barriers between conservation professionals and the planning sector, such as that found in Appendix F of the summit report.

**Opportunity 2: Play Off Each Other’s Strengths**

When coming together to address a conservation or land-use related issue, different entities can play complementary roles. Non-governmental organizations (NGOs) typically are nimbler than government and thus may be able to step in where government entities can’t. NGOs can also play a role in bridging the planning and conservation worlds. These groups can also partner with each other, as well as with local and regional agencies, in seeking national funding sources that look favorably upon (or, in some cases, require) partnerships between local government and nonprofit entities.

**Opportunity 3: Build on Overlapping Interests**

There are numerous current trends that overlap both fields and connect to conservation and green infrastructure priorities, such as ecotourism and urban agriculture. By building upon these shared interests, planners and conservation professionals can forge stronger relationships that make collaboration the norm, rather than the exception.

Read the full summit report at planning.org.

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**Challenge 1: Development Pressures and Property Rights**

Conservation often suffers from the perception that it is in direct opposition to economic development and as a result may not be a priority at the local level. Community engagement and communication across disciplines (not just conservation and planning) can help elevate conservation in the conversation. More education is needed at the local and regional levels, including for elected officials, developers, and property owners.

**Challenge 2: Competing Priorities**

There are many competing priorities at the local and regional levels that can cause conservation goals to get lost in the shuffle. Focusing on the multiple benefits of green infrastructure approaches can show how those approaches connect to other community goals and priorities and can be a tool for achieving those goals. Values centered around wildlife, habitat, and ecological integrity can be translated to the commonly stated values of communities such as economic development, quality of life, and clean and plentiful water.

**Challenge 3: Local Capacity**

Local government capacity in terms of both staffing and funding can limit planners’ involvement in conservation efforts, but collaborating at larger scales and across multiple jurisdictions could result in operational efficiencies.

**Challenge 4: Communications**

Conservation professionals often face the challenge of not knowing when to become involved in the planning process, and where planners and conservationists can best collaborate. They noted that it would be helpful to have a better understanding of the points in a comprehensive planning process, zoning code update, or other planning process where their involvement would be the most impactful.
Conclusions

There is tremendous potential for planners within the South Atlantic LCC to use the Blueprint to better align their work with regional conservation goals. This will become easier as more data is included in the Blueprint and there are more case studies of the Blueprint being used to advance planning activities. As the Blueprint and its utilization continue to grow, outreach to the planning community and training opportunities will help to bridge the planning and conservation professions.

Education on the co-benefits of environmental conservation for planning is a key first step to help planners understand the benefits of incorporating large-scale conservation efforts into local planning work and communicating those benefits to the public and elected officials. This is a role that APA has assumed and will continue to lead as the primary source of continuing education for practicing planners.

With a solid foundation on the benefits of conservation work, planners will need to know how they can make use of the Blueprint in their day-to-day work. The South Atlantic LCC should continue to develop relationships within the planning community in each of the six states it serves to highlight relevant examples and case studies through webinars, workshops, and sessions at the applicable state APA conferences.

References


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