



Chatham County Greenway Implementation Study

March 2016



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Ecological Planning Group, LLC assisted Chatham County with preparation of this report.



35 Abercorn Street, Suite 210
Savannah, Georgia 31401
www.ecologicalplanning.net
(912) 656-1316

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- Savannah - Chatham Metropolitan Police Department: Brian Renners, Planning and Research Coordinator, Savannah Area Regional Intelligence Center and Tracey Walden, S.Cpl., Crime Free Housing Program Director
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Acronyms

ADA	Americans with Disability Act
BMPs	Best Management Practices
CCRPC	Chatham County Resource Protection Committee
CORE MPO	Chatham County - Savannah Metropolitan Planning Commission/Coastal Region Metropolitan Planning Organization
CRS	Community Rating System
DNR	Georgia Department of Natural Resources
EPG	Ecological Planning Group, LLC
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GDOT	Georgia Department of Transportation
GIS	Geographic Information System
HPD	Georgia Historic Preservation Division
MPC	Chatham County - Savannah Metropolitan Planning Commission
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
OCM	Office for Coastal Management
ROW	Right-Of-Way
RTCA	Rails, Trails and Conservation Assistance
SCMPD	Savannah - Chatham Metropolitan Police Department
SECT	Southeast Coast Saltwater Paddling Trail
SEDA	Savannah Economic Development Authority
SFHA	Special Flood Hazard Area
SPLOST	Special Purpose Local Option Sales Tax

Executive Summary

The Greenway Implementation Study is a comprehensive assessment of stormwater drainage canals and retired rail corridors located throughout Chatham County, Georgia. The goal was to determine their viability as potential greenway trails. Chatham County and their consultant, Ecological Planning Group (EPG) along with key representatives from the Chatham County - Savannah Metropolitan Planning Commission (MPC) and City of Savannah Department of Community Planning and Development formed a project team known as the Greenway Steering Committee. This committee performed the collaborative research that forms the backbone of this study. A diverse Stakeholder Committee was also formed to provide technical assistance and to ensure that input was received from a variety of stakeholders, local governments, and community businesses and organizations. The results of this assessment identify three corridors that will receive further focus for greenway development.

To ensure that the trails systems and adjacent habitats are properly maintained, the guide, "Best Management Practices for Canal Greenway Maintenance" was developed as a separate companion document.

Ten drainage canals and retired rail corridors were selected by the Steering Committee and underwent an extensive evaluation process. The subsequent chapters discuss the background and history of the project, corridor selection process, methodologies used to collect and analyze data, and related trail planning projects throughout Chatham County.

Eighteen assessment criteria were selected to evaluate each potential greenway. The criteria were scored and prioritized for each of the selected corridors and summarized in a Prioritization Matrix that was used by the Stakeholder Committee to select which corridors should be targeted for greenway implementation. The three corridors selected are:

- Old Savannah Tybee Railroad (extension of the McQueen's Island Historic Trail)
- Placentia Canal
- Wilmington Park Canal

It should be noted that all ten of the selected corridors are suitable for greenway development, which is why they were identified for further study by the Steering Committee. The latter sections of this study present a "road map" for greenway implementation and a discussion of potential barriers that must be addressed.



1 Introduction

1.1 Goal

Initiatives that provide linear trails for walking and biking, known as greenways, have grown in popularity across Georgia with examples including the Atlanta BeltLine, the Columbus Chattahoochee RiverWalk, and the Coastal Georgia Greenway.

In Chatham County, the demand for walking and biking trails has grown as well, leading to the development of trails such as the McQueen's Island Historic Trail, Truman Linear Trail, the Woodville/Dundee Canal Walking Trail, and the Coastal Heritage Trail.

Use Existing Corridors

Trail development can be an expensive and time-consuming process, so modifying existing corridors that are already protected and available for public access, such as canals, makes financial sense. Using existing corridors also provides trail opportunities that otherwise could not be provided in many areas due to the logistics and high costs of property acquisition, trail development, and long-term trail maintenance.

The ultimate goal of this Greenway Implementation Study is to identify and evaluate existing stormwater drainage canals and retired rail corridors (Rails to Trails) for the implementation of a greenway trail system that benefits all of Chatham County's citizens.

1.2 What IS a Greenway?

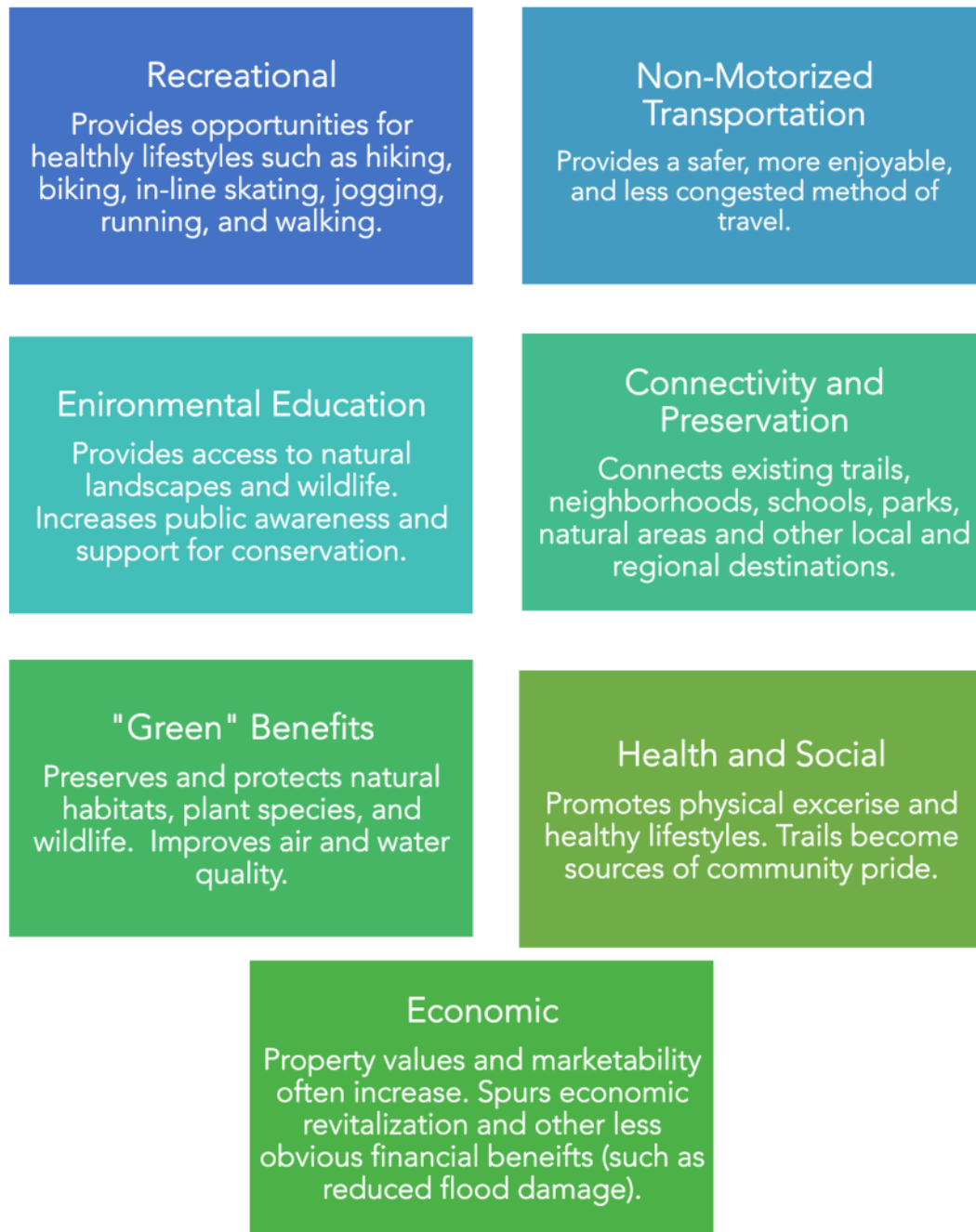
The general definition of a greenway is "open space or natural areas that have a linear form." Greenways may exist in their natural state and be located adjacent to streams or rivers, or contain improvements such as gravel or paved surfaces, amenities such as picnic tables, educational signage, boardwalks and more. Greenways may also be manmade, such as abandoned railroad beds and utility corridors. In coastal communities, such as Chatham County, manmade stormwater drainage canals provide a unique opportunity for dual uses, both as a greenway and a drainage feature.

Greenways are extremely valuable and both protect and provide access to features and landscapes unique to the area in which they are located. Coastal Georgia has many exceptional and distinctive natural landscapes that should be carefully incorporated when planning and designing trail systems. For example, it is possible to access the ocean, beaches, barrier islands, marshes, marsh hammocks, freshwater streams and creeks, old-growth pine forests, live oaks draped with Spanish Moss, and the remarkable wildlife that live in those habits sometimes within the same linear corridor.

The value of protecting greenway spaces extends beyond preserving natural habitats and offers many advantages to a community, as represented in Figure 1.



Figure 1: Greenway Benefits at a Glance





1.3 Planning Scope

Chatham County was awarded a Georgia Coastal Management Program Coastal Incentive Grant (Cycle 17) in October 2014 by the Georgia Department of Natural Resources (DNR), Coastal Resources Division (CRD). The grant was awarded to Chatham County to develop a Greenways Implementation Study that focused on using retired rail and stormwater drainage canal corridors in Chatham County as greenways and to develop a companion document that outlines best management practices (BMPs) for an “environmentally-friendly” canal maintenance program.

Chatham County contracted with Ecological Planning Group, LLC (EPG) to work with the County and community stakeholders to develop this study. Together, Chatham County, EPG, and key representatives from the Chatham County-Savannah Metropolitan Planning Commission (MPC) and City of Savannah Department of Community Planning and Development formed a project team known as the Greenway Steering Committee to carry out the collaborative research that forms the backbone of this study. A more diverse Stakeholder Committee was formed to encourage public participation, utilize local knowledge and expertise of community organizations and local citizens, and summarize related trail planning initiatives taking place in Chatham County. Together, these Committees conducted a comprehensive assessment of stormwater drainage canals and retired rail corridors located throughout Chatham County to determine their viability as potential greenway trails and to identify three priority corridors for greenway development.

The companion guide “Best Management Practices for Canal Greenway Maintenance,” was also developed by EPG to ensure drainage canals are maintained as required by State and Federal regulations, and that proposed trails and adjacent habitats are properly maintained as green infrastructure. This guide is intended primarily for maintenance professionals seeking information on the design, construction and maintenance of canal features and any potential issues arising from public use of canals as greenway trails.

Natural Trail Systems *Easier Implementation*

Trail improvements and amenities (such as trail surfacing, picnic facilities, boardwalks and pedestrian bridges) are not a focus of this *current* planning effort. Instead, this study focuses on the design and implementation of natural trail systems, which reduce not only environmental impacts of the trail but also reduces construction and maintenance costs. However, future improvements and trail amenities can be evaluated as budgets allow.



1.4 Corridor Selection

The concept of using stormwater drainage canals and retired rail corridors as greenways in Chatham County is not new. In November 2001, the Chatham County – Savannah MPC prepared a report titled “Using Canals as Greenway Corridors in Chatham County” that evaluated the use of seven stormwater drainage canals as greenways. These canals included: Wilmington Park, Placentia, Springfield, Hardin, Pipemakers, Little Hurst, and the Louisville South/Tallmadge Avenue Canal Corridor. The MPC selected these drainage canals for evaluation based on recommendations from a Greenway Subcommittee that was formed to address the need for more greenspace, greenways, and open space.

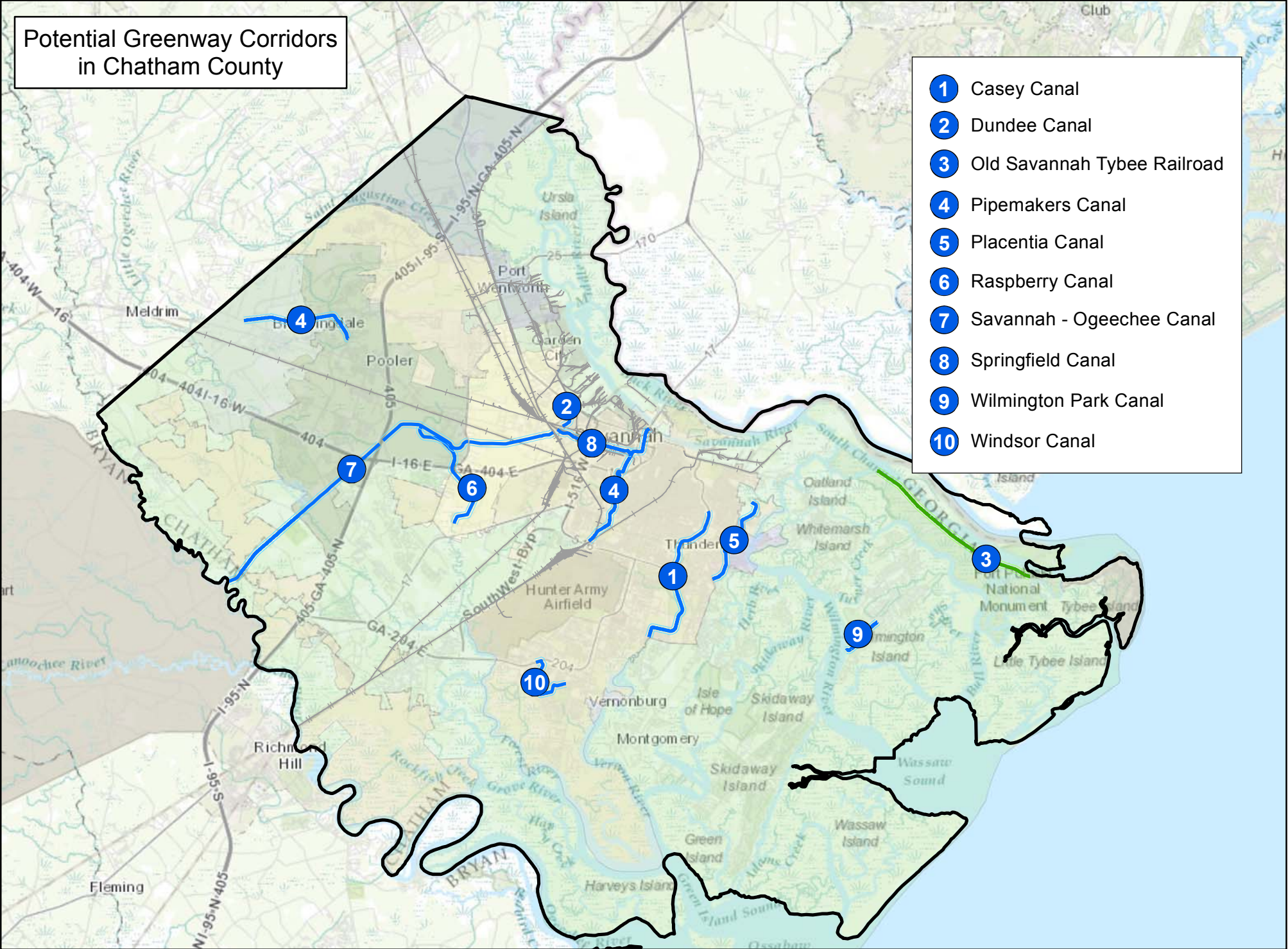
The scope of this study was expanded to include several corridors beyond the focus of the MPC's 2001 Canal/Greenway Plan.

The Greenway Steering Committee narrowed a comprehensive list of potential greenway and retired rail corridors resulting in nine canal corridors and one retired rail corridor to determine their viability (See Table 1). Locations of these potential corridors are shown in Figure 2.

It should be noted that a number of corridors were eliminated from consideration during this process due to incompatible land uses, significant road crossings, poor conditions, or general unsuitability. Accordingly, it is the County's belief that the remaining ten (10) corridors that are featured in this Greenway Implementation Study are suitable sites for greenway development, either currently or in the future.

Table 1: Potential Greenway Corridors in Chatham County

Casey Canal Corridor
Dundee Canal Corridor
Old Savannah Tybee Railroad (Extension of McQueen's Island Historic Trail)
Pipemakers Canal West Corridor
Placentia Canal Corridor
Raspberry Canal Corridor
Savannah-Ogeechee Canal Corridor
Springfield Canal Corridor
Wilmington Park Canal Corridor
Windsor Canal Corridor





1.5 On a Mission to be the “GREENEST” County in Georgia

On October 5, 2007, Chatham County passed a resolution to become the “greenest county” in Georgia in recognition of the County’s abundance of natural resources, diverse ecosystems, and cultural, historic and environmental landscapes and features. This Resolution came after decades of planning initiatives that focused on developing and preserving bikeways and natural areas, including Chatham County’s 2006 Comprehensive Plan, the 2003 Greenspace Plan, and the 2001 Canal Greenway Study.

In 2009, the Chatham Environmental Forum developed a roadmap to help the County become the greenest county in Georgia. The CCRPC and all greenway protection efforts were notably important in achieving the County’s mission of becoming the Greenest County in Georgia.

Most recently, Chatham County engaged the Coastal Georgia Indicators Coalition to lead the development of the Chatham Community Blueprint. The Blueprint, completed in December 2015, is a long-term plan for the Community. It will strategically move the Chatham Community towards the accomplishment of specified Goals in four key theme areas: Economy, Education, Health and Quality of Life. One of the Goals supporting Quality of Life specifically calls for the County to promote and provide neighborhood connectivity and build environments that encourage active and healthy lifestyles through the strategic placement of bicycle and pedestrian pathways, public parks, enforcement of road regulations, and education about health benefits.

One Step Closer

This Greenway Implementation Study is yet another example of the County’s commitment to become “greener” and builds upon the many historic and current planning efforts in Chatham County and the coastal region. While the specifics of these planning initiatives may vary, they have a common bottom line: the community and local jurisdictions support the development and permanent protection of natural, recreational, educational and historic resources in Chatham County, including the development and protection of more walking and biking trails.



2 Greenway Committees

Public participation was a key component of this project. Multiple opportunities were provided and encouraged, including the formation of a small, focused, Greenway Steering Committee and a larger, more diverse Greenway Stakeholder Committee. Information about these committees and their roles and responsibilities are provided below. A listing of Steering and Stakeholder Committee members and meeting summaries are provided in Appendices A and B respectively.

Other informational meetings were held throughout this planning process and are highlighted in the sidebar to the right and discussed in the following chapters.

2.1 Greenway Steering Committee

A first priority of this planning process was to form a focused Steering Committee to guide the overall development. The Steering Committee consisted of representatives of the Chatham County Engineering Department, Chatham County-Savannah MPC, the City of Savannah Department of Community Planning and Development, and EPG, a consultant hired by the County to assist with the preparation of this study.

The Steering Committee routinely met throughout the duration of this project to manage the general course of this planning process and plan development, assist with the selection of canal and rail corridors for evaluation, obtain site photographs, oversee the Stakeholder Committee, and coordinate with other agencies and individuals to acquire relevant information.

Steering Committee members held additional meetings and seminars to inform and educate

Project Milestones and Timeline

October 2014: First Steering Committee meeting. Regular meetings held thereafter throughout project.

December 2014: First Stakeholder Committee meeting.

March 2015: Second Stakeholder meeting to finalize assessment criteria and discuss draft Prioritization Matrix.

March and August 2015: Meetings with Chatham County Public Works.

August 2015: Third Stakeholder meeting concludes with the selection of three corridors for greenway development.

October 2015: Meetings with Chatham County Attorney's Office and Fort Pulaski.

November 2015: BMP Seminar for Green Canal Maintenance Program. Coordination with GDOT/Stakeholder Committee regarding the eastern extension of McQueen's Island Historic Trail and related bridge/US 80 improvements.

February 2015: Draft plan provided to Stakeholder Committee for review and comments.

A UFW 2016: Presentations to the Chatham County Board of Commissioners, Tybee Island City Council, and Thunderbolt Town Council.



City and County departments and local officials about this planning initiative and to receive feedback and generate support for implementation.

2.2 Greenway Stakeholder Committee

In order to develop a successful and comprehensive plan, Chatham County, with assistance from the Steering Committee, invited over 50 representatives of various organizations to be a part of the Stakeholder Committee. Members included representatives of the eight jurisdictions within the County, as well as additional representatives from local organizations, non-profits, foundations, universities and other governmental departments. This diverse Stakeholder Committee was formed to encourage public participation, provide inter-departmental and inter-jurisdictional cooperation, and utilize local knowledge and technical expertise of community members not on the Steering Committee. The Stakeholder Committee met to gather data, discuss and coordinate relevant trail planning projects happening throughout the County, and to develop and complete an objective Prioritization Matrix to select corridors for greenway development. Stakeholder meetings were held on three separate occasions over the course of a year and were well attended. The Steering Committee members regularly communicated with the Stakeholder Committee and kept them informed of progress and local community events between official Stakeholder meetings. Documents, requests for additional information, and feedback were routinely shared and discussed with Stakeholder members. As noted prior, all Stakeholder Committee meeting summaries are located in Appendix B.



3 Greenway Benefits

Greenways are an integral part of a sustainable approach to transportation. They provide valuable community amenities and support local access to our coastal environment. Well-designed greenways can improve a region's economic, environmental and social health, improving the overall quality of life for residents.

Because of the expenses associated with trail development and maintenance, public officials and communities don't always support greenway initiatives. Often there is resistance by members of the community who worry that there will be loss of privacy and increased crime in their neighborhood. These negative misconceptions are simply not the case in most neighborhoods. Successful trail and greenway projects depend on planners understanding and communicating what is known about the impacts of these initiatives to citizens and public officials.

Some of the many benefits provided by greenways include the following:

Non-motorized Transportation

Greenways and trails are not just for recreation and enjoyment. They are viable transportation corridors and useful elements of a well-designed urban or regional multi-modal transportation system. Many agencies incorporate trails into transit planning. Being able to avoid congested streets and highways while traveling through natural areas benefits and increases a community's "livability."

Connectivity and Preservation

Greenways have all the traditional conservation benefits of preserving open spaces, as well as additional benefits because of their linear nature. They help preserve important natural landscapes, connect fragmented habitats and offer increased opportunities for protecting plant and animal species. Greenways allow people to experience and enjoy nature with minimal environmental impact and connect and preserve natural, historic and cultural resources.

Environmental and Educational Benefits

Greenways provide natural buffer zones that protect streams and other waterways from pollution runoff associated with pesticide and fertilizers, which degrade water quality. Trails also help protect plants and trees that act as natural purifiers to filter out harmful air pollutants, including those known to be greenhouse gases and to have public health impacts. Air emissions are also reduced when people choose to travel by non-motorized means such as walking and biking. Greenways help reduce flooding by absorbing and retaining waters that overflow into canals and streams. Protecting greenways in floodplains is an especially important environmental conservation practice in Chatham County because it preserves the natural functions of that floodplain. Additionally, greenways increase environmental education opportunities through the use of trail signage.



Recreational, Health and Social Benefits

Walking and biking encourage interpersonal connections by moving users within active public spaces. This differs from the relative isolation experienced in an automobile. Trails and greenways provide people of all ages with attractive, safe, accessible and low- or no-cost exercise in the form of cycling, walking, hiking, or jogging. The association between increased physical activity and public health and wellness has been well established. In addition, trails often become sources of community identity and pride.

Economic Growth

The economic effects of trails are sometimes readily apparent (as in the case of trailside businesses) and are sometimes less obvious, such as when a company or family decides to locate to a particular community because of greenspace amenities.

Case Studies

According to statistics published by Greenway Inc., a survey of homebuyers by the National Association of Home Realtors and the National Association of Home Builders, ranked the availability of trails as the second most important community amenity out of a list of 18 choices. In Apex, NC, a housing development added \$5,000 to the price of 40 homes bordering a regional greenway. Those homes were the first to sell.

Walking and biking have quantifiable economic benefits that make a compelling case for local and regional governments to invest in greenways. According to information provided by the Rails-To-Trails Conservancy, a national trail advocacy group, recent estimates for the annual value of walking and biking for individuals and municipalities include:

- o \$4 billion in gasoline not purchased
- o 14 million tons of carbon dioxide not emitted (worth an estimated \$147 million)
- o \$235 billion saved due to the health benefits from active transportation

In addition to the community-wide savings from shifting citizen modes of transportation and increasing neighborhood land and business values, protected greenspace in lowland areas like Chatham County can prevent billions of dollars in flood damages and flood related costs. Restoring floodplains and waterfront communities as greenway trails allows for the natural water filtration needed in developed areas.



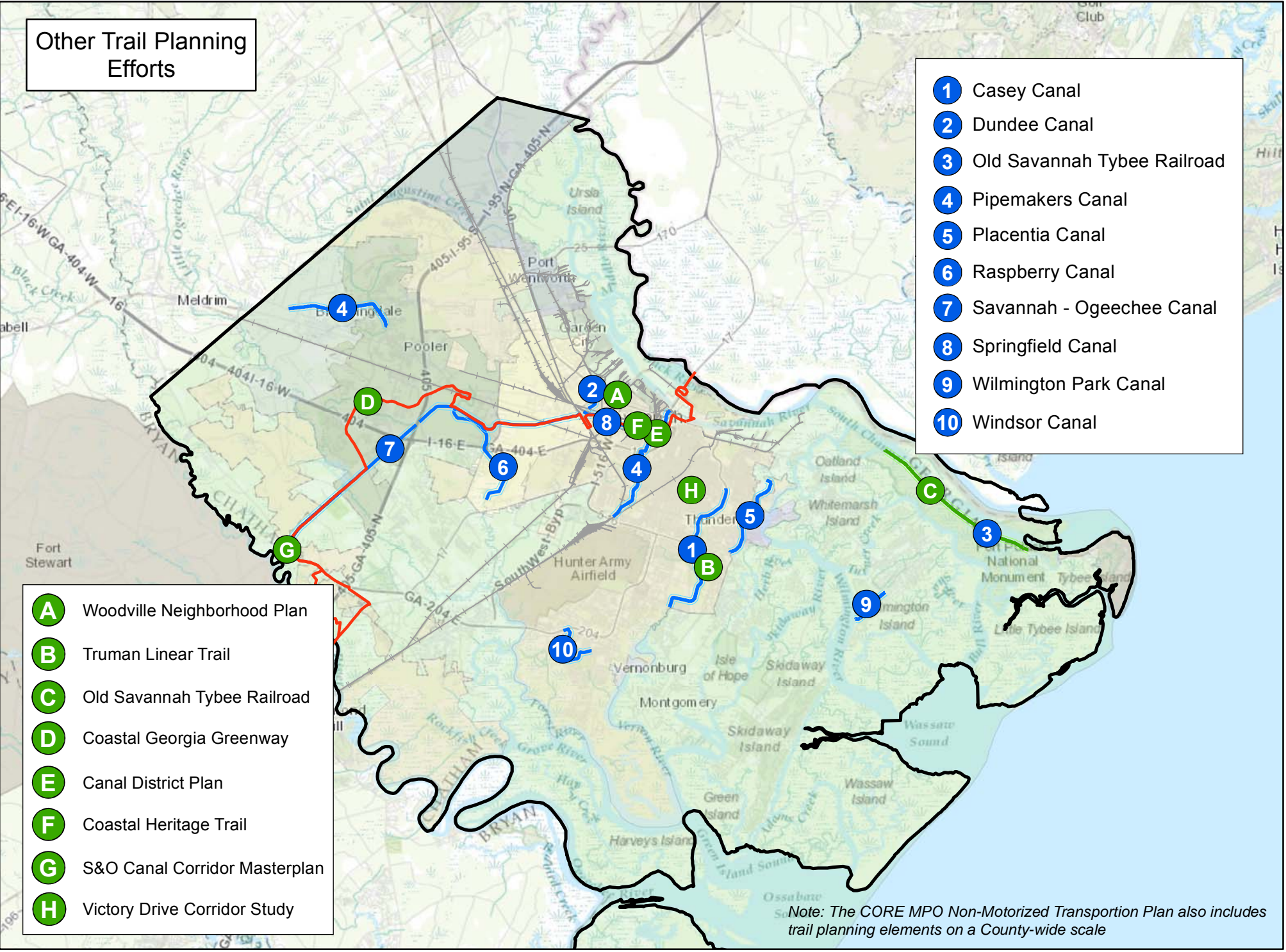
4 Other Neighborhood Plans and Related Trail Planning Efforts

This chapter provides a complimentary and comprehensive summary of nine greenway and trail planning processes taking place in Chatham County and the greater coastal region independent of this particular planning initiative (See sidebar). The locations for these trails and paths are compared in Figure 3 with the ten identified corridors of this study.

Evaluating these neighborhood and regional plans and studies resulted in making this an all-inclusive greenway plan that includes connections to other existing greenways and trails. A number of plans, studies, and related planning documents were consulted and reviewed to prepare these summaries and can be found in the Resources section of this document.

Related Planning Efforts

1. Woodville Neighborhood Plan & Woodville/Dundee Canal Walking Trail
2. Truman Linear Park Trail
3. Old Savannah Tybee Railroad Historic and Scenic Trail & Related Planning Efforts
4. Coastal Georgia Greenway
5. West Boundary Canal District Plan
6. Coastal Heritage Trail
7. Savannah-Ogeechee Canal Corridor Master Plan
8. CORE MPO Non-Motorized Transportation Plan
9. Victory Drive Corridor Study

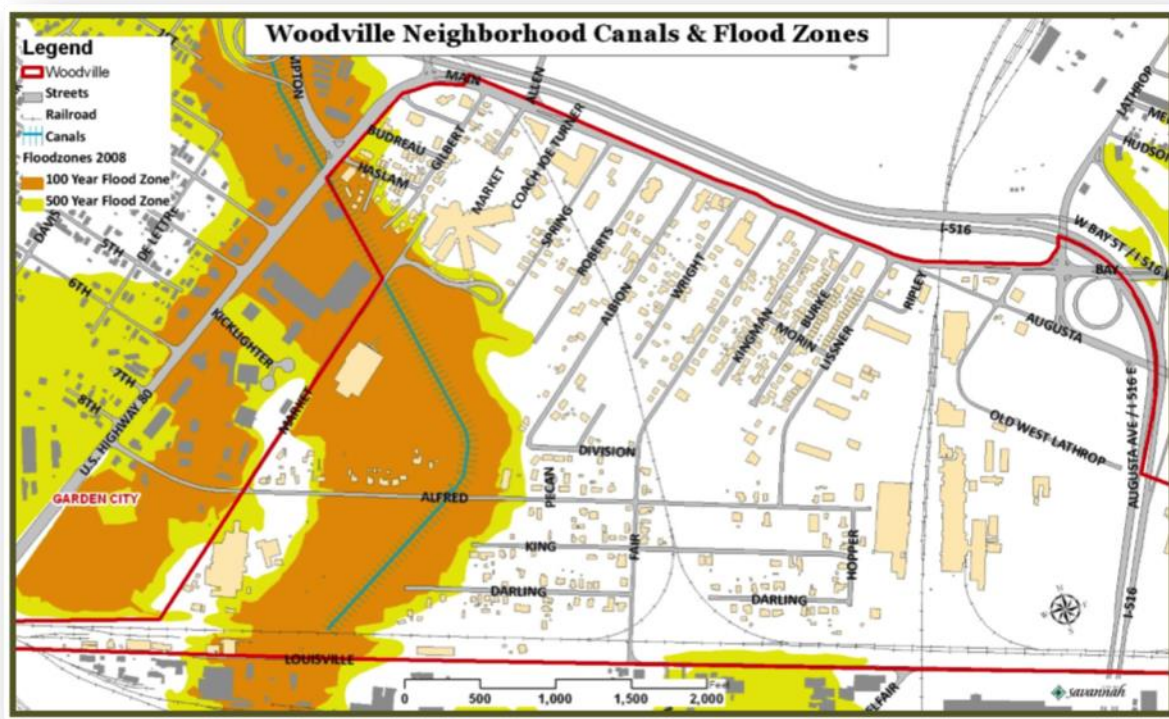




4.1 Woodville Neighborhood Plan & Woodville/Dundee Canal Walking Trail

The Woodville Neighborhood Plan presents a vision for the future of the Woodville community within the City of Savannah. The location of this neighborhood plan is contained by West Bay Street on the north, Louisville Road on the south, I-516 or Lynes Parkway on the east and Market Street, US Highway 80 and the Dundee canal on the west. City staff worked collaboratively with residents to establish existing conditions and develop an action plan with goals, objectives, and strategies that will guide the neighborhood forward. Driven by the goals of existing residents, the action plan was created for implementing the needs of the community and was vetted by relevant City departments to ensure that everything in the plan could be accomplished.

The plan highlights the Dundee Canal as an environmental asset with incredible potential for the Woodville community for use as a greenway trail. The canal runs through the western third of the neighborhood from Louisville Road to US Highway 80, crossing Alfred Street and Market Street along its route and providing a link between the Savannah-Ogeechee Canal and the Savannah River. The City of Savannah's Stormwater Department currently maintains the canal, removing debris and ensuring proper drainage. Nonetheless, residents have experienced flooding at the end of the dead end streets adjacent to the canal.



Map courtesy of City of Savannah Woodville Neighborhood Plan

In addition to improved drainage infrastructure within the neighborhood, Woodville residents would support a greenway along the Dundee Canal to improve access for maintenance and recreation. The plan recognizes the canal itself and its adjacent woodland as a great opportunity for improved environmental health, education, recreation and overall well-being for



Woodville residents. City Council has adopted the plan and this project is moving forward. Implementation will take place over the next five years through a partnership between the City, Woodville Neighborhood Association, Chatham County and other entities. More information can be found by visiting www.savannahga.gov/DocumentCenter/View/2482.

4.2 Truman Linear Park Trail

The Truman Linear Park Trail is approximately 6 miles in length and will link Daffin Park with Lake Mayer Community Park (located partially within the Casey Canal Corridor). The trail runs parallel to the Truman Parkway and will accommodate bicycling, running, walking and bird watching. In addition to recreational uses, the greenway will provide a commuter link to multiple major employers such as Memorial Health University Medical Center and Whole Foods Market.

The concept for a linear park within the Casey Canal Corridor began in the 1970s, and was included in the 1992 "Chatham County/Savannah Bikeway Plan," the 1996 "Chatham County Open Space Plan," and the 1997 Coastal Georgia Land Trust "Gateway to Coastal Georgia: Connecting the Coast" master plan. In 2005, \$1,008,000 for the construction of the Truman Linear Park Trail-Phase II was included in the Federal Highway Administration's Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU). The trail includes two phases:

- Phase 1 the currently completed Police Memorial Trail
- Phase 2: a 4.8 mile path linking Phase 1 to Lake Mayer utilizing portions of the Casey Canal Corridor. Plans include the implementation of many greenway BMPS and greenway amenities such as timber bridges and boardwalks.

Chatham County and the City of Savannah have agreed to split the construction into two parts with the County assuming responsibility for building Part A from Lake Mayer to DeRenne Avenue and the City completing Part B from DeRenne Avenue to 52nd Street. The City has agreed to assume the primary maintenance of the entire trail. More information can be found by visiting www.trumangreenway.org and www.savannahga.gov/index.aspx?NID=1794.

4.3 Old Savannah Tybee Railroad Historic and Scenic Trail & Related Planning Efforts

Beginning in the early 1990s, a committee of citizens and volunteers worked with Chatham County to develop the abandoned Savannah & Atlantic Railroad corridor along the Savannah River Canal into a recreational and scenic pedestrian and bike trail that linked the U.S. Highway 80 Bull River Bridge to Fort Pulaski National Park. The project corridor extends approximately ten miles total, along the old railroad grade parallel to Highway 80 on McQueen's Island, passing Fort Pulaski National Monument, and extending eastward out to Tybee Island. A regional trail, comprised of independent but related initiatives is being planned by officials at several levels of government.

McQueen's Island (Rails to Trails) Historic Trail

The six-mile McQueen's Island Trail was Georgia's first "Rails to Trails" project. Partnerships with the National Park Service, Chatham County and other organizations have ensured the difficult



long-term maintenance of this trail. Due to erosion patterns along this tidal canal, sections often undergo closure for trail repair. As of the writing of this plan, the County is in the process of installing a bulk head to shore up a vulnerable section of the trail that had previously failed.

Marsh Hen Pedestrian and Bike Trail

The eastern section of the corridor has been proposed as the Marsh Hen Pedestrian and Bike Trail, extending from U.S. Highway 80 (on the eastern side of Lazaretto Creek Bridge) to Byers Street on Tybee Island. The City of Tybee plans to construct a new bike and pedestrian path along the north edge of the island to connect its existing city-wide bicycle network to Fort Pulaski and McQueen's Island Historic Trail. Currently, the dirt path is maintained by Georgia Power as a utility easement. State officials recently approved a Coastal Marshlands Protection Act permit that will allow island officials to re-purpose the trail into a bike and pedestrian path. The Marsh Hen Pedestrian and Bike Trail was unanimously approved by the Coastal Marshlands Protection Committee on April 17, 2015 and the City of Tybee expects to begin construction in 2016.

Fort Pulaski Bridge Replacement

The National Park Service is planning to construct a new, replacement bridge across the Savannah River, reconnecting the McQueen's Island and Cockspur Island portions of Fort Pulaski National Park. This bridge includes many multi-modal transportation amenities, which will provide a safer intersection for pedestrians and bikers.

Proposed Improvements for U.S. Highway 80 / Bull River and Lazaretto Creek Bridge Replacement

The Coastal Region Metropolitan Planning Organization (CORE MPO) conducted a planning study from 2010-2012 of U.S. Highway 80 and Bull River and Lazaretto Creek Bridges. This study titled "US 80 Bridges Replacement Study," examined the needs and possible alternatives for this corridor.

The Georgia Department of Transportation (GDOT) is using the results and recommendations from this study as a baseline for their ongoing, multi-phase planning efforts for this corridor. GDOT has proposed improvements for Highway 80 leading to Tybee Island, including proposed bridge replacements crossing the Lazaretto Creek and Bull River. The new bridges will have two traffic lanes, a ten-foot bike lane shoulder and a ten-foot barrier separated multi-use path that will include bike and pedestrian improvements. Connections for this multi-use path to the McQueen's Island Trail parking lot, proposed Lazaretto Creek Bridge, and Marsh Hen Pedestrian Bike Trail at Fort Pulaski are planned. However, GDOT is not assuming responsibility for the eastern extension of the trail from Fort Pulaski to GDOT's multi-use path from the Lazaretto Creek Bridge. The replacement of these bridges will provide linkages that are crucial to the overall success of other greenway planning initiatives connecting Wilmington Island to Tybee Island.



GDOT hosted an Open House on November 17, 2015 to seek public comments about their proposed improvements and the comment period ended on December 1, 2015. GDOT's Scoping and Preliminary Engineering Phase is expected to start by

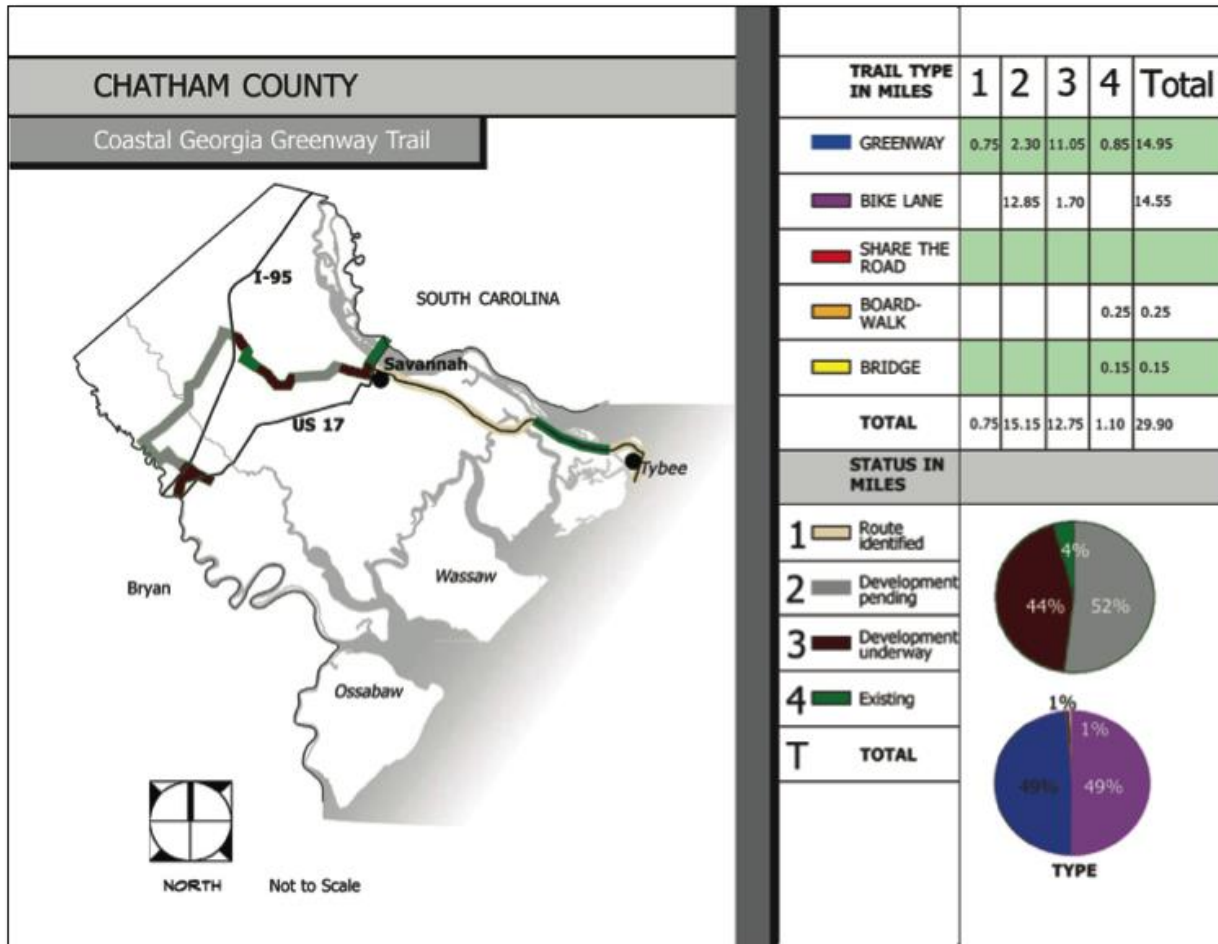


July of 2017. This phase will include environmental approval of a preferred alternative. Future projects will also include right-of-way (ROW) assessments and acquisitions and a Final Design study through GDOT. The schedule for these future projects has not been decided.

It should be noted that if the Marsh Hen Pedestrian and Bike Trail and GDOT's proposed plans for U.S. Highway 80 bridge replacements are implemented as currently planned, only one vital link will be missing: the eastern extension of the McQueen's Island Historic Trail through Fort Pulaski-owned and County-owned property to connect to the Lazaretto Bridge. GDOT, the CORE MPO (through its US 80 Bridges Study and Non-Motorized Transportation Plan), and Fort Pulaski (in its General Management Plan) both envision and support the eastward extension of McQueen's Island Historic Trail to the Lazaretto Creek Bridge. The extension of this trail was one of the ten chosen for evaluation in this plan (See Chapter 6.4) and was one of the final three recommended to Chatham County for greenway development.

4.4 Coastal Georgia Greenway

The Coastal Georgia Greenway is envisioned as a 450-mile trail system, which will connect South Carolina to Florida through Georgia's six coastal counties. Approximately 25% of the trail is already completed. Upon completion within Chatham County this greenway will link the City of Savannah, Kings Ferry Waterfront Park, the Savannah-Ogeechee Canal and Museum, the Savannah Amtrak Station, and the Savannah Historic District. On a regional scale the trail, once completed, will connect six counties, ten cities, over 118,500 acres in wildlife preserves, local, state and national parks and historic sites and 12 historic districts. It will serve as the Georgia portion of the East Coast Greenway, which will connect Key West, Florida to Calais, Maine. The route is being built out by public-private partnerships of local jurisdictions, bike clubs, non-profit organizations and citizens. State level officials have recently recognized the significance of this project (organized by the grassroots volunteer organization Coastal Georgia Greenway, Inc.) that can regionally link historic towns, beaches, harbors and rivers throughout coastal Georgia. In March 2015, Senate Resolution 26 passed the Georgia State House of Representatives calling for a Joint House/Senate Coastal Greenway Study Committee. And in June 2015, a Senate panel comprised of predominantly coastal officials was convened to deliberate on how the Coastal Greenway can be implemented in Georgia. More information can be found at www.coastalgeorgiagreenway.org.



4.5 West Boundary Canal District Civic Vision Plan

The West Boundary Canal District is located on the western boundary of the Savannah Historic District, centered on the Ogeechee and Springfield Canals. The plan to redevelop the Canal District to the west of West Boundary Street presents an opportunity to create a vibrant new center of activity in Savannah's core. Utilizing publicly owned assets, such as the historic bridges of the Central of Georgia Railroad, the Ogeechee and Springfield Canals, and significant vacant city-owned property, the City of Savannah proposes to create a system of parks, trails and complete streets that will serve as a multi-modal transportation network to complement a proposed new public arena facility, which was included in the latest SPLOST (1% Special Purpose Local Option Sales Tax) proposal voters renewed in November of 2013.

Greenways along existing historic canals, and a redeveloped Gwinnett Street would create new pedestrian corridors to the nearby Historic District, which begins at West Boundary Street, less than half a mile away.

Six committees comprised of residents and city staffers are addressing the following aspects of the development: greenway planning, connectivity, mobility and transportation, business development, programming potential for the new arena and potential future uses for the



Chatham County Greenway Implementation Study

current Civic Center site at Montgomery and Liberty streets. More information can be found at www.catchacat.org/wp-content/uploads/2013/12/2013-West-Boundary_Civic-Vision-Plan_Council-Workshop-Presentation1.pdf.





4.6 Coastal Heritage Trail

The Coastal Heritage Society in partnership with the City of Savannah is managing a \$200,000 GDOT Transportation Enhancement Project to establish the Heritage Trail Bike/Pedestrian Path in Savannah. The project will provide a bike and pedestrian path of approximately 1.5 miles, connecting the Tricentennial Park (Visitors Center, Georgia State Railroad Museum, etc.) to the future First Century Campus. This future greenway trail is designed to provide a safe method for alternative transportation parallel to Louisville Rd. between the US 17 overpass and I-516. It will constitute a portion of the Coastal Georgia Greenway.

The project is planned to proceed in the following phases:

- Phase 1: On-Site Tours at Museum Site – acquisition and restoration complete, poised for expansion
- Phase 1.5: Travelling Steam Locomotive Program – traveling fleet of steam locomotives for demos at partner sites, seeking funding
- Phase 2: Visitor Center/ Savannah History Museum Shuttle – planned restoration of historic infrastructure between sites
- Phase 3: Excursion to First Century Campus – planned construction of historic infrastructure along two-mile corridor between existing Tricentennial Park complex and target acquisition site “First Century Campus” along the Savannah-Ogeechee Canal

4.7 Savannah-Ogeechee Canal Corridor Master Plan

The development of a multi-purpose trail within the Savannah-Ogeechee Canal corridor was proposed in 1992 when the Aldermen of the City of Savannah granted Chatham County a recreational easement on the canal for the development of a historic scenic trail. The Savannah-Ogeechee Canal Society formed at this time, and undertook the restoration and maintenance of a 186-acre preserve along the Ogeechee with several miles of wooded trails, picnic areas, and a small museum. Two of the canal's six locks are maintained by Canal Society volunteers. In its entirety, the canal extends 16.5 miles, linking the Ogeechee River at Fort Stewart to Savannah's 19th century industrial corridor, former rice fields, and timber tracts (today the municipalities of Garden City and Pooler) to the Savannah River.

A concept for extending this trail through Tom Triplett Community Park was developed in the Savannah-Ogeechee Canal Corridor Master Plan, approved by Chatham County in 2001. This trail is proposed as a section of the Coastal Georgia Greenway. Highlights of the proposed Savannah-Ogeechee Canal/Triplett Trail include its linkages of the 200-acre Tom Triplett Community Park, to the historic Civil War tent sites within the park and to the Savannah-Ogeechee Canal Historic District. Interpretative signage related to the historic, cultural and natural environment along the trail is planned and will offer many educational opportunities.

4.8 CORE MPO Non-Motorized Transportation Plan

The CORE MPO adopted the Non-Motorized Transportation Plan in October 2014. This comprehensive, regional plan addresses non-motorized transportation needs in Chatham County and its municipalities, as well as portions of Effingham and Bryan Counties. The plan identifies and prioritizes needed pedestrian and bicycle improvements within this area. The resulting recommendations guide the CORE MPO in allocating a portion of its federal funding to



meet non-motorized transportation needs, and it can also guide local governments in the development of Capital Improvement Programs, grants, and partnerships.

This process provides a framework for assessment, prioritization and funding for multiple canal and greenway corridors, most notably, the entire Coastal Georgia Greenway corridor. However, other corridors are noted within this plan including the Placentia Canal and connections to the McQueen's Island Historic Trail from U.S. Highway 80.

The complete plan as well as individual summaries of its key elements, including maps and project lists, are available on the CORE MPO's website at:

<http://www.thempc.org/Transportation/Non-motorTranspPlan.html>

4.9 Victory Drive Corridor Study

In early 2014, the Chatham County-Savannah MPC on behalf of the CORE MPO partnered with several local advocacy groups to initiate a multi-phase planning study of the Victory Drive corridor. The Victory Drive Corridor Study aims to preserve, revitalize and maintain the historic, commemorative landscape and prominence of this signature boulevard. Through a public-private collaboration, this study seeks to develop an implementable plan incorporating context sensitive solutions to balance the transportation and land use demands of a contemporary street.

The 19.8 mile long study corridor begins at the Victory Drive and Ogeechee Road intersection and continues east and south to the end of Butler Avenue on Tybee Island. Two major sections of the corridor have been identified – east and west – with the Wilmington River being the dividing line.

The first phase, completed in early 2015, was a broad assessment of the entire US-80/Victory Drive Corridor between Ogeechee Road and the south end of Tybee Island. Non-motorized trail connectors (bike and pedestrian paths) to US 80 and the extension of McQueen's Island Historic Trail were supported in this plan phase.

Subsequent phases will study specific segments in greater detail. The second phase is underway now examining the most western segment, from Ogeechee Road to MLK Jr. Boulevard.



5 Corridor Assessment Methodology

Determining which canal or retired rail corridor should be prioritized for development as a greenway is not an easy task. A "one size fits all" approach is not always practical given the complex variability between the corridors in terms of adjacent land uses, public perspective, land acquisition needs, and other site-specific criteria.

However, land use planning can be highly political and divisive with limited public resources; therefore, an objective methodology is crucial. A main purpose of this study was to develop a prioritization method to streamline the corridor selection process and aid the Stakeholder Committee in selecting greenway corridors with the most potential for multi-use trail development.

5.1 Assessment Criteria

Eighteen assessment criteria were selected to evaluate each greenway corridor. These criteria were selected by the Steering and Stakeholder Committees after review of other greenway and greenspace ranking systems, and through discussions of characteristics that impact the desirability of one particular greenway corridor over another. This included the feasibility of development. An additional, nineteenth category was added to allow for priorities that were site specific and unique to certain greenways.

Below is a summary of the criteria that were used to assess each corridor. They are listed in alphabetical order, not ranked by importance.

Adjacent Land Use/Local Level of Service

The location of a greenway is obviously important as it contributes to the overall "feel" of the trail. In order for a greenway project to be successful, the proposed greenway must be compatible with existing land use. Greenways located in residential or neighborhood commercial areas are desirable and are more widely used for recreational purposes and as a means of getting from one place to another. Industrial areas often present safety concerns for trail users and are not typically considered for greenway development.

Connectivity - Places of Interest

Connectivity is essential to the future popularity and success of a trail system. If a trail does not connect its

Assessment Criteria

1	Adjacent Land Use/Local Level Of Service
2	Connectivity-Places of Interest
3	Connectivity-Public Open Spaces
4	Connectivity-Trail Extension & Linkage
5	Corridor or Trail Already Identified In Master Plan
6	Ecological Value
7	Employer Sponsored Greenway
8	Existing Road or Path Is Used as a Trail
9	Floodplain Considerations
10	Funding Source Identified
11	Historical/Cultural Significance
12	Maintenance Road Issues
13	Maintenance ROW
14	Major Road Crossings
15	Public Safety
16	Regional Appeal & Advantages
17	Safe Alternative Transportation
18	Shade & Tree Canopy
19	Key Issues



users to destinations, it is much less likely to be utilized. Furthermore, the goal of providing alternative transportation can only be achieved if the future trail system connects people to where they want to go. Corridors that connect people with local places of interest (civic buildings, museums, schools, employment hubs, etc.) are components of a well-designed greenway network and are valuable assets to a community. Greenways that connect public open spaces to other trails and other alternative transportation networks (such as bikeways) are prioritized separately.

Connectivity - Public Open Spaces

Greenway corridors and their trail systems can expand the recreational use and benefits associated with traditional public open space such as parks and recreational ball fields by connecting them with neighborhoods and other places of interest.

Connectivity - Trail Extension and Linkage

Providing linkages between existing and proposed multi-use trail/bikeway/sidewalk systems is a major goal of this project and will ultimately result in a regional network of trails that could provide a viable alternative transportation system, as well as expand recreational opportunities.

Corridor or Trail Already Identified in Master Plan

This criterion recognized the importance of existing support for greenway corridor implementation. Corridors previously identified by another agency or local government with trail systems designed or conceptualized were viewed as more likely to move forward to implementation. In many cases, the cost of the design work, as well as initial public outreach has been addressed. In these cases, the County could work with the planning agency or local government to facilitate the development and ongoing maintenance of the trail system.

Ecological Value

All greenway corridors located along a canal provide some level of ecological value. Protected riparian buffers along the stream enhance water quality, as well as provide wildlife habitats and travel corridors. In addition, these greenways have the potential to provide an avenue for environmental education through signage and exposure to the flora and fauna associated with the area. Assessment of this criterion was intended to identify greenway corridors that are particularly scenic, provide special wildlife viewing opportunities (e.g. birdwatching on trails that are located adjacent to wetlands, directly contiguous with a large area of natural habitat, etc.), and/or areas that preserve and protect imperiled and vulnerable habitats.

Employer Sponsored Greenway

Many employers now encourage or provide incentives to employees to exercise as part of an overall "wellness" program. In some cases this includes access to trails, bike paths, sidewalks, etc. to encourage employees to exercise during the work day and to take alternative transportation to work. The County believes that it would be advantageous and attractive to local employers to offer this type of amenity to their employees.

Existing Road or Path is Used as a Trail

This criterion recognizes existing maintenance roads or paths within a greenway corridor that are "unofficially" being used by the public as a trail. This unofficial usage demonstrates the likelihood of continued use upon implementation of an official trail system.



Floodplain Considerations

Preservation of greenway corridors in low-lying areas will protect floodplains from development thereby preserving their capacity to store floodwaters, protecting the surrounding built environment, and preserving their natural floodplain functions. Preservation of the floodplains as open space corridors creates a connected networks of wetlands, woodlands, and wildlife habitats that support native species, maintain natural ecological processes, and sustain air and water resources. Preservation of these greenway corridors will not only protect the floodplain, but also provide the opportunity to purchase repetitive loss property and repurpose it as open space.

Funding Source Identified

This criterion recognizes the importance of existing or potential funding in the selection of a future greenway corridor project. If a potential trail project already has funding allocated, or if funding has been identified and/or a grant application has been submitted, then that greenway corridor has a greater chance of being developed in the near future.

Historic and Cultural Significance

Providing access to view historic and cultural sites of interest is an important component of greenway planning. In some cases, the canal or railroad corridor is itself historically or culturally significant, and merits preservation. In other cases, a greenway corridor abuts a historic or culturally significant site.

Maintenance Road Issues

If maintenance roads are to be utilized as future multi-use trails then the road's condition must be considered when prioritizing the corridors. Maintenance roads that frequently switch sides of the canal, and/or are incomplete or too wet will be more difficult to develop as trails and should be ranked accordingly. Greenway corridors with maintenance roads that are complete, dry, and in good repair are more desirable.

Maintenance ROW (Right of Way)

One of the primary requirements for greenway development is public ownership or legal designation for public use. This can be achieved through acquisition of contiguous land parcels and/or through the acquisition of ROWs and easements. Acquiring parcels or ROWs and easements is a time-consuming and expensive process. In some cases, property owners may not support public use of lands adjacent to their own, and acquiring contiguous land parcels is more challenging. Therefore, using stormwater drainage canals and abandoned rail beds makes financial sense. In most cases these corridors have already been purchased and/or ROWs and easements have been acquired.

Major Crossings

Potential greenway corridors can be impeded by major crossings. These can include railroads, major roadways, and waterways that complicate property acquisition and easements for trail development, as well as long-term trail maintenance issues (and costs). Road and railroad crossings present significant safety concerns and can deter the public from using a greenway. Developing a trail that is intersected by roads with heavy traffic, railroads, and streams is complex because costly tunnels or bridges may be required to provide safe public crossings.

Public Safety Related to Crime

Identifying corridors that are located in areas with higher crime rates can be used as a relative indicator of public safety. Keeping trail users safe is obviously an important consideration when selecting corridors for greenways development.



Regional Appeal & Advantages

Greenway corridors that have regional appeal provides an important economic consideration for neighborhoods and communities because a popular trail can spur new businesses to come to the area (retailers, bicycling rental shops, restaurants, etc.). It may also increase property values and desirability to live in the area.

Safe Alternative Transportation

This criterion reflects the greenway corridor's ability to provide alternative safe transportation. Providing a more enjoyable, safer way to travel from one place to another is a major goal of a well-designed transit system. This includes a network of sidewalks and safe bikeway travel where trail users can travel to necessary destinations such as work and retail centers.

Shade & Tree Canopy

A healthy tree canopy along a greenway corridor provides numerous benefits including protection from sun exposure for users, reduced temperatures, abating stormwater runoff and improving water quality, improving air quality, and providing a general sense of wellness.

Key Issues

There are often intangible or unique qualities associated with a greenway corridor or the potential development of a trail that do not fall into one of the categories above, but still merit consideration when prioritizing these corridors for future work. For example, a particular project may have political support or significant stakeholder support that would aide in its implementation.

5.2 Information Sources

In order to ensure that an objective and factual evaluation of each corridor was performed, Chatham County obtained information from a comprehensive array of sources, including a review of relevant planning documents and studies, information provided by Steering and Stakeholder Committee members, and interviews of technical experts in the community. Inter-department meetings were also held to discuss current canal maintenance practices and other information about canals.

To utilize the best technical resources available, Chatham County also requested a formal analysis of certain assessment criteria. This included a Public Safety Assessment conducted by the Savannah-Chatham Metropolitan Police Department (SCMPD) and an evaluation of Cultural and Historic Resources conducted by the Chatham County-Savannah MPC Historic Preservation Department. Geographic Information System (GIS) maps from a variety of federal, state and local sources were also used to assess and prioritize information about each corridor.

Canal Maintenance Research

Meetings were scheduled with representatives of the Chatham County Public Works Department on March 11, 2015 and August 27, 2015 to discuss relevant information about the County's canal maintenance program, condition of canal maintenance roads (which are used by the County for maintenance and are not publicly-accessible), and to discuss canal and adjacent property ownership. During the meetings, potential issues related to public use of maintenance access roads adjacent to drainage canals were discussed. A summary of Chatham County's Maintenance Program is presented in Chapter 9 of this Study.



Ecological Assessment

In December 2007, the Georgia DNR initiated a habitat mapping study of eleven coastal counties in Georgia, including Chatham County. The purpose of the mapping study was to delineate all land cover types and note areas of High Priority Habitat as laid out in the Georgia Comprehensive Wildlife Conservation Strategy. Natural vegetation was classified using the US National Vegetation Classification system, which assigns a global conservation status (G-Rank) to each community at the association level based on the best available information. The five conservation status ranks used by the Georgia DNR to categorize habitats in Chatham County are below.

Using GIS data supplied by the Georgia DNR, Chatham County mapped all habitats within the county to determine the conservation status of the habitats that each greenway corridor was located within or intersected (See Figure 4). In addition, consideration was also given to greenway corridors that are particularly scenic and provide special wildlife viewing opportunities. The results of this mapping effort are discussed in Chapter 6.

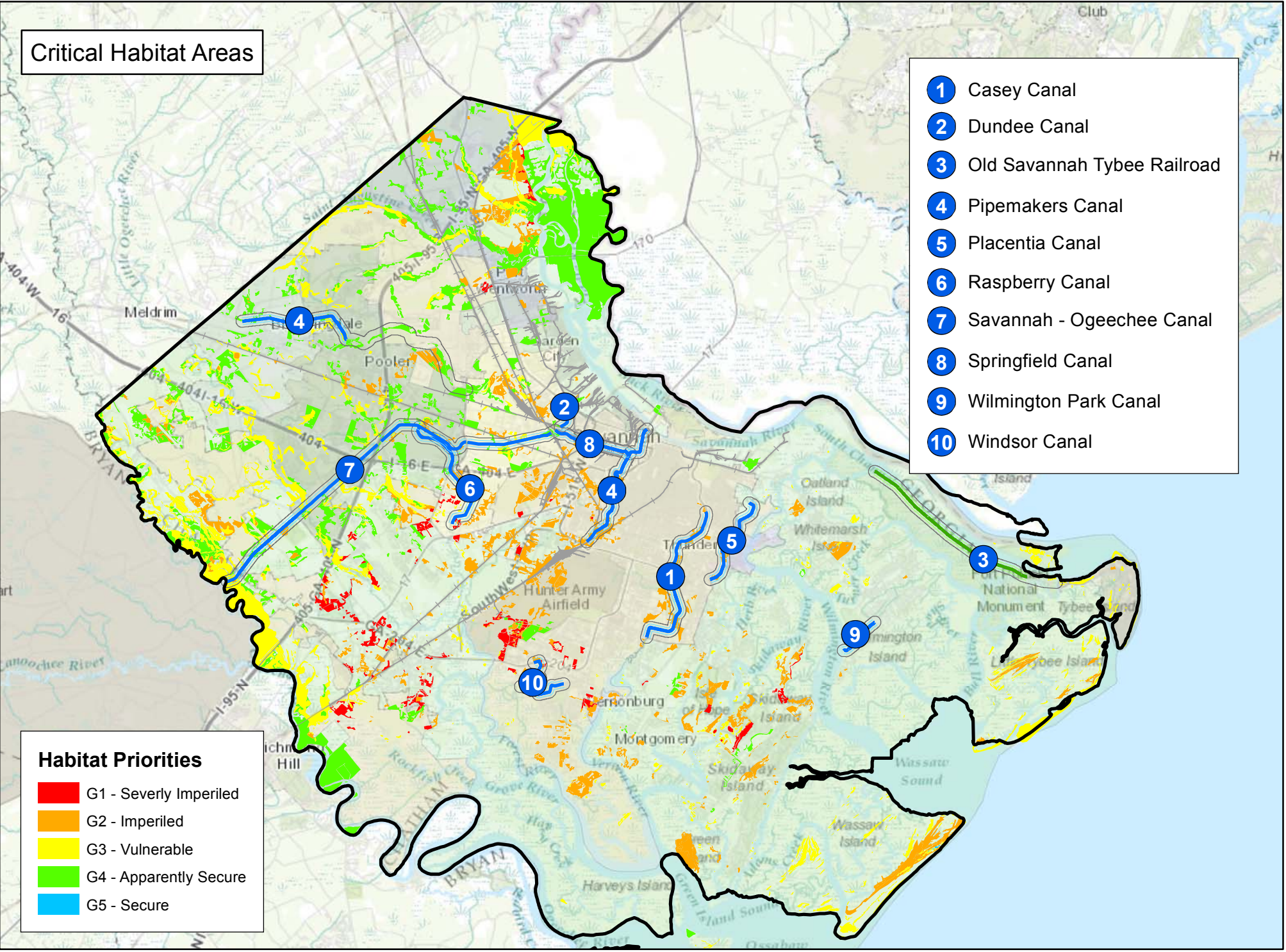
Floodplain Considerations

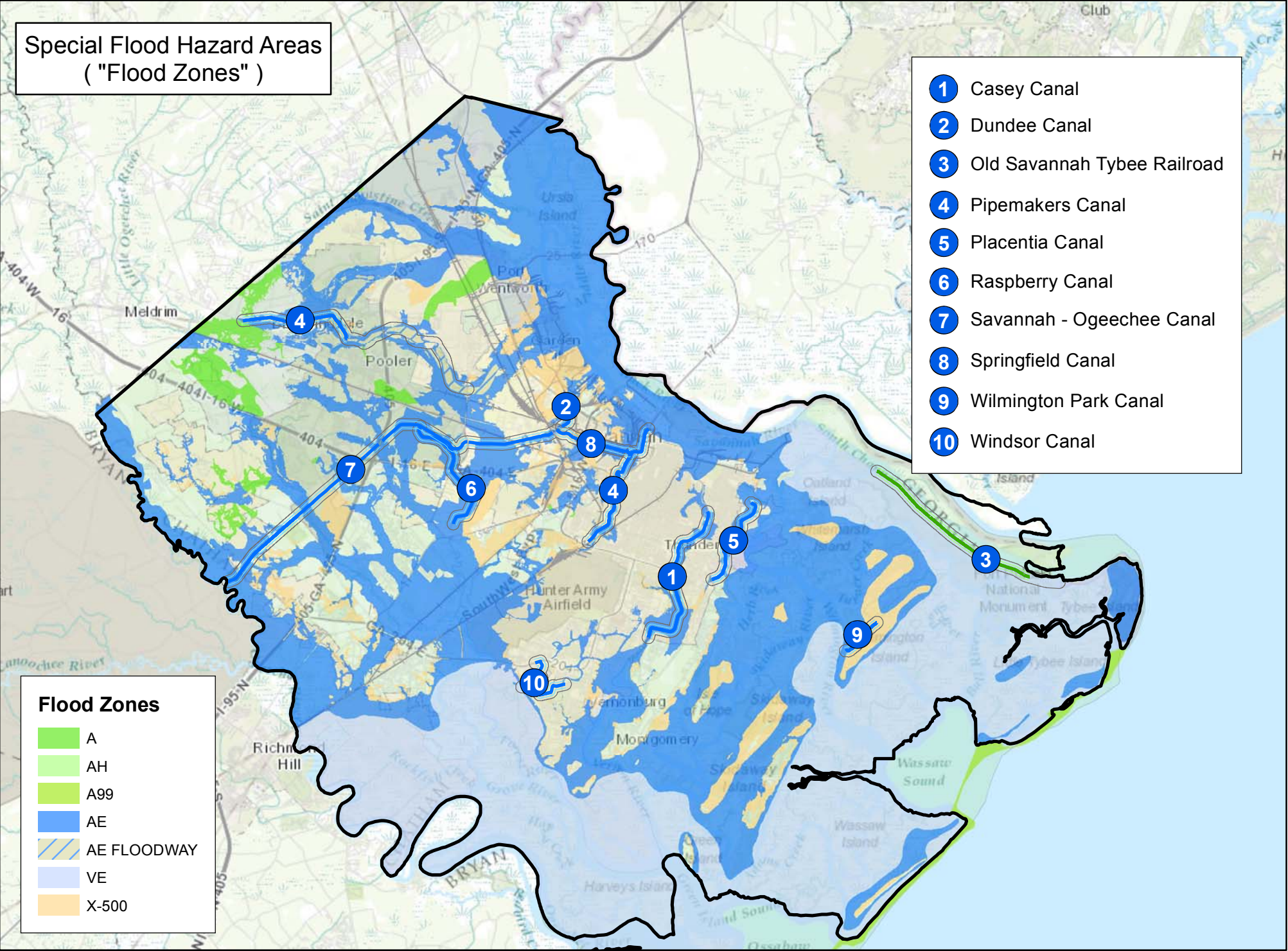
The Federal Emergency Management Administration (FEMA) has prepared Flood Insurance Rate Maps (FIRMs) to delineate special hazard areas and risk premium zones applicable to communities throughout the United States. Using GIS-data from July 2014 FIRMS, Chatham

GA DNR Habitat Conservation Status Ranks

G1	Critically Imperiled —At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors
G2	Imperiled —At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors
G3	Vulnerable —At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
G4	Apparently Secure —Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5	Secure —Common; widespread and abundant

County reviewed the special flood hazard areas in the County to determine if potential greenway corridors were located within or were intersected by regulatory floodplains (Figure 5). The results of this effort are also discussed in Chapter 6.







Historic and Cultural Evaluation

The Chatham County-Savannah MPC houses an Urban Planning and Historic Preservation Department that reviews and makes recommendations about historic preservation matters in the community. At Chatham County's request, a Historic Preservation Specialist from the MPC conducted an evaluation of the greenway corridors to determine their cultural and historic significance. The Historic Preservation Specialist used standardized practices and criteria developed by the National Park Service to assess and group the greenway corridors into 1 of 3 categories:

Category 1: Listed or Eligible for Listing on the National Register of Historic Places

Category 2: Associated with or Adjacent to Other Historic Resources

Category 3: No Known Cultural/Historic Significance

The evaluation also included site-specific information and a historical summary for each greenway corridor to substantiate its categorization.

Maintenance ROW

The calculated maintenance right-of-way was included in this assessment to help identify potential constraints related to access that might exist along the various corridors. The Chatham County Tax Parcel dataset was analyzed using GIS mapping software to determine where existing right-of-ways exist along each canal segment. If the segment was intersected by a tax parcel or overlapped a parcel, that segment was categorized as private property with no assumed county right-of-way. As such, it is possible that some of the calculated right-of-ways could be misleading and need further research and verification.

Public Safety Assessments

The Savannah-Chatham Metropolitan Police Department (SCMPD) conducted public safety assessments of each of the corridors. This included an assessment of crime risks for the neighborhoods adjacent to the canals as well as crime rates that have occurred on the corridors themselves. Consideration was also given to public safety issues that could arise from trails in secluded, undeveloped areas. There is always a "give and take" approach to trail development when it comes to weighting recreational benefits against perceived public safety issues. While undeveloped areas provide a greater chance for enjoying quieter, more relaxing landscapes and greater chances to observe wildlife, the seclusion of the trail can also present potential safety issues. Public safety information for Placentia Canal was also obtained from a 2011 Corridor Assessment conducted for this canal by the CORE MPO (See Appendix C).

Shade & Tree Canopy Study

The Savannah Tree Foundation conducted a countywide tree canopy study titled "An Assessment of Urban Tree Canopy in Chatham County, Georgia in February 2015. This report, and corresponding GIS data, was provided to Chatham County to provide information about shade and tree canopy available along each corridor.



5.3 Corridor Prioritization Matrix Scoring

Criteria for each greenway corridor were awarded points on a scale of 0, 1 or 2. A point value of “2” was awarded if a greenway corridor completely satisfies the criterion, “1” if the greenway corridor somewhat satisfies it, and no points were awarded if the greenway corridor does not satisfy it.

The criteria were then weighted as Tier 1 and Tier 2, based on their overall importance to the success of multi-use trail implementation. The methodology for weighting a criterion's importance is discussed in the chart below and scoring methodologies for each criterion are summarized in Table 2.

Tiering Methodology

Tier 1 Criteria

These criteria were more heavily weighted due to their importance to a successful trail system. The weighting method chosen was a simple 2:1 ratio. Scores of criteria located in Tier 1 were multiplied by a factor of 2 to calculate the final ranking of a particular greenway corridor.

Tier 2 Criteria

Categorization as Tier 2 is not intended to imply that these criteria were not important to the process of prioritizing greenway corridors and implementing a future trail system. However, these criteria were not as critical to the future success of a project as Tier 1 criteria. For example, developing a trail system in a greenway corridor with several major road crossings is certainly not a desirable situation, but if all other aspects of the greenway corridor are conducive to trail development, then perhaps the major crossing could be overcome. These criteria were scored according to the same scale, however they were not weighted with the 2:1 ratio.

Table 2: Corridor Assessment Information Sources and Scoring Methodology

No.	Criteria Name	Data Source	Point Assignment
TIER 1			
1	Adjacent Land Use/Local Level of Service	Chatham County parcel data. EPG utilized the land use code in the parcel data to categorize land uses.	If a greenway corridor is primarily located in a residential or commercial area it will be awarded 2 points due to its proximity to likely users of the trail system, connections from residential to neighborhood commercial uses, and the lack of incompatible heavy and industrial uses. If there is limited industrial uses near or within the greenway corridor, but the majority of the adjacent land use is residential and neighborhood commercial, then it will receive 1 point. Greenway corridors in primarily industrial areas or other land uses otherwise not suitable for trail system development will receive 0 points.
2	Connectivity - Places of Interest	Chatham County parcel data and other GIS datasets	If a greenway corridor connects local places of interest (parks, civic buildings, museums, schools, etc.) properties of special interest, and other alternative transportation networks then it will receive 2 points. If the corridor and any proposed future trail cannot provide these types of connections, then it will receive no points..
3	Connectivity - Public Open Spaces	Chatham County parcel data and state-wide environmental data	Greenway corridors that connect to existing parks and/or public open spaces will be awarded 2 points. If the greenway corridor is adjacent to public property that is planned for park space then it will be awarded 1 point. If there is no potential for connections to open space, park or public property then no points will be awarded.
4	Connectivity - Trail Extension & Linkage	Trail data was provided by County Engineering and SAGIS and compiled into a new GIS trail layer	Greenway corridors that extend or link to existing trail/sidewalk/bikeway systems will receive 2 points. If the greenway corridor is in close proximity to an existing or planned alternative transportation corridor, where a connection could be made in the future, it will receive 1 point. Greenway corridors that do not have potential to provide linkages will receive 0 points.
5	Corridor or Trail Already Identified in Master Plan:	Review of relevant planning documents	If a greenway corridor and the associated trail system is already part of existing master plan or other approved planning document the corridor will receive 2 points. If there was some work to formulate a conceptual design, but the trail system or corridor is not part of an approved planning document then that corridor will receive 1 point. If the corridor and proposed trail is not part of an existing or conceptual plan then no points will be awarded.
6	Ecological Value	Georgia DNR Habitat Conservation Status Ranking	Corridors that preserve significantly imperiled habitats or otherwise have significant ecological value will receive a score of 2. Corridors that preserve vulnerable habitats or have limited ecological value will receive a score of 1.
8	Existing Road or Path is Used as a Trail	Review of relevant planning documents and Stakeholder Committee input	Greenway corridors currently being utilized "unofficially" as a trail will receive 2 points.
10	Funding Source Identified	Review of relevant planning documents,	If a potential trail project already has funding allocated, then that greenway corridor will receive 2 points. If funding has been identified and/or a grant application has been submitted, then the greenway corridor will receive 1 point. If there is no funding identified, the greenway corridor will not receive any points.
15	Public Safety	Assessment of Public Safety Issues conducted by the SCMPD, CORE MPO Corridor Assessment for Placentia Canal	Greenway corridors that present little if any public safety concerns were given a score of 2. Greenway corridors where crime is known to occur with some frequency, or corridors that run through areas that have high crime rates, will receive 0 points. Corridors where there is only the perception of a public safety issue without corresponding evidence will receive 1 point.
TIER 2			
7	Employer - Sponsored Greenway	Review of relevant planning documents	Greenway corridors where an employer has been identified with an interest in developing a trail system will receive 2 points. If a major employer is located adjacent to a greenway corridor and could potentially participate in trail development then that corridor will receive 1 point. Greenway corridors that are not located adjacent to a major employer will not receive any points.
9	Floodplain Considerations	FEMA Flood Insurance Rate Maps (July 2014)	Greenway corridors that include special flood hazard areas (i.e. regulatory floodplains) for more than 50% of their length will receive 2 points. Greenway corridors that have regulatory floodplains along 10% to 50% of their length will receive 1 point. If less than 10% of the length of the corridor includes regulatory floodplains, then it will receive 0 points.
11	Historic & /Cultural Significance	Evaluation conducted by the Chatham County – Savannah MPC, Historic Preservation Department	If the canal or railroad ROW within a greenway corridor is historical or culturally significant or where the greenway corridor abuts an historical or culturally significant site, the corridor will be awarded 2 points. All other greenway corridors with no historic or cultural significance will receive 0 points.
12	Maintenance Road Issues	Consultation with the Chatham County Engineering and Public Works departments	Greenway corridors with maintenance roads that are complete and do not switch sides of the canal frequently receive 2 points. Maintenance roads that are in poor condition and/or frequently switch sides of the canal or are incomplete will not receive any points.
13	Maintenance ROW	Chatham County Tax Assessors Parcel data	If the County or other public entity owns the complete ROW or easements for a significant length of the Greenway corridor then they corridor will score 2 points. If there is unknown ownership, or insignificant public ownership of ROW or easements along the length of the greenway corridor then the score will be 0.
14	Major Road Crossings	GIS data of major roadways, railways, and transportation networks	If a greenway corridor has no major crossings, it will be awarded 2 points. If there are a few major crossings, but there is a significant length with no major crossings, then it will be awarded 1 point. If there are enough major crossings as to be problematic for future trail development, then the greenway corridor will receive 0 points.



16	Regional Appeal & Advantages	Information from Steering and Stakeholder Committee Meetings	Greenway corridors that draw or have the potential to draw visitors from outside the region will receive a 2 in this category. If there is no regional appeal and the future trail system is likely to be utilized only by adjacent neighborhoods, then the greenway corridor will receive a 0.
17	Safe Alternative Transportation	Bikeway Level Of Service GIS data from the Chatham CORE MPO's Non-Motorized Transportation Plan	If there are no safety issues associated with the adjacent road network, providing a safe transportation alternative is unnecessary and the greenway corridor will score 0. If there are major safety issues associate with the road network adjacent to the greenway corridor, and the proposed trail could provide a safe alternative way to travel, then the greenway corridor will score 2.
18	Shade/Tree Canopy	The Savannah Tree Foundation's Chatham County Tree Canopy Study	Greenway corridors that have significant tree canopy intact will receive 2 points. Corridors with moderate tree canopy intact will receive 1 point. Minimal tree canopy and limited vegetation will receive 0 points.
19	Key Issues	Varies	This criterion allows for corridors to be awarded up to 2 additional points for unique, site-specific features that are not otherwise addressed by other criteria.

Please note: Criteria are alphabetized within each Tier and not listed in order of importance.



6 Corridor Assessment Results

As stated prior, Chatham County initiated the Chatham County Greenway Implementation Study to identify drainage canals and retired railroad corridors with the greatest potential for a multi-use public trail. Ten areas were identified by the Steering Committee and scored according to the evaluation method discussed in Chapter 5. A detailed summary of each corridor is presented below based on the results of Chatham County's research, GIS mapping efforts, and information provided by technical experts. The results are summarized in a Prioritization Matrix located at the end of this Chapter. The greenway corridors which were selected through this prioritization process are further detailed in Chapter 7 and include: 1) Old Savannah Tybee Railroad (extension of the McQueen's Island Historic Trail), 2) Placentia Canal, and 3) Wilmington Park Canal

6.1 Casey Canal

Location

The Casey Canal corridor is located in the City of Savannah (See Figure 6). This corridor runs north to south along the east side of the Savannah city limits between Victory Drive and Montgomery Crossroads. It is approximately 5.4 miles long.

Land Use Characteristics

The Casey Canal corridor has a diverse representation of land uses that include a balanced mix of residential, recreation, public, institutional, and commercial.

Connectivity

This corridor has the potential to provide a non-motorized connection between a number of community features and retail destinations. Home Depot, Target, Whole Foods, a number of fast food restaurants, a movie theater, and a number of other shopping and eating options are within close proximity to the northern end of this canal corridor. Daffin Park and Grayson Stadium would also be accessible without having to leave the trail network. The Parkside, Mayfair, and Bacon Park neighborhoods are all located adjacent to this corridor. Lake Mayer Park, the Sallie Mood Soccer Complex, and the Aquatic Center are destinations adjacent to the corridor at the southern end of the segment. Memorial Hospital and several schools are also located in close proximity to the Casey Canal corridor. The Mayfair Park is a smaller pocket park in the Mayfair neighborhood, which also lays adjacent to this corridor.

Some of the major arterials along the Casey Canal are Montgomery Crossroads, Sallie Mood Drive, Eisenhower Drive, DeRenne Avenue, and Victory Drive. The level of service associated with these streets would need to be taken into consideration in establishing safe pedestrian movement and crossings. Parking at the parks would be the best option for the management of vehicles. There is also a vast sidewalk network and a number of bus routes and bus stops in the areas along the canal.

Corridor or Trail Already Identified in Master Plan

The Truman Linear Park Trail is under development, which will run parallel to sections of this canal corridor and utilize existing sidewalks and trails near the canal. There are no formal plans for developing the remainder of Casey Canal for trail use outside of the sections that are part of the Truman Linear Park Trail.



Ecological Value

This corridor is moderately scenic, and provides wildlife viewing opportunities. The Georgia DNR has categorized approximately 12% of this corridor's habitats as imperiled.

Employer - Sponsored Greenway

Several regional employers, such as Whole Foods, Home Depot and Memorial Hospital are located adjacent to this corridor and could potentially participate in trail development.

Existing Trail/Path Utilized

The Police Memorial Trail is a small segment of this corridor and is an officially designated trail. Several sections linked to this trail are unofficially utilized by the public as a path within this corridor.

Floodplain Considerations

According to the 2014 FIRMS the entire corridor is located within the 100 year flood plain, known as the Special Flood Hazard Area (SFHA).

Funding Source Identified

Chatham County and the City of Savannah are underway with the development of the Harry Truman Linear Park Trail and are responsible for the funding and ongoing maintenance of this trail. This trail will run parallel to this canal corridor, but predominantly utilize existing sidewalks and trails near, but not on the canal.

Historic/Cultural Significance

Originally called the Cuyler Canal, Casey Canal extends from Hayner's Creek (near Bacon Park) to the intersection of Bee Road and East Anderson Street. From this point it is piped to the Savannah River. It runs, relatively, parallel to the Truman Parkway. The canal was constructed from 1880-1885, using convict labor as part of a health measure to combat yellow fever after an especially severe epidemic in the 1870s. It was done under the auspices of the Special Drainage Commission headed in the final years by Commissioner Casey for whom the canal is named. The Drainage Commission was established by an Act of the State Legislature in 1877. There are no known structures associated with the canal and it has no known cultural or historical significance.

Maintenance Road Issues

The maintenance road alternates between the east and west sides of the canal multiple times along its length. Near Delesseps Avenue, the maintenance road is located within close proximity to Truman Parkway, which could make trail development problematic. A few sections of the maintenance road are low and wet on the northern end. However, the maintenance road is in good condition.

Maintenance ROW

There are public ROWs for the entire length of this corridor.

Major Crossings

There are numerous crossings. These include Victory Drive, Delesseps Avenue, DeRenne Avenue, and Eisenhower Drive. The proposed route of the Truman Linear Trail crosses the Truman Parkway.



Public Safety

The SCMPD rated the overall crime risk rating as “below average.” Most of the areas through which this corridor extends have low crime rates; however, the northern end of this trail does extend through an area that has increased crime risks.

Regional Appeal & Advantages

This corridor may draw or have the potential to draw visitors from outside the region due to its connection to several residential neighborhoods, large retail outlets, the hospital, as well as a wide array of community facilities.

Safe Alternative Transportation

Much of the Truman Park Linear Trail parallels the Casey Canal and would enhance a non-motorized trail system in a highly developed area that typically sees significant vehicular traffic. Skidaway Road and Waters Avenue are currently the primary north-south travel routes near this corridor. While both of these roads offer minimal bike amenities, alternative routes within the communities could provide safe bike and pedestrian options.

Shade and Tree Canopy

This segment has minimal tree canopy coverage.

Key Issues

- Developing the canal corridor itself is challenging due to private or sensitive property such as a private golf course, a large stormwater pump station, and private residential woods.
- The planning efforts related to the Truman Linear Park Trail has been guided by these existing conditions, and much of its course is not along the canal but still provides much of the connectivity described in this corridor.
- One possible idea related to the canal could be to add a section through Fairway Oaks and through the golf course as a possible re-routing, connecting to the “Bacon Park earthen trails.”
- There are several remnant properties from Truman parkway as well as FEMA buy-out properties adjacent to the corridor, which could be utilized to develop additional trail linkages or park facilities in association with the Truman Linear Trail project.

Chatham County Greenway Implementation Study

Figure 6
Casey Canal Corridor



General Land Use

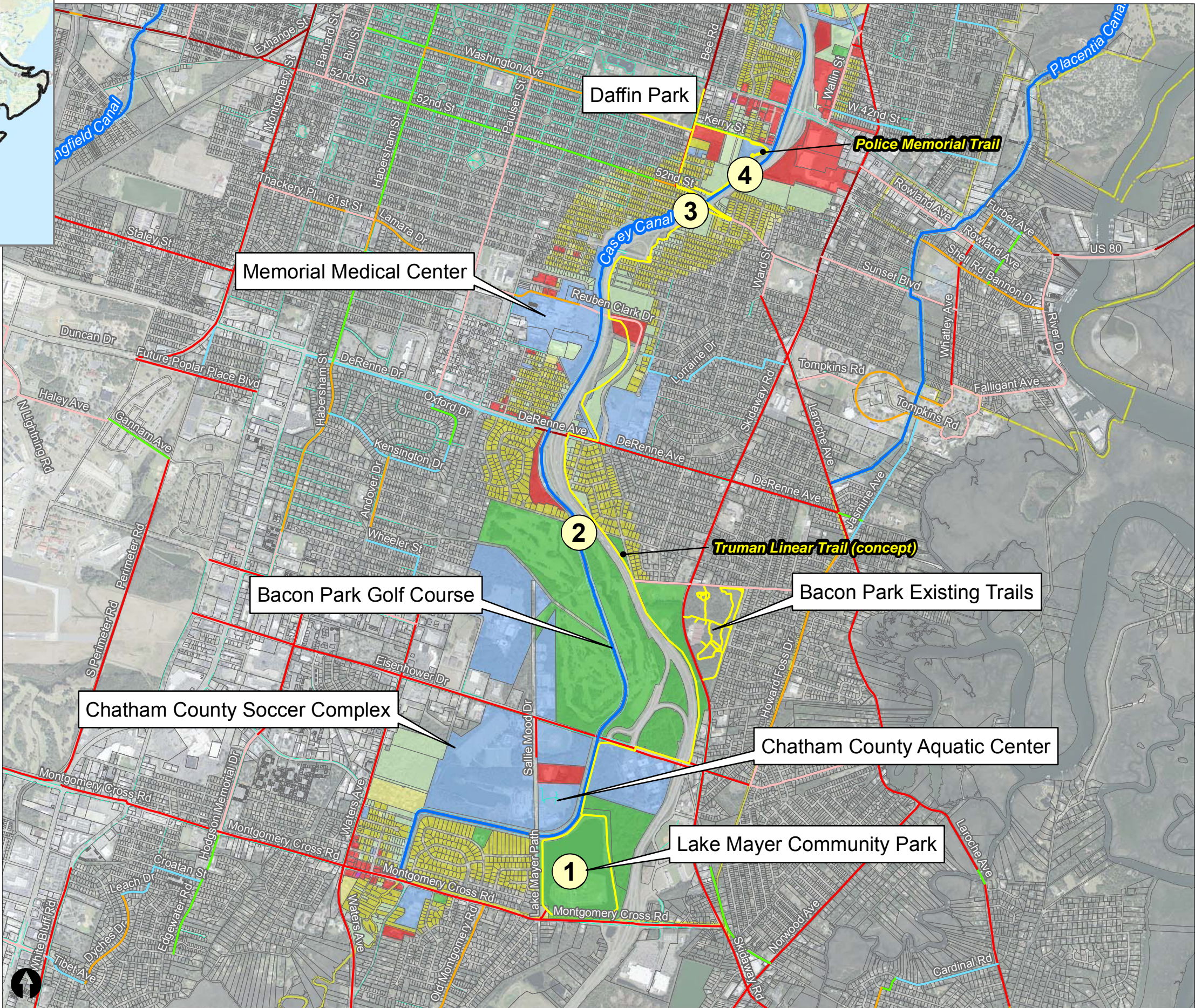
- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Undeveloped/Vacant

Legend

Canal Greenway Corridor

Bikeways / Bike Paths Level of Service (LOS)

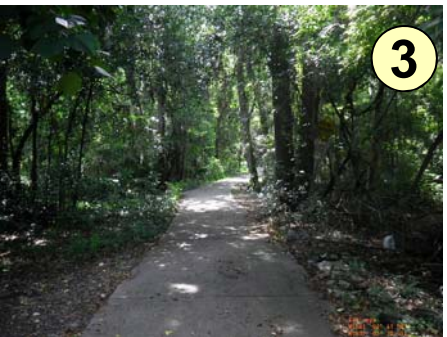
- | | |
|---|---|
| A | D |
| B | E |
| C | F |
- Sidewalks Existing and Planned Trails



Lake Mayer Community Park



Casey Canal going south through Bacon Park Golf Course



Connection to the existing Police Memorial Trail



Greenway corridor looking south



6.2 Dundee Canal

Location

The Dundee Canal corridor is located in the City of Savannah on the west side of Interstate 516 near the border of Garden City (See Figure 7). This canal bi-sects the Woodville community and is in close proximity to the Rossignol Hill neighborhood in Garden City. It is approximately 0.67 miles in length.

Land Use Characteristics

The area around this canal segment contains a mix of land uses that include residential, commercial, industrial, public, recreation and undeveloped. Two established communities and a commercial corridor are also within close proximity to the canal corridor.

Connectivity

The Dundee Canal corridor has the potential to provide connectivity between the established Woodville neighborhood and commercial development along U.S. Highway 80. The State Farmers Market is relatively close to the canal corridor, and could become an important destination for people using the corridor. The trail route abuts Woodville-Tompkins High School and the Scott Learning Center, offering opportunities for students to participate in outdoor learning activities. With the main access point near the Woodville Community Center, this trail can improve connections between the schools, the community center and a nearby neighborhood park.

The Dundee Canal flows from the Savannah-Ogeechee Canal to the Savannah River, but the surface connection between the two canal corridors is separated by significant railroad crossings.

Corridor or Trail Already Identified in Master Plan

The Woodville/Dundee Canal Walking Trail is identified as a priority in the Woodville Neighborhood Plan, and is being designed and implemented by the City of Savannah.

Ecological Value

This corridor is moderately scenic and provides wildlife viewing opportunities. Portions of the corridor feature native woodland and forested/shrub freshwater wetlands. The trail route crosses three small wetland areas. Once the Woodville/Dundee Canal Walking Trail is fully designed, these wetland areas will be bridged with boardwalks. Educational displays along the trail will showcase wetland and floodplain functions, as well as the community's historical ties to the area's natural resources. The Georgia DNR has not categorized any habitats along this corridor as imperiled or vulnerable.

Employer-Sponsored Greenway

No regional employer is located directly adjacent to this corridor although several regional employers are located nearby including: Hercules, International Paper and Clear Channel. The City of Savannah should consider partnering with one or more of these companies to facilitate development of this corridor.

Existing Trail/Path Utilized

This corridor is already used by the public as an "unofficial" path, and implementation of this project will improve public safety.



Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, the entire corridor is located within the Special Flood Hazard Area (SFHA), or more commonly referred to as the 100 year flood plain.

Funding Source Identified

The City of Savannah is in the process of developing a walking trail within this corridor through a Coastal Incentive Grant from the Georgia DNR. Development of this small trail system has the potential to serve as a pilot project for development of other trail systems recommended within this plan.

Historic/Cultural Significance

The Dundee Canal empties into the Savannah River north of the Woodville neighborhood and intersects the Savannah-Ogeechee Canal at the southwest corner of the Woodville neighborhood. In 1893, a woman named Mrs. Read gave Chatham County the right-of-way through Brampton Plantation from Augusta Road to the Savannah River for the construction of the Dundee Canal. The canal, which was cut from the Savannah-Ogeechee Canal beyond Augusta Road to the Savannah River was strictly constructed for drainage purposes. It was never used for transportation.

In its review of the project scope for the City of Savannah's Coastal Incentive Grant project, the Georgia Historic Preservation Division (HPD) stated, "Based on the information provided, it is HPD's opinion that the Dundee Canal should be considered eligible for listing in the National Register of Historic Places." The Woodville Neighborhood is also eligible for listing on the National Register as a historic district, although its significance is not related to the canal.

Maintenance Road Issues

A continuous maintenance road is present along the eastern side of this canal.

Maintenance ROW

There is an existing public maintenance ROW for the entire length of this canal.

Major Crossings

This corridor is cut off by U.S. Highway 80 on the north end and by railroad crossings and the Hercules site on the south end. If the barrier of U.S. 80 could be improved, the Rossignol Hill community, as well as the State Farmers Market could be connected to the Woodville community. The corridor is also bisected by Alfred Street; an urban minor arterial that carries significant truck traffic. A flashing beacon pedestrian crossing at this intersection is planned as part of the Woodville/Dundee Canal Walking Trail project.

Public Safety

The SCMPD assigned this corridor an average crime risk rating due to its location within areas that have average crime rates.

Regional Appeal & Advantages

This corridor is likely to be utilized only by adjacent neighborhoods and schools.

Safe Alternative Transportation

Currently, there are no sidewalks on Alfred Street to link the Woodville Neighborhood to the commercial area at U.S. 80 and area employers and schools. The trail corridor will provide a safe alternative to Alfred Street in its current state.



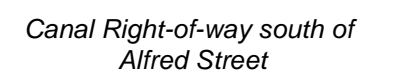
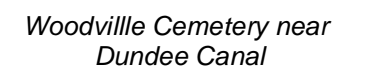
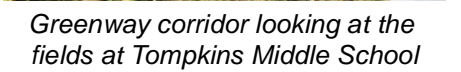
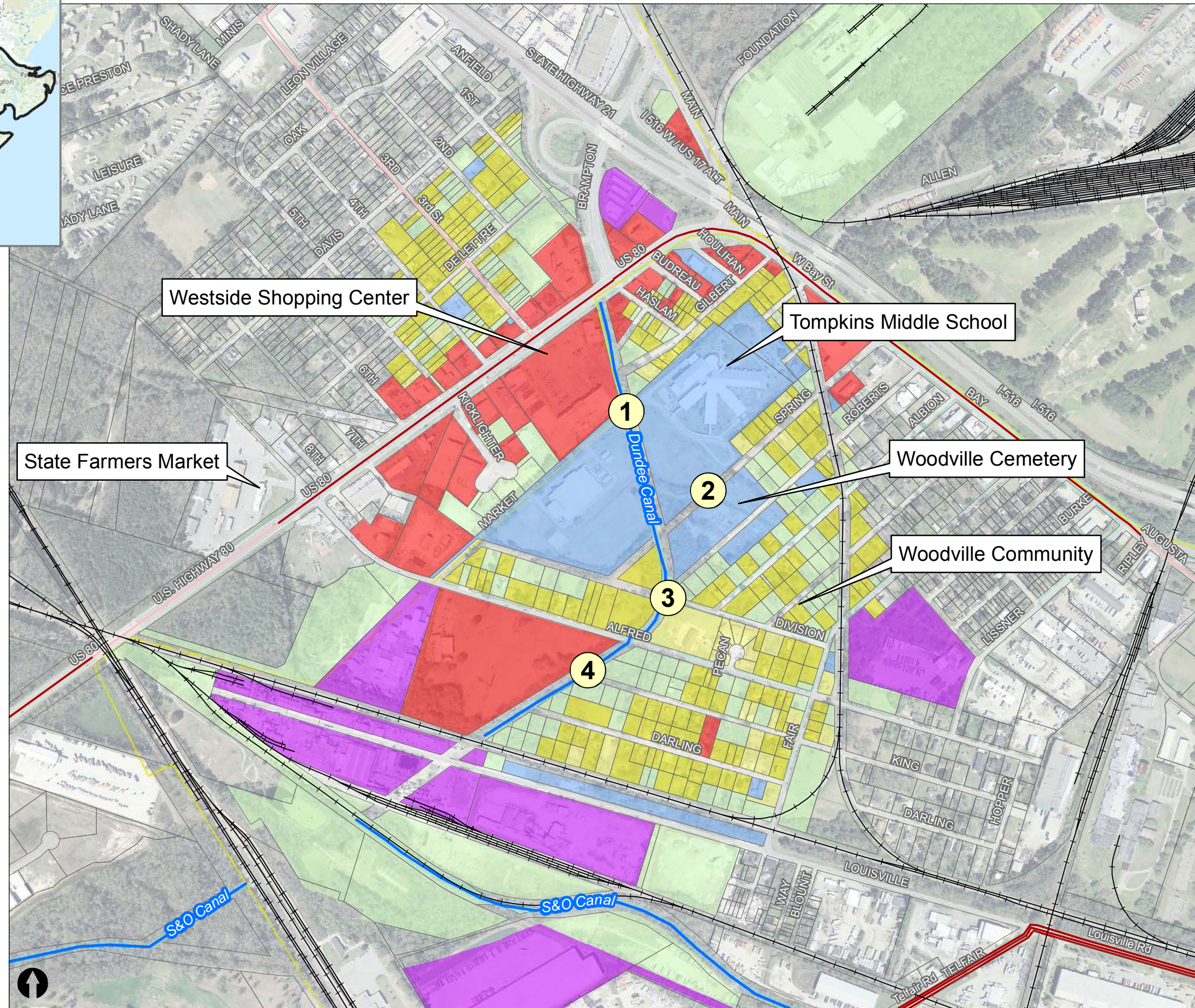
Shade and Tree Canopy

This segment has significant tree canopy coverage.

Key Issues

- The City of Savannah is in the process of developing a walking trail within this corridor through a Coastal Incentive Grant. Development of this small trail system has the potential to serve as a pilot project for development of other trail systems recommended within this plan.
- Trail design specifications, intergovernmental agreements, and maintenance plans developed as part of this project are likely to be transferable to other future greenway corridor trail projects.
- This canal is located entirely within the regulatory floodplain and there are several vacant properties in areas known to experience flooding that could be purchased with assistance from FEMA to provide for natural floodplain preservation.

*Figure 7
Dundee Canal Corridor*





6.3 Old Savannah Tybee Railroad (Extension of McQueen's Island Historic Trail)

Location

Geographically located in the eastern portion of Chatham County, the Old Savannah Tybee Railroad corridor runs along U.S. Highway 80 between Wilmington Island and Tybee Island. Approximately six miles of this corridor is already developed as the McQueen's Island Historic Trail, which extends from the Elba Island cut to the Fort Pulaski National Monument (See Figure 8). This study focuses on the approximately 2.5 miles of trail proposed to extend from the end of the existing McQueen's Island Historic Trail at the Fort Pulaski National Monument to the Lazaretto Creek Bridge.

Land Use Characteristics

The corridor is predominately undeveloped and runs parallel to the Savannah River. There are extraordinary views of untouched coastal marshlands, beach hammocks and many other unique natural resources.

Connectivity

The McQueen's Island Historic Trail is a six mile, former railroad right-of-way turned multi-use trail that runs along the north side of U.S. Highway 80. This corridor is the only land accessible connection between Tybee Island and Wilmington Island. McQueen's Island Trail is well utilized by the local community as well as tourists. It currently has two main areas for parking. The western parking area sits in the middle of the trail segment. The eastern parking area is located at the entrance to the Fort Pulaski National Monument, which also has an existing trail network. The greatest obstacles to connectivity are the Bull River Bridge and the Lazaretto Creek Bridge. These bridges currently support one lane of traffic in each direction and offer no opportunity for a shared pedestrian shoulder. However, GDOT has proposed to widen these bridges to provide a ten-foot paved biking shoulder and ten-foot barrier separated multi-used path, which would vastly improve the connectivity of this trail system. GDOT has also proposed off-road "side-path" connections to tie in the trail to U.S. 80. The City of Tybee is also actively working towards development of the Marsh Hen Pedestrian and Bike Trail, which would pick up on the eastern side of the Lazaretto Creek Bridge and provide connection to other bike paths throughout Tybee Island. Chapter 4 of this Study provides a detailed summary of these proposed and planned improvements.

It should be noted that if the Marsh Hen Pedestrian and Bike Trail and GDOT's proposed plans for US 80 and the bridge replacements are implemented as currently planned, only one vital link will be missing: *the eastern extension of the McQueen's Island Historic Trail through Fort Pulaski-owned property to connect to Lazaretto Bridge (which is the section of proposed trail extension that this Study focuses on)*. Both Fort Pulaski and GDOT support the eastward extension of McQueen's Island Trail to Lazaretto Creek Bridge, but are not assuming primary responsibility for this trail extension segment. Extending this section of the corridor could connect the City of Savannah to Tybee Island and provide pedestrian and biking access to the Fort Pulaski National Monument.

Corridor or Trail Already Identified in Master Plan

The eastern extension of McQueen's Island Historic Trail from the Fort Pulaski National Monument to the Lazaretto Creek Bridge has significant community and regional support from local



governments including Chatham County and Tybee Island as well as GDOT, the National Park Service, and the CORE MPO. Multiple plans have conceptualized this trail extension, including the following: 1) GDOT (as part of its planned improvements for US 80 and proposed bridge replacements), 2) the CORE MPO (through its US 80 Bridges Study and Non-Motorized Transportation Plan), and 3) The National Park Service (in its General Management Plan for Fort Pulaski).

Ecological Value

The ecological significance of this corridor cannot be overstated, and it is already recognized and utilized as a birding destination. This scenic corridor passes through coastal marshlands and hammocks directly adjacent to the Savannah River. A variety of coastal vegetation is present along this corridor, including cord grass, cabbage palms, yaupon holly and cedars and interpretive signage is present along the portion of this corridor that has been developed as the McQueen's Island Historic Trail. A variety of wildlife can be observed along this corridor, including the eastern box turtle, American alligator, diamond back terrapin, osprey, red-tailed hawks and pelicans as well as dolphins in the Savannah River.

Employer-Sponsored Greenway

No regional employer is located adjacent to this corridor.

Existing Trail/Path Utilized

Approximately six miles of this corridor is already developed as the McQueen's Island Historic Trail, which extends from the Elba Island cut to the Fort Pulaski National Monument with access at Fort Pulaski and at the midpoint parking area near the Bull River. This existing trail is maintained by Chatham County and is currently undergoing maintenance to address erosion caused by the Savannah River.

Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, the entire corridor is located within the SFHA (100 year flood plain).

Funding Source Identified

A funding source has not been identified at this time for the eastern extension of the McQueen's Island Historic Trail from Fort Pulaski to Lazaretto Creek. Multiple funding sources, however, have already been identified for the other proposed improvements to this corridor. The City of Tybee Island has received a planning grant from the Land and Water Conservation Fund for the Marsh Hen Pedestrian and Bike Trail that will extend from Lazaretto Creek Bridge to Tybee Island. Fort Pulaski National Monument has received funding and is moving forward with improvements to the bridge that connects the Fort to this corridor. Chatham County is funding the currently ongoing maintenance along the McQueens Island Historic Trail portion of the corridor using SPLOST and CIP resources. The Bull and Lazaretto Creek bridge replacements and US 80 improvements proposed by GDOT are still in the planning process. Funding has been identified and allocated for these planned improvements.

Historic/Cultural Significance

The former Savannah & Atlantic Railroad line, built in 1887, carried passengers from Savannah to Tybee Island, a popular turn-of-the-century beach resort. A highway to the island was built in 1923, leading to the demise of the railroad. From its trailhead, the rail bed parallels the South Channel of the Savannah River, a major shipping route and entry point to the Port of Savannah. This corridor is eligible for listing on the National Register of Historic Places.



Maintenance Road Issues

There is no maintenance road for this corridor. However, six miles of this retired rail corridor has been developed as the McQueen's Island Historic Trail, which has crushed stone surfacing. No trail or access road is present on the section of the corridor that extends east from Fort Pulaski (where the existing McQueen's Trail ends) to Lazaretto Creek Bridge.

Maintenance ROW

Chatham County maintains a maintenance ROW for the entire length of the existing McQueen's Island Historic Trail. There is also an existing county ROW along the proposed trail extension, which leads all the way to the Lazaretto Creek Bridge.

Major Crossings

The Bull and Lazaretto Creek Bridges are significant barriers that currently inhibit the connectivity of this corridor to Wilmington Island and Tybee Island. Chapter 4 of this study and sections above discuss GDOT's proposed designs to provide pedestrian and bicycle access across these bridges. However, there are no road crossings of the proposed trail extension itself (other than the entrance to Fort Pulaski) because it would run parallel to US 80.

Public Safety

The SCMPD rates this corridor as a low crime risk due to the occasional theft from automobiles parked in the trailhead lot. The existing trail is visible to those traveling on US 80 and the eastern extension would likely be visible as well.

Regional Appeal & Advantages

If this corridor were to be developed in a way that provided a viable connection between Tybee Island and the City of Savannah, it would be unique in Georgia. This greenway would become the only non-motorized connection of a developed barrier island to the mainland in the state, and would attract tourists from across the nation. Furthermore, its location adjacent to the Savannah River makes it a wildlife viewing destination that appeals to local residents and currently provides a regional draw to the area.

Safe Alternative Transportation

Pedestrian and bicycle access along US 80 is non-existent. The speed limit on the road is 55 miles per hour and there is no shoulder in many sections. If improvements are made to the bridges and US 80 as planned to allow for safe alternative transportation access from Wilmington Island to Tybee Island, this corridor will provide a much safer alternative way to travel.

Shade and Tree Canopy

This segment has moderate tree canopy coverage, however its vegetative coverage is consistent with the barrier island/marsh environment.

Key Issues

- This is a significant corridor project that, if implemented, will create a regional, and potentially national, destination. It would provide the only non-motorized connection of the mainland to a developed barrier island in Georgia, while also providing excellent wildlife viewing opportunities.
- Community support for the existing planned projects is likely to be the most effective way to ensure expansion of this trail system and future connection of Tybee Island to Wilmington Island and the City of Savannah.



Chatham County Greenway Implementation Study

- Tybee Island evacuation planning is a major driver for GDOT's proposed improvements for US 80 and bridge replacements.

Chatham County Greenway Implementation Study *Old Savannah Tybee Railroad*

Figure 8



General Land Use

- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Unconfirmed
- Undeveloped/Vacant

Bikeways / Bike Paths Level of Service (LOS)

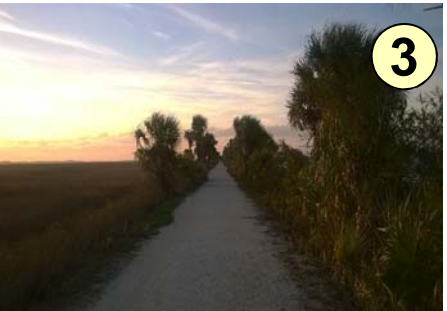
- A
- B
- C
- D
- E
- F
- Sidewalks
- Existing and Planned Trails



Looking east on the existing McQueens Trail



Vegetation along the trail



Looking west on the existing McQueens Trail



Mile marker along the McQueens Trail



6.4 Pipemakers Canal

Location

Pipemakers Canal extends across the entire northern portion of the county passing through Bloomingdale, Pooler, Savannah, Garden City and Unincorporated Chatham County before meeting the Savannah River. The Savannah-Hilton Head International Airport sits in the middle of this canal corridor and poses an obstacle to the continuous connection of this corridor. Therefore, this canal corridor will be viewed as two separate corridors for this planning initiative. Due to the heavy commercial land uses, major crossing, and restricted access associated with the Georgia Ports Authority, the eastern portion of this canal is not appropriate for greenway corridor development and is not addressed in this section. The segment that was assessed as part of this project is the approximately four mile segment of the corridor that runs west from Pooler Parkway to its termination at US 80 (See Figure 9). For ease of reference, this section will be referred to as Pipemakers Canal West throughout this section.

Land Use Characteristics

Pipemakers Canal West is primarily undeveloped with a sporadic mix of residential properties, and is more appropriate for greenway corridor development. The corridor as it runs from Pooler Parkway to the west side of the airport has experienced substantial commercial and residential development in and around the canal corridor.

Connectivity

This corridor benefits from the location of two significant connection points at its proposed termini at the West Chatham YMCA and Bloomingdale City Hall. The YMCA and the City of Pooler own two large tracts of public open space that are adjacent to the corridor, offering recreational opportunities. Parking would be available at both ends of this trail. Given the sheer length of the corridor, it has the potential to provide connection to a number of different community features. The adjacent properties are mainly undeveloped, but connection points between neighborhoods and public uses exist on the western part of the canal. The canal also runs adjacent to the newly developed Tanger Outlet Mall and many other service and retail establishments. While the potential exists for neighborhood access for the Godley Station development in Pooler, it should be noted that the Pipemakers Canal corridor offers little to no linkage to any existing trail networks.

Corridor or Trail Already Identified in Master Plan

This canal corridor segment was identified in Chatham County's 2001 Canal Greenway Corridor Study with good potential for greenway development.

Ecological Value

There is a great deal of undeveloped land, including wetlands, that abuts this corridor. Development of this greenway would provide public access to significant ecological resources. Due to its undeveloped character, a trail along this corridor would provide the public with many natural habitats. Approximately 5% of habitats along this corridor are categorized as imperiled or vulnerable by the Georgia DNR.

Employer-Sponsored Greenway

This trail would provide a recreational amenity that is consistent with the other amenities provided by both the West Chatham YMCA and the City of Pooler Recreational area at the



eastern terminus of the proposed trail. Because of this, it may be possible that either one or both of the entities would support and/or sponsor development of this trail system.

Existing Trail/Path Utilized

Portions of this corridor adjacent to public facilities, such as the West Chatham YMCA and Bloomingdale City Hall, are currently used by the public.

Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, the entire corridor is located within the SFHA (100 year flood plain).

Funding Source Identified

There is no funding identified at this time.

Historic/Cultural Significance

Constructed from 1830-1834, Pipemakers Canal was dug in Pipemakers Swamp, under private ownership, "in order to straighten the bends in Pipemakers Creek" between two plantations. The straightening was completed by the landowners' slaves and allowed both farmers to flood their respective rice fields on each side. The canal was also used to bring rice, lumber and many other products to the Savannah River. There are no known structures associated with the canal. A longer history, with regard to Native Americans and early Georgians exists for the area before it was dug as a canal. The canal was determined eligible for inclusion in the National Register of Historic Places in 2009 during the "Pipemakers Canal Drainage Improvement Plan." However, the excavation performed during the project likely negated the site's potential historic significance.

Maintenance Road Issues

A dirt maintenance road used by the County runs parallel to the canal. The maintenance road alternates between both sides of the canal. It is mostly passable with a few, sporadic wet spots. There is limited damage from all-terrain vehicles in a few areas.

Maintenance ROW

Public ROW exists for the entire length of this corridor.

Major Crossings

No major crossings are located in the western section of this corridor (the section that extends between US 80 to Pooler Parkway). The volume of major crossings in the eastern section (East of the Airport) eliminated this section from consideration.

Public Safety

The SCMPD rated the crime risk for this trail as "below average." The corridor extends through a very low crime area, but large segments of this trail would be secluded which can potentially increase public safety issues if the trail is not heavily used and/or other safety measures aren't implemented. This is further discussed in Chapter 10.

Regional Appeal & Advantages

A trail on this corridor is likely to be utilized only by adjacent neighborhoods and has little regional appeal. However, there is current "unofficial" public use on portions of this corridor and the potential for larger residential use by Pooler citizens.



Safe Alternative Transportation

This corridor provides a safe alternative way to travel through the complex US 80 road network since the corridor parallels the highway.

Shade and Tree Canopy

This segment has moderate to good tree canopy coverage.

Key Issues

- There is a great deal of undeveloped land, including wetlands, abutting this corridor and development of the nature trail will provide public access to relatively significant ecological resources.
- The proposed termini of this corridor are associated with public amenities that would provide a destination, as well as parking.

Chatham County Greenway Implementation Study

Figure 9
Pipemakers Canal Corridor



General Land Use

- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Undeveloped/Vacant

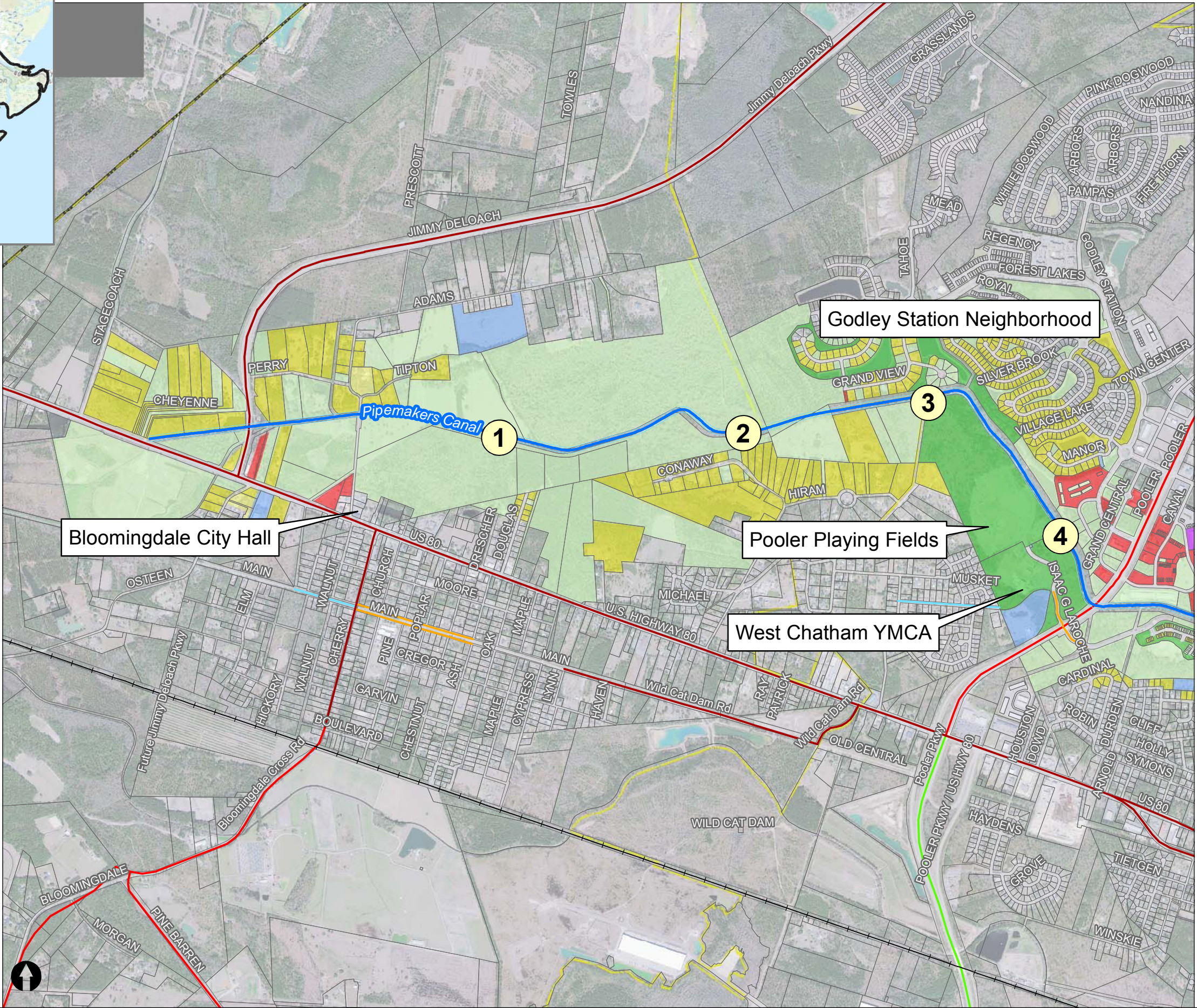
Legend

Canal Greenway Corridor

**Bikeways / Bike Paths
Level of Service (LOS)**

- | | |
|---|---|
| A | D |
| B | E |
| C | F |

Sidewalks Existing and Planned Trails



View of canal in
Bloomingdale



Looking east on greenway
corridor



Access fence along
Pipemakers Corridor



Looking west from corridor
to playing fields



6.5 Placentia Canal

Location

The Placentia Canal begins in the City of Savannah, near LaRoche Avenue (See Figure 10). The canal flows to the northeast, crossing LaRoche Avenue and Semken Avenue before bisecting Savannah State University. Continuing northeast, the canal intersects Hays Road and Sunset Boulevard and then flows adjacent to Johnson High School. The downstream portion of the canal crosses several other streets including Shell Road, Rowland Avenue, and US 80 before continuing northward to Bonaventure Cemetery and Bonaventure Road. The canal terminates in the Town of Thunderbolt. Stormwater from this approximately three mile long canal drains to the Wilmington River.

Land Use Characteristics

The area surrounding this segment is mixed-use and contains a healthy balance of residential, commercial, and public institutional land uses. Restaurants, parks, schools, historic cemeteries, and a mix of residential densities are distributed along this corridor.

Connectivity

This canal corridor provides a great opportunity for connectivity to schools such as Savannah State University, Myers Middle School, Thunderbolt Elementary, and Johnson High School. The canal also provides connection to the historic Bonaventure Cemetery and the Thunderbolt Museum.

The Town of Thunderbolt owns a ten acre tract of land at the midpoint of this corridor that could potentially be used as a trailhead. Sunset Park, owned and maintained by Thunderbolt is located adjacent to the canal. The canal segment offers access points at Victory Drive, Rowland Avenue, Shell Road and Sunset Boulevard. This area is well served by the Chatham Area Transit public transportation system and includes multiple routes and stops.

The central location of the Placentia Canal provides an opportunity for this segment to connect a number of existing and proposed bike lane systems including the Thunderbolt network, the Victory Square Cross Connectors, the LaRoche corridor, and the Skidaway corridor.

Corridor or Trail Already Identified in Master Plan

This canal corridor has been identified in the CORE MPO's Non-Motorized Transportation Plan and Chatham County's 2001 Canal Greenway Corridor Study as a corridor with good potential for greenway development. In addition, the CORE MPO conducted a Corridor Assessment study in 2011 for this area as part of related planning activities to develop the Non-Motorized Transportation Plan (See Appendix C).

Ecological Value

This corridor is particularly scenic and provides special wildlife viewing opportunities. Approximately 6% of the habitats along this corridor have been categorized as "forested depressional wetlands" and are considered imperiled by the Georgia DNR.

Employer-Sponsored Greenway

Savannah State University is located adjacent to the canal corridor and could serve as a potential partner to sponsor development of this corridor as a greenway.



Existing Trail/Path Utilized

This corridor is unofficially used by the public as a path. Students from both Savannah State University and Johnson High School utilize it as an alternative transportation route. Development would likely increase the functionality and safety of the corridor for these students.

Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, the entire greenway corridor is located within the SFHA (the 100 year flood plain).

Funding Source Identified

The Town of Thunderbolt supports the concept of a multi-use trail along this corridor and the connections it will provide to neighborhood and regionally important sites. The Town has applied for a Coastal Incentive Grant to develop the property they own adjacent to the canal corridor as a neighborhood park and trail connection associated with future trail development.

Historic/Cultural Significance

Originally called the Bonaventure Drainage Project, this canal runs through low, swampy land throughout most of its length. The canal derives its name from the Placentia Plantation, which was an early nineteenth century rice plantation. It is located near Bonaventure Cemetery, which is listed on the National Register of Historic Places. The canal was constructed from 1877-1887, using convict labor, as part of the health measure to combat yellow fever after an especially severe epidemic in the 1870s. It was done under the auspices of the Special Drainage Commission, which was established by an Act of the State Legislature in 1877. There are no known structures associated with the canal itself of historic or cultural significance.

Maintenance Road Issues

A dirt maintenance road approximately 15 to 20 feet wide is located along this canal. The maintenance road is in moderate condition and alternates between the northern and southern banks of the canal. The existing road is in very good condition north of Victory Drive and South to Sunset Boulevard. However, several sections of the road are prone to wetness between Sunset Boulevard and Savannah State University.

Maintenance ROW

Unincorporated Chatham County and the City of Savannah share ROWs for 88% of this corridor.

Major Crossings

Major crossings such as at Victory Drive could bring greenway users in conflict with heavy traffic. According to GDOT's State Traffic and Report Statistics, this portion of Victory Drive averages a daily traffic count of 29,000. Signage, traffic calming measures, and pedestrian/bicyclist refuges should be considered for any potential trail development. Sunset Boulevard, which intersects this canal, also has consistent traffic. Rowland Avenue and Shell Road appear to be less heavily traveled, although the CORE MPO recommended site assessments for these crossings to accurately determine traffic counts.

Public Safety

The SCMPD rated this corridor's crime risk as average (approximately 50%). Because portions of the trail would extend through wooded sections and cross through fairly isolated areas, users' perceptions of personal safety would need to be addressed.

The Placentia Corridor Assessment study conducted by the CORE MPO recommended that a site assessment of Placentia Canal be conducted to evaluate bank steepness and whether



additional safety measures are needed. Many of the canal banks have a steep grade and the canals themselves are deep enough to present a drowning hazard for walkers and pedestrians.

Regional Appeal & Advantages

Bonaventure Cemetery and Savannah State University both provide a regional draw for this corridor. Furthermore, its location adjacent to a residential neighborhood and high school within walking distance to the Thunderbolt waterfront could increase its appeal as a local amenity.

Safe Alternative Transportation

This corridor provides safe alternative travel to Skidaway Road and Whatley Avenue, which are currently the major north-south alternatives, both having a low level of service for bikeways.

Shade and Tree Canopy

This segment has moderate tree canopy coverage.

Key Issues

- The potential connections afforded by development of a trail system along this corridor are significant. Connections between Savannah State University, Johnson High School, surrounding neighborhoods, the commercial corridor of Victory Drive and Bonaventure Cemetery would create a regional draw, and provide a major amenity to residents of this area.
- The alternative transportation network that would be created by this greenway corridor would alleviate the poor level of service for pedestrian and bicycle traffic currently provided by the roadway network.
- A proposed multi-use trail project along this corridor and the connections it could provide to neighborhood and regionally important sites has support from the Town of Thunderbolt.
- The Town has applied for a Coastal Incentive Grant to develop public property adjacent to the greenway corridor as a neighborhood park associated with future trail development.
- There is potential for support, both political and financial from Savannah State University whose student body would benefit significantly from implementation of this project.

Chatham County Greenway Implementation Study

Figure 10
Placentia Canal Corridor



General Land Use

- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Undeveloped/Vacant

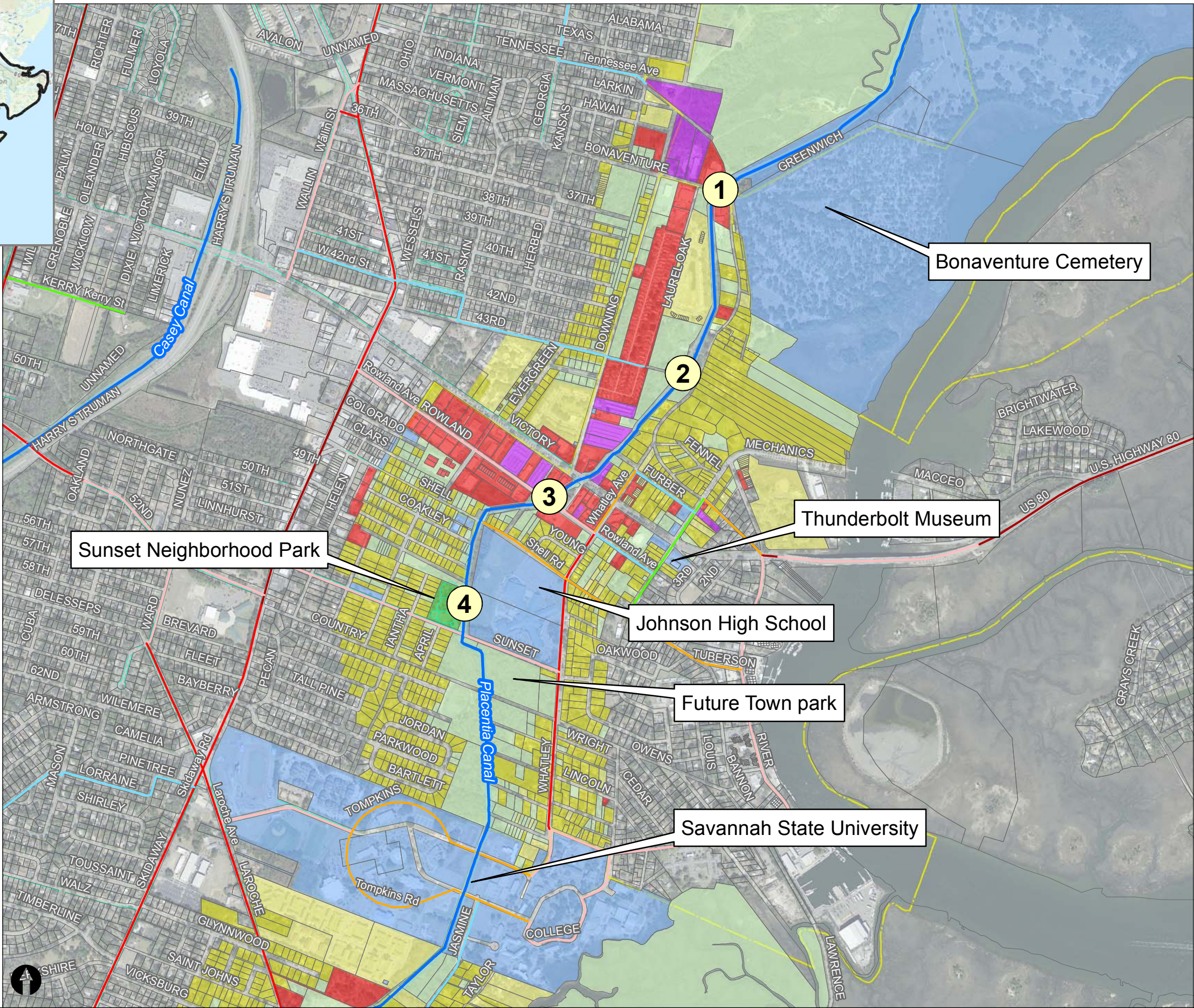
Legend

Canal Greenway Corridor

Bikeways / Bike Paths Level of Service (LOS)

- | | |
|---|---|
| A | D |
| B | E |
| C | F |

Sidewalks Existing and Planned Trails



Greenway intersection at
Bonaventure Road



Looking north on greenway
corridor



Intersection of Victory Drive and
Greenway corridor



Heading south from Town of
Thunderbolt property



6.6 Raspberry Canal

Location

This approximately 4.5 mile long corridor is located in West Chatham County and falls within the limits of Garden City and Pooler (See Figure 11). The canal touches the southern portion of Tom Triplet Park, where it intersects the Savannah-Ogeechee Canal Corridor. The canal then extends south running adjacent to Garden City Town Center and City Hall. The canal continues east from Dean Forest Road, turns south and connects to Salt Creek at Hwy 17 (Ogeechee Rd) at the Salt Creek Boat Ramp and Progressive Center.

Land Use Characteristics

The area surrounding this canal segment is mainly undeveloped with a mix of large lot residential. This creates the perception of a rural landscape despite being in close proximity to commercial and industrial uses. A portion of the surrounding area is used for agriculture purposes. There is also an abundance of coastal wetlands adjacent to the corridor.

Connectivity

The Town Center in Garden City, which is located close to the Raspberry Canal, is zoned for mixed-use development and has potential for future development. Southbridge, a large residential subdivision, is located across Dean Forrest Road from the Town Center and could be connected to this corridor. The West Chatham Library is located at the Town Center, as are several restaurants and shops with additional space available for future development. This area has the potential to serve as a viable trailhead for the corridor. Substantial parking would be available at the Town Center for local and regional access.

The Raspberry Canal terminates at the Salt Creek Boat Ramp, which is an existing Chatham County park containing picnic tables, a playground, and a pavilion. An actual greenway connection to the Salt Creek Boat Ramp might be difficult due to the low-lying topography and coastal marshlands as the segment merges with Salt Creek. However, connections through the existing road system in Salt Creek might be possible.

There are a number of other canals and drainage features in the vicinity of the Raspberry Canal. The historic Savannah-Ogeechee Canal intersects Raspberry Canal at Tom Triplett Park. Before splitting off to the south, the Raspberry Canal intersects Horseshoe Canal, which would provide an additional connection to the Savannah-Ogeechee Canal as well as the Talmadge-Louisville Canal. Currently, there is a multi-use trail system within Southbridge for neighborhood use. This could be extended through development of a trail system along Raspberry Corridor.

Corridor or Trail Already Identified in Master Plan

This corridor would begin at the Garden City Hall area, which is master-planned and currently under development. Connection of the City Hall property, which includes the West Chatham Library, could be implemented as part of this trail development. However, development of the corridor as a trail is not currently identified in any master plans.

Ecological Value

Much of this corridor runs through wetlands and coastal marshlands, increasing its ecological value. The south portion of the trail abuts historic rice impoundments, which could provide public access to a significant historic landscape. Additionally, potential water access within this corridor to Salt Creek from the Salt Creek Boat Ramp Park could provide a greenway/blueway



connection. The Georgia DNR has categorized approximately 3% of the habitats within this canal corridor as severely imperiled and another 11% of habitats as imperiled or vulnerable.

Employer-Sponsored Greenway

No large regional employers are located adjacent to this greenway corridor, although smaller employers, such as the City of Garden City or the State Public Safety Training Center, could be potential partners for trail implementation.

Existing Trail/Path Utilized

This corridor is not currently used by the public as a path.

Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, almost the entire greenway corridor (97%) is located within the SFHA (the 100 year flood plain).

Funding Source Identified

There is no funding identified at this time.

Historic/Cultural Significance

Very little historic information was found about this canal. It is not located on any historic maps. In 1874, there was a Supreme Court of Georgia case between Benedict Bourquin, a private citizen, and the Savannah Ogeechee Canal Company. Mr. Bourquin sued the company for damages to his rice field property while he was away during the Civil War. He claimed that there was a breach in the canal wall at Raspberry Swamp that ruined his property. The case was decided in favor of the Savannah Ogeechee Canal Company. It is possible that the canal was dug to drain the rice fields and Raspberry Swamp resulted. This canal has no confirmed cultural or historic significance.

Maintenance Road Issues

The proximity of this corridor to wetlands results in a maintenance road that is low, wet, and often non-existent for long stretches.

Maintenance ROW

The canal corridor is within a public ROW for the entire length. However, a significant portion falls within habitually wet areas, posing a potential barrier for access, maintenance, and cost.

Major Crossings

Due to the intersection of Interstate 16, a continuous greenway corridor from Tom Triplett Park to Garden City Town Center is not currently feasible. The County is addressing concerns about this crossing, but it is not clear if these improvements will allow for better trail access to the northern portion of the Raspberry Canal, which connects to Tom Triplett Park.

Public Safety

The SCMPD rated this corridor as a low crime risk. This corridor extends through areas with very low crime rates but there are potential safety concerns posted by its seclusion.

Regional Appeal & Advantages

This corridor, if developed with a trail, is likely to be utilized only by adjacent neighborhoods.



Safe Alternative Transportation

This corridor could provide a safe alternative way to travel where safety issues are associated with the road network adjacent to the greenway. As a greenway, this corridor could provide connection between Dean Forest Road (SR307) and Ogeechee Road (Hwy 17). Each of these road segments currently offer minimal bike amenities.

Shade and Tree Canopy

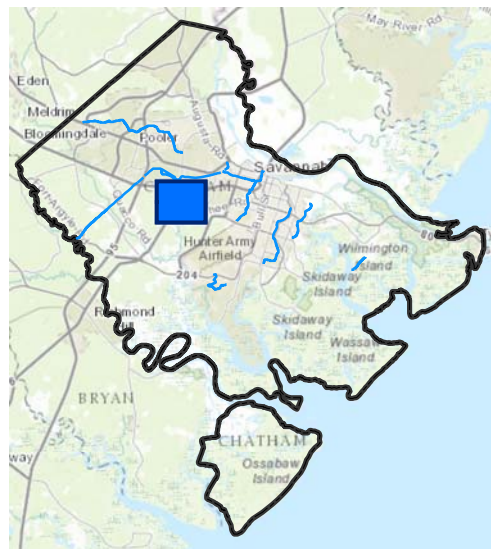
This segment has significant tree canopy coverage.

Key Issues

- There are several public amenities that could be connected to this corridor. In particular, the Garden City Town Center and the Salt Creek Boat Ramp could be the termini of this trail system and could provide ample parking to serve as a trail-head.
- There is significant ecological value in this corridor as much of it runs through undeveloped wetlands and coastal marshlands, and ends at Salt Creek, an estuarine waterway. Almost 15% of the habitats within this corridor have been designated by the Georgia DNR as significantly imperiled, imperiled or vulnerable.
- Southbridge Community may be supportive of this project if it provides an additional amenity and a connection to their existing multi-use trail system.
- While development of this corridor would provide access to a beautiful coastal marshland system and historic rice plantation landscapes, it is the presence of these vast wet and low areas that may make development of the trail challenging.

Chatham County Greenway Implementation Study

Figure 11
Raspberry Canal Corridor



General Land Use

- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Undeveloped/Vacant

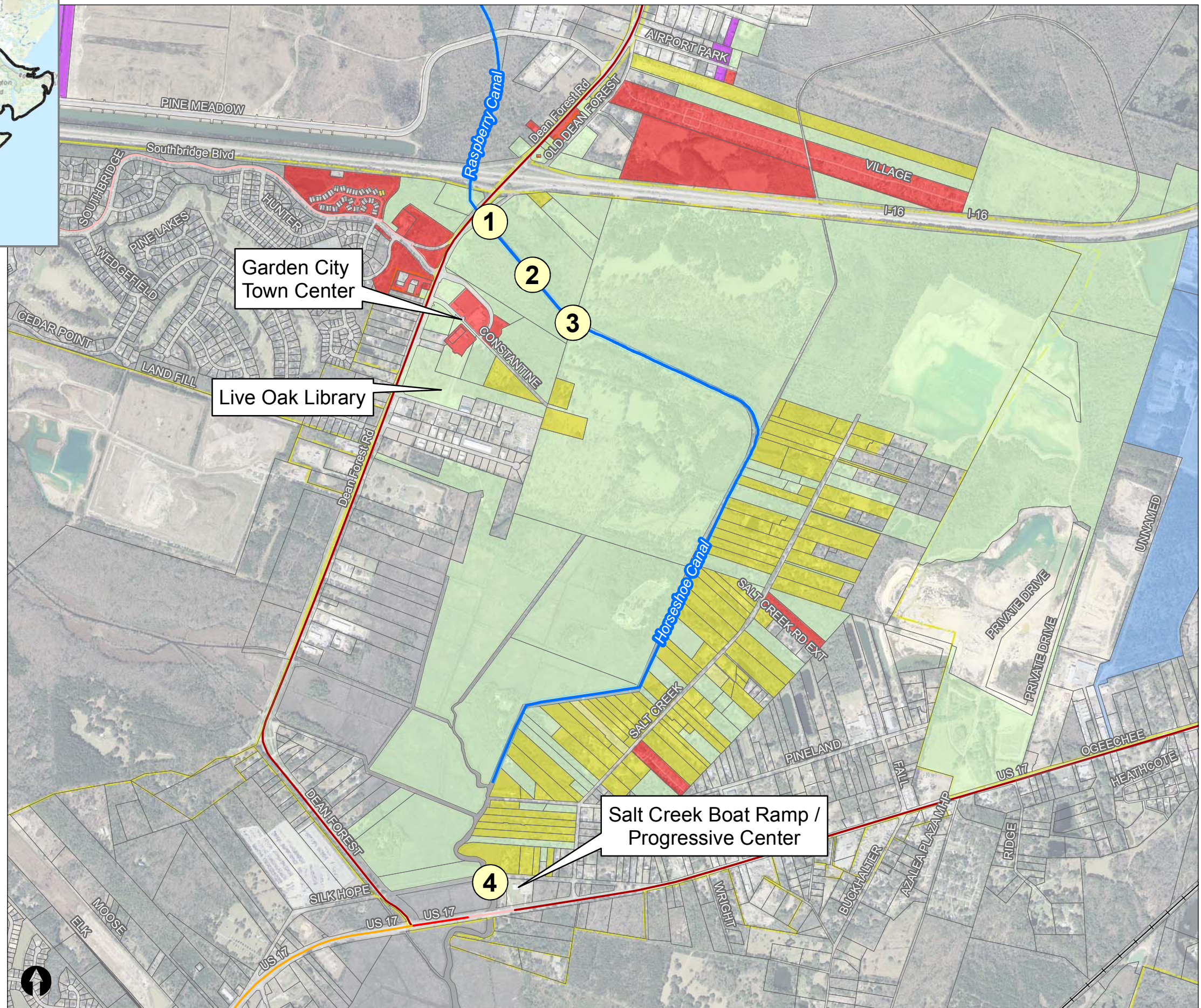
Legend

Canal Greenway Corridor

Bikeways / Bike Paths Level of Service (LOS)

- | | |
|---|---|
| A | D |
| B | E |
| C | F |

Sidewalks Existing and Planned Trails



Raspberry Canal trail head
near Dean Forest Rd



Local wildlife on Raspberry
Canal



Private property along
canal corridor



Salt Creek Boat Ramp



6.7 Savannah – Ogeechee Canal

Location

The Savannah-Ogeechee Canal is a lengthy, 15-mile corridor that extends from the western portion of the county and passes through Bloomingdale, Pooler, Garden City, and Savannah before intersecting the Springfield Canal in downtown Savannah (See Figure 12).

Land Use Characteristics

Land use characteristics along the Savannah-Ogeechee Canal corridor are mainly undeveloped. There are pockets of residential, commercial and public open space along the route, but the general character of the corridor is undeveloped.

Connectivity

The Savannah-Ogeechee Museum and Nature Center sits along the Ogeechee River in West Chatham County and acts as the main trailhead for this segment of the canal corridor. This corridor is recognized as an important historic resource and has an active Canal Society working to maintain and expand the corridor as a regional cultural and historic amenity. The Canal Society's facility includes a towpath, as well as a floating dock suitable for canoes and kayaks to access the Ogeechee River.

If this corridor were to be fully developed with a trail system extending its length, it could link the Savannah Oaks RV Resort, Savannah-Ogeechee Canal Society Museum, Tom Triplett Park in Pooler, the Springfield Canal and Savannah's downtown Historic District. However, it should be noted that these connections are far apart and would require miles of trail development.

The Savannah-Ogeechee Canal is included as a segment of the Coastal Georgia Greenway, the latter of which, when fully completed, will link the City of Savannah, Kings Ferry Waterfront Park, the Savannah-Ogeechee Canal and Museum, the Amtrak Station, and the Savannah Historic District in Chatham County. As an integral part of this plan, the Savannah-Ogeechee Canal corridor has the potential to be a critical feature in an extensive regional greenway system.

The Savannah-Ogeechee Canal is connected to multi-use trail improvements planned by Chatham County along Cane Break Road and Fort Argyle Road, which will ultimately connect the Savannah-Ogeechee Canal to the rest of the Coastal Georgia Greenway.

Corridor or Trail Already Identified in Master Plan

A concept for extending this trail through Tom Triplett Community Park was developed in the Savannah-Ogeechee Canal Corridor Master Plan, which was approved by Chatham County in 2001. The Savannah-Ogeechee Canal is also proposed to serve as a part of the Coastal Georgia Greenway, hosting its own planning initiative. Both of these efforts are summarized in Chapter 4 of this study.

Ecological Value

This corridor is particularly scenic and provides special wildlife viewing opportunities. The Georgia DNR has categorized approximately 4% of the canal corridor as imperiled and approximately 7% as vulnerable.



Employer-Sponsored Greenway

A regional employer, Mitsubishi, is located adjacent to this corridor on a large tract of property owned by the Savannah Economic Development Authority (SEDA). The "mega-site" property, which totals more than 1,500 acres, will potentially host national and international employers in the future as it is developed for industrial and commercial use. The proposed Savannah-Ogeechee greenway corridor would be an amenity to the employees of the facilities, and potential employers may have an interest in sponsoring the advancement of this trail system.

Existing Trail/Path Utilized

This canal system has an approximately 0.5-mile, well-defined trail on the southern end that is part of the Savannah-Ogeechee Canal Museum and Park. Bush Road is adjacent to the canal and is a primary paved street. It joins the canal at the intersection of GA 204 and continues north until the canal crosses Little Neck Road. Here the canal enters largely undeveloped land. A trail is well established and allows access to Quacco Road. A short stretch of trail extends north of Quacco Road. A trail open to public access is not present along the remainder of the canal.

Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, 42% of the greenway corridor length is located within the SFHA (100 year flood plain).

Funding Source Identified

Funding for the entirety of this long and complex corridor has not been identified. However, sections of the Savannah-Ogeechee Canal have long been a part of the Georgia Coastal Greenway planning effort. This could attract funding as a part of the ongoing advocacy efforts for that regional project. In May 2015, a Joint House and Senate Coastal Greenway Study Committee was approved to investigate the conditions, needs, and issues related to the Coastal Georgia Greenway. The Savannah-Ogeechee Canal Museum and Nature Center is solely maintained by the volunteer efforts of Society members.

Historic/Cultural Significance

This is the most historically significant canal and greenway corridor within Chatham County and development of this trail system will provide public access to historic resources and structures located along the canal. It is listed in the National Register of Historic Places.

The Savannah and Ogeechee Canal is the only canal in Chatham County designed, built, and used specifically for transportation. This canal was constructed between 1826 and 1830 to connect the Savannah River to the Ogeechee River. The canal served the timber industry exceedingly well, as one of the nation's largest sawmills was located along the canal. Additionally, products including cotton, rice and peaches were transported via the canal. In addition to transportation, the canal served social functions, as it was used for baptisms and recreation. Remaining active through the Civil War, it was not until the late 19th century that the canal suffered a gradual decline, and eventually succumbed to the transportation power of the railroad. The Savannah & Ogeechee Canal was listed on the National Register of Historic Places in 1997. Several significant historic resources exist along the canal. These include two brick Central of Georgia Railroad viaducts, constructed between 1852 and 1859, which extended over the canal and the adjacent West Boundary Street. The viaducts are part of the Central of Georgia National Historic Landmark District through which the canal runs.



Maintenance Road Issues

A canal maintenance road is present along the canal end section near Fort Argyle Road and the Savannah Ogeechee Canal Museum. A relatively short stretch of canal maintenance road is also located at the other end of the canal, near Louisville Road and Fahm Street. A maintenance road is not present along the majority of this corridor.

Maintenance ROW

There are public ROWs for approximately 95% of the corridor beginning at the Ogeechee River and following the length of the canal until it runs under I-16. ROWs pick up again on the east side of I-95 and runs adjacent to the SEDA mega-site until the canal intersects with the Raspberry Canal. There also appear to be ROWs associated with the canal through Garden City until its intersection with the Louisville South Canal.

Major Crossings

Due to its extensive length, there are major crossings of this corridor, including I-16, I-95 and Dean Forrest Road. However, significant lengths have no major crossings.

There are a number of arterial roads that also intersect the Savannah-Ogeechee Canal corridor. The western portion of the trail is more undeveloped and is intersected by Fort Argyle Rd, Little Neck Road, and Quacco Road before running under I-16 and I-95. The canal then intersects Dean Forest Road and Chatham Parkway before hitting I-516 and later connecting to the Springfield Canal corridor.

Public Safety

The SCMPD rated this as a fairly low crime risk. It extends through areas with low crime rates, but its seclusion could potentially pose safety issues if not properly addressed during the planning and development of the corridor.

Regional Appeal & Advantages

Due to the historic nature of this canal system and its inclusion in the Coastal Georgia Greenway, this corridor will draw visitors from outside the region if the cultural character and opportunities for connectivity are utilized.

Safe Alternative Transportation

This corridor could provide a safe alternative way to travel where safety issues are associated with the road network adjacent to the greenway corridor. In particular, this corridor could provide safe alternative travel to the Highway 17 bike lane, which has a low level of service.

Shade and Tree Canopy

This segment has significant tree canopy coverage.

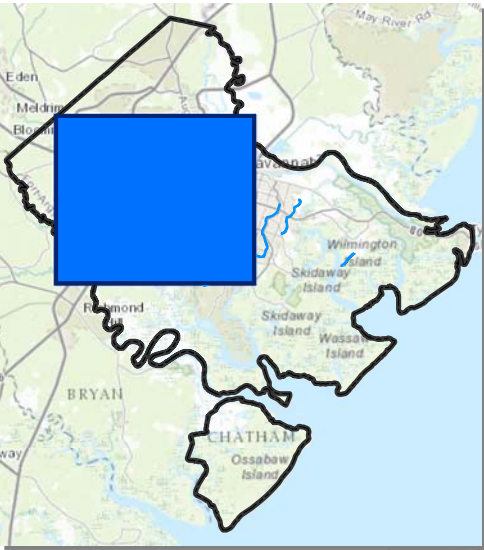
Key Issues

- This historic canal has an extensive support network including a dedicated non-profit group, the Savannah Ogeechee Canal Society. This network could provide additional support during the development and ongoing maintenance of trail network as it is developed in the future.
- Due to the size and undeveloped nature of a large portion of the canal, implementation costs can increase. It is the recommendation of this committee that small segments be identified and implemented as funding becomes available.



- Trail design specifications, intergovernmental agreements, and maintenance plans developed as part of this project are likely to be transferable to other future greenway corridor trail projects.
- Due to the extensive length of this canal corridor, it could be recommended that it be sectioned into "functional units" with unified character and planning needs. For example:
 - The West Chatham portion that most relates to the purview of the Savannah-Ogeechee Society.
 - The central portion that is anchored at the SEDA mega-site.
 - The City of Savannah portion that would connect to the Springfield Greenway Corridor and the downtown Historic District of Savannah.

Chatham County Greenway Implementation Study *Sav-Ogeechee Canal Corridor* Figure 12



General Land Use

- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Undeveloped/Vacant

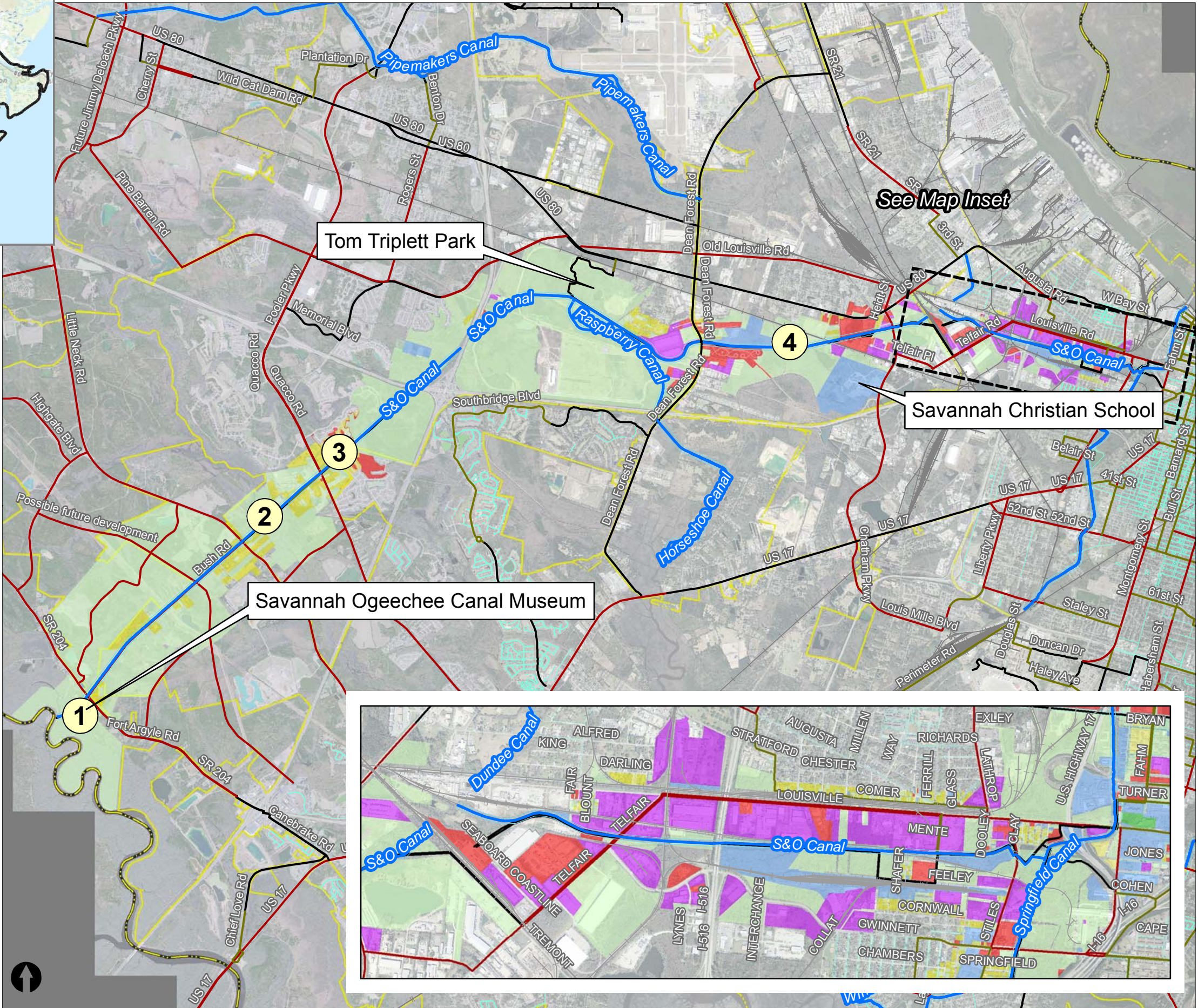
Legend

Canal Greenway Corridor

**Bikeways / Bike Paths
Level of Service (LOS)**

- | | |
|--|--|
| A | D |
| B | E |
| C | F |

Sidewalks Existing and Planned Trails



Historic Savannah-Ogeechee Canal



Bridge along canal corridor



Canal corridor on the east side of Quacco Road



View of canal and ROW in Garden City



6.8 Springfield Canal

Location

The Springfield Canal is located in the City of Savannah on the west side of the downtown Historic District (See Figure 13). This canal is approximately 4.5 miles in length.

Land Use Characteristics

The area surrounding this segment contains a fairly balanced mix of residential, commercial, industrial, and public / institutional land-uses. Given the distribution of land uses and the proximity to downtown Savannah, there is great opportunity for connections to restaurants, shopping, and other historical and cultural landmarks. Portions of the Springfield Canal Greenway Corridor are included in the Canal District Master Plan and the proposed Arena Master Plan, which are discussed in Chapter 4.

Connectivity

This canal corridor provides a great opportunity for connectivity to numerous historic and cultural destinations such as the Visitor's Center, the Roundhouse Railroad Museum and Children's Museum, the Civic Center, the Laurel Grove Cemetery, and the many other sites located in the Historic District of Savannah. The trail also intersects a number of schools including Beach High School, Hodge Elementary, Garrison K-8, Gadsden Elementary, and buildings owned by the Savannah College of Art and Design.

The canal segment offers access points at a number of different streets. Traffic volume on many of these streets is relatively high, but the entire area is well served by a comprehensive sidewalk system. Parking for visitors using this trail must be planned, but the Visitor's Center may be a good location to double as a trail-head and parking facility. This area is also well served by Chatham Area Transit, including multiple bus stops and routes. The Visitor's Center also contains a trolley service, which provides people with the ability to access other areas of the historic district.

This greenway is connected to existing parks, cultural and historic amenities, and public open spaces. Roughly 30% of the land area near this segment remains in an undeveloped state. A large portion of this land is owned by the City of Savannah, and was purchased to support the Arena project. The Laurel Grove Cemetery and Bowles Ford Park are directly adjacent to the Springfield Canal. The canal segment is also in relatively close proximity (walking distance) to Forsyth Park and the historic squares in the Historic District of Savannah.

The Springfield Canal is intersected by the Coastal Georgia Greenway at Louisville Road near the Savannah Visitor's Center and Round House Complex. The Springfield Canal Trail also intersects the Savannah-Ogeechee Canal corridor. There are significant connections to be made through development of this greenway corridor that include local neighborhoods, schools, public open space, and the future Arena.

Corridor or Trail Already Identified in Master Plan

This corridor is included as part of the Canal District associated with the City of Savannah's Arena project. This canal corridor was also identified in Chatham County's 2001 Canal Greenway Corridor Study.



Ecological Value

This corridor is moderately scenic, and provides moderate wildlife viewing opportunities. Imperiled habitats, as designated by the Georgia DNR, are present along 23% of this corridor.

Employer-Sponsored Greenway

This greenway corridor is unique in that it is included as part of the Canal District Plan and Arena project. It is possible that a regional employer/agency may participate in the development of the Arena and sponsor the greenway development as part of that project. The City of Savannah is a regional employer and has many facilities located in proximity of this corridor. The development of a trail system would be a significant amenity to its employees that live and/or work in the area.

Existing Trail/Path Utilized

This corridor is already moderately used by the public as a path.

Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, almost the entire greenway corridor (96%) is located within the SFHA (100 year flood plain). There are also FEMA buy-out properties located adjacent to the canal that can be included in the greenway corridor development as additional land for the trail and/or associated parks.

Funding Source Identified

Due to the inclusion of development of a segment of this proposed greenway corridor as part of the Canal District associated with the City of Savannah's Arena project, further development of this corridor is likely to have support from the City of Savannah, as well as local neighborhoods. In addition, a portion of the greenway corridor is already funded through SPLOST as part of the City's Arena design and construction project.

Historic/Cultural Significance

This canal is eligible for listing on the National Register of Historic Places. The canal, which began its life as Musgrove Creek, was built over a 100-year period. Construction of the canal began in 1812 to drain stagnant waters from the western fringe of Savannah. Additional construction was stimulated by an outbreak of yellow fever in 1876. Several significant historic resources exist along the canal, including two brick locks, constructed between 1824 and 1831 and two brick Central of Georgia Railroad viaducts, constructed between 1852 and 1859. The viaducts are part of the Central of Georgia National Historic Landmark District through which the canal runs. The canal also runs through Laurel Grove Cemetery. Both Laurel Grove North Cemetery and Laurel Grove South Cemetery are historic districts listed on the National Register of Historic Places. In 1878, the city drained Springfield Plantation and created this canal to the west. Originally, the canal was 8,600 feet long and drained 300 acres. Laurel Grove Cemetery was built on top of the former plantation site. The canal was constructed, using convict labor, as part of the health measure to combat yellow fever after an especially severe epidemic in the 1870s. It was done under the auspices of the Special Drainage Commission, which was established by an Act of the State Legislature in 1877.

Maintenance Road Issues

The Chatham County Public Works Department and City of Savannah Stormwater Management Department maintains the canal. A maintenance road approximately 15 to 20 feet wide is located adjacent to less than 40% of the canal. The maintenance road alternates between the north and south canal bank several times. The maintenance road is not paved or graveled.



Maintenance ROW

Public ROWs are maintained for approximately 85% of this corridor. The City has purchased property in association with the Arena project, which will address ROW ownership within that footprint. However, there are no current plans for the City to acquire additional right-of-way along the remaining length of the canal.

Major Crossings

This trail does have more major crossings to contend with when compared to other trail systems identified herein.

Public Safety

The SCMPD rated this corridor as a "high" crime risk because this trail extends through many areas with high crime rates.

Regional Appeal & Advantages

This corridor may draw or have the potential to draw visitors from outside the region due to its proximity to several regional institutions and the popular tourist destination of the Historic District of Savannah. However, this corridor's regional appeal depends largely on the pace of the overall development of the Canal District.

Safe Alternative Transportation

The proposed trail network has real potential to provide a viable alternative transportation system, providing access to traditionally underserved neighborhoods on the west side of Savannah to the employment centers associated with the historic downtown and the future Arena.

Shade and Tree Canopy

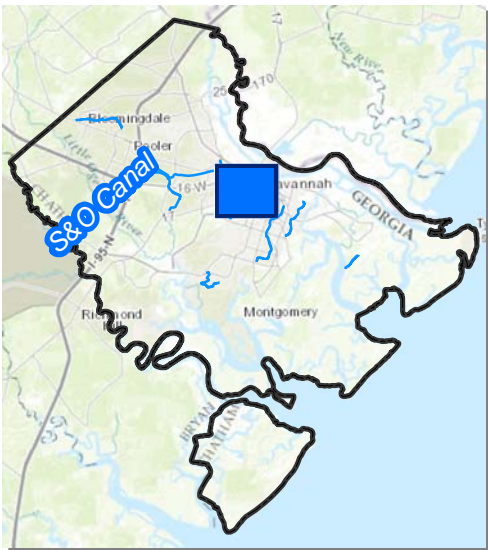
This segment appears to be well vegetated and has moderate tree canopy coverage.

Key Issues

- This corridor has the distinction of being the only identified potential greenway corridor that connects to the historic downtown of the City of Savannah. It abuts major tourism destinations including the Visitor's Center and the Railroad Roundhouse Museum, and would provide a connection to the trail system proposed to originate there by the Cultural Historic Association.
- The implementation of the Canal District Plan and development of the proposed Arena present a real opportunity to advance a portion of this proposed Greenway Corridor.

Chatham County Greenway Implementation Study

Figure 13
Springfield Canal Corridor



General Land Use

- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Undeveloped/Vacant

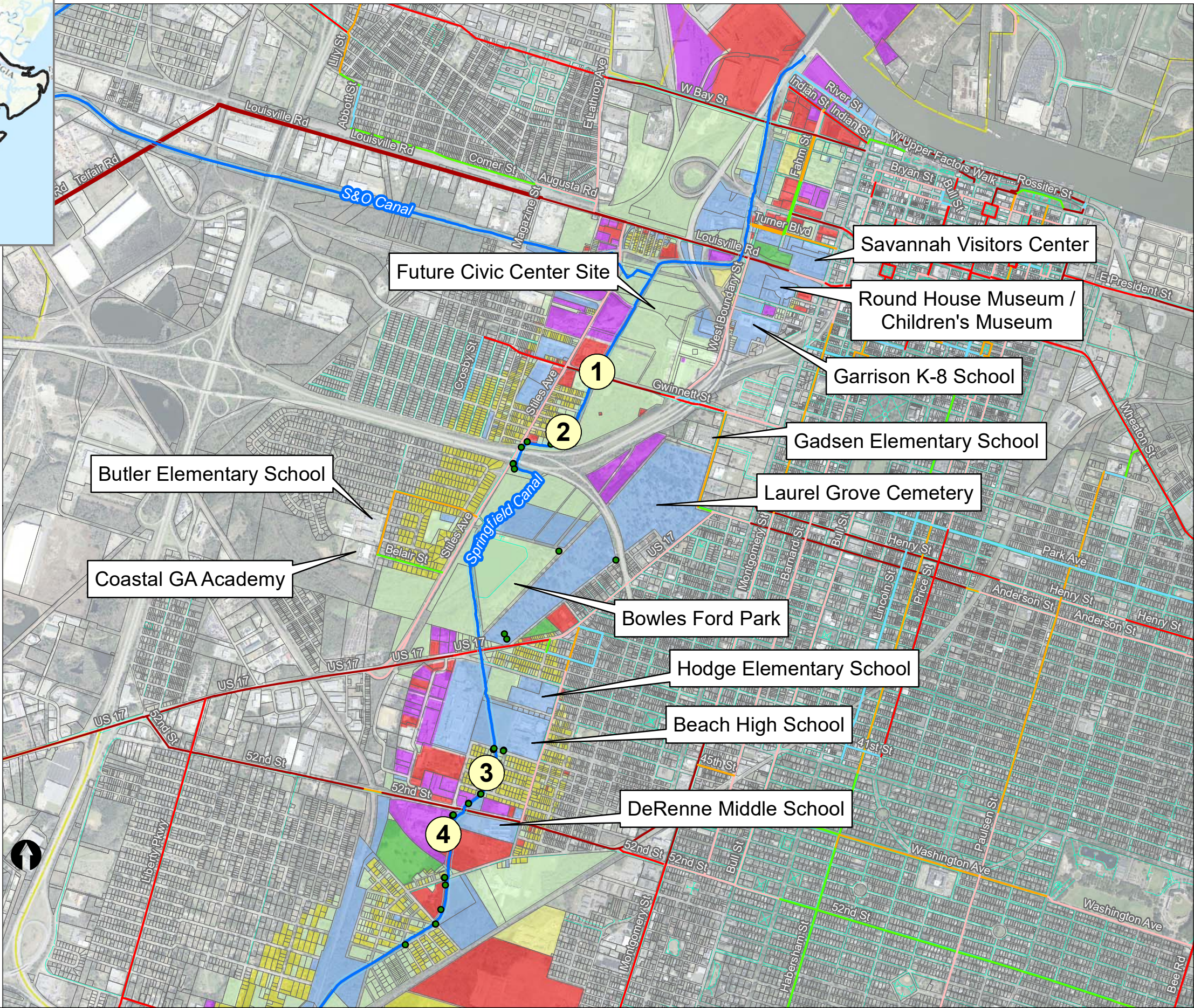
Legend

Canal Greenway Corridor

Bikeways / Bike Paths Level of Service (LOS)

- | | |
|---|---|
| A | D |
| B | E |
| C | F |

Sidewalks Existing and Planned Trails



Greenway looking south from
Gwinnett Street



Greenway corridor north of
Interstate 16



Canal access and crossing at
West 50th Street



Heading south from Derenne Middle
School Site



6.9 Wilmington Park Canal

Location

This approximately 1.25-mile canal drains the southern portion of Wilmington Island, which is located in unincorporated Chatham County (See Figure 14). The Wilmington Park Canal begins at Cromwell Road, near the intersection of Cromwell Road and Suffolk Road. It flows to the southwest, crossing under Cromwell Road, Clarendon Road, Winchester Road, and Wilmington Island Road before it drains to the Wilmington River.

Land Use Characteristics

The area adjacent to this canal is predominately residential. Several community parks, the Wilmington Island Golf Club, and a public access point to the Wilmington River are within close proximity to this canal segment.

Connectivity

This corridor provides the well-established Wilmington Park community with access to the Wilmington Island Community Park and associated recreational amenities and the Wilmington River via a community lot and dock area. The recreation area includes a community pool, playground, and tennis and basketball courts. These facilities are reserved for the use of members of the Wilmington Park Homeowners Association, although those who live outside of Wilmington Park may pay a fee to become pool members. The lot and dock area is located on the Wilmington River and is part of the Georgia Coast Saltwater Paddle Trail. This community dock provides homeowners a place where families and guests can enjoy fishing and crabbing activities and admire the view of the Wilmington River. The facility is kept in a natural environment with a picnic area for the enjoyment of the neighborhood residents. The tidal creek float launch is available for small non-motorized boats such as kayaks, canoes, sunfish, etc.

The canal segment offers safe access from multiple points of entry for pedestrians through local street crossings, the Community Park, and the community dock. An existing parking lot is available at the park to service visitors from outside the immediate service area. However, this greenway corridor is best suited to serve the local community and is less likely to have a major regional draw.

The Cromwell Road intersection offers the opportunity to connect this segment to the Wilmington Island Cross Connector Bike Lane. In addition, the neighborhood level streetscape provides safe pedestrian movement and potential connection points to other locations on the island.

Corridor or Trail Already Identified in Master Plan

This canal corridor was identified in Chatham County's 2001 Canal Greenway Corridor Study as a potential greenway. Development of this greenway corridor as a multi-purpose trail has not been identified in any other planning documents.

Ecological Value

While this trail does not intersect with any wetland areas, it does have a fairly mature canopy of live oaks and other maritime forest vegetation. Due to the suburban nature of the adjacent land use, it is not expected to be a significant wildlife viewing area.



The Georgia DNR has not categorized any habitats along this canal corridor as imperiled or vulnerable.

Employer-Sponsored Greenway

Due to the exclusively residential uses within the area of the canal, there are few, if any opportunities for an employer, educational facility, or other agency to sponsor this trail. The only potential agencies identified at this time would be the Wilmington Park Homeowners Association due to their ownership of two of the community parks that would be connected by this corridor.

Existing Trail/Path Utilized

The pathway along this canal is “unofficially” utilized as a walking and exercise trail by neighborhood residents. Further development and designation as a greenway would be a formalization of this use.

Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, 42% of the greenway corridor length is located within the SFHA (100 year flood plain).

Funding Source Identified

No funding has been applied for or secured to implement a multi-use trail along this canal corridor. However, the Wilmington Park Homeowners Association and the neighborhood association for the Wilmington Island Community Park could serve as a potential funding source for trail development along this canal corridor.

Historic/Cultural Significance

Very limited information was found regarding this canal, and it has no known cultural or historic significance. It is believed to be a drainage canal that was excavated in the middle 1800s to provide stormwater for adjacent plantations. In 1968, during construction of a residential subdivision, a portion of the canal was relocated to its current alignment.

Maintenance Road Issues

A maintenance road approximately 15 to 20 feet wide is located along the length of the canal. The road is in excellent condition and stays dry most of the time. The maintenance road switches side once from the southern side of the canal and then is located on the northern side of the canal for the remainder its length. While a narrow buffer, predominantly grass with some trees, is present along the sides of the canal, the canal is located in close proximity to adjacent residences.

Maintenance ROW

Chatham County maintains an approximately 60-foot public ROW for 65% of this canal. The County does not have ROW for the remaining 35% that runs from the City of Savannah's pump station to the Wilmington River.

Major Crossings

There are no major crossings of this canal and there are only two neighborhood street crossings at Clarendon Road and Winchester Drive.

Public Safety

The existing level of use and access within this corridor suggests that local residents experience sufficient safety, utilizing the informal path throughout the day and evening. The SCMPD rated this corridor as a “very low” crime risk.



Regional Appeal & Advantages

A unique feature of this corridor is that it could provide increased access to the Georgia Coast Saltwater Paddling Trail, a section of the Southeast Coast Saltwater Paddling Trail (SECT). The SECT was designed to create a network of coastal water trails in Virginia, North Carolina, South Carolina and Georgia where paddlers can travel an unbroken route of tidal marshes and rivers more than 760 miles along the coasts of all four states. Wilmington Island residents would benefit from increased access to these paddle trails via the canal corridor, and paddlers coming off the water would have improved access to the island.

Safe Alternative Transportation

There is limited need for alternative transportation in this neighborhood, due to lack of traffic on the local neighborhood roadway network. Much of the network has sidewalks, and those roads without sidewalks, have speed limits of 25 miles per hour or less, making travel on the roadway network relatively safe.

Shade and Tree Canopy

This corridor has significant tree canopy coverage.

Key Issues

- It is the understanding of the Greenway Stakeholder Committee that there is neighborhood interest and support for this project.
- The opportunity to connect the neighborhood to the recreational amenities and community dock associated with the Wilmington Island Community Park adds to the particular appeal of this project.

Chatham County Greenway Implementation Study

Wilmington Park Canal Corridor

Figure 14



General Land Use

- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Undeveloped/Vacant

Legend

Canal Greenway Corridor

Bikeways / Bike Paths
Level of Service (LOS)

- | | |
|---|---|
| A | D |
| B | E |
| C | F |

Sidewalks Existing and Planned Trails



Intersection of Canal Corridor and Winchester Rd



South west view of greenway corridor showing proximity to existing yards



South west view of greenway corridor from City-Owned property



Wilmington Island Community Park



6.10 Windsor Canal

Location

Located in the Windsor Forest neighborhood on the Southside of Savannah, this approximately 3-mile canal is in close proximity to the Savannah Mall and Armstrong State University as well as a number of commercial shops and restaurants along Abercorn Street (See Figure 15).

Land Use Characteristics

The area is predominately residential, but is bordered by commercial businesses and a number of schools, including Armstrong State University, Windsor Elementary, Windsor High, and the Savannah Country Day School. In addition, this area includes public open spaces including LaVida Golf Course and Joseph Tribble Park.

Connectivity

The canal corridor provides a great opportunity for connection between Windsor Elementary, Windsor High, Country Day, and Armstrong State University. Also in close proximity to the corridor are the many retail and service related options on Abercorn Street.

The canal segment offers safe access from multiple points of entry for pedestrians through local street crossings, the Joseph Tribble Park and Armstrong State University. Portions of the canal are found in the median of Windsor Road and Largo Drive, which could create a safety issue or a need to connect this portion of the corridor using the existing sidewalk network.

The canal segment provides the community with access to the Joseph Tribble Park, which is owned and operated by the City of Savannah Parks and Recreation Department. This park is roughly 50 acres, contains paved hiking and biking trails, and is handicap accessible.

Development of this greenway corridor has the potential to provide a connection to the water from the Joseph Tribble Park, LaVida Golf Club, and civic facilities.

The neighborhood level streetscape, bikeway routes, and sidewalk network provide potential connections to other locations on the south side of Savannah, including St Joseph's Hospital, Hunter Army Airfield, and the Savannah Mall. This corridor also terminates in public water access that would allow for possible blueway connections.

Corridor or Trail Already Identified in Master Plan

Development of this greenway corridor as a multi-purpose trail has not been identified in any other planning documents.

Ecological Value

This corridor is moderately scenic, and provides moderate wildlife viewing opportunities. Approximately 4% of this corridor's habitats have been designated as imperiled by the Georgia DNR.

Employer-Sponsored Greenway

The proposed trail system would connect to Armstrong State University, a state institution, which could potentially serve as a partner and/or sponsor for future trail expansion.



Existing Trail/Path Utilized

The portion of the trail that runs adjacent to Joseph Tribble Park has already been developed and is maintained by the City of Savannah as part of ongoing park operations. In addition, this park could serve as a trail-head and provide parking for trail users.

Floodplain Considerations

According to the 2014 FIRMS reviewed for this corridor, almost the entire greenway corridor (83%) is located within the SFHA (100 year flood plain).

Funding Source Identified

There is no funding identified at this time.

Historic/Cultural Significance

This canal corridor is located within the Windsor Forest neighborhood of the City of Savannah and is eligible for listing on the National Register of Historic Places. It is connected hydrologically to the Wilshire Canal and the Harmon Canal, both of which were built as drainage canals. Windsor Forest (an historic automobile neighborhood c.1950s-1970s,) is known to have flooding issues. Therefore, it is likely that these canals were also constructed for drainage. The Windsor Forest neighborhood was surveyed in 2002 and determined eligible, by the State Historic Preservation Office, for listing on the National Register of Historic Places as a historic district. The surveys do not mention these canals and the canals are not shown on the original drawings of the subdivision created in the 1950s.

Maintenance Road Issues

This canal extends through Windsor Forest, most of it remains in the median of Windsor Road. Some areas are fairly overgrown, but the road is in good to very good condition. The maintenance road alternates sides of the canal multiple times.

Maintenance ROW

There is an existing public maintenance ROW for approximately 60% of the canal. The remainder of the corridor is owned by Armstrong State University.

Major Crossings

There are no major crossings, only minor neighborhood and collector road crossings.

Public Safety

The SCMPD assigned this corridor a low crime risk rating.

Regional Appeal & Advantages

This corridor may draw or have the potential to draw visitors from outside the region. Several regional facilities are on or near the corridor, including marinas and boat launches, Armstrong State University, St. Joseph's Hospital, and Hunter Army Airfield. This amenity would be unique to the south side of Savannah as there are currently no multi-use trail systems in this area.

Safe Alternative Transportation

There is limited need for alternative transportation in this neighborhood, due to lack of traffic on the local neighborhood roadway network. Much of the network has sidewalks, and those roads without sidewalks, have speed limits of 25 miles per hour or less, making travel on the roadway network relatively safe. There are some safety concerns for the high school students that walk



along Windsor Road before and after school, due to the location of the sidewalk on the opposite side of the street from the school.

Shade and Tree Canopy

This segment has moderate tree canopy coverage with the exception of the portion of the corridor that is located down the road island.

Key Issues

- Armstrong State University and/or St. Joseph's hospital could be great local partners for development of this corridor.
- This corridor is small but has a very advantageous land use composition that includes churches, schools, residential areas, shopping, maritime uses, etc. In addition, its small size will make implementation more feasible in the short-term.
- The Chatham County Board of Education is currently implementing a pilot program with the "walking school bus" and could also be a programmatic partner. The GDOT program, Safe Routes to School, could be a potential funding source for such a partnership.

Chatham County Greenway Implementation Study

Figure 15
Windsor Canal Corridor



General Land Use

- Commercial
- Industrial
- Public/Institutional
- Recreational
- Multi Family
- Single Family
- Undeveloped/Vacant

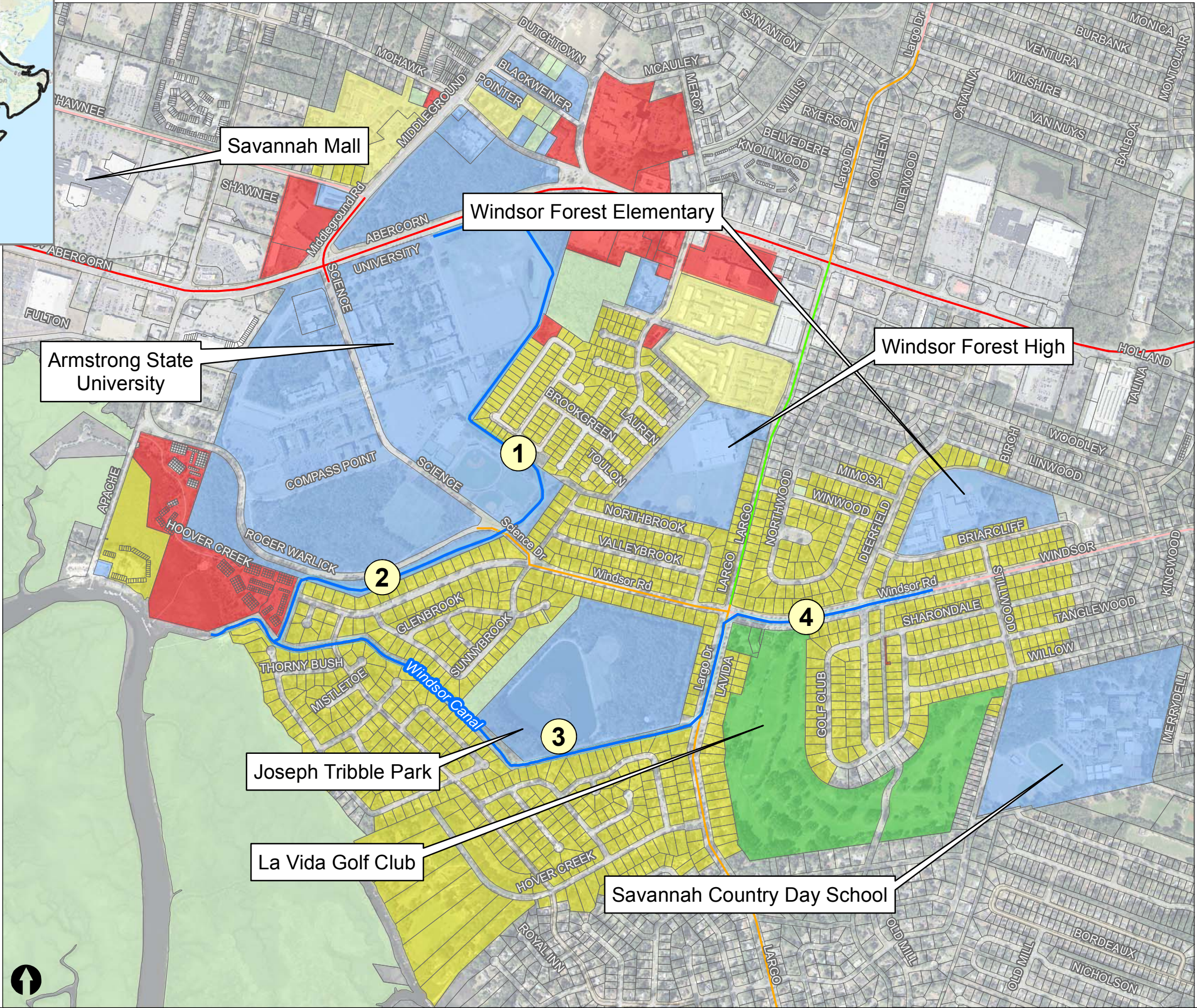
Legend

Canal Greenway Corridor

**Bikeways / Bike Paths
Level of Service (LOS)**

- | | |
|---|---|
| A | D |
| B | E |
| C | F |

Sidewalks Existing and Planned Trails



Canal corridor adjacent to the fields at Armstrong Atlantic University



Greenway corridor along Roger Warlick Drive



Paved trails at Joseph Tribble Park



Canal running down the median on Windsor Road (looking west)



6.11 Corridor Prioritization Matrix Scoring Results

The results of the assessment criteria evaluation and prioritization analysis, and total score for each greenway corridor, are shown in Table 3. It should be noted that the rankings in the canal prioritization matrix table are for comparative purposes. They are not intended to indicate that lower ranked canals are not suitable for greenway development. It is the Steering Committee's stance that all ten of the corridors that featured in this Greenway Implementation Study are suitable candidates for greenway development.

Table 3: Corridor Prioritization Matrix

Corridor Name	Adjacent Land Use/Local Level of Service	Connectivity-Places of Interest	Connectivity- Public Open Spaces	Connectivity-Trail Extension & Linkage	Ecological Value	Existing Road/Path is Used as a Trail	Funding Source Identified	Public Safety	1st Tier Priority Ranking Subtotal	Corridor or Trail Already Identified in Master Plan	Employer-Sponsored Greenway	Floodplain Considerations	Historic/Cultural Significance	Maintenance Road Issues	Maintenance ROW	Major Road Crossings	Regional Appeal & Advantages	Safe Alternative Transportation	Shade & Tree Canopy	Other Priorities to Consider	2nd Tier Priority Ranking Subtotal	Total Ranking (Tier 1 X 2 + Tier 2)	Greenway Ranking
Casey Canal Corridor	2	2	2	1	2	2	2	1	14	2	1	2	0	2	2	0	2	2	0	1	14	42	3
Dundee Canal	2	1	1	0	2	1	2	1	10	2	1	2	2	2	2	0	0	2	2	1	16	36	7
Old Savannah Tybee Railroad	2	2	2	2	2	2	1	2	15	2	0	2	2	1	1	2	2	1	1	2	16	46	1
Pipemakers Canal West Corridor	2	0	0	1	1	1	0	1	6	1	1	2	0	0	2	0	0	2	1	0	9	21	10
Placentia Canal Corridor	2	2	2	2	2	2	1	1	14	2	1	2	2	1	2	1	2	2	1	1	17	45	2
Raspberry Canal Corridor	2	0	1	1	2	0	0	2	8	0	0	2	0	0	1	1	0	1	2	0	7	23	9
Savannah-Ogeechee Canal Corridor	2	1	1	2	2	1	1	1	11	2	1	1	2	1	2	1	2	1	2	1	16	38	6
Springfield Canal Corridor	1	2	2	2	2	1	2	0	12	2	1	2	2	0	2	0	2	2	1	2	16	40	5
Wilmington Park Canal Corridor	2	1	2	2	1	2	1	2	13	1	1	1	0	2	2	2	1	1	2	2	15	41	4
Windsor Canal Corridor	2	2	2	1	1	1	0	2	11	0	1	2	2	1	1	0	1	1	1	0	10	32	8



7 Corridor Selection for Greenway Development

A Stakeholder Committee Meeting was held on August 31, 2015 to select the greenway corridors with the most potential for multi-use trail development. During the meeting, Committee members were asked to review all ten of the canal corridors and to vote for the three they believed should be prioritized for immediate implementation. While it is the Committee's stance that all ten of the corridors assessed are suitable candidates for greenway development, resources are limited and developing all of these corridors as greenways is not feasible at this time. It should be noted that some corridors may not have received votes because Committee members knew the development of these corridors was already underway by another party (Dundee Canal, for example) and didn't require the active participation of this Committee to ensure their successful implementation.

The Corridor Assessments and Prioritization Matrix discussed in the preceding chapters were reviewed during the selection process. Committee members discussed each of the corridors in detail and identified pros, cons and important issues for each corridor. These were all written down on a flip chart and then the sheets from the flip chart were displayed in the meeting room. At the end of this session, each Stakeholder Committee member was provided with three sticky dots to identify their top three priority corridors for development as Greenways. Appendix B contains a summary of the August 31, 2015 Greenway Stakeholder Committee Meeting when this planning exercise was conducted and includes listing of the pros and cons, as well as comments, that were provided and discussed in depth by Stakeholder Committee members.

After carefully reviewing the corridor assessments and the Prioritization Matrix, the Greenway Stakeholder Committee selected the following three corridors for further consideration as part of this project:

- Old Savannah Tybee Railroad (extension of the McQueen's Island Historic Trail)
- Placentia Canal
- Wilmington Park Canal

Table 4 shows the vote tally for the greenway corridors, with the top three corridors that received the most votes from Stakeholder Committee.

Table 4: Greenway Corridor Selection		Votes
Old Savannah Tybee Railroad Corridor (Extension of McQueen's Island Historic Trail)		17
Placentia Canal Corridor		16
Wilmington Park Canal Corridor		12
Windsor Canal Corridor		6
Casey Canal Corridor		5
Springfield Canal Corridor		4
Savannah-Ogeechee Canal Corridor		3
Pipemakers Canal West Corridor		2
Dundee Canal		0
Raspberry Canal		0



8 Ongoing Planning Efforts

After the Greenway Stakeholder Committee selected three corridors for greenway development (Placentia Canal Corridor; Wilmington Park Canal Corridor; and the Old Savannah Tybee Railroad), Steering Committee members held additional meetings and seminars to inform City and County departments and local officials about this initiative and to generate support for implementation. These meetings were also held to proactively discuss potential barriers to implementation and strategize ways to overcome them. Meeting summaries and/or meeting agendas and a copy of all presentation materials are included in Appendix B.

8.1 Chatham County Board and City Council Meetings

Representatives from the Steering Committee presented the Greenway Implementation Study at three separate public meetings:

- Chatham County Board of Commissioners on March 11, 2016
- The Town Council of Thunderbolt on March 9, 2016
- The City Council of Tybee Island on March 10, 2016

The purpose of these meetings was to present the findings of the Stakeholder Committee to the public and the elected body of each local government where a Greenway Corridor had been prioritized for further action. The Boards were asked to adopt a resolution of support for implementation of the Greenway Implementation Plan, and public input was accepted.

8.2 Coordination with Chatham County Attorney Office

Steering Committee members met with the Assistant Chatham County Attorney on October 15, 2015 to discuss potential public safety concerns and requirements that Chatham County must meet to open trails to the public. Following the meeting, GIS maps were prepared and provided to the Assistant County Attorney's office for additional review and analysis.

8.3 Additional Planning Activities for the Old Savannah Tybee Railroad

As discussed in Chapter 4, GDOT is currently designing and planning proposed improvements for US Highway 80 and the replacement of both the Bull River and Lazaretto Creek Bridges. Off-road "side-path" connections to the McQueen's Island Historic Trail from US 80 and the bridges are included. GDOT hosted an Open House on November 17, 2015 to seek public comments about their proposed improvements and the comment period ended on December 1, 2015.



The following activities also took place as part of this planning process to establish inter-agency cooperation between Fort Pulaski, GDOT, and Chatham County and to inform the public and Committee members about GDOT's planning process for this corridor:

- Steering Committee members met with Melissa Memory, Fort Pulaski Superintendent, on October 15th to discuss potential partnership opportunities between Fort Pulaski and Chatham County. The National Park Service's Rails, Trails and Conservation Assistance (RTCA) Program may provide trail design planning assistance to federal and local entities that agree to partner together.
- Greenway Steering and Stakeholder Committee members attended GDOT's November 17, 2015, Open House regarding the proposed bridge replacements and road improvements for US 80 leading to Tybee Island. The Steering Committee has routinely kept Stakeholder members updated on the status of this project and requested input and feedback regarding this project.
- Members of the Steering Committee and Stakeholder Committee submitted letters of support to GDOT for the extension of McQueen's Island Historic Trail, trail connectors, and paved bikeable shoulders. These letters were submitted during GDOT's open comment period that ended on December 1, 2015.
- Three members of the Steering Committee were added to GDOT's notification list for the US 80 Bridges Replacement Study. These representatives plan to attend future GDOT meetings regarding planned US 80 improvements.

8.4 BMP Greenway Maintenance Guide and Educational Seminar

To ensure that the trails, systems and adjacent habitats are properly maintained throughout the County, a BMP guidance document was developed. The guidance document was presented at a seminar held on November 12, 2015 that focused on environmentally-friendly canal maintenance procedures and BMPs that could be implemented to reduce the environmental impacts of canal maintenance, as well as facilitate the dual use of canal corridors for drainage and recreational trails. Over 30 representatives from various Chatham County departments and the eight jurisdictions within the County attended the seminar.

Seminar attendees were encouraged to openly discuss their concerns regarding the use of canals for recreational purposes during the presentation and feedback and suggestions were also solicited at the end of the seminar using a questionnaire that each attendee was asked to complete.



9 Drainage Canal Maintenance and Improvement Program

9.1 Canal Maintenance Program Summary

Chatham County's extensive network of canals have historically been utilized for transportation, agricultural cultivation, prevention of disease, and land development. Today, this network of canals is maintained for stormwater management and flood prevention.

The Chatham County Public Works Department provides routine maintenance for all drainage canals within unincorporated Chatham County, as well as most municipalities, with the notable exception of the City of Savannah. Canals within Savannah are jointly maintained between the City and the County. No other municipalities have currently established a canal maintenance program.

Maintenance roads parallel to the canals provide access for activities such as mowing, dredging and mosquito control. These roads are typically 15 to 20 feet wide and unpaved. The road condition therefore varies depending on the time of year and amount of rainfall. During periods of excessive rainfall or heavy vegetative growth, the roads may become inaccessible.

All canals with access are dredged once per year to remove aquatic vegetation or sediment, which could restrict stormwater flow. The material is removed using an excavator. The excavation is intended to clear blockages only, not to deepen or widen the canal. The amount of cleaning time required to clean each canal is variable and depends on the length of the canal, amount of sediments and vegetative growth present, and weather conditions. Canal cleanings are scheduled throughout the year.

The canals are mowed three times a year, in the spring, mid-summer and fall. The county has established an annual mowing schedule that generally ranges from mid-April through the end of July. During this period, approximately 135 miles of canal banks and adjacent maintenance roads are mowed.

Herbicides are applied directly to the canal channel twice per year to control the growth of aquatic vegetation. This activity occurs for a period ranging between two and three months in both the spring and the fall.

All of the maintenance activities described above are bid on a three-year contract. Chatham County solicits bids from its own Public Works Department, as well as from private firms. Currently, the Public Works Department is responsible for excavation and herbicide control. Mowing is conducted by a company subcontracted by Chatham County.



9.2 Concerns Regarding Maintenance and Public Access

While certain canal corridors are currently used informally as walking trails, canal maintenance roads were constructed for use by Chatham County and public use is prohibited. Along some sections of the canals for which Chatham County and the City of Savannah do not have the right-of-way, access to the maintenance road is restricted by gates installed by private property owners. For some of these sections, Chatham County has made arrangements with the property owners to unlock the gates and enter the property. In some locations, canal sections lack a maintenance road entirely.

When considering increasing public access to canal corridors, Public Works representatives have expressed the following concerns:

- Drainage canals would still need to be routinely maintained for drainage – need 20-foot wide clearance for machine operation and reliable access.
- Use of heavy machinery and dredging work on unpaved maintenance roads may not be compatible with recreational trail uses. Disposal of dredge spoils can be an issue because at times the spoils are deposited adjacent to the canal.
- Trail users may expect the trails to be maintained to “park-like” standards and complain if canal maintenance equipment leaves tire ruts on the trail.
- To ensure public safety, public access would need to be restricted during canal maintenance and use of heavy machines.
- Wildlife such as alligators and water moccasins may be present along canals.
- Low-lying canal roads near wetlands may not be accessible during certain times of the year due to flooding and tidal fluctuations.

9.3 Canal Improvements and SPLOST

SPLOST is a sales tax-funded community development tool that is used to implement critical infrastructure improvements. SPLOST has funded more than \$1.5 billion in capital improvement projects in Chatham County since the first referendum in 1985, with a significant portion spent on drainage.

Chatham County has contracted numerous engineering firms to conduct stormwater drainage improvement studies and subsequent canal channel and structure modifications for the County. These studies include topographic surveys, field evaluations, and development of computer models to evaluate existing drainage systems and design drainage improvements. Most of this work is funded by SPLOST revenue.

To respond to area-wide flooding concerns in a coordinated fashion, the Chatham County Engineering Department developed a drainage improvement program in 1996 for communities located in unincorporated Chatham County and all municipalities within the County with the exception of the City of Savannah. Drainage improvements required within the City of Savannah are overseen by the City's Stormwater Management Department.

Drainage improvements are designed to increase the canal's drainage capacity by increasing the width of the canal and improving associated structures such as bridges, including railroad crossings, culverts and tide gates. Steeply sloped canal banks are regraded to control erosion



of the banks. In conjunction with these improvements, existing maintenance roads may be lengthened. In some cases, the maintenance roads may be relocated to the opposite bank to accommodate the modified canal channel and to limit the number of bridges and earthen crossings required for the maintenance crews to access the canals. For maintenance roads located in western Chatham County, as well as the maintenance road located adjacent to Placentia Canal, the County plans to gravel the roads to ensure that they are accessible during heavy rainfall and to limit vegetative growth. Trees and other vegetation adjacent to the canals are usually removed or thinned during the drainage improvements.



10 Strategies for Successful Greenway Implementation

Below is a listing of potential issues and challenges that should be carefully evaluated to ensure successful trail design and implementation for the ten canal and retired rail corridors. Strategies to address the logistical issues and concerns that were identified during this planning initiative are also included.

10.1 Coordination with Public Works Department

When designing a trail system on canal maintenance roads, coordination with the local Public Works Department is essential to minimize potential "dual use" conflicts. The following should be considered during the next stages of planning and implementation.

Adopt Green Canal Maintenance Best Management Practices (BMPs)

The *Best Management Practices for Canal Greenway Maintenance Manual* has been developed to propose environmentally-friendly canal maintenance practices and BMPs that can be used to minimize negative impacts from mowing, dredging and herbicide application and maximize the corridor's ability to function as a natural floodplain, filter out stormwater pollutants and preserve natural habitat. These BMPs should be adopted whenever possible and incorporated into trail design and long-term maintenance procedures.

Address Public Works Department Concerns

Chapter 9 addresses potential public safety issues and concerns related to opening up canal maintenance roads for public trail use that were identified by the Chatham County Public Works Department and the City of Savannah. These issues and concerns need to be carefully addressed from the onset of trail planning and design. Logistics related to long-term trail operations and determining which department(s) will be responsible for ongoing trail maintenance are critical. It may be necessary to transfer responsibilities from the Public Works Department to Parks and Recreation (or an equivalent department) for long-term maintenance once public trails are developed adjacent to stormwater drainage canals.

Investigate Trail Surface Options

Generally, multi-use trails are paved to improve accessibility, prevent erosion, increase longevity and minimize maintenance needs. However, there are several challenges posed by paving recreational trails, particularly for those trails that are also used for canal maintenance. A concern expressed by Public Works representatives on numerous occasions was that trail surfaces would be damaged during routine canal maintenance activities. Unpaved, dirt maintenance roads adjacent to the canals may be rutted by the equipment. Other trail surfaces such as pavement and gravel may be damaged during routine maintenance activities and require continual repairs and/or replenishment (in the case of gravel).

Surfacing of multi-use trails can become a highly divisive topic at times. Different demands on the greenway may require different surfaces. Conflicts between different trail users (pedestrians,



cyclists, hikers) and negative environmental impacts caused by impermeable surface options, such as pavement, can affect the costs of initial construction and ongoing maintenance.

In May 2011, the CORE MPO conducted a corridor assessment of Placentia Canal as part of their planning efforts for the MPO Non-Motorized Transportation Plan. A copy of this assessment is included in Appendix C. Sections of the canal maintenance road adjacent to Placentia Canal are already informally used as a recreational trail. The CORE MPO found that viable surface options included leaving the surface "as is" (cost-effective and minimal maintenance requirements) or using compacted limestone dust ("stone dust"). According to a representative of the New York Canal Corporation, who was interviewed as part of the CORE MPO's research, this surface meets American Disability Act (ADA) requirements, is somewhat resistant to rutting, erosion, weed growth and puddling. It is repairable and long-lasting. This representative also suggested that compacted limestone dust would be a compatible surface option for canal maintenance, as well as an economically and environmentally-friendly choice because it is permeable and relatively inexpensive compared to other surface options.

Use Removable Bollards

Public Works representatives felt that accessibility would be an issue when locked gates are used to exclude motorized vehicles from the trails. One solution to be further investigated is the use of removable bollards, which could still allow access for maintenance vehicles when needed while preventing unauthorized canal access.



Develop a Protocol for Addressing Citizen Complaints

Public Works representatives expressed concern that citizens may make complaints about the upkeep of the trails if maintenance equipment leaves tire ruts, if trees fall across the path, or if trails are not mowed regularly. A possible solution is to post a brochure explaining the economic and environmental rational for using natural trail systems (in lieu of paved surfacing, for example) online and directing citizens to this location for additional information. Signage could be posted indicating that this path is a multi-use trail system that has to function for both for recreation as well as canal maintenance. A contact number (or web address) could be provided to direct citizens to the appropriate department to resolve issues. More use of the trail itself should be sufficient, in conjunction with normal canal maintenance mowing activities, to address concerns about un-mowed areas directly in the path. Selective trimming could be used in densely vegetated areas if needed to address potential safety concerns.

10.2 Address Potential Public Safety Issues

Educate Public Officials and Citizens

During the planning process, it is important to acknowledge and address perceived safety concerns and have documented case studies to discuss with public officials and concerned citizens. Oftentimes, citizens' perception about public safety is flawed, and numerous studies such as those discussed earlier in the Greenways Benefits chapter of this study (Chapter 3) and in numerous other studies indicate that public safety can sometimes be increased by the presence of a greenway. Public officials and concerned citizens should be reassured that the SCMPD conducted a safety assessment of these corridors and found that in most cases, crime rates were not high in adjacent neighborhoods. The CORE MPO's study of the Placentia Canal (Appendix C) identified other viable solutions to address potential public safety issues, including



nighttime closures, police patrol of the greenways, use of security cameras, underbrush clearing, fencing and increased trail usage (putting more users on the trail to ward off criminal activity).

Conduct Safety Site Assessments

Site assessments should be conducted to identify potential safety issues such as steep canal banks and other physical characteristics that could impact trail usage and present a concern to pedestrians and cyclists. As discussed in the CORE MPO's Corridor Assessment of Placentia Canal (Appendix C), many canal banks have a steep grade and the canals themselves are sufficiently deep to be a drowning hazard for walkers and cyclist who may fall into the canal. Potential solutions include re-grading (in extreme cases), constructing a buffer and/or fence between the trail and the canal itself for sections where it is needed, or locating trails adjacent to the canal maintenance road (if sufficient property ROW is available).

10.3 Protect Floodplains and Maximize CRS Benefits

Many of the Greenway Corridors identified within this study, are located partially or entirely within a regulatory floodplain (See Table 5). In fact, many of the drainage canals within these corridors were originally constructed to drain low-lying areas, the construction of which created waterways and associated floodplains. As more development leads to increased stormwater discharges through these drainage canals, and as sea level rise results in increased tidal influence, floodplains associated with these structures are likely to expand.

Communities such as Chatham County and its municipalities that regulate new development in their floodplains are able to join the National Flood Insurance Program (NFIP). In return, the NFIP provides federally backed flood insurance within communities that enact and enforce these floodplain regulations. The objective of this program is to minimize the potential for flood damage to future development and to provide insurance for those properties that do experience damage due to flooding. In Chatham County, as in all of coastal Georgia, participation in this program is essential for sustainable community development and resiliency.

The Community Rating System (CRS) is a voluntary program associated with the NFIP. Under the CRS, communities participating in the NFIP can be rewarded for doing more than simply regulating construction of new buildings to the minimum national standards. Under the CRS, the flood insurance premiums of a community's residents and businesses are discounted to reflect that community's work to reduce flood damage to existing buildings, protect new buildings beyond the minimum NFIP protection level, preserve and/or restore natural functions of floodplains, and help people obtain flood insurance. Communities are awarded points for programs and activities that exceed the national minimum standards. The more points a community receives, the better that community has mitigated the potential risk for flooding, and

Table 5: Corridors Located Within Floodplains	
Corridor Name	% of Corridor in Flood Zone
Casey Canal	100%
Dundee Canal	100%
Old Savannah Tybee Railroad	100%
Pipemakers Canal	100%
Placentia Canal	100%
Raspberry Canal	97%
Savannah-Ogeechee Canal	66%
Springfield Canal	96%
Wilmington Park Canal	42%
Windsor Canal	83%



the greater the discount property owners within that community receive on their flood insurance policies.

The benefits of participation in the CRS program reach beyond the discounted flood insurance premiums (though this is a popular benefit). Participation in the CRS program acts as a catalyst for many other coordination efforts at the local government level. CRS leads to an improved local knowledge of flood risks within the community as a whole. The CRS program creates better coordination between departments with regard to mitigation activities and enhances general awareness about actions a community can pursue to reduce flood losses and improve flood protection.

As stated above, communities that participate in CRS are encouraged to implement activities that preserve the natural functions of the floodplains within their community. Preservation of greenway corridors in low-lying areas will protect floodplain from development thereby preserving their capacity to store floodwaters and protect the surrounding built environment. In addition, this Greenway Implementation Study identifies open space corridors that can potentially act as connected networks of wetlands, woodlands, and wildlife habitats that support native species, maintain natural ecological processes, and sustain air and water resources. Preservation of these greenway corridors will not only protect the floodplain, it also provides the opportunity to purchase repetitive loss property and repurpose it as open space within or adjacent to the corridor.

10.4 Seek Potential Funding and Leverage Partnerships for Greenway Development

Local authorities have a number of funding alternatives that can be utilized to acquire lands for trail development and floodplain protection. Communities achieve the greatest success when blending traditional funding sources and partnering with other entities. For example, Chatham County Engineering met with Fort Pulaski in October 2015 to discuss a partnership between the County and Fort Pulaski through the National Park Service's Rails, Trails and Conservation Assistance (RTCA) Program to provide planning assistance, through the dedication of a staff person within the NPS (no funds for trail design or construction are provided through this program).

Local funding sources and grants that should be investigated are included in the sidebar to the right. This is not an exhaustive list and other funding sources are available. Given the regional draw and strong community support for the existing McQueen's Island Historic Trail, as well as its importance for providing safe alternative (non-motorized) transportation to

Potential Funding Mechanisms

Local Funding Sources:

- General Fund or General Revenues
- Capital Improvement Program
- Stormwater Utility
- SPLOST
- Municipal Bonds

Grants

- Land and Water Conservation Fund
- Georgia Recreational Trails Program
- CORE MPO/ Transportation Alternatives Program
- Land Conservation Grant
- Other grants that help fund land acquisition, floodplain mitigation, and recreation projects appropriate for floodplain properties such as the Hazard Mitigation Assistance Unified Guidance, EPD 319(h) Grants, and Community Development Block Grants.



Tybee Island, the eastern extension of this trail to Lazaretto Creek should be a strong contender for grants and other funding sources, particularly if Chatham County partners with Fort Pulaski. Phase 2 of the Marsh Hen Trail also offers many features that should increase its potential for securing grant funds.

Potential funding sources for long-term, ongoing maintenance costs should also be investigated.

10.5 Investigate ADA Requirements

The Americans with Disabilities Act (ADA) of 1990 is a civil rights statute that prohibits discrimination against people who have disabilities and includes provisions that apply to public entities such as state and city governments. Specifically, Title II requires nondiscrimination on the basis of disability in state and local government services. These "public entities," including departments, agencies, or other instrumentalities, are required to comply with the ADA.

A public entity may not deny the benefits of its programs, activities and services to individuals with disabilities because its facilities are inaccessible. A public entity's services, programs, or activities, when viewed in their entirety, must be readily accessible to and usable by individuals with disabilities. This standard, known as "program accessibility," applies to all existing facilities of a public entity. Public entities, however, are not necessarily required to make each of their existing facilities accessible.

ADA requirements for Chatham County are overseen by the Department of Building Safety. This department should be consulted at the onset of trail design to ensure compliance with ADA requirements.

10.6 Other Considerations and Tasks

Below is a listing of other tasks and coordination efforts that should be performed once the County moves forward with trail design and construction for any of the proposed greenways. These include:

Detailed ROW Analysis

Conduct a comprehensive analysis of property ownership and ROW/easements on a parcel-by-parcel layer. ROW widths should also be carefully analyzed. When possible, consideration should also be given to the acquisition of adjacent parcels or wider rights-of-way/easements to enhance the greenway, protect natural floodplain functions, and provide a buffer for surrounding neighborhoods and other developments.

Community Meetings

Host community meetings to garner support for greenways. Potential advocacy groups, neighborhood groups, homeowners associations, farmers markets, nearby schools, and other special interest groups should be included to garner support. In lieu of traditional community meetings, consider hosting a trail walk along an existing trail segment of Placentia Canal, or set up booths at farmers markets, Earth Day, and other community events. A representative of the SCMPD could be on hand to address any public safety concerns expressed by citizens. Consideration should be given to setting up special event days to highlight trail systems and garner additional public support for greenways. For example, plan geocaching events on trails to highlight historic and ecological features of interest.



Ongoing Trail Maintenance

Where feasible, provide opportunities for trail users to participate in trail upkeep and maintenance. Waste bins and doggie bags play a key role in reducing litter. Educational signage and mile markers could also be included.

Preservation of Cultural Landscapes

Cultural landscapes that haven't yet been identified but that do exist—for example, the presence of old dikes, rice fields, along drainage canals—should be evaluated and preserved. These are historical features that add interest and strengthen the need for permanent protection and preservation of the corridor.



11 Resources

Various documents, plans, websites and other resources were consulted for preparation of this Study, in addition to the resources listed in Table 2. A listing of these Resources can be found in Table 6 on the following page.

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Table 6: Resources

Name	Date	Author	Location
An Assessment of Urban Tree Canopy in Chatham County, Georgia	February 2015	Plan-It Geo	http://www.savannahtree.com/wp-content/uploads/Chatham-County-Urban-Tree-Canopy-Assessment-Final-Report.pdf
Non-motorized Transportation Plan/A Bicycle and Pedestrian Plan	October 29, 2014	Chatham County – Savannah MPC/CORE MPO	http://thempc.org/Transportation/Non-motorTranspPlan.html
US 80 Bridges Study	December 2012	CORE MPO	http://thempc.org/Transportation/US80BridgesStudy.html
Fort Pulaski National Monument General Management Plan Final General Management Plan, Wilderness Study, and Environmental Impact Statement	June 2013	National Park Service U.S. Department of the Interior	http://parkplanning.nps.gov/projectHome.cfm?projectID=11163
Placentia Canal Trail-Corridor Assessment	May 6, 2011	MPC/CORE MPO	A copy can be obtained by contacting the Chatham County-Savannah MPC.
Chatham County Comprehensive Plan	2006	Chatham County	http://thempc.org/documents/CompLRPlanning/Plans/CHAPTER%209%20(Revised%20River%20Corr)%200409.pdf
Chatham County Greenspace Plan	March 2003	Chatham County-Savannah MPC	http://www.thempc.org/Planning/Publications/2002%20Greenspace%20Program.pdf
Using Canals as Greenway Corridors in Chatham County	November 2001	Chatham County-Savannah MPC	http://www.thempc.org/HistoricPreservation/Resource%20Protection%20Commission.html
Chatham County Open Space Plan	1996	Chatham County-Savannah MPC	http://www.thempc.org/HistoricPreservation/Resource%20Protection%20Commission.html
Woodville Neighborhood Plan	2012	City of Savannah Community & Economic Development Bureau Community Planning & Development Department and the Woodville Community Action Organization	http://www.savannahga.gov/DocumentCenter/View/2482
Coastal Georgia Greenway, Inc.	Webpage	Coastal Georgia Greenway	http://coastalgeorgiagreenway.org/coastal-georgia-greenway/about-coastal-georgia-greenway/chatham-county
A Road Map for Chatham County for Its Journey in Becoming the Greenest County in the State of Georgia	2009	Chatham Environmental Forum	http://chathamcounty.org/Portals/ChathamCounty/Greenest%20County/Greenest%20County%20Roadmap.pdf
Truman Linear Trail Webpage	Webpage	Managed by Savannah Bicycle Campaign	http://www.trumangreenway.org/map/
Georgia DNR, Coastal Resources Division webpage	Webpage	Georgia DNR	http://coastalgadnr.org/
Georgia DNR, State Parks and Historic Sites		Georgia DNR	http://www.gastateparks.org/grants/rtp
			http://www.railstotrails.org/
Georgia Environmental Protection Division Best Practices: Greenspace and Flood Protection Guidebook	2014	Georgia Department of Natural Resources Environmental Protection Division Watershed Protection Branch Nonpoint Source Program Floodplain Management Unit	https://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/EPDGreenspace-Flood-Guidebook.pdf
Greenways Inc.	Webpage	Greenways Incorporated	http://www.greenways.com/benefits-of-greenways



Rails-To-Trails Conservancy	Webpage	Rails-To-Trails Conservancy	http://www.railstotrails.org
Project Report for Property Values/Desirability Effects of Bike Paths Adjacent to Residential Areas	November 2006	David P. Racca and Amardeep Dhanju	http://www.railstotrails.org/resourcehandler.ashx?id=4482
SR 26/US 80 Project – Bull River & Lazaretto Creek Bridges	Webpage	Georgia Department of Transportation	http://www.dot.ga.gov/BS/Projects/SR26US80 & http://www.dot.ga.gov/BuildSmart/Projects/Pages/SR26US80.aspx#tab-3



Appendices



Appendix A - Steering and Stakeholder Committee Members

Chatham County Greenway Steering Committee		
Name	Organization	Email
Suzanne Cooler	Chatham County	svcooler@chathamcounty.org
Jefferson Kirkland	Chatham County	jtkirkland@chathamcounty.org
Jill Growe	Chatham County	jcgrowe@chathamcounty.org
Brian Hubbard	Chatham County	bhubbard@chathamcounty.org
Michael Blakely	Chatham County/CRS Users Group	mblakely@chathamcounty.org
Jane Love	MPC, MPO	lovej@thempc.org
Jackie Jackson	MPC	jacksonj@thempc.org
Courtney Reich	EPG	courtney@ecologicalplanning.net
Ed DiTommaso	EPG	ed@ecologicalplanning.net
Christina Dolan	EPG	christina@ecologicalplanning.net
Kate Zidar	EPG	kate@ecologicalplanning.net
Patty McIntosh	City of Savannah	PMcIntosh@Savannahga.Gov

Chatham County Greenway Stakeholder Committee		
Name	Organization	Email
Paula Kreisler	Healthy Savannah	paula@healthysavannah.org
Virginia Dick	Healthy Savannah	Virginia.dick@gmail.com
Joe Steffen	Savannah State University	steffenj@savannahstate.edu
Michael Toma	Armstrong Atlantic University	michael.toma@armstrong.edu
John Bennett	Savannah Bicycle Campaign	john@bicyclecampaign.org
Caroline Nguyen	Town of Thunderbolt/CRS Users Group	cnguyen@thunderboltga.org
Diane Proudfoot	City of Bloomingdale/CRS Users Group	dproudfoot@bloomingdale-ga.com
Diane Otto	City of Tybee Island/CRS Users Group	dotto@cityoftybee.org
Jackie Carver	City of Pooler/CRS Users Group	jcarver@pooler-ga.gov
Kimberly Classen	City of Pooler	kclassen-pooler-ga.gov
Ron Alexander	City of Garden City/CRS Users Group	ralexander@gardencity-ga.gov
Tom McDonald	City of Savannah/CRS Users Group	TMcDonald@Savannahga.Gov
Sheryl Davis	City of Port Wentworth	sdavis@cityofportwentworth.com



Chatham County Greenway Implementation Study

Chatham County Greenway Stakeholder Committee		
Name	Organization	Email
Tracy Walden	Savannah Metro Police	twalden@savannahga.gov
Scott Smith	Coastal Heritage Society	admin@chsgeorgia.org
Brian Lee	Coastal Heritage Society	blee@chsgeorgia.org
Terry Koller	Coastal Heritage Society	Koller.terry@gmail.com
Justin Park	Georgia Land Trust	jpark@galandtrust.org
Kat Nelson	Georgia Land Trust	knelson@galandtrust.org
Clay Mobley	Georgia Conservancy	cmobley@gaconservancy.org
Karen Jenkins	Savannah Tree Foundation	Karen@SavannahTree.com
Denise Van Huss	Savannah Tree Foundation	volunteer@savannahtree.com
Nick Deffley	City of Savannah	ndeffley@savannahga.gov
Noel Perkins	SAGIS	perkinsn@thempc.org
Lara Hall	SAGIS	halll@thempc.org
Vanessa Miller Kaigler	Board of Education	vanessa.miller-kaigler@sccpss.com
Jo Hickson	Coastal Georgia Greenway	johickson@coastalgeorgiagreenway.org
Melissa Memory	Ft. Pulaski	Melissa_memory@nps.gov
Mike Weinstein	Ft. Pulaski	(Use Melissa Memory's email address)
Robert Drewry	Chatham County Public Works	rawdrewry@Chathamcounty.org
Maze Newsome	Chatham County Public Works	MANewsom@Chathamcounty.org
Roger Raines	City of Savannah Public Works	RRaines@Savannahga.Gov
Michael Kaigler	Chatham County	MKaigler@chathamcounty.org
Dionne Hoskins	CCRPC	Hoskins@savannahstate.edu
Paul Wolff	RPC, City of Tybee Island	tybeeduo@bellsouth.net
Jill Andrews	CRD	jill_andrews@dnr.state.ga.us
Sonny Emmert	CRD	Sonny.emmert@gadnr.org
Christi Lambert	Natural Conservancy	clambert@tnc.org
Margaret Walton	Atkins Global	Margaret.Walton@atkinsglobal.com).
Lee Smith	Chatham County	leesmith@chathamcounty.org
Leon Davenport	Chatham County	ldavenport@chathamcounty.org
Steve Proper	Chatham County	smproper@chathamcounty.org
Tom Thomson	MPC	thomsont@thempc.org
Ellen Harris	MPC, Historic Resources	Harrise@thempc.org
Leah Michalak	MPC, Historic Resources	michalakl@thempc.org
Adam Ragsdale	RPDG	Adam@rpdg.us
Tim Beaty	Fort Stewart	Timothy.a.beaty2@civemail.mil
Kyle Wemett	Fort Stewart	Kyle.j.wemett.civ@mail.mil
Neil Henne	City of Savannah	nhenne20@student.scad.edu



Appendix B - Meeting Summaries

**Chatham County
Greenway Implementation Plan
Stakeholder Meeting Sign In**

December 11, 2014
11:30 AM – 1:30 PM

Name	Organization	Email
✓ Courtney Reich	EPC	courtney@ecologicalplanning.net
✓ Jackie Teel	MPC	JACKSONJ@thempc.org
✓ KIRKLAND, J	Chatham Co.	
✓ Brian Hubbard	Chatham Co.	bhubbard@chathamcounty.org
✓ Jill Grove	Chatham County	jcgrove@chathamcounty.org
✓ Gordon Penney	City of Savannah - Park & Tree	gpenney@savannahga.gov
✓ JOHN BENNETT	SAVANNAH BICYCLE CAMPAIGN	John@BicycleCampaign.org
✓ KATE ZIDAN	EPC	katezidan@gmail.com
✓ Terry Koller	Coastal Heritage Society	koller.terry@gmail.com
✓ Robert Drewry	Chatham County	rdrewry@chathamcounty.org
✓ Valen Jenkins	SAT Tree Farm	Karen@savannahtree.com
✓ Jane Love	MPC/CORE MPO	
✓ Steve Propper	Chatham Co.	smpropper@chathamcounty.org
✓ Mike Weinstein	Fort Pulaski National Mon	melissa-memory@nps.gov
✓ Christina Dolan	EPC	tcddolan2@yahoo.com
✓ Jackie Carver	City of Pooler	scarver@pooler-qa.gov
✓ Ellen Harris	MPC	harrise@thempc.org

Chatham County
Greenway Implementation Plan
Stakeholder Meeting Sign In

December 11, 2014
 11:30 AM – 1:30 PM

Name	Organization	Email
✓ Jill Andrews	DNR/CRD	jill.andrews@dnr.state.ga.us
✓ Tom McDonald	City of Savannah	tmcdonald@savannahga.gov
✓ Tom Thomson	MPC	thomson.t@thempc.org
✓ Caroline Nguyen	Thunderbolt	cnguyen@thunderboltga.org
✓ Tracy Walden	SCMPD	Twalden@savannahga.gov
Clay Mobley	GA Conservancy	
Ed DiTammuso	EPG	

Note: Clay Mobley (GA Conservancy) attended meeting as well as Ed DiTammuso (EPG)



***Chatham County Greenway Implementation Plan
Stakeholder Committee Meeting Summary***

December 11, 2014

11:30 PM – 1:30 PM

Attendees:

Twenty-four Stakeholder and Steering Committee members or their designated representatives attended the meeting. A listing of meeting attendees is included at the end of these meeting minutes.

I. Project Scope of Work Review

EPG introduced the project and discussed the function of the stakeholder Committee and benefits of the project. The Stakeholder Committee has been put together to provide information about relevant projects that might impact potential canal corridors and trails that have been selected for consideration and to assist EPG and the MPC with prioritizing/ranking potential greenways. Once the assessment of potential greenways has been completed, the Chatham County Resources Protection Commission (RPC) has established a funding process that will be reviewed as part of our planning efforts.

In addition to creating additional multi-use greenways, another benefit of this planning project is that protection of greenways will help with floodplain management because most of the corridors are located within the floodplain. The Community Rating System (CRS) awards points to communities that exceed federal regulatory requirements. This project may be used to earn CRS points for participating communities under the Natural Floodplain Functions Plan.

The Committee also discussed other considerations that need to be evaluated during the greenway planning process, including canal maintenance issues, public safety, public perceptions, and other environmental design features. The following observations were made:

- Canal maintenance is handled by the City of Savannah and Chatham County Public Works Departments. As part of this planning process, a best management practice (BMP) manual will be developed for maintenance crews to ensure canal

maintenance does not adversely impact corridors selected for development and use as greenways.

- Drainage canals need to be maintained as such, even if used for greenways. There will be annual maintenance costs and potential issues with maintenance of canals. Heavy equipment and machinery is used for canal maintenance. To ensure public safety, we may need to develop a procedure for preventing public access to the greenway during routine canal maintenance activities.
- Wildlife such as alligators and water moccasins may be present along canal greenways. Public safety signage noting the potential presence of wildlife will need to be in place.
- Some canal greenways or those located near wetlands may not be accessible during certain times of the year due to flooding, tidal fluctuations, etc.
- We also need to consider what can be done to ensure that the public feels safe to use the greenway and what can be done to prevent criminal activities from occurring along the greenways. The SCMPD representative offered to attend public meetings to address public safety concerns. She is also willing to provide an assessment of safety issues for each of the selected corridors.
- During trail segment evaluations, we need to consider adjacent land uses and assess the citizens' perception of these trails. Oftentimes, the residents located immediately adjacent to the trails and greenways are concerned that the trails will provide public access to their yards and homes.
- Multi-use trails have other design considerations to keep in mind. The plan should include a recommendation for which modes of transportation are appropriate for a particular corridor.
 - Trails used for horseback riding will have cleanup issues that need to be considered.
 - Most funding sources will specify that funds are to only be used for non-motorized trails.
- Construction of bridges to cross canals is costly and would likely require de-prioritization of that segment for greenway development if a bridge crossing were necessary.
- The next step after completion of the GIS database is to begin the land use assessment of each corridor. EPG will create a prioritization matrix that will allow the Stakeholder Committee to compare the corridors and make recommendations for which corridors should be identified for further discussion based on the

following objective criteria identified by the stakeholder committee. This process will help address citizen concerns about why certain projects were selected and others were not.

- Connectivity between places of interest and alternative transportation routes.
 - Environmental value
 - Tree canopy (may be a subset of the above)
 - Public safety
 - Floodplain/wetland preservation
 - Maintenance Issues
 - Access Easements
 - Part of an existing plan
 - Funding identified or applied for
 - Wildlife issues
 - Support of local governments/community
- The Chatham County Resource Protection Commission (RPC) has developed a ranking system that could be used to assist with greenway prioritization and development of the matrix.

II. GIS Database Review

a) Summary of Current GIS Data

Ed discussed GIS data that has been gathered thus far, which includes the following: railroad rights-of-ways; power lines; canals; existing maintenance; publicly owned-properties; sidewalks and proposed sidewalk extensions (MPO); CAT bus stops and bus routes; existing and planned bikeways/bike paths; localized trails (GIS layer from the County); land uses; existing canal maintenance roads; recreational properties (ball field, skate parks, etc.); critical facilities; schools and universities; and monuments/museums/tourist attractions, etc.

b) Identification of Proposed Greenway Corridors

EPG showed the Committee maps of the potential greenway sites using GIS data that has been collected thus far.

- The canals identified in the November 2001 Chatham County Greenway Plan as potential greenway sites were included in the initial assessment. These included the Wilmington Park Canal, Placentia Canal, Springfield Canal, Hardin Canal, Pipemakers Canal, Little Hurst Canal, and the Louisville South/Talmadge Avenue Canal Corridor. (It should be noted that at this stage the Little Hurst Canal, due to the amount of industrial land uses adjacent to the canal, will not be evaluated for greenways development as part of this planning process.)
- Additional canals, as well as trails that have been or are planned for development, have been recommended for evaluation by Steering Committee members as potential greenways. These include the Dundee Canal Walking Trail; Bee Road Walking Trail; extension of the McQueens Trail; the Savannah-Ogeechee (S&O) Canal; Truman Parkway/Casey Canal Greenway; Hardin Canal; Concord Canal; Bilbo Canal; Ft. Argyle to Little Neck/Hampstead area; Raspberry Canal near Garden City Hall/library;
- The Town of Thunderbolt submitted a grant for planning a greenway along the Placentia canal in association with development of a park on a Town-owned parcel adjacent to the canal. The Mayor and Council still support this trail design concept. The proposed trail would start at Savannah State and end at Bonaventure Cemetery and utilize publicly- owned land in between. Parts of this proposed trail is already used as a walking trail by local residents. However, future planning efforts should consider that there is a private-owned cemetery (Forest Lawn Memory Gardens) adjacent to Bonaventure Cemetery that has been the center of some debate over the protection of its natural resources and vista.

III. GIS Database Data Gap Assessment

EPG asked Committee members if there were any additional existing or planned trail developments of relevance to this project or other GIS data that could be utilized to help rank and prioritize potential greenways. The following information was discussed:

- Terry Koller gave a presentation about a master plan that has been developed by the Coastal Heritage Society for a proposed trail to connect the GA State Railroad Museum and Children's Museum to a future planned site, the First Century Campus. This campus would be located on property that is currently owed by the City that has been designed for acquisition by the Coastal Heritage Society). An engineering survey has been conducted to identify rights-of-ways.

- The Coastal Heritage Society also has plans to develop the Tybee Railroad track corridor and link Fort Jackson to the former Tybee Railroad Depot.
- Westlake Reforestation area: There is county-owned property located near I-516, near the end of Springfield Canal that is being considered for use as a passive park (Westlake Park).
- Tom Triplett Park may be expanded to allow access to the S&O Canal. This potential planned expansion does not require property acquisition.
- The Savannah Tree Foundation is working to develop a tree canopy GIS layer that may be completed by the end of the year. This data, once complete, can be used to assess tree canopy cover (i.e., available shade) for potential greenways.
- It would be helpful to determine if we can obtain FEMA-buyout property information. Tom McDonald indicated he will check to see if this information is available to the public.
- A committee member asked if it was possible to develop a GIS layer for bikeways that could help identify unsafe areas for cyclists. If greenways provided safer alternative routes, they could be prioritized. Data to be assessed might include pedestrian/bike crash information. EPG will determine if this is possible and also determine what GIS data relevant to bike safety has already been collected. There is a bicycle level of service grade in the GIS layer provided by the MPC that could be useful.
- It would be beneficial if Stakeholder committee members could receive an electronic copy of the GIS maps. EPG will create a web-link for the group to view the data.

IV. Next Meeting

The next meeting will be scheduled for February. More information will be forthcoming from EPG in January.

EPG will work on putting together a draft prioritization matrix to rank/prioritize projects. This draft matrix will be on the agenda for discussion at the next meeting. The group discussed several criteria by which corridors should be prioritized for

EPG will also incorporate the GIS information identified above into the existing GIS database. A web-link to the GIS database will be created and provided to the stakeholder group so they can view the data.

V. Meeting Attendees

Twenty-four Stakeholder and Steering Committee members or their designated representatives attended the meeting. A listing of meeting attendees is included below.

Name	Organization
John Bennett	Savannah Bicycle Campaign
Caroline Nguyen	Town of Thunderbolt/CRS Users Group
Jackie Carver	City of Pooler/CRS Users Group
Tracy Walden	Savannah Metro Police
Terry Koller	Coastal Heritage Society
Clay Mobley	Georgia Conservancy
Karen Jenkins	Savannah Tree Foundation
Jefferson Kirkland	Chatham County Engineering
Brian Hubbard	Chatham County Engineering
Jill Growe	Chatham County Engineering
Steve Proper	Chatham County
Mike Weinstein	Ft. Pulaski
Robert Drewry	Chatham County Public Works
Tom McDonald	City of Savannah
Gordon Denny	City of Savannah Park & Tree
Jill Andrews	CRD
Tom Thomson	MPC
Jane Love	MPC, MPO
Ellen Harris	MPC
Jackie Teel	MPC
Courtney Reich	EPG
Ed DiTommaso	EPG
Christina Dolan	EPG
Kate Zidar	EPG

**Chatham County
Greenway Implementation Plan
Stakeholder Meeting Sign In**

March 26, 2015
11:30 AM - 1:30 PM

Name	Organization	Email
Karen Jenkins	Sav Tree Fdn	Karen@savannatree.com
Sonny Emmert	GADNR	Sonny.emmert@gadnr.org
John BENNET	SAV BICYCLE CAMPAIGN	john@bicyclocampaign.org
ADAM RAGSDALE	RPDG, LLC	ADAM@RPDG.Us
Glenn Denny Suzanne Cooker	COS Pk F Trce	glenn@savannahga.gov
Jill Grove	Chatham Co.	jgrove@chathamcounty.org
Tim Beaty	Fort Stewart	timothy.a.beaty2.civ@mail.mil
Melissa Memory	NPS - Fort Pulaski	melissa-memory@nps.gov
Courtney Reich	EPG	courtney@ecologicalplanning.net
Clay Mobley	Georgia Conservancy	cmobley@gacconservancy.org
PAUL WOLFF	TYBCE	TYBCE500@SERUSOUTH.NET
Paula Kreissler	Healthy Savannah	paula@healthy/savannah.org
Caroline Nguyen	thunderbolt	cnguyen@thunderboltga.org
Nick Deffley	City of Savannah	ndeffley@savannahga.gov
Roger Raines	" " "	rraines@savannahga.gov
Jane Love	MPC/MPO	jlovej@thempc.org

Jo Hickson

CSG

johickson@comcast.net

Chatham County
Greenway Implementation Plan
Stakeholder Meeting Sign In

March 26, 2015
11:30 AM – 1:30 PM

[illegible]



Chatham County Greenway Implementation Plan Stakeholder Meeting Summary

March 26, 2015
11:30 PM – 1:30 PM

Attendees:

Twenty-six Stakeholder Committee members or their designated representatives attended the meeting. A sign-in sheet was provided.

I. Project Status

Courtney Reich of EPG opened the meeting with a PowerPoint presentation and provided an overview of the County's greenway project and work conducted thus far.

II. GIS Database Review

- a) Ed (EPG) has been working to accumulate comprehensive GIS information for each proposed greenway corridor; this has been discussed in previous meetings and includes the Canal layer; parks; existing and proposed bike lanes and trails; city and county-owned properties; FEMA buyout properties; and other relevant GIS information. Ed has prepared a draft GIS map that can be viewed at www.ecologicalplanning.net/greenway that includes some of the GIS data collected.
- b) Committee members discussed outstanding data that still needs to be collected. Karen has the tree shade canopy data ready to share. Nick suggested checking with Thomas & Hutton for additional GIS info. Committee members offered a few suggestions for the GIS mapping, including the following: add Tom Triplett Park, add "potential" to name of the trail layer to distinguish existing trails from potential trails; and change the layer defaults for the online GIS map that automatically display when the map is first accessed. Committee members felt the map should be edited to clarify the difference between the Truman Linear Park Trail and the proposed extension of the Truman Canal corridor.

III. Prioritization Matrix

- a) Christina (EPG) discussed the 12 Canal and trail corridors that were selected for prioritization based on the 2001 MPC's Greenway Plan. Other planned and existing trails that Committee members have discussed will also be summarized in the final Plan (see below).
- b) EPG and the Committee reviewed the ranking priorities listed on the draft Prioritization Matrix. Committee suggestions for these ranking priorities included the following:
 - Priorities should be alphabetized to avoid confusion that the order of the priorities within each tier is significant.
 - Major Crossings should include wetlands.
 - Inaccessibility and other challenges posed by wetlands should be addressed & ranked.
 - When trying to map major employers that could be potential funding sources because of benefits to employees that may utilize the trail, Jane suggested checking with the Savannah Housing Authorities. Gulfstream is one employer to consider.
 - Jo said we might also consider Cultural Landscapes that haven't yet been identified but that do exist-for example, the presence of old dikes, rice fields, etc.
 - Existing access to restrooms and parking areas at trail heads & existing recreational infrastructure should be prioritized.
 - The land use priority could focus on whether the greenway is compatible or incompatible with existing land use.

IV. Other Recent Activities

- a) EPG and Chatham County Engineering and Public Works staff met on March 11, 2015 to discuss the feasibility of using existing canal maintenance roads as trails. Some factors that would need to be evaluated/addressed include: how to dispose of canal mud and debris generated from maintenance activities that would not impact the trail; impacts to trail surfacing from heavy machinery used to maintain the canals; and safety issues (i.e., need to provide a "spotter" during maintenance activities and/or how to close trails during maintenance). If canal ROW is sufficiently wide, a trail could be developed parallel to the maintenance road. Public Works suggested having a pilot trail in a residential neighborhood that is already informally using the maintenance road as a trail.

Committee members feel that maintenance needs/funding should be evaluated carefully as part of this Greenway Plan. Patty suggested that funding should be identified for both trail construction and ongoing maintenance needs. EPG mentioned this had been discussed at the meeting with Public Works in March, and that a trail, once developed, could be maintained by the Parks and Recreation Department. Maintenance could also be provided by the municipality within which the trail is located. Committee members suggested that a “model agreement” could be provided at the start of a project that specifies how trail maintenance will be handled and delineates responsibilities of drainage canal maintenance and recreational trail maintenance.

- b) Kate (EPG) has prepared summaries of local Trail Planning Projects that will be discussed in the final Greenway Plan. Committee members have provided information about the status of these trails in previous meetings that will be included in the trail summaries section of the Plan. Neighborhood trails that will be summarized include the Woodville Neighborhood Plan/Dundee Canal; Bee Road, Coastal Georgia Greenway; the Canal District Master Plan (Springfield); Coastal Heritage Master Plan; the Savannah Ogeechee Canal Corridor, and the MPO’s Non-Motorized Transportation Plan. Paul discussed Tybee’s planned marsh trail that will extend to the existing McQueen’s trail from Tybee. Thomas & Hutton has prepared maps delineating this trail and funding has been allocated. EPG is to request this information from Tybee to include in the plan. GDOT’s plans impact the bridge that will connect this marsh trail to the existing McQueen’s Trail.

V. Other Committee Suggestions

The following information and suggestions were provided by Committee members during the meeting:

- Jackie proposed that Kyle Wemett with Hunter Army Airfield be invited to the next Stakeholder Committee.
- Jo discussed the resolution (SR 26) that the Senate has already passed and that will be voted on by the House for a feasibility study of the Coastal Georgia Greenway at the State level. She asked Committee members that were in agreement to contact their local representative and express support of this resolution. (Note: SR 26 passed both the House and Senate.)
- Jo mentioned that when addressing public concerns about trail safety issues, it should be mentioned that trails can actually increase property values. She also mentioned that conservation easements should be considered for

important ecological/environmental features that exist along the trail such as mature hardwood groves.

- Tom Thompson suggested that a pilot trail be considered away from residential areas to alleviate citizen complaints and address the perception that trails may present safety concerns for neighboring residences.

VI. Next Steps

- a) EPG will continue gathering GIS data to finalize the corridor maps and working on the Greenway Plan. EPG should email Committee members to let them know when the GIS map has been updated online.
- b) EPG will complete the prioritization matrix and present it to the Stakeholder Committee for comments and suggestions. The next Stakeholder meeting will likely be held in May or June 2015.
- c) Corridors that are prioritized as viable greenway candidates will be turned over to the RPC for further analysis using the ranking methodology developed by the RPC.
- d) EPG and the County will hold several public meetings once the prioritization process has been completed.

**Chatham County
Greenway Implementation Plan
Stakeholder Meeting Sign In**

August 31, 2014
11:30 AM - 1:30 PM

Name	Organization	Phone No.	Email
Denise Van Huss	Savannah Tree Foundation	912-233-8733	volunteer@SavannahTree.com
Sonny Emmert	GADNR	912-264-7218	Sonny-emmert@dnr.ga.gov
Steve Proper	Chatham Co. Park Service	912-652-6785	smproper@chathamcounty.org
JOHN BENNETT	SAV BIKE CAMPAIGN	912-655-1637	john@bicyclecamp.org
William	Chatham County Public Works	912-652-6809	WE.Wright@chathamcounty.org
Paula Kreigh	Healthy SAV	912-272-9494	paul@healthy.savannah.org
JTK TRILAND	Chatham Co.		
Gordon Dineen	COS Park + Tree	912-651-6600	gdineen@savannahga.gov
Caroline Nguyen	Thunderbolt	912-629-4165	carol@thunderboltga.org
Jackie Jackson	MPC	651-1454	JacksonJ@thempc.org
Marc Ginsberg	Public Works	652-6867	mgins@cityofsa.com
Nick Deffley	City of Savannah	651-6909	ndeffley@savannahga.gov
Clay Mobley	Georgia Conservancy	447-5910	cmobley@gaconservancy.org
Michael Blaney	Chatham Co. Eng.	7814	mblaney@chathamcounty.org
Suzanne Coolen	Chatham Co. Eng.	652-7825	
Ellen Harris	MPC	651-1482	harris@thempc.org
JOE STEFFEN	SSU	609-4147	Steffj@adl.com
Patty McIntorn	City of Savannah	651-6520	
Lara Hall	SAGIS/MPC	651-1451	hall1@thempc.org
TOM McDONALD	CITY OF SAVANNAH	651-6530	tmedonald@savannahga.gov

Stakeholder Meeting Sign In

11:30 AM – 1:30 PM

[illegible]



Chatham County Greenway Implementation Plan Stakeholder Meeting Summary

MPC Mendonsa Meeting Room

August 31, 2015

11:30 AM – 2:00 PM

Attendees:

Twenty-four Stakeholder Committee members or their designated representatives attended the meeting. A listing of meeting attendees is included at the end of these meeting minutes.

I. General Review of Meeting Materials

EPG provided the following read ahead materials to the committee: 1) Greenway Corridor Maps, 2) Trail Assessment Write-Ups 3) Prioritization Matrix and Summary. The Stakeholder Committee was asked to provide comments on these documents and the following comment was received:

- Bike lane map layer is misleading as-is because so much of it is “proposed.” It was recommended that the attribute representing the current status of bike lanes is recommended.

II. Greenway Corridor Prioritization Exercise

The Stakeholder Committee discussed the trail assessments and map for each of the Greenway Corridors and identified pros, cons, and important issues. These were all written down on a flip chart and hung around the room. At the end of this session, each member of the Stakeholder Committee was given 3 sticky dots to identify their top 3 priority Greenway corridors for further implementation. Below is a summary of the comments made for each of the canals, and the total number of “votes” each corridor received.

WILMINGTON CANAL GREENWAY COORIDOR

Total number of votes: 12 dots

Pros: Neighborhood support, connection to existing public facilities

Cons: Limited alternative transportation need

Comments:

- Currently used as a trail

- One Corridors with best potential for success, good test for maintenance compatibility with public work uses
- Parking available and could be improved
- Numerous access points at local road crossings
- Existing county and city properties for future development
- Gravel maintenance road is high and dry – sewer easement
- Some repetitive flood loss properties (good for CRS points)

PLACENTIA CANAL GREENWAY COORIDOR

Total number of votes: 16 dots

Pros: Connects numerous land uses and institutions throughout, broad support (Thunderbolt, Chatham, Savannah, BOE, SSU), existing trail is in use

Con: Safety issues (crossings and nefarious use)

Comments:

- Crosses multiple jurisdictions
- Provides safe alt transport along corridor to Bonaventure
- Crossing at Victory Dr would need reworking
- Employment centers along route – potential partners
- Proximity to Truman Trail via Lessups Ave bike lanes and sidewalks (tiny gap would remain)
- Political opposition could arise for “another” trail in area
- Huge benefit from number of users who could access corridor without driving

PIPEMAKERS CANAL WEST GREENWAY COORIDOR

Total number of votes: 2 dots

Pros: connects residential nabes, institutions [YMCA and Pooler rec property, Bloomingdale City Hall] and a large swath of undeveloped land

Cons: 4 miles long; big commitment to make the most valuable connections

Comments:

- Beautiful stretch of trail
- Other canals feed into this corridor that could become extensions
- Paved shoulders on US 80 is a state bike route
- Connects to MPC via multiple connections to NMT plan
- Significant parking
- Maintenance road pretty high and dry, but some boggy areas
- If undeveloped areas stay, it would be a great nature trail long term – might need a scenic or conservation easement to plan ahead for future development
- A west side Chatham destination
- Lots of trees and shade canopy
- May be some existing use – 4 wheelers
- Large parcels – fewer property owners, and doesn’t run through backyards

SPRINGFIELD CANAL GREENWAY CORRIDOR

Total number of votes: 4 dots

Pros: Corridor is part of Canal District, connects many points of interest, unique trail for downtown connections and tourism

Cons: Numerous road and RR crossings

Comments:

- Political support tied to arena project
- Ties into S&O canal and East Coast Greenway (regional and national draw)
- Dumping is prevalent; perhaps having more people on it would decrease
- Users would not have to drive there as many users could walk to it
- Parking is available
- Safe alternate route for people who need it
- SCAD has could be partner
- Floodplain preservation potential/ repetitive loss properties(CRS points)
- Lock 2 and historic aqueduct at intersection with S&O canal
- GDOT Victory Drive Corridor Study (Ogeechee Rd project) relevant here
- Funding is likely available through Savannah Arena project

S&O CANAL GREENWAY CORRIDOR

Total number of votes: 3 dots

Pro: Part of Coastal GA Greenway and East Coast Greenway

Con: Significant lengths need to be developed as trail

Comments:

- A lot of connections – Amtrak, Tom Tripplett, Springfield, visitor center, SCAD properties, museum site,
- Between Interstates 16 and 95 “landlocked”
- Has a master plan that has been approved by the County
- Bush road was created within the canal ROW, very little additional room for greenway, land would need to be acquired
- Existing bridge on Half Moon Lake
- Opportunity for partnership with regional employers
- Mountain bike trails at Triplet are an additional connection
- East of Dean Forest Rd. has a lot of serious obstacles and crossing issues such as railroad crossings and major highways
- Limited County support due to crossings issue
- Legislative committee is an asset
- Perhaps better to not present as a continuous greenway corridor – could select segment with best potential

CASEY CANAL GREENWAY CORRIDOR

Total number of votes: 5 dots

Pro: Truman linear trail has funding allocated through SPLOST, has Chatham County and Savannah support

Cons: Canal ROW is narrow and steep in places, location of pump stations

Comments:

- Equestrian use a possibility: Daffin to Lake Mayer and south to Gun Club
- Connection to other existing bike trails in Bacon Park
- Memorial Hospital a potential partner
- Probably would be well-used by families due to accessed neighborhoods (18) and schools (16)
- Connects to old street car trail
- Residents of Magnolia Park have opposed trail projects
- Economic/commercial connectivity to neighborhoods and hospitals

DUNDEE CANAL GREENWAY CORRIDOR (0 dots)

Total number of votes: 0 dots

Pros: Existing project funded and underway, serves as pilot project for multiple elements (ie. Model agreement between city and county, educational signage, greenway corridor design and maintenance)

Con: Limited regional appeal

Comments:

- Ecological value of wetlands and woodlands
- Short segment – easier implementation
- Priority project approved by city council
- BOE support & Scott Learning Center support
- Other institutional connections – Woodville Community Center, Charlie Brian Park, Library
- Has parking
- EA and wetlands delineation is complete
- Provides safe alternate route – limited road Level Of Service (LOS)
- Already in use as foot path
- Floodplain protection opportunities
- Industrial sponsorship opportunities
- Road crossings are tough
- Illegal dumping is an issue
- Educational displays are in development
- Decent trail maintenance

RASPBERRY CANAL GREENWAY COORIDOR

Total number of votes: 0 dots

Pro: Connection to Garden City Town Center

Con: Part of canal ROW is low and wet, restricting access

Comments:

- Connection to Salt Creek boat ramp
- Salt marsh view/wildlife viewing
- Connection to Southbridge over 307
- Actively used for cow pasture – water quality issues
- Very scenic route with springs
- Ties into S&O Canal, but crossing 16 is a problem
- Limited number of property owners (could be pro or con)
- Access to historic cultural landscape – rice impoundments
- Silk Hope property owners may not want/allow access

WINDSOR CANAL GREENWAY CORRIDOR

Total number of votes: 6 dots

Pros: Connections to schools and existing park, existing use of parts of trail, connection to water access

Con: Location of part of corridor in road median

Comments:

- Lots of users that won't have to drive
- Existing path at AASU on Roger Warlick and Joseph Tribble Park – ADA accessible
- Community support
- Walking school bus pilot project is in this area – provide safe alternative route to school
- Parking at Bells Landing and park
- Parking at AASU fields
- Partnership potential with AASU, St. Joseph health initiatives

OLD SAVANNAH/TYBEE RAILROAD GREENWAY COORIDOR (McQueens Trail)

Total number of votes: 17 dots

Pros: Connection of Tybee Island to mainland – unique in GA and potentially east coast, significant ecological and scenic values

Cons: DOT bridge/road project timelines

Comments:

- Impacts of sea level rise – trail protects road
- Connections to Ft. Pulaski – Bridge project is funded

- US 80 bridge study moving forward – community support needed
- Funding for national/local cooperation – federal lands access program
- Marsh Hen trail is funded
- Both regional and national draw
- HUGE community support
- If it is not maintained properly, will be lost, and this is expensive
- Reduce parking and car congestion
- Big economic benefit potential in tourism
- Victory Ave Study connects downtown to Tybee
- Potential links to farmers market, Oatland Island

III. Results of Prioritization Exercise

The following tables shows the vote tally for the greenway corridors, with the top three vote-getters highlighted.

Greenway Corridor	Votes
WILMINGTON CANAL GREENWAY COORIDOR	12
PLACENTIA CANAL GREENWAY COORIDOR	16
PIPEMAKERS CANAL WEST GREENWAY COORIDOR	2
SPRINGFIELD CANAL GREENWAY COORDIOR	4
S&O CANAL GREENWAY CORRIDOR	3
CASEY CANAL GREENWAY CORRIDOR	5
DUNDEE CANAL GREENWAY CORRIDOR (0 dots)	0
RASPBERRY CANAL GREENWAY COORIDOR	0
WINDSOR CANAL GREENWAY CORRIDOR	6
OLD SAVANNAH/TYBEE RAILROAD GREENWAY COORIDOR (McQueens Trail)	17



Chatham County Greenway Implementation Plan Public Works Meeting Summary

March 11, 2015
1:30 PM – 3:00 PM

Attendees:

Robert Drewry
Keith Page
William Right
Jefferson Kirkland, Chatham County Engineering
Brian Hubbard, Chatham County Engineering
Ed DiTommaso, EPG
Kate Zidar, EPG
Christina Dolan, EPG

1) Overview of Canal Maintenance Program

- a) Canals are cleaned in 1 of 2 ways. Short reach track excavator includes walking and dredging in areas where there are blockages; does not encompass full dredging. Reach of 25-30 feet. Also use a 55-foot long reach excavator. Single axle dump trucks (not tandems) are used and also use “baby” dumps, which may haul anywhere from 35-55,000 lbs. of sludge. Excavators are hauled on low boards.
- b) At least 1/year, approximately 135 miles of canals (with approximately 80 miles located within municipalities) are cleaned.
- c) County used a third party contractor for mowing- 3x/year with a rotary bush hog. Typically April/August/October. Vegetated back slopes are mowed 1/year in residential areas. Vegetation below 4 feet is usually left alone.

d) Herbicide (Rodeo) applied to water line (not slopes) in areas that require it. Goal is annual application but this is not always reached (ie, application may be less).

e) Something about 700,000-800,000

f) Some canal maintenance roads are gated with locks, and may be shared with Georgia Power.

g) Public Works has SOPs and Maintenance Agreements with the municipalities that spell out maintenance contracts. Changes to the SOPs for canal maintenance would have to be approved by the State.

h) County has a contracted beaver trapper to remove beavers; beaver dams cause flow issues for canals.

i) Ken Kelly runs the canal maintenance program for the City of Savannah. The county supplements whatever the City does not do, so generally the County conducts canal cleaning and herbicide application for the City, and the City handles its own canal mowing.

j) Because of unique topography, tidal conditions, etc. the County has had to refine their maintenance program through trial and error. In late 1990s, EMD conducted a study to address canal maintenance.

k) Canal maintenance is paid for by the tax general fund; municipalities are not billed separately for canal maintenance. Jefferson commented that a Stormwater Utility might be able to help fund canal maintenance.

l) Keep in mind there are many more ditches (that are essentially canals) than those that are currently named, but they not have maintenance roads. Some of these could also be considered for trail development.

m) Definition of “canal” has been developed by the County.

n) Canal ROW is a tricky issue and would require parcel/plat research, review of existing easements and maintenance agreements, etc.

2) Complications of using Maintenance Road as Trail

- a) Paving would not work b/c of the heavy canal maintenance equipment-heavy stone would be better but will still become impacted by weight and sink into mud/soil. Also have to consider that canal dredgings need to be drained along the trail until they can be hauled away, and dredgings in rural areas may be left to dry in place. The results are pretty messy and they think it would conflict with public access.
- b) Excavators need at least a 20' pivoting clearance.
- c) If trails were to be developed in municipalities, development and maintenance of these trails could not be allowed to impact the County's maintenance program (i.e., in terms of time, expense, etc.). Robert felt that it would make sense that if a trail(s) was developed adjacent to a canal located within a municipality that the municipality take over maintenance of the canal/trail. It was also discussed that these maintenance of the trails/maintenance roads, once used as trails, may need to be treated as park maintenance and responsibility would then transfer from Public Works to the Parks & Recreation Department (they have their own maintenance equipment; stormwater issues within parks are handled by Parks and Rec and/or Public Works). Suggestion was to try and find some case studies that discuss how long term trail maintenance is handled in other areas. Wildlife issues (beavers, alligators, snakes, chiggers) would need to be considered. These issues are more of an issue in the rural areas, and therefore they suggested prioritizing in-town canals.
- d) Hunters may try to use the trails for hunting and dead carcasses are often dumped along canal maintenance roads.
- e) Some of the maintenance roads are gated/shared with Georgia Power, which restricts public access. A concern was expressed about opening access to gated areas and having unwanted vehicle traffic.
- f) Is there a trail surface that could be used for the trail as well as maintenance equipment that wouldn't be ruined during canal maintenance activities?
- g) Consider safety issues posed by using large, heavy equipment that requires pivoting clearance and where visibility of the operators is limited. Would need to determine ways to restrict canal access during maintenance activities, post appropriate signage warning the general public of risks, etc.

- h) When researching funding options, consider not only development funding but also fund that need to be secured for long term maintenance. If the greenways require more park-like maintenance, need to fund those depts. Accordingly. Consider putting in separate trail adjacent to the maintenance road.

3) Miscellaneous

- a) Canal maintenance roads currently used as informal trails by general public include those adjacent to Wilmington Park, Placentia, Concord, and Georgetown Canal. Suggestion to develop pilot segments along these canals.
- b) John Walz drew all of the maintenance canal roads by hand and left this with Public Works. Ed suggested that EPG could help digitize some of this information.
- c) EPG could supply Public Works with the Prioritization Matrix and they could review the ranking assigned for the canals (regarding the categories that are impacted by canal maintenance activities).



Chatham County Greenway Implementation Plan Public Works Meeting Summary

August 27, 2015
1:30 PM – 3:00 PM

Attendees:

Maze Newsome, Chatham County Public Works
Keith Page, Chatham County Public Works
Marc Ginsberg, Chatham County Public Works
Jackie Jackson, MPC
Kate Zidar, EPG
Christina Dolan, EPG

EPG presented maps to Chatham County Public Works that had been generated using the County's tax parcel data. The maps, in draft form, illustrated canal right-of-ways (ROWS) owned by Chatham County. EPG requested that Public Works review the maps and provide feedback and comments.

Public Works personnel felt that use of maintenance roads for recreational would be difficult due to the use of heavy machinery and resulting safety concerns. A short discussion followed where it was suggested that any recreational trails be located to the side of the maintenance road, not on the maintenance road itself. If the trail were to be located on the opposite side of the maintenance road, Public Works pointed out that backslope mowing could still present safety issues and that ideally, the trail would be located at least 6 feet away from the top of the slope.

Public works noted that ROWs differ for each canal and are approximations. For example, a 60 foot ROW general means 30 feet to either side from the bottom center of the canal, but that the actual width may vary in different areas along the canals.

If a railroad is present, the canal banks will be mowed to it and they will go under or over it if possible but the railroad company is responsible for maintaining any areas that are directly adjacent to the rail line.

Public Works also pointed out that any trail structures (such as picnic benches, etc.) would be ruined if in close proximity to the maintenance road by their equipment.

Bill Myers is the contractor that Chatham County uses to mow the canals.



Chatham County Greenway Implementation Plan

Savannah – Tybee RR Greenway Corridor Meeting Summary

Chatham County Engineering Meeting Room

September 15, 2015
9:00 a.m. – 11:00 a.m.

Meeting Attendees

Melissa Memory, Fort Pulaski
Suzanne Cooler, Chatham County Engineering
Jane Love, MPC/MPO
Courtney Reich, EPG
Christina Dolan, EPG

A meeting was held between Steering Committee members and Melissa Memory, Superintendent of Fort Pulaski National Monument, to discuss a potential partnership between Chatham County and the Fort to secure funding for the extension of the existing McQueens trail and/or other trail extensions connecting to Tybee Island. The current status, and future plans, of the proposed Highway 80 Bridges/roadway expansion project was also discussed.

SR 26/US 80 Project – Bull River & Lazaretto Creek Bridges

GDOT is working on plans to expand/improve Highway 80 leading to Tybee Island between Bull River and Lazaretto Creek. The proposed project would replace the bridges at Lazaretto Creek and Bull River with two-lane bridges which would include bike and pedestrian improvements. Additionally, it would widen the roadway from Johnny Mercer Boulevard to Old US 80 on Tybee Island for multimodal improvements and enhanced (paved) shoulders. Additional through lanes would not be included.

The Coastal Region Metropolitan Planning Organization (CORE MPO) conducted a planning study to examine the needs and possible alternatives for this corridor and GDOT is using the results/recommendations from this study as a baseline for their ongoing planning efforts. The MPO study, titled US 80 Bridges Replacement Study, is available at http://www.thempc.org/documents/Transportation/US%2080%20Bridges%20Study/US%2080%20Final%20Report/US%2080%20Final%20Report_NoAppendices.pdf. A copy of this study including all appendices is also available. This study recommended Alternative 3 as the best option for moving forward, which included replacing the existing bridges (w/2 lane bridges with an 10-foot barrier separated path and 10' bikable shoulders); roadway improvements (widening existing road to accommodate a 10-foot paved bikable shoulder-which could act as an evacuation lane in event of an emergency); road restriping to allow for left and right turn lanes; and construction of an 18-space parking area at the entrance to McQueen's Island Trail. (An earlier proposal for a 4-lane road expansion w/bikable shoulders was not approved. This was supported by Fort Pulaski's master plan. In 2005, polls indicated approximately 50% supported the 4-lane road expansion. However, the biggest complications were 1) cost and 2) environmental impacts.

GDOT is using the study's preferred alternative as the starting point for project development. This is a multi-phase project through GDOT. Current phases include an Implementation Project and a Scoping and Preliminary Engineering

study through GDOT. Currently, GDOT is sponsoring an Implementation Project titled “US 80 Bridges and Road Improvements” (PI 0010560)- - and a Scoping and Preliminary Engineering (expected to start by July of 2017) are currently funded in the MPO’s Transportation Improvement Program. The scoping phase will include environmental approval of a preferred alternative. Future projects will also include ROW assessments and Construction through GDOT but a schedule for these future projects has not yet been decided.

No decisions have yet been made about future plans for McQueen’s trail. Committee members felt it was important that GDOT recognize the value of this trail-not only for its outdoor recreational and educational opportunities but also for several other reasons. Jane mentioned that it has potential for use a bicycle transportation corridor and partial congestion reliever if it would be safely connected at both ends. Courtney also stated that the presence of the existing trail also likely helps prevent erosion of the road-that it, in effect, serves as a buffer for the road.

The discussion at this meeting included the following (though due to uncertainty regarding GDOT’s proposed and future plans, this information is at this point not verified and should be evaluated further before accepting as fact or referencing in our Greenway Plan):

- We think that GDOT is still working on the design concept and that their proposals are not known for certain yet.
- GDOT will likely propose standard 2 lane bridge with paved shoulders; the MPO has requested a barrier separated pathway. Our committee members felt this was a good suggestion because of traffic safety concerns, beach traffic, etc.
- GDOT has proposed raising the road slightly but not higher than the highest land on Tybee. Committee members discussed that this may not be enough to alleviate flooding issues as high tides frequently cover portions of Highway 80 and restrict access on/off Tybee Island. Estimates indicate Tybee’s road is covered to varying degrees by high tides at least 20+ time per year and that as sea levels continue to rise, this number will escalate as sea level rise continues. Committee members felt that road elevation should be considered and investigated by GDOT.
- GDOT currently believes the environmental approval process can be sought via EA and not an EIS. Committee members felt that if there is conflict/disagreement about proposed plans, however, that an EIS could be required and require “re-starting” the planning process.
- GDOT plans to sponsor a Public Informational Open House potentially in the Fall of 2015. We need to determine the date of this Open House, notify Savannah Bicycle Campaign, and request a copy of DOT’s current proposal/conceptual design.
- Showing community support via inter-agency support between local, state and federal entities, as well as support from general public, is important and can aid in persuading GDOT to plan for more family-friendly trail/bikeway designs.
- Committee members discussed additional measures “above and beyond” those currently proposed by GDOT (and/or measures that are already proposed by GDOT) that we feel warrant further investigation/consideration. These include:

-stabilization of existing McQueens trail (which helps mitigate flooding impacts to Highway 80 though does not mitigate wetland impacts; also, if trail use lapses and reverts to natural functions, then there may be a risk that it could not be restored and utilized in the future.

-additional improvements to parking lot to make it secure and large enough to support parking needs

-eastward extension of McQueens to the Lazaretto Creek Bridge

-educational signage

-DOT is currently proposing to provide the trail connection from Bull River ridge to the parking area

- Fort Pulaski supports connecting McQueen’s trail across Fort property to Lazaretto Creek bridge to connect to Tybee Island. The Fort is renovating the bridge connection from Hwy 80 to Cockspur Island and connections to the McQueens trail from the entrance to Fort Pulaski will be a part of that project.
- Committee members expressed concern over how publicity regarding the proposed bridge/road expansion/modifications might be perceived. Mayor Buelterman has already contacted Senator Buddy Carter

regarding elevating HWY80 as part of this project. In addition, controversy regarding the design could require an EIS instead of an EA; this is already a complicated EA as it is. Support staff to Senator Carter have already contacted and toured Fort Pulaski.

- The GDOT project team has “Concept Meetings” to discuss progress made and future plans re: this project. CORE MPO, local stakeholders such as Fort Pulaski and other parties are invited to attend these meetings. Jane Love will request that EPG (Courtney Reich & Christina Dolan) and Chatham County Engineering (Suzanne Cooler) be added to GDOT’s stakeholder list.

Funding Partnership

The group discussed funding opportunities that could allow Ft. Pulaski, the County, the MPC and the Greenway Stakeholder Committee to partner and work to implement recommendations related to McQueens Trail and the connection of this rail corridor to Tybee Island and the mainland.

- **Rails, Trails, and Conservation Assistance (RTCA)**

<http://www.nps.gov/orgs/rtca/index.htm>

The group understands that this grant allows for the NPS to provide staff assistance to make your idea a reality, but no actual dollar award. The following is from the FAQ page on the RTCA site:

“Rivers, Trails and Conservation Assistance program does not award monetary grants or loans. Instead, one of our staff with extensive experience in community-based outdoor recreation and conservation will work with you and your partners to get your project on the ground. If funding is necessary to achieve project goals, we can often assist partners in identifying and securing sources of financial assistance.”

Although not actual money, this grant opportunity could provide valuable assistance for re: McQueen’s Island Trail. The group decided that this grant opportunity was worth pursuing.

- **Federal Land Access Program**

<http://flh.fhwa.dot.gov/programs/flap/>

In the most recent call for projects (no longer open), Georgia had \$2.3 million available for awards under FLAP. The Eastern Federal Lands Highway Division conducts the call.

Measures Going Forward

At end of meeting it was agreed that the following should happen going forward:

- Melissa would contact the NPS to set up a conference call with the SE grant coordinator to discuss the federal RTCA in more details.
 - We need to determine application deadline.
 - Committee agreed that everybody needs to better understand what the grant is and investigate additional funding partnerships before GDOT makes any decisions
- It is important to show agreement and collaboration between NPS, MPC, MPO, and Chatham County, etc. and ensure that the DOT understands the wishes of our stakeholders.
 - Chatham County and EPG to attend GDOT meetings in addition to Fort Pulaski
 - When discussing future planning with GDOT, we need to ask them to consider what the impact would be to Highway 80 IF McQueens trail was not present/if shoreline isn’t properly stabilized.
 - In addition, as part of a “broader plan” it was suggested that many different agencies should write their own letters of support to the GDOT encouraging them to consider more family-friendly improvements as discussed in this meeting, including both NPS and Chatham County
 - Reach out to politicians at some point to garner support for “additional” measures above those currently proposed by GDOT.



Appendix C - CORE MPO Placentia Canal Trail-Corridor Assessment

Placentia Canal Trail – Corridor Assessment

Prepared May 6, 2011, during development of the Non-motorized Transportation Plan

Description

The Placentia Canal Trail would follow the canal from Bonaventure Road to Laroche Avenue (Figure 1). It would provide a north-south, non-motorized, transportation route for residents of eastern Savannah and Thunderbolt, connecting to two parks (Sunset Park and Bonaventure Cemetery) and two schools (Savannah State University and Johnson High School). In conjunction with another proposed bikeway in the Jasmine Avenue, Howard Foss Drive, and Central Avenue corridors, the trail would help link Victory Drive to Montgomery Cross Road.



The trail would be approximately 2.47 miles long and would be variously within or bordering Town of Thunderbolt, the City of Savannah, and unincorporated Chatham County. Some segments of the canal right-of-way are controlled by Chatham County while other segments are controlled by City of Savannah.

Options for Surface Materials

1. Leaving the trail as is and simply marking the boundaries of the trail. This is the most cost effective option and would allow for hiking and biking with a mountain bike. The trail would simply need to be mowed on a regular basis.
2. Creating a Compacted Limestone Dust ('stone dust') trail: This surface meets ADA accessibility guidelines and is suitable for use by persons in wheelchairs and other mobility-impaired users. In addition it is somewhat resistant to rutting, erosion, weed growth and puddling (although these problems do occur according to John Demura, of the New York Canal Corporation). Trail builders in New York found that the more highly used a section is, the fewer problems it had with weed growth. John Demura also felt that maintenance vehicles would be able to access the limestone dust trail without completely ruining the surface. He suggested that the maintenance crew rake the surface (using a rake pulled behind a tractor) and then set it with a roller after each use.

The lifespan for a limestone dust trail is variable. Again, John Demura found that the portions of the trail experiencing more use were ones that endured. Some were approaching 20 years in age. John Demura also stated that the limestone dust option was much cheaper than alternatives.

Creating a limestone dust trail requires putting down six inches of subbase (crushed stone) and limestone screening prior to spreading the limestone dust. The Trail Design section of the Cayuga-Seneca Canal Trail Master Plan shows a diagram of this. The Pleasant Valley Park website states that a group of 11 volunteers was able to place the fabric, stone, and limestone dust on over 100 feet of trail in one evening. In addition, John Demura felt that the limestone dust, even after being compacted, was still somewhat permeable.

The Irondequoit Creek Valley Multi-Use Trail Feasibility Assessment and Design Recommendations report provides the following assessment of stone dust trails:

“Stone dust surfaces are less desirable for bicycle routes, but provide a permeable surface that is locally available, relatively low cost, and environmentally friendly. When properly constructed, stone dust trails are useable by bicyclists and are ADA compliant. Stone dust trails are not sustainable on steep slopes, or where exposed to high velocity water erosion...The Town of Penfield has found that the stone dust on the existing multi-use trail along Irondequoit Creek to be sustainable and require little maintenance.”

Challenges and Potential Solutions

1. **Safety – Falling Hazard:** Within the County, many of the canal banks have a steep grade and the canals themselves are deep enough to present a drowning hazard. Because of this, there is a concern that if walkers and bicyclists were to fall into the canal, they may not be able to climb out. A site assessment of the Placentia Canal is needed to determine the steepness of its banks.

Potential Solutions

a. 5 Foot Buffer between Trail and Canal and Railings where Necessary. The American Association of State Highway and Transportation Officials suggests maintaining a 5 foot buffer between the trail and the canal for safety. Excerpt from AASHTO:

“Where the path is adjacent to canals, ditches or slopes down steeper than 1:3, a wider separation should be considered. A minimum 1.5 m (5-foot) separation from the edge of the path pavement to the top of the slope is desirable. Depending on the height of embankment and condition at the bottom, a physical barrier, such as dense shrubbery, railing or chain link fence, may need to be provided (p.36).”

In addition, the Cayuga-Seneca Canal Trail Master Plan provides the following guidance:

“A general landscape guideline from the NYS Building Code is that if there is a sheer drop of 18” or greater then a railing should be provided. In New York State, all railings along bike paths should be 54” high. While there are no specific warrants for providing safety railings where steep slopes are adjacent to a trail, the NYS Highway Design Manual does indicate that a 54” high safety rail be provided when a significant slope is closer than 5’ from the trail edge.”

b. Shrub Buffer between Canal and Trail. This would prevent walkers and bicyclists from falling into the canal and would help with the aesthetics of the canal. However, this may prevent maintenance equipment from reaching the canal. Perhaps there could be gaps worked into the shrub buffer to allow maintenance equipment to access the canal.

c. Sectional Fence. Sections of Fence could be placed between the trail and the canal to prevent walkers and bicyclists from falling into the canal. The gaps between the sections of fence would allow maintenance equipment to access the canal.

d. Locate Multi-Use Trail adjacent to the Maintenance Road. Instead of turning the maintenance road into a multi-use trail, a separate hiking and biking trail could be built alongside the maintenance road, and further away from the canal bank. This would depend on how wide the County or City right-of-way is, and it may not be as aesthetically pleasing as one single trail.

2. **Preventing Fishing:** The Placentia Canal is listed on the 305(b)/303(d) List of Waters put together by the Georgia Department of Natural Resources, Environmental Protection Division. According to the 2010 Integrated List, the reach of the Placentia Canal listed is “Headwaters to Wilmington River” and the section falls within Category 3, meaning there is insufficient data or other information to make a determination that all uses are being supported. The notes provided are: “The water is being placed in Category 3 because more macroinvertebrate data need to be collected in this area of the State to develop metrics for assessment purposes.” The Use listed for this stretch of the Placentia Canal is “Fishing.” Although, the Integrated List states that there is not enough information to accurately assess the condition of the Placentia Canal, that fact that it is included on the list means that there already is a level of concern for its water quality and therefore the general public should not be fishing in the Placentia Canal.

Potential Solutions

a. Informational/Educational Signs. Signs could be posted at every entrance to the Placentia Canal Trail that clearly state “No Fishing in the Canal” and then explain the degraded water quality and the dangers to human health that would come from eating fish out of this water body. Signs could also be placed sporadically along the trail to remind people that fishing is not allowed. There could also be fines imposed on those caught fishing in the Canal.

3. **Concerns about Crossings**

a. Victory Drive Crossing: This would be a very busy crossing, bring trail users in conflict with vehicles on Victory Drive (approximately 29,000 average annual daily traffic at a nearby count station, according to Georgia Department of Transportation’s State Traffic and Report Statistics [STARS]). The existing median could provide a refuge area for crossing trail users. The most direct path across the road would require a mid-block crossing, which is not advisable in this context, given the intersections very nearby. A crosswalk could be installed on Victory Drive at Downing Drive, which is very close to the canal. A short segment of path would need to be constructed (within Town of Thunderbolt) along the south side of Victory Drive, crossing over the canal to connect the crosswalk to the canal trail. There is no traffic signal at the Downing Drive intersection, and therefore a crossing aid, such as a HAWK beacon, may be necessary. Another option would be to build a multi-use path along Victory Drive to and from the intersection at Whatley Avenue, where there is an existing crosswalk and traffic signal. However, this option introduces an undesirable detour for walkers and bicyclists, who are likely to attempt a direct, unassisted mid-block crossing instead. On the trail itself, signs should be placed ahead of the crosswalk to alert bicyclists and pedestrians of the upcoming road crossing.

b. Rowland Avenue Crossing: Rowland Avenue appears to have little traffic, although a site assessment would be needed to verify this information. A crosswalk and signage could be installed on the road to alert road users to expect crossing pedestrians and bicyclists. On the trail itself, signs should be placed ahead of the crosswalk to alert bicyclists and pedestrians of the upcoming road crossing.

c. Shell Road Crossing: Shell Road also appears to have very little traffic, although a site assessment would be needed to verify this information. A crosswalk could be installed on the road to inform motorists that pedestrians and bicyclists would be crossing here. Also signs could be placed ahead of the crosswalk alerting motorists to the trail crossing. Likewise, signs should be placed on the trail ahead of the crosswalk to alert bicyclists and walkers of the upcoming road crossing.

d. Sunset Blvd Crossing: Sunset Blvd appears to have a fair amount of traffic. A site assessment would identify the level of traffic more precisely. A crosswalk could be installed to facilitate crossings. Signs should be placed ahead of the crosswalk alerting motorists to the trail crossing. Likewise, signs should be placed on the trail to alert bicyclists and pedestrians of the upcoming road crossing.

4. **Safety-Criminal Intent:** Because portions of the trail would go through wooded sections and cross through fairly isolated areas, users' perceptions of personal safety would need to be addressed.

Potential Solutions

a. Nighttime Closures. Only allow hiking/biking on the trail during daylight hours.

b. Increase police presence. Request police departments to include bicycle coverage of the trail in their beats.

d. Install cameras. Install video cameras along sections of the trail that are particularly isolated and post signs along the trail mentioning the increased surveillance.

e. Underbrush clearing. In places where the trail goes through woods, clearing of the underbrush can create a more open area and increase visibility, further preventing criminal activity. As stated in the Irondequoit Creek Valley Multi-Use trail Feasibility Assessment and Design Recommendations, "Research into criminal behavior shows that the decision to commit a crime is more influenced by cues to the perceived risk of being caught than by cues to reward or ease of entry. Consistent with this research, Crime Prevention through Environmental Design-based strategies emphasize enhancing the perceived risk of detection and apprehension. As a result, it relies upon an understanding of what about the environment influences offenders."

f. Fencing. To prevent trail users from entering private property or school grounds, install fencing between the trail and the property border.

g. Trail Promotion. More people using the trail means a criminal has a higher chance of getting caught, therefore a more heavily used area will help to prevent criminal activity.

References

1. John Demura, New York Canal Corporation, 518-436-3034
2. Cayuga-Seneca Canal Trail Master Plan: Geneva to Seneca Falls, Trail Design Guidelines www.cay-sentrail.org
3. Georgia Department of Natural Resources, Environmental Protection Division, Integrated 305(b)/303(d) List of Waters <http://www.gaepd.org/Documents/305b.html>
4. Irondequoit Creek Valley Multi-Use trail Feasibility Assessment and Design Recommendations http://www.gtcmpo.org/Docs/PlansStudies/IrondequoitCreekTrail_FinalReport.pdf
5. Pleasant Valley Park Website, www.pvpark.org/volunteers



Figure 1