A report by The Trust for Public Land

Greenprint for Camden County, Georgia

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The Trust for Public Land gratefully acknowledges the following for their assistance with the Camden County, Georgia Greenprint:

Our Greenprint Partners

City of St. Marys, Georgia Georgia Department of Natural Resources, Coastal Resources/Coastal Management Division National Oceanic and Atmospheric Administration

The Greenprint Steering Committee

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Many individual stakeholders and interested parties contributed greatly to this report by attending public workshops, sitting for interviews, and providing review and response to our numerous questions. Among them are Kathy Chapman, U.S. Fish and Wildlife Service; Eloise Thompson, Camden Historical Society; Loretta Riggins Hylton, Camden County Planning and Building Director; and, Bill Gross, local builder and community volunteer.

The numerous agencies and organizations that provided data on which to build the Greenprint include:

Camden County Camden County Public Service Authority City of Kingsland City of Woodbine City of St. Marys Coastal Georgia Regional Development Center Ecological Solutions, Inc. Georgia Department of Natural Resources, Wildlife Resources Division jb+a, inc. University of Georgia Data Clearinghouse

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What is a Greenprint?



A Greenprint is a strategic planning, communication and decision-making tool comprised of opportunity maps and an action plan that:

- Connects where people live to where they can enjoy the outdoors;
- Improves access to water for fishing, boating, paddling and wildlife;
- Improves the health of natural systems to support water quality, drinking water source protection, mitigate storm events, and maintain habitat for wildlife diversity; and
- Enhances the economic viability of the overall community as a place to live, work, and play.

Greenprinting is The Trust for Public Land's (TPL) unique application of Geographical Information System (GIS) modeling, which helps local governments and communities make informed decisions about how they want to grow smartly while promoting and protecting their highest values. Greenprinting identifies the best opportunities for land conservation, restoration and resource protection, new park creation and trail development, and lays out practical action steps for implementation.

TPL's greenprinting process fosters collaboration among diverse community stakeholders to produce an easy-to-understand, dynamic tool for prioritizing land protection opportunities that considers community values as well as environmental, social, economic, educational, cultural, and recreational interests. The process involves these key steps:

Constituency Building

Identifying Community Interests and Values Establishing Conservation Goals and Criteria to Express Community Values

Data Gathering and Analysis

Assembling GIS Data Creating GIS Models Ranking (Weighting) Goals and Criteria According to Community Priorities Translating Models into Opportunities Maps

Greenprint Results and Strategic Action Recommendations Identifying Practical Strategies for Implementation

A Greenprint is *not*

A map of land-use prohibitions Determined by a single perspective Limited to only protecting wildlife and biodiversity For condemning or taking land

The Camden County Greenprint



Coastal Georgia, like much of the Low Country to the north of it, was considered a sweetly tranquil place, prized for its fertile soils and tall pines. Today, however, it has transformed into a destination for second homes, snowbirds, and military retirees, all of which generate substantial impact on the environmental, cultural and recreational assets that have drawn people to these marshy shores in the first place. Sacred views of the waterfront—both from the land and from the rivers—increasingly are dotted with development. Historic fisheries and shrimping areas are not as prolific as in past days, and areas long accessed by the public for fishing, hunting, paddling, and hiking sit behind the walls of gated neighborhoods.

While this growth has injected the local economy with much-needed energy, it also poses new challenges for managing resources, meeting recreational needs, achieving connectivity across land not just for wildlife but for the social fabric, and providing safe passage for all along busier streets. For these and other reasons, the Georgia Department of Community Affairs (DCA) selected Camden County as one of its first five Signature Communities.* Camden County outlined three initiatives as part of the DCA two-year technical assistance program, and the Camden County Greenprint was one of them.

Camden County sought assistance from TPL to:

- Create a fact-based, community-supported vision of what the "green" infrastructure of Camden County should be, recognizing the inherent natural, recreational, cultural, and historical value of the area as well as the increasing pressures of growth and development on these values;
- Create a defensible planning tool based upon community values and existing conditions to guide growth by focusing development in certain areas while conserving and protecting identified special and environmentally sensitive areas;
- Establish a cross-jurisdictional relationship among the Cities and County for greenspace planning efforts consistent with the Greenprint;
- * Build public support and encourage public participation throughout the process; and,
- Provide a plan of action for implementation of the Greenprint.

On behalf of the county, the City of St. Marys acted as the project manager for the Greenprint. The City applied to the Georgia Department of Natural Resources (DNR) for a Coastal Incentive Grant, a program funded to the states by the National Oceanic and Atmospheric Administration (NOAA), and was awarded the funding to support the Greenprint in October 2006. TPL was hired to facilitate the Greenprint in November that same year.

^{*}The Georgia Department of Community Affairs (DCA) Signature Communities Program was started to provide all of DCA's tools to maximum advantage for deserving communities, thus comprehensively addressing local needs. It is intended to help communities reach ever higher levels of community achievement and quality of life for their citizens and is limited to communities that are serious about improving local quality of life through effective planning, implementation and taking a comprehensive approach to addressing community improvement issues. The program recognizes these communities and gives them specialized technical and financial assistance with implementing key initiatives identified in their comprehensive plans. St. Marys, Kingsland, Woodbine, and Camden County were selected for this program in FY 2006, the program's first year.

Greenprint Methodology

In order to achieve the aforementioned goals and to create an "opportunity map" for an effective and sustainable system of recreation and conservation spaces to guide the growth of Camden County, the Greenprint focused on the following tasks:



- Assessing existing conditions by developing a comprehensive GIS database of community assets;
- Conducting stakeholder input and public outreach through a series of meetings, interviews, workshops, and presentations;
- Developing an interactive GIS model that defines and prioritizes conservation opportunities;
- Testing model results for validity;
- Identifying key strategies for immediate and long-term action to implement the Greenprint.

Constituency Building

To build the constituency for the Greenprint, a broad-based group of individuals representing a variety of interests—including environmental, development, parks and recreation, agriculture/silviculture, recreational fishing, academic, utility, the Naval base, and the cities—was brought together as the Camden County Greenprint Steering Committee. The Steering Committee's role involved:

- Identifying shared community values
- Creating a vision
- ✤ Establishing goals of the Greenprint
- * Providing technical expertise for criteria and data collection
- * Weighing the goals and criteria in priority order for GIS modeling
- Representing their respective constituencies
- Communicating with the general public about the Greenprint

After the Steering Committee identified shared values and goals, TPL held four public workshops in May 2007 to validate these ideas and to gather input on more specific criteria to meet these goals. TPL also met with a number of individual stakeholders who expressed interest in the project to gather their insight. In August 2007, TPL shared the preliminary findings with the cities and county, then used GIS to map and model the goals and criteria.

From November 2007 through January 2008, the Steering Committee convened three times to refine the model goals and criteria, and provide additional input into sources for the best available GIS data.

In February 2008 TPL held workshops that were open to the public with the St. Marys, Kingsland and Woodbine City Councils. Each of the three councils provided input on their priorities for the goals and criteria. Using this input, the Steering Committee met again to weight the goals and criteria for final GIS modeling.

The overall process, including stakeholder input, data gathering, model development and review, and final reporting, occurred over a period of fourteen months.



Core Values

Access to Water

For the Camden County Greenprint, the Steering Committee defined access in physical, visual, and equitable terms. People need places distributed throughout the county to get in, on, and around the water. For a community defined by its rivers, people need to see the waters daily, whether while driving, biking, walking, or working.

Healthy Community

With the ability to access a network of greenways, trails, bikeways and public spaces in easy reach of where people live, people are more likely to participate in outdoor recreation and physical activity; thus, reducing heart disease, obesity, diabetes, and stress. Camden County needs a diverse and distributed recreational infrastructure to achieve a healthy community status.

Sustainable "Green" Economy

Investment in a healthy community makes good economic sense because it can sustain itself through market fluctuations and diversify its revenues. Camden County is ripe to be Georgia's Front Porch, a welcoming natural place where people can camp, ride miles of trails, frequent one-of-a-kind locally owned shops, and enjoy Cumberland Island National Seashore. Furthermore, a healthy environment reduces the need for public investment in water treatment, reduces health care costs, and generates interest in business relocation because of a high quality of life.

Water Quality

There is an old song about being "knee deep in a river and dying of thirst," where abundance was taken for granted. The single thread weaving together all of these values—beauty, recreation, health, economy—is the health of Camden County's waters. As scientist and conservationist Luna Leopold wrote, "The health of our waters is the principal measure of how we live on the land." Maintaining a high level of water quality also supports the abundant fisheries that are so tied to residents' quality of life.

Beauty/Aesthetics

Bounded by the Satilla River, the Atlantic Ocean, the Little Satilla River, Crooked River, and the St. Marys River, gorgeous waterfronts framed by honeyed marshes and live oak stands abound. Instead of the visual assault of billboards and chain-store signs, many roads are lined with pine forests and historic structures that celebrate a past while remaining vital to the future. These are the very things that bring people to Camden County, and the things they do not want to lose.

Connectivity

Fragmented landscapes affect not only wildlife but people and their ability to safely reach their destinations, the outdoors, and one another. The Safe Routes to Schools program and the Coastal Georgia Greenway are but two of a number of plans to develop a greenways and bikeways network in the county, which would serve residents and visitors alike and could become the backbone of an eco-tourism economy.

Historic Preservation

Camden is one of the eight original counties created by the Georgia State Constitution in 1777. Camden's story is told in the tabby ruins, former rice plantations, remnants of docks that held cargo for ships bound for Europe, African-American cemeteries and ancient landscapes—most of which are not permanently protected.

Camden County Greenprint Vision

We envision a Camden County that celebrates its natural and cultural heritage through progressive conservation of its environmental, historical, and recreational assets. By providing our residents and visitors with a diverse system of greenways and river trails, wildlife corridors, parks, and open space, we embrace healthy living and a vibrant, sustainable economy rooted in our community's unique identity.



Data Gathering and Analysis

The tables on the following three pages provide a list of the Greenprint Goals and GIS Modeling Criteria identified through the stakeholder input process. These tables detail the individual goal and criteria rankings determined by the Steering Committee with input from the cities of St. Marys, Kingsland, and Woodbine.

Legend of Greenprint Model Acronyms

DCA - Georgia Department of Community Affairs
DNR - Georgia Department of Natural Resources
GA CWCS - Georgia Comprehensive Wildlife Conservation Strategy
NWI - National Wetlands Inventory
NRCS - National Resources Conservation Service
RDC - Coastal Georgia Regional Development Center
RR - Railroad
T & E - Threatened and Endangered Species
TPL - The Trust for Public Land

Camden Co	ounty Gree	Camden County Greenprint Model			Final Model (Final Model Criteria - _{March} 31, 2008
Goal	Goal Weights	Model Criteria	Criteria Weights	Methodology	Data (Description)	Data Source
Protect Water Quality	35%					
		Vegetated Riparian Corridors	10%	Buffer rivers by 250 ft and minimize developed areas. Priority (5) is given to Mixed Cover Forest and Cypress Gum Swamp corridors. Medium-high (4) priority is given to other non-developed corridors and medium (3) priority is given to developed corridors.	Landcover High Priority Water Features	GA Data Clearinghouse DNR
		High Priority Streams, Coastal Wa- ters, and Watersheds	20%	Priority (5) is given to high priority streams and coastal waters buffered by 100 ft.	High Priority Water Features	DNR
		Large Contiguous Fresh-Water Wetlands	15%	Prioritized (5) contiguous wetlands 5 acres and greater, that aren't intersected by roads.	Wetlands Roads	NWI, GA Data Clearinghouse Camden County
		Protect Undeveloped Areas, with Natural Floodplain, and Suitable Soils to Reduce Erosion and Filter Contaminate Surface Water	10%	Identified and prioritized (5) areas with permeable soils, natural floodplain, and vegetation that help reduce runoff, contribute to groundwater systems, and offer natural filtering.	SSURGO Soil Database, Flood Areas - Camden County, Landcover - GA Data Clearinghouse	NRCS Camden County GA Data Clearinghouse
		Marshland	15%	Prioritized (5) all marshlands buffered by 100 ft., beyond 25' marsh line	Marshland	RDC
		High-Priority Marine Species	10%	Prioritized (5) high-priority marine habitat, and estuarine wet- lands (potential marine habitat) buffered by 1/8 mile.	Harvest Areas Water Features	DNR Coastal Resources Division Camden County
		Protect Aquifer Recharge Areas	20%	Prioritized (5) aquifer recharge areas	Aquifer Recharge Areas	Camden County
Improve Environmental Health of Community	25%					
		State and Federal T&E Species	30%	Identified areas of overlap between generalized locations of federal or state designated threatened and endangered species and Po- tential Conservation Areas as described by DNR 's wildlife strategy. These areas are considered a high priority (5), and all other general- ized occurrence areas with T and E species that do not overlap a Po- tential Conservation Area were designated as moderate priority (3).	Conservation Oppor- tunity Areas Rare Species General Locations T and E Species	DNR
		Shore Bird Habitat	20%	Identified and prioritized (5) habitats used by shorebirds designated as Species of Concern by the GA CWCS. Habitats used by all other species of shorebirds that are not Species of Concern are desig- nated as moderate (3) or low priority (2). Of these, habitats used by multiple species were designated as moderate (3) while habitats used by a single species were ranked low priority (2).	Landcover	GA Data Clearinghouse
		High Quality Pinelands	25%	Prioritized (5) remnant natural communities with intact long-leaf pine.	Landcover	GA Data Clearinghouse
		Shore Bird Habitat	25%	Identified and prioritized (5) sandhills.	Landcover	GA Data Clearinghouse

Camden C	ounty Gree	Camden County Greenprint Model			Final Model (Final Model Criteria - March 31, 2008
Goal	Goal Weights	Model Criteria	Criteria Weights	Methodology	Data (Description)	Data Source
Improve Access to Water	15%					
		Uplands Adjacent to River	20%	Identified two or more acres of continuous uplands within 1/8 mile of high priority streams and coastal waters, and within 100 ft of roads. Areas that are non-wetlands and non-flooded are ranked a high priority (5), and wetland habitats are ranked medium priority (3)	Roads High Priority Water Features Landcover	Camden County DNR GIS Data Clearinhouse
		Adjacent to Protected Lands	20%	Identified all lands within 1/4 mile of protected lands and 1/8 mile of high priority streams, coastal waters, and watersheds, and within 100 ft of roads. Areas that are non-wetlands and non-flooded are ranked a high priority (5), and wetland habitats are ranked medium priority (3).	Parks, Protected Lands Roads, High Priority Water Features	RDC, TPL, Steering Committee Camden County DNR
		Bridge Crossings at Rivers, Streams	25%	Prioritized (5) ingress and egress and rights-of-way adjacent to roads and bridges across rivers and streams (US 17 and St. Marys river).	Bridges Water features Kayak access points	GA Data Clearinghouse Camden County TPL, Steering Committee
		Important Parcels	35%	Prioritized (5): • Water and Sewer Facility in St. Marys/End of Weed Street - Parcel data that marks the site where the water pump out station is situated in the City of St. Marys overlooking the marsh- lands; eventually it is going off-line. • Durango Mill Redevelopment Site (riverwalk) - Overlaid Durango Mill parcel and highlighted location of proposed riverwalk • Hog Pen Bluff	Parcels	Camden County
Preserve Community Character	15%					
		Historic Districts	45%	Prioritized (5) historic districts.	Historic Districts Coastal Historic Sites	Steering Committee RDC
		Scenic Viewsheds	45%	Prioritized (5) scenic viewsheds.	Parcels	Camden County
		Fish Camps	10%	Prioritized (5) fish camps.	Fish Camps	Steering Committee

Camden Co	ounty Gree	Camden County Greenprint Model			Final Model (Final Model Criteria - March 31, 2008
Goal	Goal Weights	Model Criteria	Criteria Weights	Methodology	Data (Description)	Data Source
Provide Recreational Access and Improved Connectivity	10%					
		Potential and Existing Bike Routes	25%	Identified potential and existing bike routes. Priority (5) is given to potential bike routes and medium priority (3) is given to exisiting bike routes.	Existing and Potential Bike Routes	DCA, Camden County, Steering Committee
				Prioritized (5) the least cost path between hubs and destinations using low-cost opportunities.	Existing and Potential	
		Connect Existing Trails to Schools, and Parks, and River Access Locations	55%	HUBs: Abandoned RR Corridor (north/south, east/west), Existing bike and hiking trails OPPORTUNITIES: Potential bike and hiking trails, Undeveloped/natu- ral areas, Forest roads, Street routes (Colerain Road-Laurel Parkway- St. Marys Road-40 and US 17 to Folkston), planned trails, DESTINATIONS: schools, Parks, Forry landing in St. Marys, Durango Mill to St. Marve Waterford, Orthurt from acress to water criteria		DCA, Camden County, Steering Committee RDC, TPL GA Data Clearinghouse
				1. Determine where there are "gaps" in the greenspace availability across the landscape		
				-Greenspace under 5 acres serves a 1/8mi walking distance and greenspace over 5 acres serves a 1/4mi walking distance	Evitation Contraction	
) 000	Construct a demographic profile to identify gaps with the most urgent "need" for parklands.	Existing and Fotential Bike Routes Parks	Parks - RDC, TPL, Steering
			% 07	50% - Population density 25% - Kids under the age of 18 25% - Individuals with Income less than 25k per year	Landcover Schools Abandoned Railroad	Communee Demographics - TPL
				Overlaying greenspace gaps with greenspace needs produces a park equity priority map, with high conservation value (5) assigned to those areas with both insufficient park coverage and highest demographic need.		

Greenprint Results and Strategic Action Recommendations

The following maps and summaries present the results of the Camden County Greenprint model. The maps are organized in order of goal priorities with composite maps for the county and each of the cities following.



- Map I. Opportunities to Protect Water Quality
- Map 2. Opportunities to Improve Environmental Health
- Map 3. Opportunities to Improve Physical and Visual Access to Water
- Map 4. Opportunities to Preserve Community Character
- Map 5. Opportunities to Provide Recreational Access and Improved Connectivity
- Map 6. Composite of Opportunities to Meet Countywide Goals
- Map 7. Composite of Opportunities to Meet Goals in the City of St. Marys
- Map 8. Composite of Opportunities to Meet Goals in the City of Kingsland
- Map 9. Composite of Opportunities to Meet Goals in the City of Woodbine

The maps are color-coded with dark red showing the highest opportunities for conservation according to the criteria weighting, burnt umber as moderately high, and orange as moderate. This color coding helps show where the county and municipalities can most efficiently direct their human and financial resources to meet the listed goal(s).

The map summaries provide more detailed information into how each map can be used for decisionmaking purposes, as well as provide strategic action recommendations for implementation to achieve a particular goal. Synergy among the maps exists, and implementing one strategy in one goal area clearly improves opportunities in another. For example, setbacks along rivers and streams not only improves visual access to the shoreline but also improves water quality and bird habitat. To avoid redundancy, an implementation strategy will be mentioned only once.

In reading the maps, remember that they are showing areas of opportunity for conservation and they are not land-use prohibitions. In all cases, we recommend that private property rights be honored, but that private property owners act responsibly. From a smart growth perspective, these maps may be helpful in:

- Directing growth toward less sensitive areas by transfering development densities away from lands needed for water quality;
- Siting required water storage or greenspace features in areas identified as important to meet those goals;
- Planning for new recreation facilities to meet level of service standards near where new development occurs;
- Mitigating storm events by restoring critical habitat designed to minimize flooding and to capture storm surges;

 Working with the Department of Transportation to implement great streets that are not designed just for moving cars but for safely accommodating multiple modes of transportation, including bicycles and pedestrians.

Opportunities to Protect Water Quality



If there is one overarching theme to the Camden County Greenprint it is that the community values the marshes and wetlands for many reasons. Preserving, protecting and restoring the coastal and riparian areas achieves a number of goals—water quality, environmental health, physical, and visual access to the water.

TPL found that most of the public believes that these areas are under some form of permanent regulatory protection. However, the Coastal Marshlands Protection Act protects only those estuarine areas up to 5.6 feet above mean high-tide level. DNR is authorized to protect these tidal wetlands, requiring permitting for

activities and structures within this zone. There is a 25-foot buffer required for all State Waters and it starts from the marsh jurisdiction line and extends 25-feet landward. A 50-foot buffer is required for commercial and community parcels that are attached to a marsh structure requiring a marsh permit. Freshwater wetlands receive little to no state protection and are primarily under the jurisdiction of the U.S. Army Corps of Engineers.

To truly protect water quality for humans and marine life, pervious surfaces must dominate the landscape. The Center for Watershed Protection concludes that even at 25 percent impervious cover, the health of rivers and streams degrades. Through its Comprehensive Plan update, Camden County has the opportunity to provide regulatory protection at or better than the state level, as well as offering a layer of protection for wetlands that does not currently exist. The County should focus policies on:

- * Incorporating Water Protection as a High Priority
- * Protecting Small Streams
- Focusing Development Away from Important Water Areas to De-fragment Landscapes



Recommended Implementation Strategies

Strengthen current Comprehensive Plan policies in the Natural Resources section to include groundwater, surface water, and aquifer recharge areas as high priorities for protection. Link source water protection to stormwater management within the Comprehensive Plan as well as within key county and city ordinances. These policies should be tied to financial benefits and demonstrate how successful protection can cap and reduce flood management and treatment costs over time.

Actively work with landowners to improve and maintain forest cover through tree ordinances. According to TPL's and the American Water Works Association's publication, *Protecting the Source*, a 10 percent increase in forest cover in water source areas decreased treatment and chemical costs by approximately 20 percent.

Ise the Greenprint to open discussions with Brantley, Charlton, and other counties within the Satilla watershed to create a multi-jurisdiction watershed plan to study changes in water quality and establish common goals, shared targets for land protection within the watershed as well as best management practices, and benchmarks for achievement. The activities in those watersheds exert significant impact on the health of Camden's waterways and must be addressed through collaborative efforts. Private foundations as well as state and local funding can pay for this planning effort.

A Protecting the Source also found that protecting small streams had far greater impact on the health of water systems than even the larger tributaries, yet they are rarely mapped and some of the first to be built upon. However, small streams constitute up to 85 percent of the total stream length and collect most of the surface runoff and pollutants from the land. To that end, one area to focus on are the environmentally sensitive wetlands and floodplains along Catfish Creek and Little Catfish Creek.

A The headwaters of the Crooked River sit within the wetlands recently annexed by the City of Kingsland. Proposed development within this area must consider the impacts to the Crooked River system, including the following:

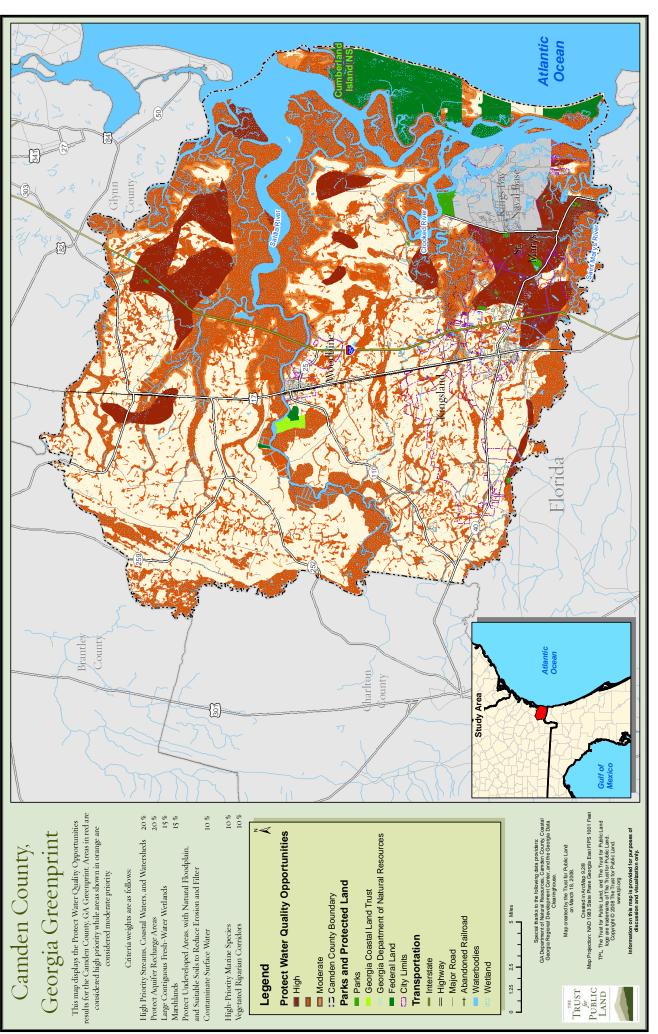
- Minimizing wholesale clear cutting for development and maintaining forest cover as much as possible to prevent erosion;
- * Buffering key wetlands and streams from intense development through setbacks;
- * Acquiring significant resources for permanent protection;
- Mitigating impacts through restoration activities; and,
- Requiring developers to provide a plan for public spaces and water features that connect with countywide greenspace and greenway programs, and that follow the natural systems as much as possible; thus requiring less public investment in infrastructure.

* Include source water protection projects within existing and future public funding programs for land acquisition and restoration.

Around ground and surface water supplies, such as rivers and lakes, buffers between 50- to 100-feet are recommended. For higher priority areas, such as aquifer recharge zones and pristine estuaries, buffers up to 250-feet might be necessary.

 Variances within these zones should be granted only for low-impact footprints and require mitigation and restoration.

A Institute a countywide Purchase and/or Transfer of Development Rights Program to conserve working waterfronts and tidal and freshwater wetlands beyond the 25-foot buffer zone. This program will require a county ordinance and administrative process that is specific to identifying receiver areas for transferred rights.



Map 1 - Opportunities to Protect Water Quality

Environmental Health Opportunities

Because of Camden County's rich natural resources, almost any activity within its boundaries impacts habitat for threatened and endangered species. But, as the saying goes, if it's good for the fish, it's good for the people.



Investing in habitat protection makes economic sense for Camden County. Wildlife viewing ranks among the highest eco-tourism activities in the world, which has a cascading effect for local business such as bed and breakfasts, trail and fishing guides, outfitters and restaurants. Property values near greenbelts and natural areas maintain and increase more substantially than those in homogeneous subdivisions, furthering the preservation of Camden's community identity as a great place to live.

Recommended Implementation Strategies

A Permanently protect the large, contiguous wetlands around the mouth of the St. Marys River and Cumberland Sound for Right Whale habitat through fee simple acquisition, conservation easement or purchase of development rights.



Acquire remnant long leaf pine and sandhill habitat. Identify key areas surrounding these stands to buffer and de-fragment.

* Identify best practices, sustainable building materials, and construction methods, such as elevated walking trails that promote light filtration and composting toilets for use in parks and environmental centers. Immediately begin the process of obtaining state, county, and municipal approvals for the use of these materials and methods in parks and other areas.

A Develop a comprehensive public awareness program to educate and inspire appreciation and advocacy of Camden's natural resources:

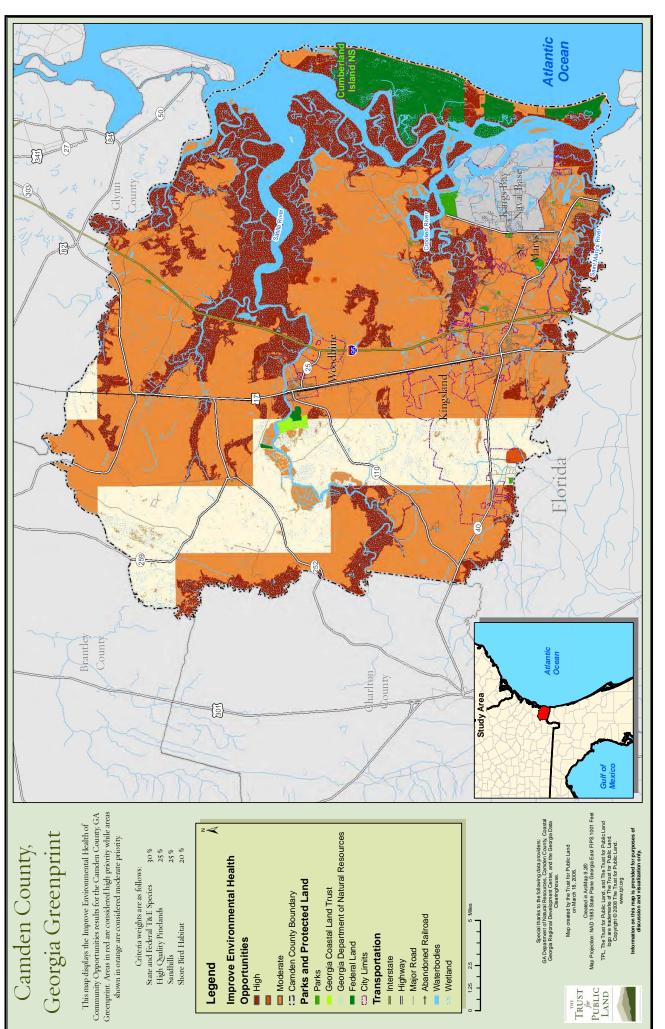
✤ In addition to the on-going wayfinding program, incorporate a multi-faceted signage program that includes instructive, informational, and educational signs. Work with public agencies to leverage funding for the installation of signage on greenways, trails, paddling sites, boat ramps, and in parks. Improve environmental education signage at waterfront access points through wildlife signage.

- * Incorporate environmental education into municipal and county web sites.
- * Expand environmental clean-up programs.

Institute take-in/take-out programs at all resource-based parks, camping, and waterfront access sites to minimize trash and debris in sensitive areas.



Greenprint for Camden County, Georgia



Map 2 - Opportunities to Improve Environmental Health

Access to Water Opportunities



Being able to experience first-hand the magic of the marine environment creates conditions for people to better care for it in the future. During the course of the Greenprint, we learned that many areas along the waterfront that were once available for public enjoyment and viewing were now behind guard houses or blocked by new buildings. In the course of evaluating this goal, we mapped all existing areas for public access to the shoreline, including boat ramps, and identified focus areas for new places to fish, boat, paddle, or sit and reflect.

Recommended Implementation Strategies

- Acquire or protect important sites that improve physical and visual access to the waterfront:
 - 🛠 Hog Pen Bluff
 - 🛠 Halifax Docks
 - & Lands around the intersection of US 17 and the St. Marys River
 - Eastern street ends in the residential downtown area of St. Marys that overlook coastal marshes

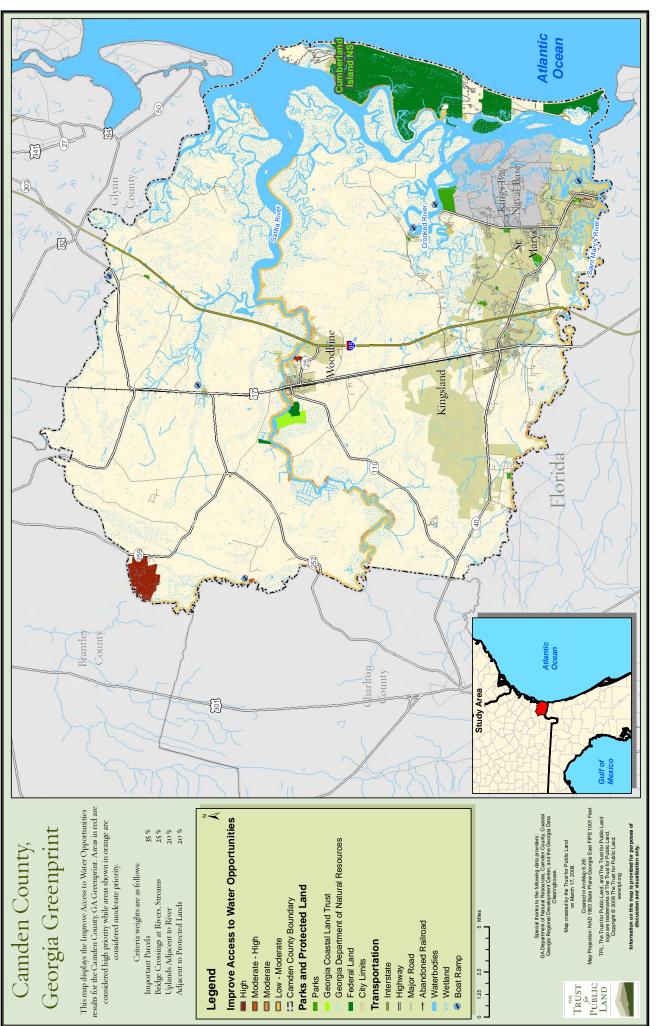
A Develop a countywide blueways (water trails) plan that includes varying degrees of difficulty, trailheads, primitive camping sites, and linkages to greenways systems:

- Assess intersections of bridge and river crossings for creation of paddling launches and pull-offs, parking, and camping.
- Coordinate a blueway system with neighboring counties for connectivity to the Satilla River.
- Create a set of criteria for ideal waterway and upland conditions for siting boating and paddling facilities.
- In conjunction with tourism offices, outfitters, and trail guides, produce a waterproof map for paddlers.

* With Woodbine's Satilla Riverfront walkway as a model, create elevated walkways and fishing platforms at key points, such as the St. Marys River at US 17.







Map 3 - Opportunities to Improve Physical and Visual Access to Water

Community Character Opportunities



As Camden County welcomes new residents and the landscape is altered to accommodate housing, service centers, and transportation, current residents expressed a desire to maintain the community's character as much as possible through the preservation of historic structures and landscapes and by honoring the area's past.

Recommended Implementation Strategies

Create incentives for historic preservation of private properties—a number of tools exist for protecting and restoring historic properties and landscapes, including:

- * Historic Preservation Easements
- Conservation Easements
- & Revolving Loan Programs
- 🏇 Tax Incentives

Permanently protect and restore key historic and archaeological sites—while historic sites throughout the county have been mapped, few have permanent protection and most are privately owned. Key sites identified include:

Structures

- ✤ Tarboro General Store
- 🚸 Black Hammock Plantation
- ✤ Wayside Plantation
- & Cambry Plantation
- ✤ Ivanhoe Plantation
- ✤ Tabby Houses in Dover's Bluff
- ✤ Hazelhurst Plantation
- 🛠 Liza Randolph Home

Landscapes

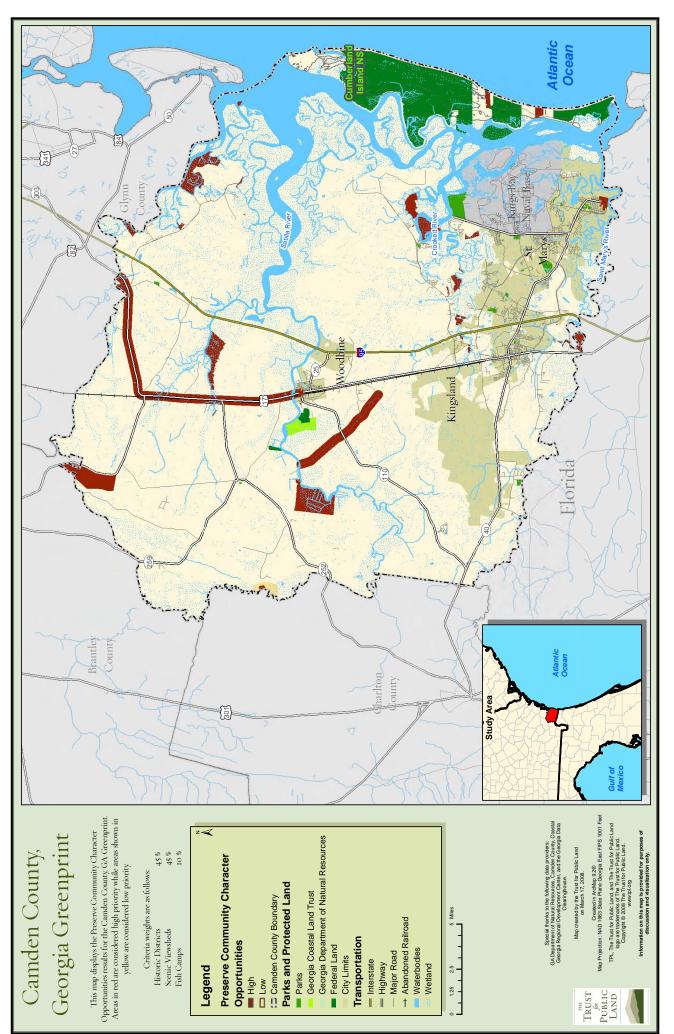
- & Grover Island
- � Satilla Bluff
- African-American Cemeteries
- 🕻 Bullhead Bluff





Maintain and expand historic districts—include first- and second-tier residential neighborhoods and develop design guidelines for compatible infill development within districts.

✤ Designate scenic byways—US 17 from Woodbine to the county line, and the Old Post Road (Old Jefferson Highway) from US 17 to the Satilla River.



Map 4 - Opportunities to Preserve Community Character

Recreation and Connectivity Opportunities



Cities celebrated for their livability—Portland, Oregon; Seattle, Washington; Austin, Texas; Minneapolis, Minnesota; Chicago, Illinois—share common traits. Early on they planned then followed through on great parks and greenways systems. Walkability, outdoor living, and accessible waterfronts are part of their cultures, their policies, and their brand. Camden County residents seek the very same attributes for their community. And with its location in the southeast, Camden enjoys great weather almost year-round something those other cities do not.

Recommended Implementation Strategies

Incorporate recreation and walkability into the Comprehensive Plan update:

Conduct a Level of Service Analysis for recreation lands and facilities as part of the Comprehensive Plan update. Determine the amount of acreage needed to serve residents as well as the types of outdoor and indoor recreation facilities to support current and future demands.
Adopt the principles of the Complete the Streets Coalition (www.completestreets.org), to improve pedestrian and bicycle safety, ease traffic congestion, encourage physical health, and improve the beauty. Complete the Streets recommends the following:

- * Wide sidewalks to support pedestrians, outdoor dining
- * Designated bicycle lanes
- ✤ Wide shoulders
- * Plenty of crosswalks, raised if possible
- * Refuge medians
- ✤ Bus pullouts
- * Special bus lanes
- * Audible pedestrian signals
- Sidewalk bulbouts

Establish a formalized countywide Citizens Greenways Advisory Council to:

- * Prioritize greenways network segments.
- Seek private and public grants for acquisition and development of greenways, trails, and safe routes to schools.
- * Recommend design guidelines for trails.
- * Develop a public information strategy for the greenways network.

Assemble land for a Greenways network:

- Acquire abandoned railroad corridor along US 17, the ownership of which has reverted to adjacent land owners.
- * Develop a program for donation of easements along areas identified for greenways.
- Work with Georgia Department of Transportation (GDOT) to revise road expansion programs to include greenway segments.

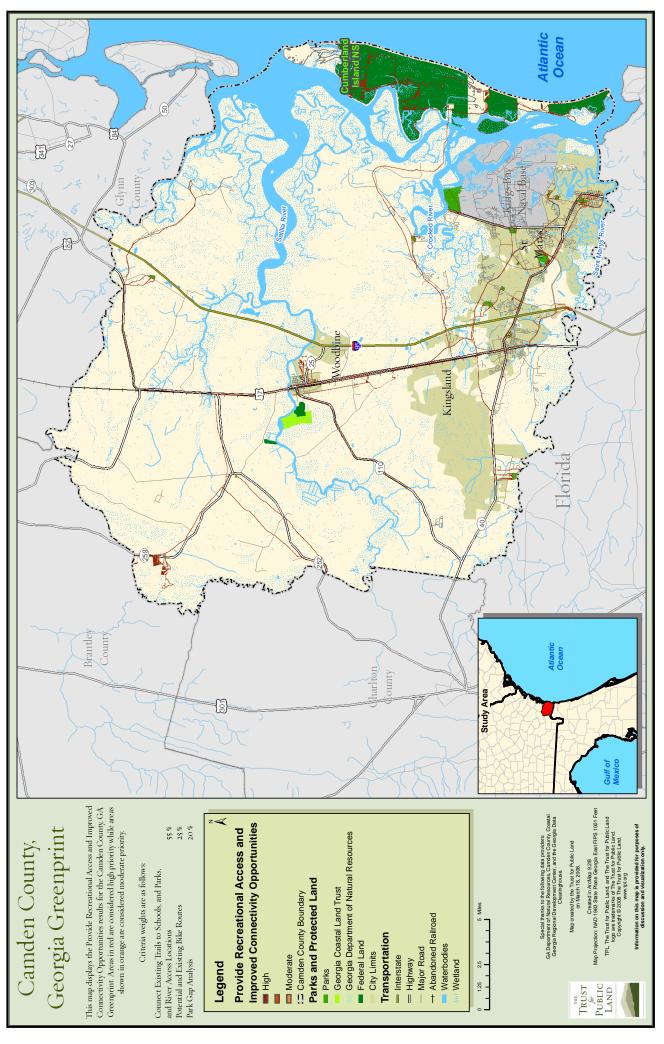


Create an ecotourism plan that brands the County as a premier destination:

- Establish an ecotourism committee with representation from Cumberland Island National Seashore, Crooked River State Park, the municipal tourism offices, recreational outfitters, environmental educators, guides, and others to focus on the synergies between recreation, tourism, and the hospitality industries that will become the basis for a marketing/public relations campaign and well as a business development plan.
- Conduct an economic benefit analysis of current ecotourism opportunities to understand the direct and indirect economic impacts to Camden County.
- * Create marketing materials that "brand" Camden County for ecotourists.









The next set of maps show overall conservation opportunities across the county and within the municipalities. The opportunities are derived from a composite analysis of the five Greenprint goals ranked and modeled in priority order. Again by color coding, these maps show where land conservation and restoration opportunities meet multiple goals; thus, achieving greater "bang for the buck" and meeting the criteria for diverse funding sources.

Countywide Opportunities

Recommended Implementation Strategies

Incorporate the Greenprint Model

For long-term viability and applicability to the county's planning and conservation efforts, TPL's Greenprint model is a flexible, dynamic tool that can be incorporated into the County's existing GIS programs or accessed through a web-based internet service. Either option allows the Greenprint to move beyond static maps and reports to a usable framework for decision-making at the county and city levels. With easy access to the Greenprint model, practitioners will be able to print color-coded maps, run parcel prioritization exercises, develop strategic analysis reports on specific queries, and run property profiles for acquisition assessments and grantwriting.

Option 1 – Conveyance would allow for desktop delivery of the model for use in-house by County or city staff. TPL will provide on-site training and ongoing technical assistance. This option gives the county complete access to the model framework, which allows county GIS staff to perform maintenance on the model as data and priorities change. This option does not provide a web-based component for sharing with partners. This option requires prior training/experience with ArcGIS Spatial Analyst and Model Builder. The county must also have ArcGIS 9.2 and Spatial Analyst licenses to support this option. The cost for this option is approximately \$6,000.00.

Option 2 – Conveyance would be via ArcGIS Server—new software technology from ESRI, the leading GIS software provider—as a web-based internet mapping service, or IMS. This conveyance would provide an interactive Greenprint model for easy access by the county, municipalities, and select stakeholders, as the model can be password protected. It will allow users to view modeling results and generate property-specific profiles based on the Greenprint goals and criteria. TPL will perform maintenance on the model if data and/or priorities change. TPL will host the model on its server for an agreed-upon period of time, and provide maintenance support at a level to be mutually agreed upon by all parties. The cost for this option is approximately \$10,000, which could be paid for through a cost-share agreement among the county and cities.

Improve Development Processes within the County

✤ Use Greenprint as a Smart Growth Tool – Add Greenprint review as one of the elements of the county's Smart Growth Checklist.

✤ Strengthen Subdivision and Development Regulations – Require greenspace for parks, trails and greenways, water storage, and set-asides within developments that also connect to countywide networks.

A Provide Incentives to Landowners – Couple incentives with strengthened regulations, by providing landowners streamlined permitting procedures, above minimum considerations for development around set-aside areas.

A Institute Developer Exactions/Impact Fees – Since 1990, the State of Georgia has authorized local governments to enact impact fees, but few counties or municipalities have taken advantage of this source for covering the costs of growth and the infrastructure needed to support it such as roads, schools, fire and police, parks, water, and sewer. Georgia law requires that local governments meet these requirements to impose impact fees:

Adopt a Capital Improvements Element within its Comprehensive Plan that stipulates projections for future public needs;

✤ Establish an Impact Fee Advisory Committee with representation from the local real estate development community;

A Create an ordinance that governs the service areas, the per unit schedule of fees for specific land uses, the basis for the fee calculation, and allowable credits for developer-provided services or land donations for public uses;

Hold public hearings to gather input prior to the adoption of the impact fee ordinance.

Generate Funding

A dedicated funding source for land protection is integral to the success of Camden County's conservation goals. A number of financing options are available to the county and the cities, all of which could be used to leverage the existing Special Purpose Local Option Sales Tax (SPLOST) program with state and federal funding sources. There is no one-size-fits-all possibility, and a combination of these options from the city to the county levels is the best approach to long-term achievement of the Greenprint.

Local funding options include:

General Obligation Bonds

✤ Georgia counties or municipalities may provide that bonds be issued solely for the purpose of acquiring lands and/or building parks.

A Counties, municipalities, and special districts may issue bonds subject to a limit of 10 percent of the assessed value of all taxable property within each locality.

The New debt may be issued only upon the approval of a simple majority of the voters in an election.

A \$5 million bond would cost a homeowner with the median value of a home \$125,100 less than \$16.00 a year for 20 years. A \$40 million bond would cost that same homeowner approximately \$127 a year for 20 years.

✤ Because the financing is spread over a period of years, future homeowners who will benefit will also contribute.

Property Tax

An uncommonly used funding source allows Georgia counties and municipalities to levy a dedicated property tax for parks and recreation, including land acquisition.

A There is no limit to the property tax levy amount; however, typically no more than 1 mil is levied per \$1,000 of property valuation.

A Majority approval by the voters is required to levy the property tax for this purpose, but not for general government operations.

* Counties and municipalities may create special districts for this tax.

Special Purpose Local Option Sales Tax (SPLOST)

A Counties may levy up to 2 percent more to the current 4 percent Georgia sales tax to finance specific infrastructure projects, including the building and maintenance of parks, schools, roads, and other public facilities.

& Counties must vote to put a SPLOST on the ballot, which must be approved by a majority of voters. In 2007 Camden County voters approved a 1 percent SPLOST, which generated an estimated \$7.5 million for infrastructure improvements related to transportation, and water and sewer.

The SPLOST endures for the shorter of five years or when the specified maximum amount has been raised.

Conservation Finance

Regardless of whether the economic times are robust or challenging, voters across America have said "yes" to increased funding for conservation. Since 1988, 76 percent of all conservation finance measures have passed, generating more than \$46.1 billion for land acquisition, water resource protection, park development, and greenways. No matter if they are traditionally red or blue, states vote green. Georgia is no exception. Almost 80 percent of county finance measures in the state have passed since 1996.

The recommended approach to a local conservation finance measures involves the following tasks:

Public Opinion Survey

Understanding likely voters' attitudes will help frame the measure and subsequent public education campaign. Hiring a respected pollster, which costs between \$15,000-\$18,000 for the size of Camden County and which can be paid for through a fundraising effort, will provide scientifically valid results to build the case for the finance measure (or not). Topics, such as the following, will be explored:

- ✤ Acceptance/Tolerance
- Amount and Type of Funding Measure
- & Timing
- ✤ Types of projects
- * Messages
- Messengers

Grassroots Involvement

A local, volunteer campaign committee comprised of community leaders from all sectors—business, civic, development, environmental, recreational—will help fundraise for the public education effort and serve in an ambassador capacity to spread the word.

Public Education

A comprehensive communication strategy that utilizes a variety of tools—printed materials, speakers bureaus, web site, ballot language, earned media—will provide the larger Camden community with the

benefits and costs of the proposed funding measure so that they can make an informed choice when they vote.

State Funding

The Georgia Land Conservation Program (GLCP), which replaced the state's Community Greenspace Program in 2005, provides several land conservation funding options, including grants, low interest loans, and tax incentives, which augment local, state, and federal funding sources to achieve the permanent conservation of land through the acquisition of conservation easement and fee simple ownership.

A Grant and loan applications are due March I, June I, September I, and December I of each year. Each application project area is visited by GLCP staff and scored, generally, within five weeks of receipt.

All qualified cities and counties within the state, regardless of size, are eligible to apply for funding under the GLCP. To be a qualified city or county, a community must be in compliance with the DCA and the Department of Audits and Accounts. Additionally, the DNR may submit projects of statewide significance. More about this program is available at www.glcp.org.

Other Potential Funding Sources

In 2001 consultant Tiffany L. Busby prepared the Camden County Community Greenspace report to serve as the planning document for the State's former Community Greenspace Funding Program, which was discontinued in 2005. That report called for a goal of permanently preserving 20 percent of the county's land area. In that report, two other funding mechanisms were proposed to create local funding opportunities:

A Real Estate Transfer Tax would earmark a \$.10 portion of the real estate transfer fee toward land acquisition for environmentally endangered lands, new parks, and other greenspace. This fee would require General Assembly authorization, but if more counties pursued this type of funding, the case could be made for a statewide program to fund land acquisition. The State of Florida has successfully used this instrument since 1990, first with Preservation 2000 then with its successor program, Florida Forever. At least \$300 million is available annually for numerous acquisition programs.

Stormwater Utility Fees are tied to the development of a stormwater master plan, and fees can be used to acquire lands in flood-prone undeveloped areas to avoid the expense of flood management systems and water treatment facilities.

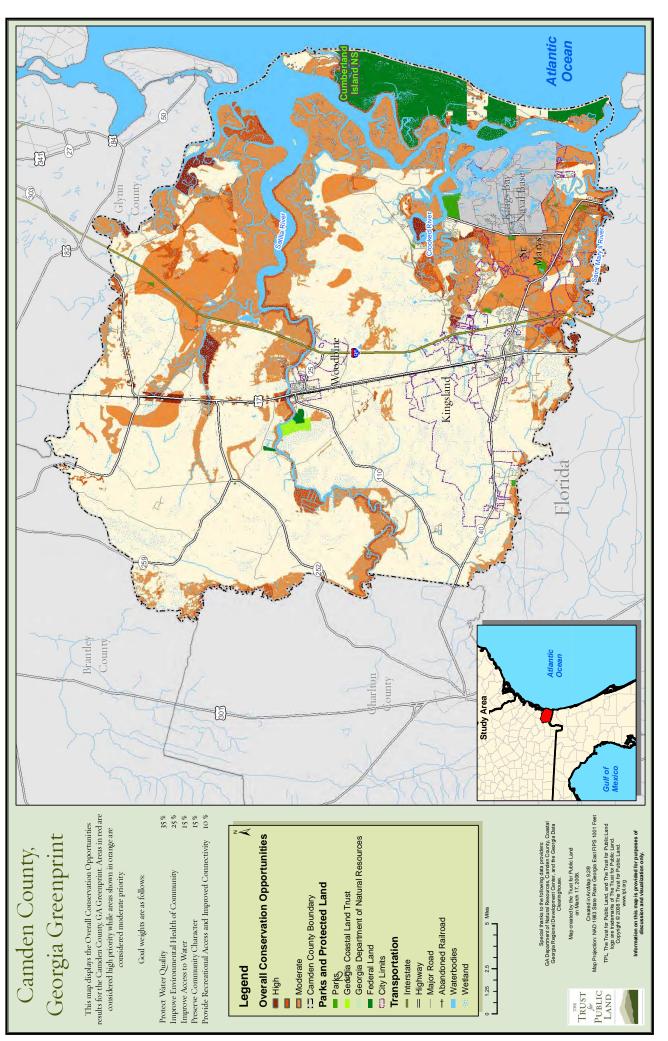
Create a Countywide Land Protection Program

Dedicated funding for conservation will require spending money in the most effective, efficient, and timely manner for the types of projects the community supports. TPL produced *Developing and Managing Effective Programs: A Handbook and Technical Assistance for Local Government Land Conservation* to help answer the question, "we've got the dollars, now what?" The guidebook offers best practices and applications for achieving a successful conservation program. Effective programs share the following qualities:

- & Balance between flexibility and accountability
- * Fairness with all parties who interact with the program
- ✤ Transparent process
- * Clarity in procedures
- * Value to community (economic outcomes)
- * Commitment to public involvement
- * Responsive to stakeholders
- * Leverage additional funding

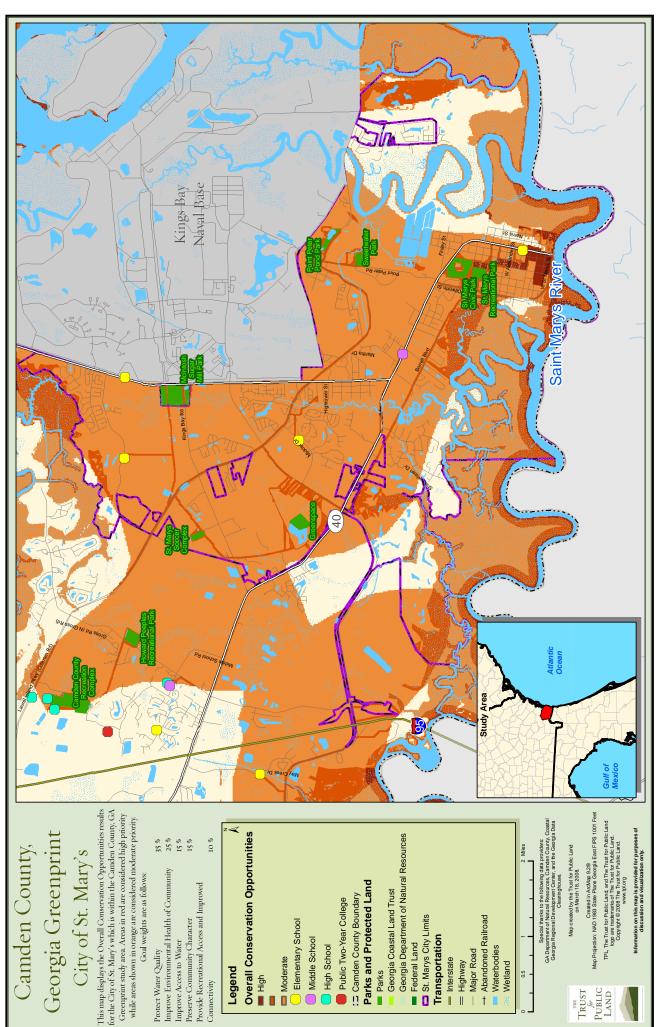
The most successful programs achieve these qualities through:

- * Citizen oversight that provides advice to staff
- * Sufficient staffing to operate program
- * Clear criteria for project selection
- * Strong research and due diligence
- * Strategic partnerships with conservation groups
- Management and stewardship
- * Respectful relationships with landowners
- Public communication

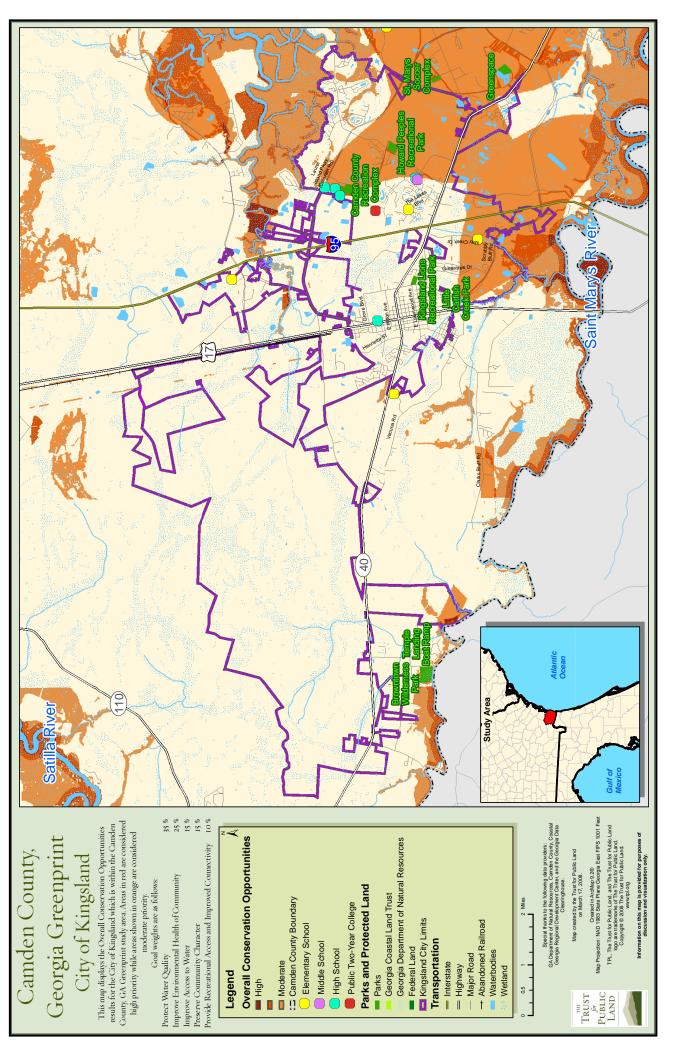


Map 6 - Composite of Opportunities to Meet Countywide Goals

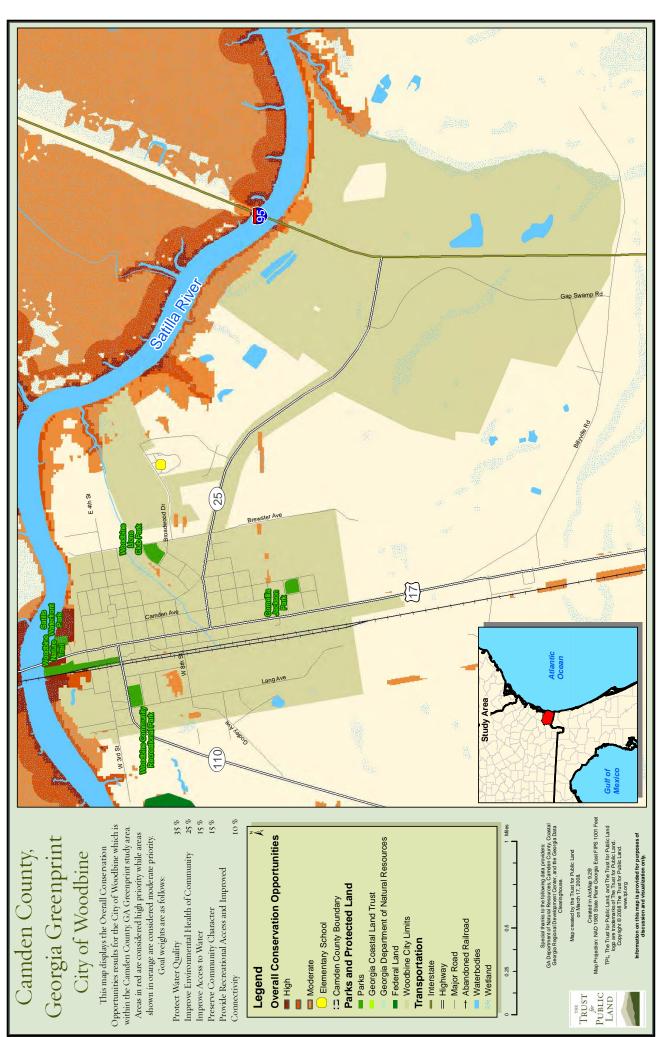








Map 9 - City of Woodbine Opportunities





Conclusion

The Camden County Greenprint model has been developed using the best GIS data sets available during the course of the process. By its nature, the model is dynamic, and may be updated as new data becomes available. In order to maintain the integrity of the process, any update will require that the stakeholders in the process be consulted, and, if necessary, the model criteria be re-weighted.

As investments are made, and community conservation goals identified through the Greenprint are met, the stakeholders will have the opportunity to revisit the overall goals and criteria and adjust them to reflect updated needs.

The Camden County Greenprint is the offspring of many worthy plans that went before, some that got off the shelf and into the ground and some that did not for a variety of reasons. Because this process is built upon the values held by Camden's residents, is visually captured through mapping and modeling, and followed through with practical steps for implementation, Camden County now has a flexible tool to use for future land use decisions, smart growth measures, and park and recreation planning. Community groups also can use the Greenprint to raise grant funds for implementation, and become partners in creating a greener, more sustainable Camden County.