

The Augusta Canal National Heritage Area Management Plan

Acknowledgements:

The City Council of Augusta, Owner
The Honorable Bob Young, Mayor
The Augusta Canal Authority

This Plan has been prepared for the Augusta Canal Authority
who supervised the work and provided policy direction for the Plan.

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October 22, 1999

The Honorable Bruce Babbitt, Secretary
U. S. Department of the Interior
Washington, D. C.

Dear Secretary Babbitt:

Pursuant to the requirements of the Omnibus Parks and Public Lands Management Act of 1996 (Public Law 104-333), I am pleased to submit for your review and approval the Management Plan for the Augusta Canal National Heritage. This Plan outlines a coordinated strategy for the management and administration of the National Heritage Area that will provide a framework for future actions and result in implementation of the recommendations contained in the 1993 Master Plan for the Augusta Canal.

I would like to highlight for you that the local resources spent or committed to this project far exceed the federal match as required in the 1996 Act, demonstrating the community's commitment to the project. The Management Plan indicates that this local commitment will continue and requests appropriated federal support with the full authorized federal funding of \$1 million per year.

Preparation of this Plan is the result of the collaborative effort of a variety of agencies and individuals. I would like to extend our gratitude to all those involved, particularly the many citizens that attended various public meetings, the staff of the National Park Service and of course our consultant, ICON architecture, inc.

We look forward to your expeditious review and approval of this Plan and a continuing partnership with the National Park Service in preserving this unique state and national resource for the benefit of future generations.

Sincerely yours,

Dayton L. Sherrouse, AICP
Executive Director

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THE SECRETARY OF THE INTERIOR
WASHINGTON

OCT 30 2000

Mr. Richard Fox
President
Augusta Canal Authority
P.O. Box 2367
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Dear Mr. Fox:

I am pleased to inform you that the Department of the Interior has completed its review of the Management Plan for the Augusta Canal National Heritage Area. The plan has been approved and accepted pursuant to the 1996 Omnibus Parks and Public Lands Management Act. We believe that the Management Plan, combined with the 1993 Master Plan, presents an integrated and cooperative approach for the protection, enhancement and interpretation of the cultural, natural, scenic and recreational resources of the Heritage Area.

This National Heritage Area has been a model of success from its earliest beginnings. We are confident that the Augusta Canal Authority will continue their excellent work to develop a National Heritage Area that will protect the resources and interpret the stories of the Augusta Canal. I commend the Authority for producing this well conceived Plan within the legislatively prescribed time period, and for involving interested citizens and organizations of Georgia in its development. You have clearly demonstrated the benefits of a citizen-led community process for developing a sustainable heritage area.

As we go forward in our partnership endeavors, please be assured of our desire to work closely with you, and associated organizations in the region, to implement effectively our mutually held resource protection objectives.

Sincerely,

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L Background on the Augusta Canal

1.1 Introduction: The Augusta Canal

The development and use of the Canal is intertwined with the growth and evolution of Augusta. The Canal's natural and man-made settings dramatically illustrate how the city's location, at the junction of the Piedmont Plateau and the Coastal Plain, enabled

it to evolve from its 1736 beginnings as a strategic frontier trading outpost into a major economic center of the South in the later 19th Century.

The Canal includes a variety of settings, starting at the rapids of Bull Sluice, where the topographic shift of the Fall Line is

visually evident, continuing through unspoiled natural areas, and ending at the edges of downtown Augusta and its neighborhoods.

As a National Historic Landmark and National Heritage Area, the Augusta Canal is a significant resource, including important natural and urban areas which have been pivotal to the evolution of the city, state and country.

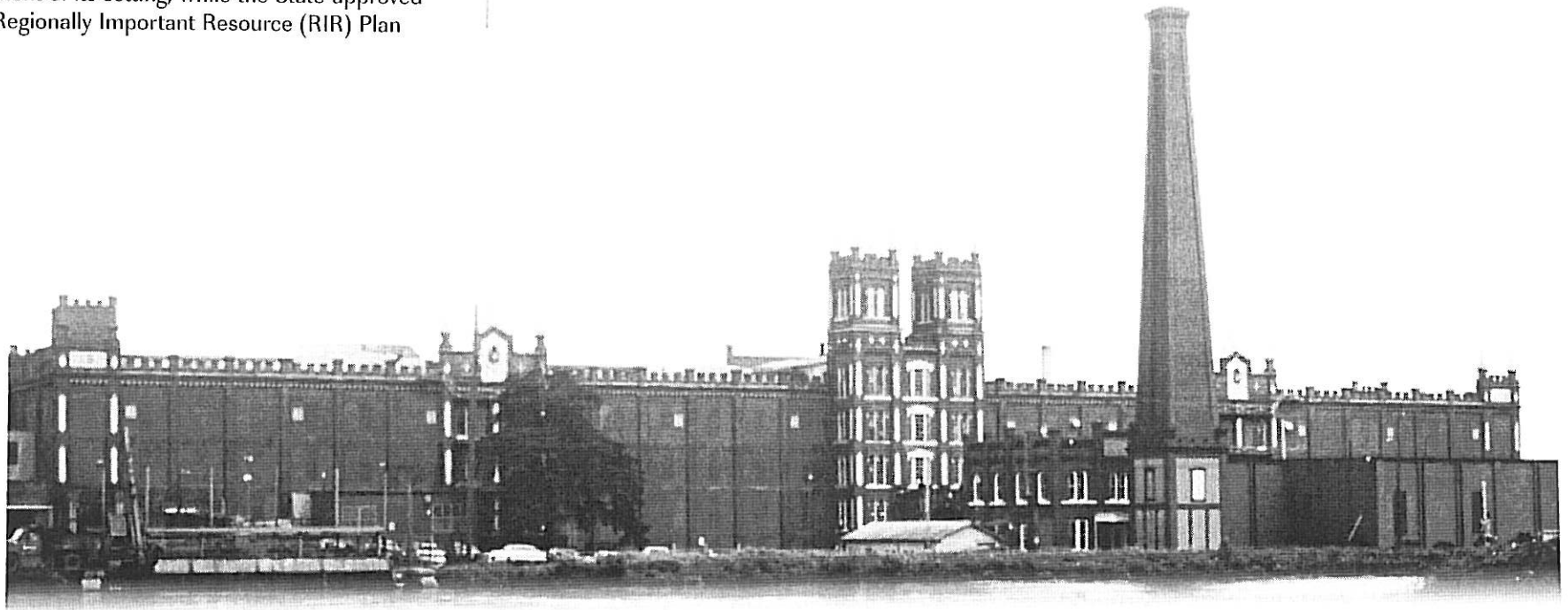
Need for a Management Plan

When Congress designated the Augusta Canal National Heritage Area (ACNHA) in 1996 and established its eligibility for federal assistance, it also required that a Management Plan and Environmental Assessment be prepared and submitted to the Secretary of the Interior and the U.S. Congress "...for the management and administration of the Heritage Area."

The Management Plan is not intended to supercede the approved 1993 Master Plan or the State of Georgia's Regionally Important Resource (RIR) Plan, but rather to "...coordinate and combine such plans and present an integrated and cooperative approach for the protection, enhancement and interpretation of the cultural, natural, scenic, and recreational resources of the Heritage Area." The 1993 Master Plan identified the significance of the physical resource and offered a vision for the improvement of its setting, while the State-approved Regionally Important Resource (RIR) Plan

defined management objectives for sub-areas within the National Heritage Area (NHA) boundary. The Management Plan incorporates both documents by reference, and offers strategies to guide actions by the Canal's governing body, the Augusta Canal Authority (ACA). The 1993 Augusta Canal Master Plan is included as Appendix D for reference.

Building upon the previously approved plans, the Management Plan incorporates a coordinated strategy for the recognition, use, and enhancement of the tangible resources within the NHA boundary, as well as actions to expand the public understanding and appreciation of these resources. Although the Management Plan represents a strategic framework to guide future ACA actions, not every idea or proposal which appears in the Plan will be accomplished, and some priorities will certainly change over time as new ideas develop and circumstances change.



1.2 National Significance of the Augusta Canal

The Augusta Canal, originally constructed in 1845 and enlarged in 1875, was built to serve multiple purposes: transportation, water supply, and water power. The Canal is unique as a relatively intact example of a nineteenth-century power canal system, the best one that survives in the South and one of the best in the nation. The Canal is also unique because of the great length of its upper level, which serves as the single feeder for the system, much of it running through rural and natural settings far above the city. Spanning nine miles in length, the Augusta Canal was the largest major American power canal of the nineteenth century.

The following paragraphs describe the significance of the Canal for each of its intended uses:

Transportation

Although transportation was not its primary purpose, waterborne traffic was a critical factor in the Canal's early operation and remained an important function into the early twentieth century. Until the late 1850s, the economic impact of freight carried on the Canal probably surpassed the impact of water-powered manufacturing. The Canal carried large quantities of southern upland cotton into Augusta, particularly in the early years of its operation. An 1850 estimate showed 25,000 bales of cotton per year brought into Augusta on the Canal, mainly by Petersburg boats. Freight carried on the enlarged Canal soared from 2,697 tons in 1880 to 23,668 tons in 1889, during the height of the Cotton Mill campaign in the New South. Even when railroads began to deliver most of the cotton for textile production and transshipment, Petersburg boats continued to offer an alternative means of delivery from upriver plantations and farms.

Water Supply

The Canal was designed with public water supply in mind, and still delivers water for the City, using hydro-mechanical power from the Canal to feed its main water supply. The first pumping station, built in 1853, had the same type of turbine as the one chosen by the famous Fairmount Waterworks in Philadelphia during its modernization program of 1859 to 1862. Of the original remaining waterworks pumping buildings in the United States, the architectural quality of the 1899 Waterworks building is surpassed only by the Fairmount facility. The City's financial investment in the Canal Company made the planning and construction possible. Two years after completion of the first level, the City took official ownership of the Canal which it still owns and operates. Almost all other multi-user power canal systems built in the nineteenth century were privately owned.

Power

The Augusta Canal became the South's largest and most successful multi-user power canal system, serving separately-owned mills and factories. This system emulated Northern examples in cities such as Lowell, Massachusetts, and Paterson, New Jersey; but there was nothing quite like the Augusta Canal in the heart of the South. The Canal supported the South's largest concentration of water-powered textile mills by the mid-1880s. Two textile manufacturing facilities still utilize the Canal for hydropower today. In addition, the system provided power for a wide range of non-textile industries, including machine shops, foundries, and grist mills. During the Civil War, the Confederacy was heavily dependent on munitions (particularly gunpowder) made in Augusta at the Confederate Powder Works which stretched for two miles along the Canal.

The Canal is unique as a relatively intact example of a nineteenth-century power canal system, the best one that survives in the South and one of the best in the nation.

Architectural Features

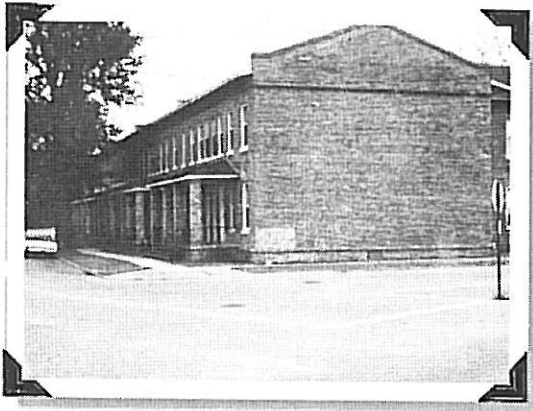
In addition to the significance of the Canal's structure and use, the largely intact historic architecture along the Augusta Canal is also notable. The following paragraphs describe the significant architecture along the Canal corridor:

Industrial Buildings

The industrial architecture of the Augusta Canal District is historically significant because it remains the most architecturally distinguished grouping of textile mill buildings in the South, and among the best groups of textile mills anywhere in the country. The Sibley, King, and Enterprise mills together also epitomize the emergence of the New South's industrial architecture in the late 1870s and 1880s. The Sibley Mill is especially noteworthy because it represents an archetype of the New South's "Cotton Mill Campaign" of the 1880s and 1890s.

Worker Housing

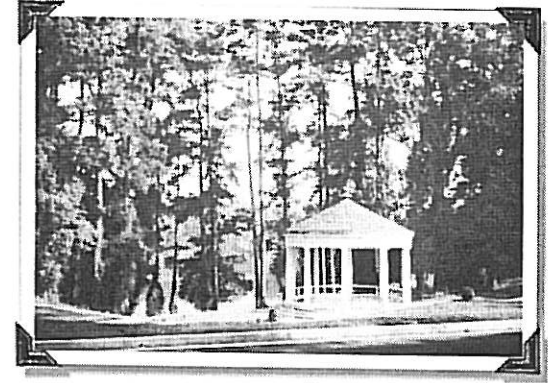
In addition to the mills, adjacent to the Canal and its factories is one of the most intact, and probably the earliest, concentration of urban worker housing in the South. The worker housing stock is largely intact from the textile mill heyday and includes excellent examples of Southern industrial housing. Most, if not all, types of the regional



vernacular single and double house types commonly used for worker housing remain in number in this community, as do late examples of once more numerous company-owned brick row houses. These row houses were a rare southern adaptation of the New England model for company owned worker housing.

Recreational Structures

Along the length of the Canal, a number of recreational structures remain which exemplify the historic leisure-time use of the Canal and the adjacent landscape. Key structures include the early 1900's era dance pavilion, barbecue pit shelter, and picnic pavilion at the Headgates. Other features, including footbridges and the Canal towpath promenade and Lake Olmstead Park, reinforce recreational uses of the Canal corridor. This utilization of the Canal environs as a recreational feature at a time when there was still a dearth of public park facilities nationwide, especially for the urban working class, is an additional significant feature of the Augusta Canal NHA.



The picnic pavilion at Lake Olmstead is one of several recreational structures which exemplify historic leisure-time use of the Canal landscape. With strong public support, preservation of these structures was completed before receipt of Federal Grant money.

Adjacent to the Canal and its factories is one of the most intact concentrations of urban worker housing in the South. These row houses in Harrisburg were a rare southern adaptation of the New England model for worker housing.

1.3 The Physical Character of the Augusta Canal

Location of Key Resources

Three types of resources characterize the Augusta Canal: historic resources, which are sites that preserve and interpret the Canal's social and engineering significance; environmental resources, which are areas that conserve and interpret the area's unique Fall Line ecology; and, community resources, which identify areas of public use and enjoyment to be protected and enhanced. Figure 1 identifies the location of the key historic, environmental, and community resources along the Canal corridor.

- **Key historic resources include:** the Canal and its lock and control structures; historic buildings, including those integrally associated with the Canal (waterworks, mills, industrial structures, worker housing) and structures associated with other aspects of Augusta's history (Walton and Harris Houses); historic districts; and other sites which have been designated or have the potential to be designated as historically significant.
- **Key environmental resources include:** properties which contain significant environmental resources, including wildlife, habitat, and/or wetlands, or those which are visually related to the Canal and/or River corridor.
- **Key community resources include:** park and recreation areas, churches and other community institutions, and other public uses or settings of potential community importance.



The Long-gate Spillway is one of the many significant structures along the Canal surveyed by the Historic American Engineering Record.

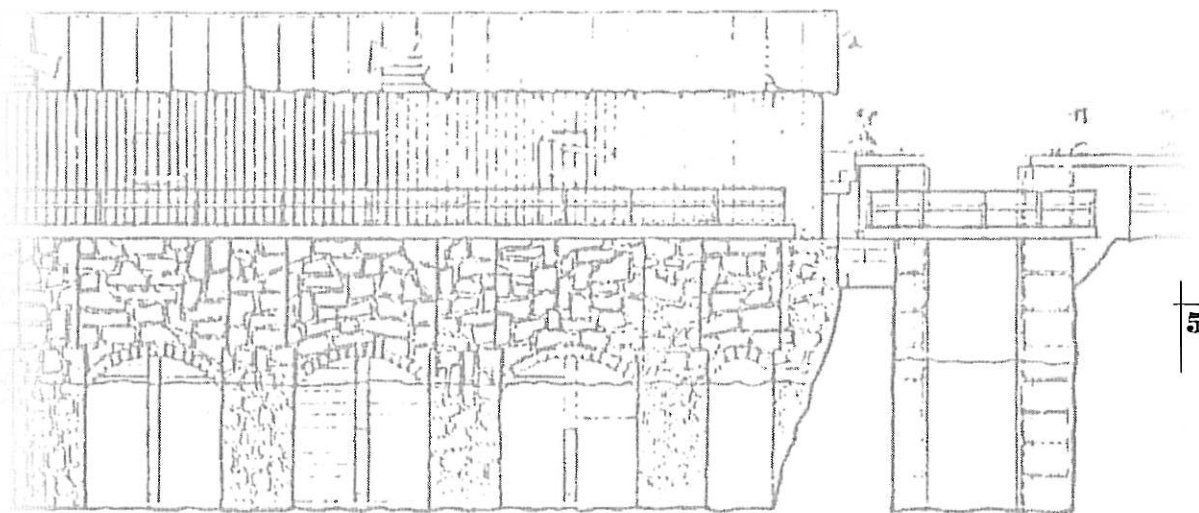
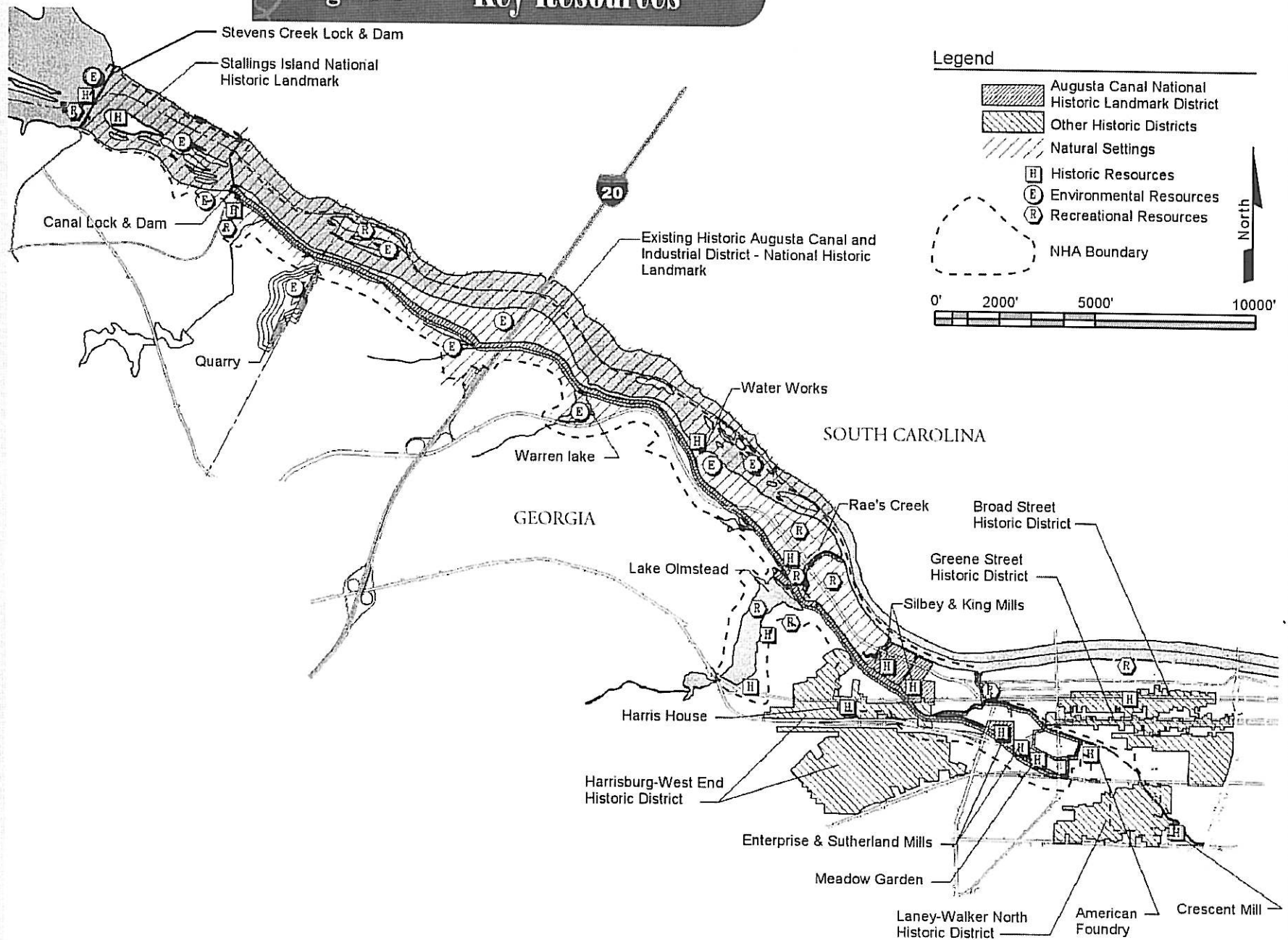


Figure 1 Key Resources



Three Distinct Settings Along the Corridor:

As illustrated in **Figure 2**, the western half of the Canal is framed by a largely unspoiled natural setting, while the remaining segments come into direct contact with developed portions of the City. Each of these portions of the Canal has unique resources and characteristics.

The Natural Setting:

The Headgates to the Waterworks

A large portion of the area is undeveloped. Significant areas of land on both sides of the Canal in this area are heavily wooded, including the entirety of the elongated island between the Canal and the Savannah River. Major existing uses include a large quarry and related industrial uses and low density residential development in Columbia County to the north and west of the NHA.

In this zone the major resources are historic and environmental. Historic resources include the pre-nineteenth century Native American reliquaries on Stallings Island and the more recent setting at the Headgates, Lock, and Dam area, including the impoundment area, the Stevens Creek Dam and reservoir, historic recreational and maintenance structures, the towpath, and multiple buildings at the Waterworks.

The Transitional Zone:

Water Works to the Sibley Mill

The land between the Canal and River from the Waterworks to the Sibley Mill complex remains undeveloped. A cohesive neighborhood to the south extends, in places, to the Canal edge. This segment of the Canal corridor is carved into irregular parcels by four major rights of way: the Canal, overhead lines of Georgia Power, the Riverwatch Parkway, and the CSX Railway. Lake Olmstead, in approximately the middle of the area, is recreational in character and has institutional uses, including the vacant City jail and a cemetery, along its perimeter,.

Natural, historic, and cultural resources are included in this area. Environmental resources include the riverfront setting, although much of the area has been significantly disturbed by the construction of the Riverwatch Parkway and related fill and detention basins. Additional portions of the area west of the mills had been used as a dumping area. Cultural resources include Lake Olmstead, its surrounding recreational facilities, and Eisenhower Field across the Canal from the Waterworks complex. Historic resources include the Canal, a wide variety of water control structures associated with water flow from Rae's Creek and Lake Olmstead, the raceways associated with existing and former mill sites, the structures that surround Lake Olmstead, and many of the houses in the Harrisburg neighborhood.

The Urban Setting:

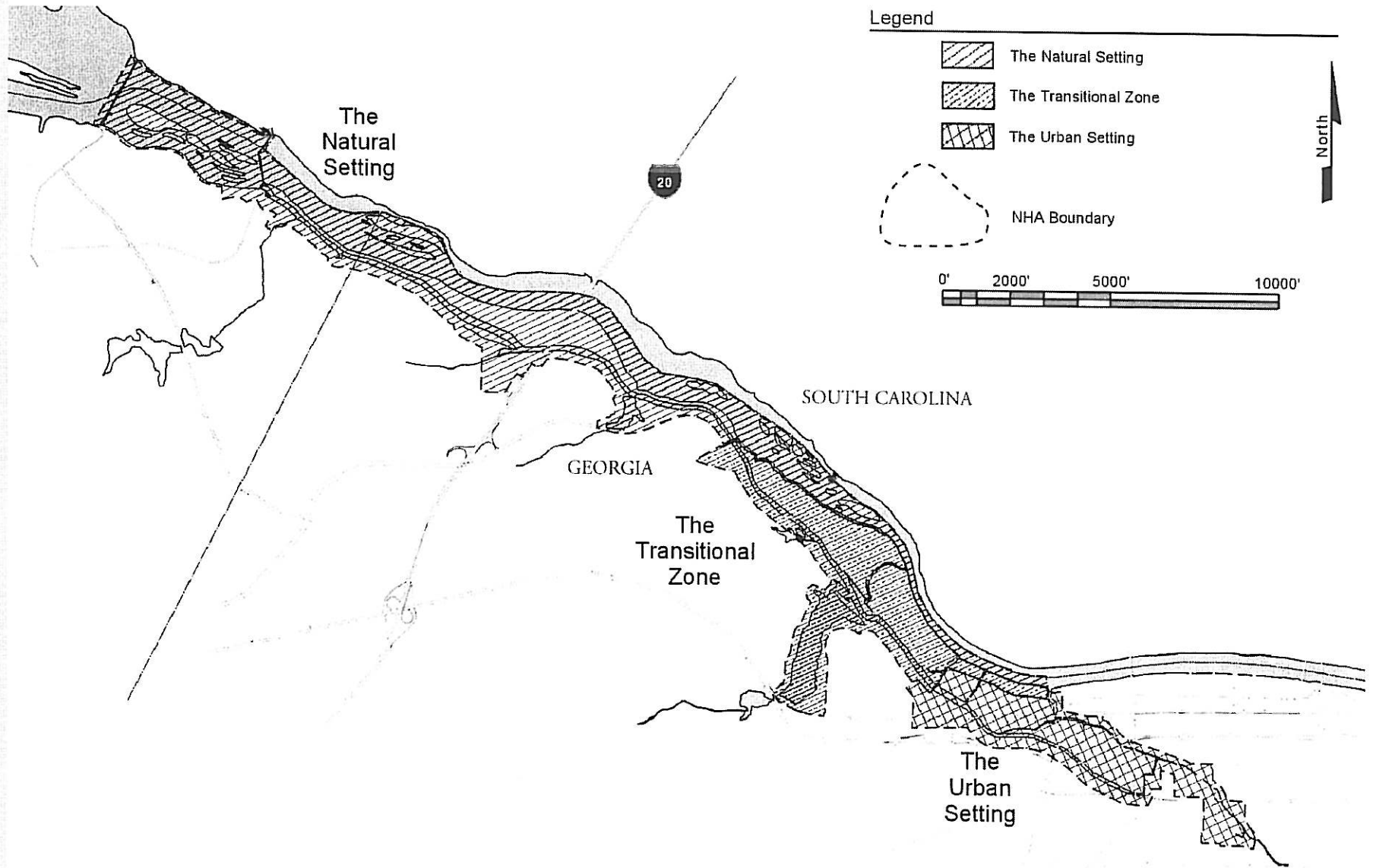
Sibley Mill to Downtown

From the Sibley/King Mill complex area to the end of the Canal, land uses are mixed, with an aging industrial character that relates to the original use of the Canal. Over time, many industries have declined, leaving either marginally-used properties or new replacement structures. Today, these land uses include a wide variety along Broad Street, to mixed industrial and redevelopment parcels between 12th and 15th Streets, to a residential area with many dilapidated, but mostly historic, homes in the Laney-Walker neighborhood. Additionally, major new uses in the Canal area include the Medical campus, the Civic and Convention Center, and selected new individual developments.

Within the urban segment of the Canal corridor, the significant resources are both historic and cultural. A strong relationship of the Canal to industrial and urban development is clearly evident. Historic resources include: the first, second, and third level Canals and associated control, gate, and dam structures, historic mills and other structures most directly related to the Canal, and other types of historic urban and neighborhood development indirectly associated with the Canal. Cultural resources include: local churches, historic homes, neighborhood centers, community institutions, and other public uses and properties.

Figure 2

The Canal and its Setting



1.4 Managing the Resource: The Augusta Canal Authority and the Development of a Master Plan

The Augusta Canal Authority

In the late 1980's, a group of Augusta community leaders united to conserve the 7.5 mile canal corridor and its significant natural and historical resources. Lobbying efforts led to the creation of the Augusta Canal Authority by the Georgia General Assembly in 1989 to "...promote the revitalization and development of the City of Augusta through the creation of parks, recreation areas, and...[to]...develop and promote for the public good and general welfare trade, tourism, commerce, industry, and employment opportunities...". The Authority, consisting of five members appointed by the City Council of Augusta, adopted the mission statement to "establish and implement an overall plan for the preservation, development, and management of the Augusta Canal as a public resource."

From the very beginning of the Canal Authority's existence, members tirelessly advocated the protection of the historically and ecologically significant Canal and surrounding. With a groundswell of local support, the ACA earned early successes in building a strong local constituency for its efforts to protect the Canal's public character.

The 1993 Canal Master Plan

As public interest in the Canal grew, the ACA initiated the development of a Master Plan in 1992. Led by the Joint Venture, a collaboration of the two firms (Lane-Frenchman & Associates and City Design Collaborative) that later merged to form ICON architecture, the 15-month planning process was characterized by significant public participation and a broad consensus on the desired future for the Canal. The extensive public participation process included an Advisory Task Force, consisting of nearly 30 agency representatives and citizens. The broad-based group provided breadth of experience, meeting periodically to review the inventory, alternatives, and final proposals.

An enduring interest to both preserve the Canal's natural settings and enhance its public character developed out of the master planning process. As the process unfolded, development proposals for property immediately adjacent to the Upper Canal emerged, prompting considerable public debate and controversy culminating in the formation of a sizable constituency committed to preserving the public use and access to the Canal and its surroundings. Grass roots activism resulted in a high level of public interest in the Canal and an ongoing citizen concern for its future. This, in turn, encouraged local, state and national recognition and protection efforts following approval of the 1993 Plan.

The 1993 Master Plan identified actions to preserve and interpret the Canal and its related resources, while also proposing strategies to extend the influence of the Canal and its setting to enhance the natural and urban environment of Augusta. The final plan approved by the ACA in early 1994 was a comprehensive approach to the corridor and its resources. This plan was designed to accomplish several concurrent initiatives related to historic preservation, conservation, tourism and recreation, education and interpretation, and economic development goals.

Adoption of the Plan by the ACA and Other Government Entities

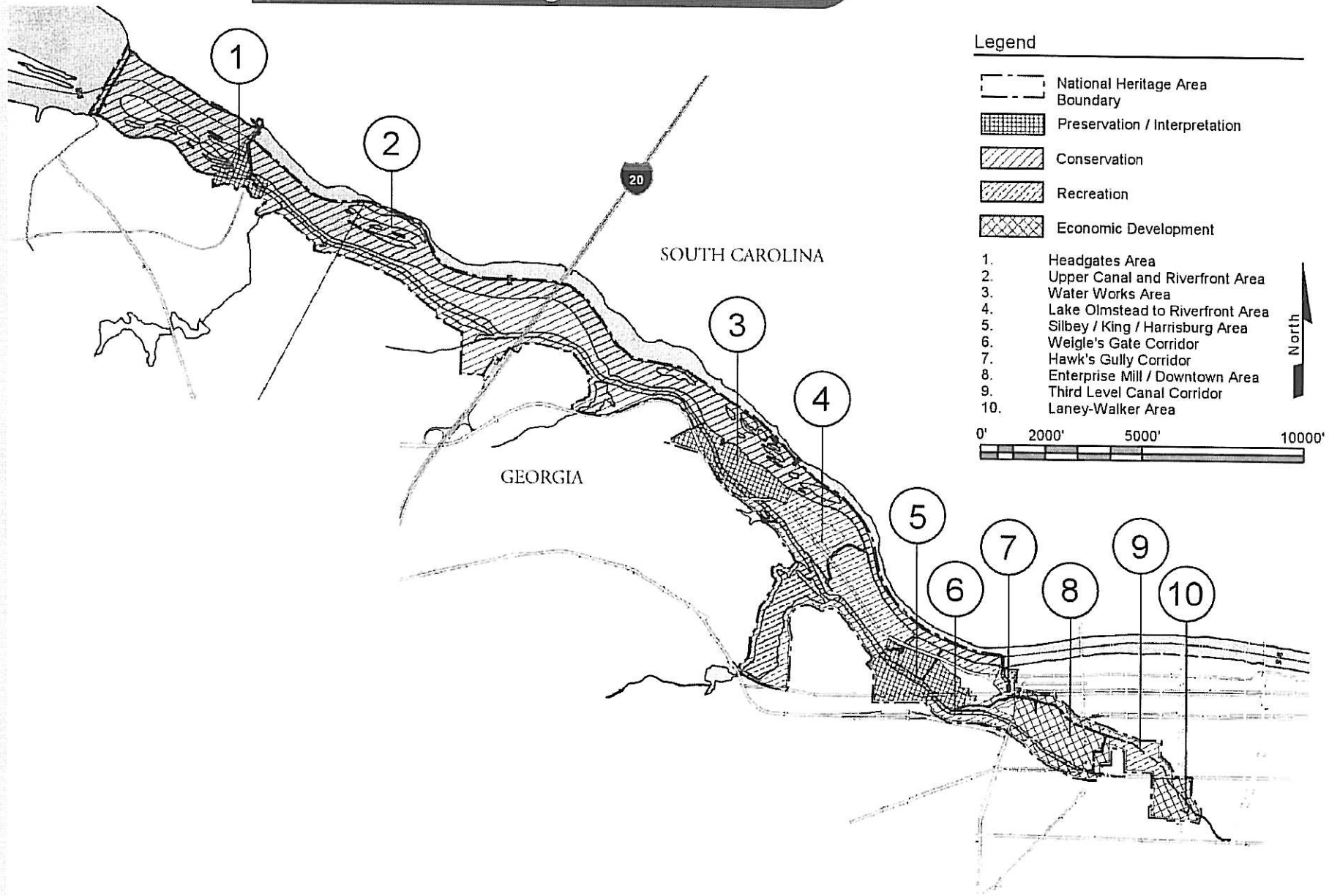
With broad public support, recognition of the Augusta Canal as a significant resource began soon after adoption of the 1993 Plan and has steadily increased over time as interest in the Canal has grown. To date, the Canal has

From the very beginning of the Canal Authority's existence, members advocated tirelessly for the protection of the historically and ecologically significant Canal and setting.

received local, state, and federal recognition as a resource worthy of protection, a sustainable source of local revenue, and increased administrative support. As summarized in the following paragraphs, these management mechanisms, if exercised fully, should allow the ACA to pursue its ambitious agenda over the coming years.

Figure 3

Management Zones



Local Recognition of the Augusta Canal

Through local recognition by Augusta-Richmond and Columbia Counties in early 1994, the Canal Authority was granted review powers over planning and design proposals which impacted on the Canal area. The enabling legislation is in Appendix A. Although it lacks direct powers of zoning or land use restriction, the ACA has worked closely with both Augusta-Richmond and Columbia County public officials to influence decisions on development proposals with Canal-area impact. Another significant local decision was made in 1994 when Augusta-Richmond County committed canal water revenues for use by the ACA. As a sustainable source of direct local committed revenue, the water revenue is a testament to strong community support for the ACA.

State Recognition of the Augusta Canal

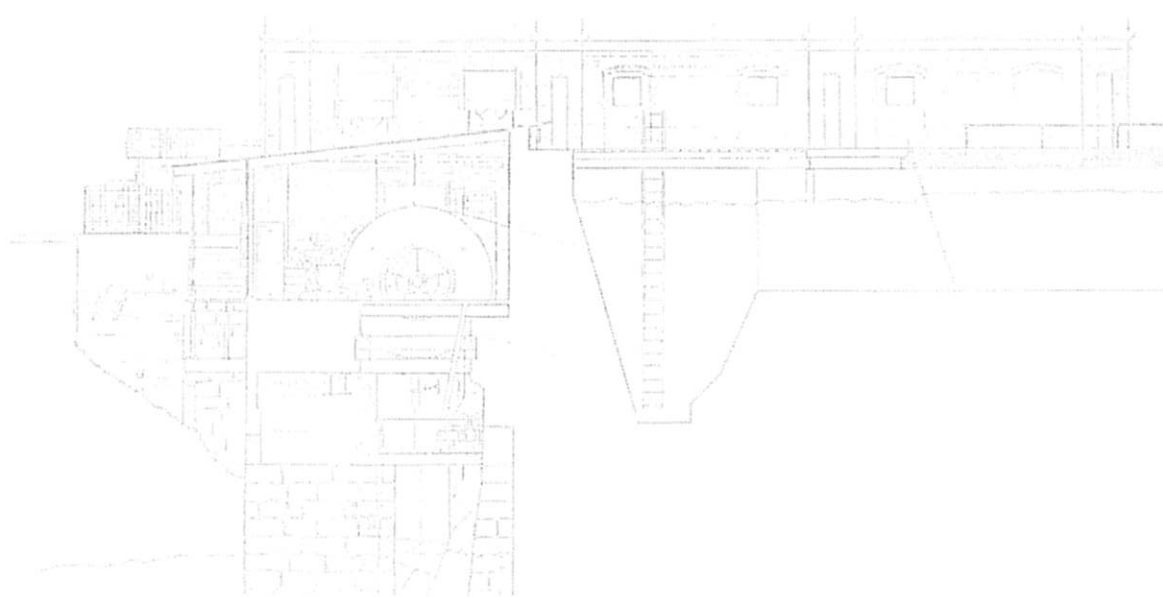
A framework for regional protection of the Augusta Canal is provided through the State Department of Community Affairs designation as Georgia's only duly designated "Regionally Important Resource" (RIR). The intent of the RIR designation is to encourage local governments to adopt RIR policies to protect the resource and establish regional review of planned projects or decisions which may affect the resource. However, these policies are not mandated and are a passive type of protection since they neither define incentives to which governing bodies must comply nor disincentives for inappropriate actions. **Figure 3** identifies the ten management zones that define the Augusta Canal RIR.

Federal Recognition of the Augusta Canal

As documented in Appendix A, Federal designation of the Augusta Canal as a National Heritage Area in 1996 significantly strengthened the Canal Authority's protective measures and provided additional sources of funding. The NHA designation allow the ACA to apply for a total of \$10,000,000 in federal heritage funds before 2012, with annual appropriations not to exceed \$1,000,000. Federal appropriations have increased each year, starting with \$250,000 in 1998; the Canal Authority went on to receive \$500,000 in 1999. An appropriation of \$1,000,000 has been requested for 2000.

Increasing ACA Administrative Capacity

In addition to achieving local, state, and federal recognition, the ACA has increased its management capacity over the past few years. The addition of permanent Canal Authority staff members has helped lift the administrative burden from Board members. With a full-time executive director since 1997, and an assistant since 1998, the ACA has been able to greatly expand its efforts and raise its profile in the community. Additional technical support through the National Park Service has further supported ACA efforts.



2 Elements of the Management Plan

2.1 Management Elements and Related Objectives

The Management Plan incorporates a coordinated strategy for recognition, use, and enhancement of the tangible resources within the Heritage Area boundary. It also defines strategies to expand public understanding and appreciation of these resources. In order to craft a comprehensive and complementary scope of actions, five management elements are defined to identify plan objectives, key achievements to date and future strategies for the ACA. The Action Agenda for the Management Plan includes five (5) key elements which are amplified below.

- Facility Development
- Resource Stewardship
- Heritage Programming and Outreach
- Heritage Infrastructure
- Planning and Design Assistance

Facility Development

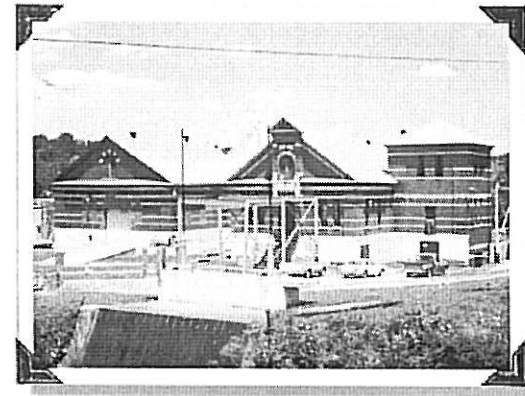
Facility development encompasses physical improvements for the Canal and its adjoining lands for the purposes of interpretation, education, and recreational activities. Facility development may involve direct improvements co-sponsored by the ACA, as well as catalyst investments by the ACA for facilities that may be developed by others. Key objectives include:

- **Construct places for discovery and learning** – Facilities should be developed by both the ACA and its partners to host programs and events related to the Canal’s cultural and natural history.
- **Develop the Canal corridor as a regional recreational resource** – The ACA should capitalize on the unique physical qualities of the Canal corridor in order to develop active and passive recreational areas in diverse settings.
- **Act as a catalyst for investment** – With ACA leadership, physical improvements and new facilities along the Canal will enhance the urban environment and encourage public and private reinvestment in historic structures, neighborhoods, and settings.
- **Improve linkages between the Canal and surrounding areas** – The Canal’s connection to regional and local resources, as well as to neighborhoods, the Medical College of Georgia, and downtown Augusta, should be strengthened by ACA efforts to improve physical access and visibility along the corridor.

Resource Stewardship

Resource Stewardship activities support long-term preservation, conservation, and reclamation of historic resources, cultural landscapes, and natural resources. Stewardship may include assistance to other public or private local entities to preserve resources and settings, and advocacy for preservation initiatives. Key objectives include:

- **Preserve and restore the unique buildings and structures associated with the Augusta Canal** – A comprehensive preservation effort should be encouraged and supported by the ACA to preserve buildings with historic or cultural significance, remove features that detract from the Canal’s historic setting, and encourage preservation efforts in areas surrounding the National Heritage Area.
- **Conserve the critical lands and settings along the Canal** – The ACA should initiate and support a landscape management strategy to conserve the cultural landscape while retaining and restoring the natural setting which defines sections of the Canal and the nearby riverfront. This would include land acquisition to preserve and buffer the Canal, particularly in the natural segments of the Canal.
- **Reclaim damaged environmental resources** – Decades of environmental degradation can be reversed through the ACA’s active involvement in remediation and environmental protection efforts along the Canal corridor.
- **Strengthen the Regionally Important Resource (RIR) review process** - Currently, the Canal’s designation as a State of Georgia RIR does not include mandated protection measures by local governments. Incentives and disincentives need to be developed to encourage area local governments to establish a regional review of planned projects with Canal area impact.
- **Preserve artifacts, natural history, and archival materials associated with Augusta Canal** - A museum collection that may include historic structures, geological specimens, biological specimens, paleontology specimens, and archival materials should be acquired and made available for research and educational purposes.



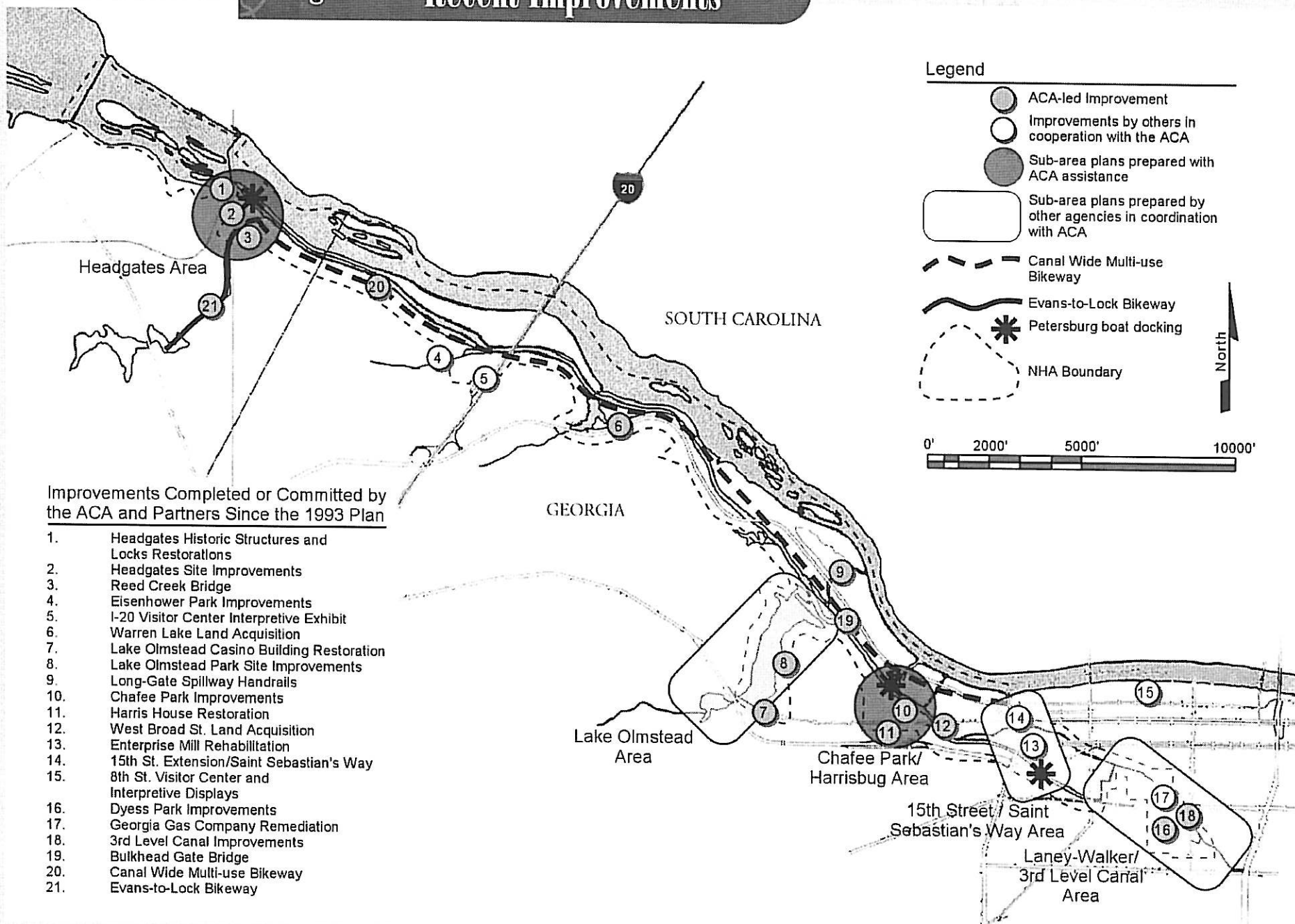
The historic Waterworks plant has been in operation since 1899, providing drinking water for area residents. Canal water is also a source of hydropower, with the City committing water revenue to the ACA.

Heritage Programming and Outreach

Heritage Programming and Outreach efforts may include interpretive, educational, and recreational activities that increase public use and understanding of the Canal and further its economic sustainability. These activities may encompass cooperative programs with public or private entities and support for events and programs which use, explain, and expand public awareness of the resources which make the Canal and Heritage Area unique. Key objectives include:

- **Develop educational and cultural programs in partnership with local institutions, groups, and agencies** – ACA can encourage development of new programs that interpret and teach aspects of the Canal’s history and ecology and find partners to make such activities self-sustaining.
- **Sponsor and support special events which bring people and activity to the Canal** – The ACA should directly sponsor or endorse events which increase community awareness and use of the Canal’s historical, recreational and environmental resources.

Figure 4 Recent Improvements



Heritage Infrastructure

Heritage infrastructure encompasses marketing, public information, and services, as well as the production of interpretive materials and exhibits which enable visitors and residents to use, appreciate, and understand the Augusta Canal. This element incorporates the support system for the interpretation, education, recreation, and visitor experiences along the Corridor.

- **Develop exhibits which communicate the themes, importance, and stories of the Canal** – Various media should be used by the ACA to create both static and interactive exhibits and materials about the Canal's history and ecology that engage a diverse audience of interests and are located conveniently and appropriately to support and enhance public use and enjoyment of the Canal. As part of this effort, ACA should develop collections management policies, procedures, and partnerships that will protect artifacts, documents, and cultural resources that are acquired.
- **Develop information, way-finding, and collateral materials which improve and supplement the visitor experience on the Canal** – Such materials could include media, web page information, brochures, and signage, which assist users in planning and carrying out activities on the Canal.
- **Coordinate marketing and public information activities which can capitalize on the Canal's potential to support and attract local and tourist use** – The ACA should work to increase the regional visibility and awareness of the Canal's facilities, settings, and programs through a variety of media.

Planning and Design Assistance

The ACA has the ability to offer many types of planning and design assistance to local entities in order to preserve and more effectively use the Canal and its surrounding area. Efforts could include direct planning and design assistance, as well as programs that assist entities to encourage site-specific or area-wide development and preservation which is compatible with the goals of the ACA. Key objectives include:

- **Maintain an active ACA involvement with local planning and zoning activities** – In coordination with local responsible agencies in Richmond and Columbia Counties, the ACA should continue to comment on proposals within the Heritage Area to advise on positive and adverse impacts, and to encourage high quality use and development of properties within and adjacent to the defined National Heritage Area.
- **Encourage coordinated planning, development, and preservation strategies that deal with key resources within the Heritage Area boundary** – The ACA should continue to advocate proactive initiatives by local governments, community groups, and other entities which are consistent with the Plan
- **Offer carefully targeted technical and financial assistance for planning and design activities which deal with key resources** – Efforts by organizations in support of the ACA's goals should be promoted through technical or financial assistance for public and private sector planning and design efforts.

2.2 Canal Authority Achievements to Date

Since the completion of the 1993 Plan, the Augusta Canal Authority has broadened its agenda from simply protecting the Canal to creating new conservation and development initiatives. Under the leadership of its Executive Director and Board, the ACA has successfully formed partnerships with Augusta-Richmond and Columbia Counties for a number of projects, including a multi-use trail running the length of the corridor, and an integrated group of restoration and rehabilitation projects in the Headgates area. Over the past few years ACA efforts have also included small property acquisitions along the National Heritage Area border, and the recent creation of promotional materials, including a newsletter and brochure.

The following paragraphs describe in more detail the scope of Canal improvements to date by management elements, with Figure 4 illustrating the location of key Canal physical improvements.

Facility Development

Achievements to Date:

Over \$5,000,000 in estimated expenditures between fiscal year 1998-2000 for projects including Eisenhower, Dyess, and Lake Olmstead Park improvements; the corridor-wide bikeway/multi-use trail; Long-gate spillway handrails; local area master planning for the Headgates and Chafee Park.

As identified in Table 1, recreational venues have been the primary focus for facility development efforts over the past few years. Use and enjoyment of the Canal's recreational resources have steadily increased since the completion of the 1993 Master Plan, with commitments of over \$5,000,000,

Table 1: Total Augusta Canal-Related Expenditures (Fiscal Year 1998-2000) *

Commitments by Management Element	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Total
Facility Development				
Parks & Recreation Facilities				
Bikeway/Multi-Use Trail		\$207,100	\$1,042,900	\$1,250,000
Headgates site improvements			\$520,000	\$520,000
Eisenhower Park improvements	\$368,022	\$606,978		\$975,000
Dyess Park improvements	\$117,155			\$117,155
Chafee Park			\$200,000	\$200,000
Headgates Master Plan		\$43,810		\$43,810
Chafee Park Master Plan		\$75,000		\$75,000
Waterworks Master Plan			\$20,000	\$20,000
Lake Olmstead Park	\$615,060			\$615,060
Long gate spillway handrails	\$2,000	\$75,360		\$77,360
Infrastructure Improvements				
15th Street Extension/Saint Sebastians Way			\$1,260,000	\$1,260,000
Sub-total	\$1,143,048	\$1,986,148	\$1,970,000	\$5,099,196
Resource Stewardship				
Historic Preservation				
Enterprise Mill restoration	\$5,666,667	\$5,666,667		\$11,333,334
Headgates Buildings Restorations			\$150,000	\$150,000
Restore/Reopen Headates Locks			\$250,000	\$250,000
Harris House Improvements			\$200,000	\$200,000
Land Conservation				
Headgates archeological study			\$38,000	\$38,000
Environmental Remediation				
Third-Level Canal improvements		\$60,000	\$850,000	\$910,000
Gas Company Remediation		\$1,000,000	\$8,500,000	\$9,500,000
Sub-total	\$5,666,667	\$6,726,667	\$9,970,000	\$22,363,334

Table 1: Total Augusta Canal-Related Expenditures (Fiscal Year 1998-2000) *

Commitments by Management Element	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Total
Heritage Infrastructure				
Exhibits, Materials & Media				
I-20 Information Center exhibit		\$20,000		\$20,000
Petersburg tour boats & docking			\$718,900	\$718,900
Visitor Center curatorial exhibits & artifacts		\$70,000	\$102,640	\$172,640
Corridor-wide interpretive plan			\$70,000	\$70,000
Marketing & Public Information				
ACA newsletter	\$10,000	\$10,000	\$10,000	\$30,000
ACA brochures		\$7,500	\$7,500	\$15,000
ACA logo	\$5,000	\$5,000		\$10,000
ACA website	\$2,000	\$2,000	\$2,000	\$6,000
Headgates printing/brochure		\$7,370		\$7,370
Sub-total	\$17,000	\$121,870	\$911,040	\$1,049,910
Heritage Programming & Outreach				
Special events				
Canal Discovery Day	\$10,000	\$10,000	\$10,000	\$30,000
Canal Canoe Cruise & BBQ Cookout	\$10,000	\$10,000	\$10,000	\$30,000
Education & Cultural Programs				
Canal ecology tours	\$3,000	\$3,000	\$3,000	\$9,000
Sub-total	\$23,000	\$23,000	\$23,000	\$69,000
Planning & Design Assistance				
Planning/Design Review & Coordination				\$0
Technical & Financial Assistance				\$0
Sub-total				\$0
Grand Total	\$6,808,904	\$7,879,785	\$13,964,940	\$28,653,629

* All expenditures are estimates and reflect \$ which has either been expended or committed

for projects between 1998 and 2000. The 1993 Plan called for the creation of a park and greenway network along the 7.5 mile corridor, incorporating a collection of open spaces between the Canal and Savannah River. Initial components of this vision have been realized through the lead of the ACA, and involvement of local authorities in Augusta-Richmond and Columbia Counties.

Significant recreational use of the Canal and its completed venues is readily evident. Columbia County's Savannah Rapids Pavilion Park draws 20,000 people annually for recreation, with an additional 85,000 visitors to the Pavilion for social events and conferences. Recently completed Augusta-Richmond improvements to Eisenhower Park and Lake Olmstead have also proved successful, with both parks drawing people from throughout the region. Eisenhower Park is a popular ballpark venue, while Lake Olmstead includes a popular lake for water-sports and the stadium for the minor league baseball team, the Augusta Green Hornets.

Local institutions in Augusta have taken the lead in creating additional attractions since the 1993 Plan, with increasing attendance signaling strong interest for future interpretive venues along the Canal. Popular attractions in the Canal area include Fort Discovery, the Augusta-Richmond Museum, the Morris Museum of Art, the Augusta River Walk, and the Meadow Garden historic house. Collectively, visitation to these sites exceeded 300,000 in 1998. Attractions under development, such as the Georgia Golf Hall of Fame, will attract additional visitors to the downtown area.

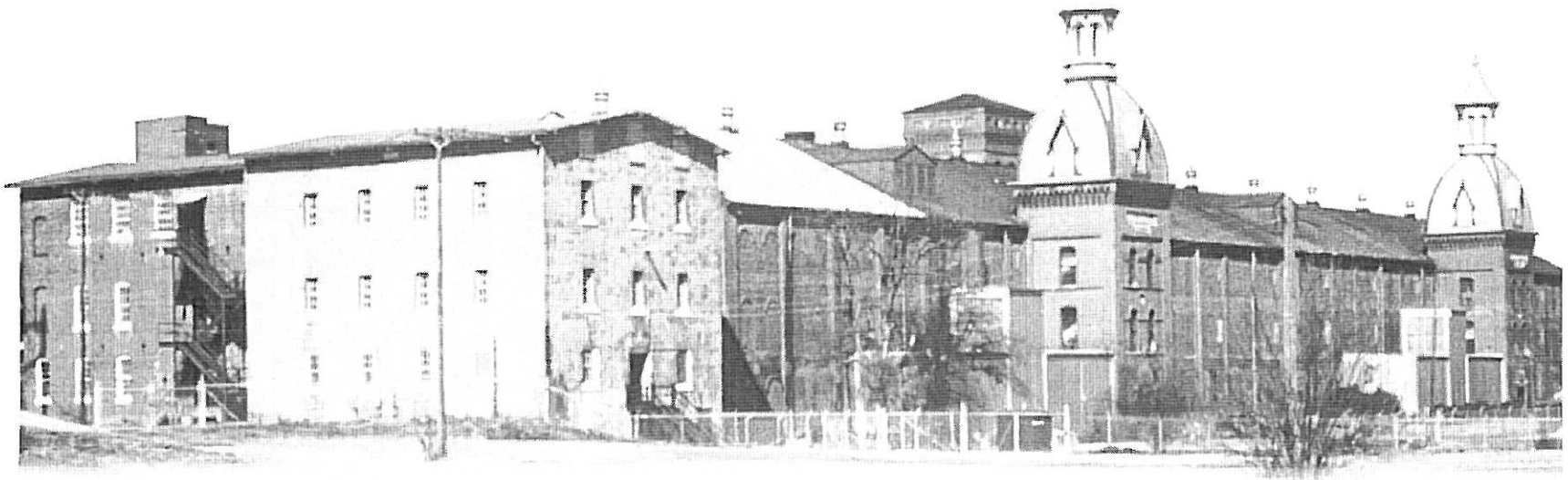
Resource Stewardship

Achievements to Date:

Approximately \$22,363,000 in expenditures between FY '98 and '00 estimated for efforts including the Enterprise Mill, Headgates buildings, and Harris House restorations; Third Level Canal improvements; and the Georgia Gas Company site remediation.

Historic preservation and land conservation have been the focus of resource stewardship efforts over the past few years. The 1993 Master Plan spurred the ACA to recognize eight

The use and enjoyment of the Canal's resources has steadily increased since the completion of the 1993 Master Plan, with commitments of over \$5,000,000, for recreation projects alone between 1998 and 2000.



settings along the Canal with unique historic resources to preserve. Over the past few years, accomplishments have been realized in three of these areas: the Headgates and Lock area, the Lake Olmstead Park area, and the Enterprise Mill area. Historic preservation efforts have demanded different levels of ACA involvement and support, but all projects have been planned and executed in the spirit of the Canal Master Plan proposals. The abandoned Enterprise Mill building into a landmark 140,000 square foot mixed-use project, totaling \$17 million dollars of private investment. The Augusta-Richmond government has restored Lake Olmstead and its historic park and buildings, including the casino and barbecue pit. Current ACA-led efforts in the Headgates area involve an ambitious program to restore the 1845 and 1875 locks, the Headgates, the Dam, the Lock-Keepers cottage, and the barbecue dining and dance structures.

Since the formation of the Augusta Canal Authority, conservation of the Canal as a public resource has been a major community interest. To respond to these ongoing concerns, ACA efforts have focused on creating buffer zones along critical portions of the Canal. A 100 foot no-build easement has been acquired along the west bank of the Canal between I-20 and Warren Lake, and an additional 17 acres of property south of Warren Lake adjacent to the Canal has been acquired. Efforts are currently underway to acquire two other parcels of property including: a two acre site across from King and Sibley Mills on the urban portion of the Canal and an approximately 95 acre site between I-20 and Warren Lake on the upper or natural area of the Canal.

Heritage Programming and Outreach

Achievements to Date:

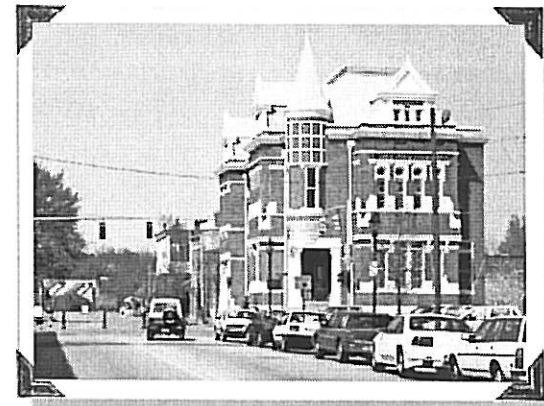
Approximately \$70,000 in expenditures between FY '98 and '00 for Canal-related activities, including the annual Canal Discovery Day and the Canal Canoe Cruise & Barbecue Cookout, frequent tours by the ACA, and ecology-specific tours by the Southeastern Natural Sciences Academy.

In the years following the 1993 Plan, a number of activities and demonstrations have been developed with varying degrees of ACA support. Annual events such as the ACA-sponsored Canal Discovery Days and the Georgia Public Radio-sponsored Canal Canoe Cruise & Barbecue Cookout have proved to be community favorites, with typical attendance from 350 to 400 participants. Although less established than the Canal's recreational and cultural programs, a strong interest in educational programs is evident through the success of the Southeastern Natural Sciences Academy's (SNSA) educational programs. Reaching an estimated 10,000 elementary school aged students in 1998, attendance in SNSA programs is expected to double over the next few years.

Tours of the Canal corridor have been largely self-guided and supported through a series of interpretive wayside signs created after the 1993 Plan. Interest in guided tours, however, has been growing as shown by the high demand for the Canal Ecology Tours led by SNSA and the Canal Tours conducted by the ACA's executive director.

Just outside the ACNHA are additional popular attractions with significant draw for special events. The Riverwalk and Amphitheater in Downtown Augusta had an estimated 224,450 visitors during 1998, including an estimated 176,400 visitors for special events. Recreational use of the Canal waterways has also increased, as new events are organized. An estimated 900 people rented canoes at the Headgates in 1998, and over 5,000 participants and spectators were estimated for the regattas and waterski tournaments in Lake Olmstead. In addition, Savannah River boat races, including River Race Augusta, the Southern National Dragboat Race, and the US Rowing team training facility and Rowing Regatta collectively drew more than 50,000 visitors in 1998.

Once home to the second largest inland cotton market in the world, the Cotton Exchange was built in 1886. Today it serves as a welcome center and museum displaying historic community artifacts.



Heritage Infrastructure

Achievements to Date:

Nearly \$1,050,000 in expenditures estimated between FY '98 and '00 for efforts including the historic Petersburg boats and docking facilities; interpretive exhibits at the 8th Street Visitors Center and 1-20 Georgia Welcome Center; ACA promotional materials, including a newsletter and brochure.

Early efforts have been made to convey the significant scope, scale, and importance of the natural and man-made resources along the Augusta Canal. These include a network of wayside signs along the Canal corridor and



The annual Canal Canoe Cruise & Barbecue Cookout is one of many events that attract area residents to the Canal.

interpretive exhibits at the 1-20 Georgia Welcome Center, the Cotton Exchange Visitor's Center, and the Augusta Canal 8th Street Visitors Center. Recently developed information materials, including a monthly newsletter, brochure, and website, are promoting the Canal's attractions throughout the region. New efforts to interpret the Canal's past includes an oral history project that has received enthusiastic support from local residents; already a large number of artifacts and anecdotes have been collected. Another active effort is the ACA's re-introduction of replica Petersburg boats and their associated docking facilities to the Canal in 2000. This project is building upon the successful launching of a replica Petersburg boat in 1994. When completed, the replica Petersburg boats and docking facilities will be used for regularly scheduled demonstrations and activities.

Planning & Design Assistance

Achievements to Date:

The ACA has participated in numerous community redevelopment, infrastructure, and remediation projects with Canal-area impact. Financed by Augusta-Richmond public agencies and utilities, major public works projects in downtown areas including portions of the NHA are expected to exceed \$30,000,000 in total expenditures over the next few years.

In a supporting role, the ACA has contributed to active planning and design projects in the Canal area, many of which are establishing new economic directions for the Augusta community. As noted in Table 2, over \$28,600,000 worth of Canal-related improvements have either been completed or planned for fiscal years 1998-2000. This significant funding is testament to the direct and indirect economic impact of the ACA's leadership and efforts. Although many of the largest investments in the Canal area - including the Enterprise Mill rehabilitation and the current Third Level Canal improvements - have been led by outside interests, the concept and plan for these improvements is consistent with the vision put forth in the 1993 Plan.



3 Action Agenda

3.1 Management Planning Process

Issues to consider in the Plan and priorities for future ACA actions were identified through a survey of the ACA Board, interviews with community leaders, and a meeting open to the general public. A high level of interest and activity in the Canal area was identified in each forum, resulting in the creation of a thorough and ambitious Action Agenda for the ACA. Appendix B summarizes the results of the public process, with the priorities for the Management Plan highlighted.

3.2 Overview of the Proposed Phasing Strategy

Building upon the ACA's early success, the Action Agenda offers a strategy to prioritize future efforts. The planning period extends to 2012, and two broad phases are proposed. Phase I is envisioned as a three year period of initial actions, while Phase II covers the remaining years. The following sections identify key strategies for both phases, with more direction and detail offered for Phase 1 actions.

Table 2 summarizes the existing trends for Augusta Canal-related expenditures and offers a strategy to guide future ACA priorities. The objective is to illustrate how a distribution of ACA expenditures across the five management elements can be directed over the course of the planning period to more closely match the public priorities identified in the planning process.

The budget strategy for Phase I (fiscal years 2000-2002), as illustrated in **Table 2**, incorporates improvements and expenditures already committed, while distributing additional revenue towards a variety of efforts that increase the visibility and use of the Canal corridor. Efforts should focus on fully utilizing initial improvements, conserving the Canal's natural features, determining the interpretive approach, defining and formalizing a wide range of partnering relationships, scoping future improvements, and assuming a leadership role in community activities which could have beneficial impacts on the Heritage Area.

Through the initiation of Phase II, the Canal's overall image and identity should come into focus. Venues and settings will be added to the base of physical improvements completed in Phase I, creating a sequence of integrated attractions with regional appeal. Visitors should be able to enjoy a wide range of programs and

activities that fully utilize the Canal's recreational, environmental, and historic resources. **Table 2** illustrates a projected expenditure trend over the course of Phase II away from facilities development and towards preservation, conservation and programming efforts.

As the sunset for federal heritage funds in 2012 approaches, the ACA should be working to ensure a lasting legacy. Key venues should be completed, natural and cultural resources should be protected, and the areas surrounding the Canal should be revitalized through active ACA involvement. Sustainable partnerships to enable a continuing role for the ACA beyond 2012 should be formed, including securing sources of funding. **Table 2** proposes that expenditures across the management elements should closely reflect public priorities identified in the planning process by the end of the Phase II period.

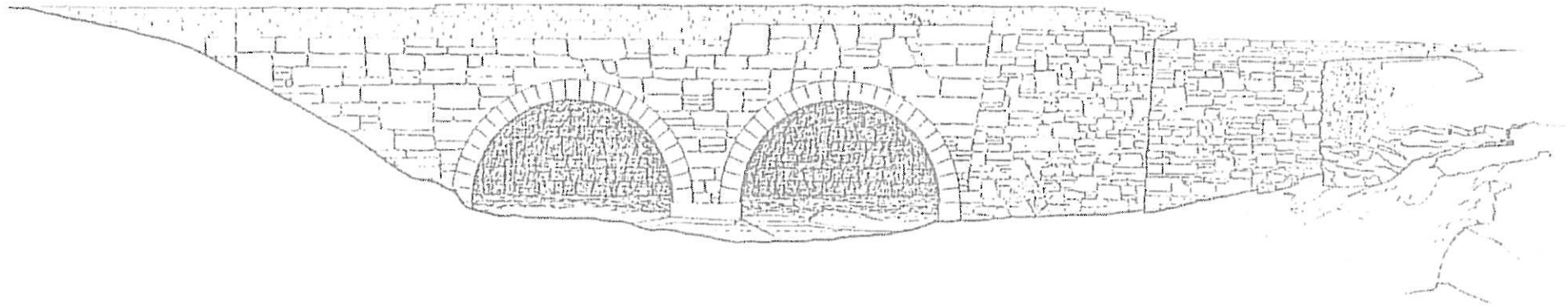


Table 2: Augusta Canal-Related Expenditures, Existing Trends, Future Trends

	Total	Facility Development	Resource Stewardship	Heritage Programming & Outreach	Heritage Infrastructure	Planning & Design Assistance
Existing Trends						
Total Canal-Related Expenditures (\$, FY98-FY00) *	\$28,653,629		\$22,381,334	\$69,000	\$1,049,910	\$0
Adjusted Total Canal-Related Expenditures (FY98-FY00) **	\$7,802,295		\$1,530,000	\$69,000	\$1,049,910	\$0
Adjusted % of Total Canal-Related Expenditures (FY98-FY00)	100.0%	66.0%	19.6%	0.9%	13.6%	0.0%
ACA Expenditures (\$, FY98-FY00) ***	\$3,861,891	\$2,131,981	\$620,000	\$60,000	\$1,049,910	\$0
% of ACA Expenditures (FY98-FY00)	100.0%	55.2%	16.1%	1.6%	27.2%	0.0%
Augusta Canal Management Plan Public Process						
ACA Board Survey Priorities (%)	100.0%	27.5%	31.8%	13.8%	16.6%	10.2%
Public Meeting Priorities (%)	100.0%	24.2%	28.0%	11.4%	22.0%	14.4%
Planning Process Priorities Average (%)	100.0%	25.9%	29.9%	12.6%	19.3%	12.3%
Future Directions						
ACA Annual Dedicated Funds (\$, FY00-02)	\$1,660,000****	\$750,000 (45%)	\$475,000 (29%)	\$75,000 (5%)	\$310,000 (19%)	\$50,000 (3%)
Strategy for Phase 1 (\$, FY00-02)		Complete initial venues; prioritize additional venues that leverage significant local and federal \$	Conserve the Canal's natural setting; foster a local consistency to lead future stewardship efforts	Sponsor programs to use initial venues; build partnerships to initiate future events & activities	Create materials for interpretive parks/visitor centers based on the outcome of the Canal-wide interpretive strategy	Increase public amenity of projects with Canal impact (eg. 15 St. Extension., 3rd Level Canal)
Expenditures Trend		Steady \$ decrease as key recreational & interpretive venues are completed; outside groups take on a greater financial role to build new projects.	\$ increase as major public works become a catalyst for new conservation & preservation efforts in the middle and lower Canal areas	Significant \$ increase over period as partnerships are forged with groups to develop events & programs; educational programs that use Canal venues are emphasized.	Small \$ increase as new materials & exhibits are developed, focusing on the natural and historical structures preserved.	Significant \$ increase as ACA priorities shift from financial support for major community projects to technical assistance for efforts with positive Canal impact.
ACA Annual Dedicated Funds (\$, FY09-FY12)	\$1,660,000****	\$450,000 (27%)	\$525,000 (32%)	\$200,000 (12%)	\$335,000 (20%)	\$150,000 (9%)

Funding for each of the five management elements moves over the 12 year planning period to levels of support that are consistent with the priorities identified through the planning process. In support of the Action Agenda, the narrative boxes in the table describe the expenditures trend for each management element. The total Annual Dedicated Funds for both Action Agenda phases will be significantly higher than \$1,660,000 if the ACA continues its success at attracting partnering funds far in excess of federal funding match requirements.

Notes:
 * All expenditures are estimates and reflect \$ which has been either expended or committed
 ** Adjusted resource stewardship expenditures reflect the omission of the major projects being completed by outside groups (Gas Company remediation, Enterprise Mill restoration)
 *** Expenditures reflect the total \$ amount for projects jointly funded by the ACA and its partners
 **** Estimated ACA annual budget includes only the following revenue sources (20% subtracted for administration and overhead):
 \$75,000 National Park Service technical assistance revenue
 \$1,000,000 National Heritage Area (NHA) funds
 \$1,000,000 local match of NHA funds (including the estimated \$275,000 in annual ACA water revenue)
 \$2,075,000 total, less 20% administration and overhead = \$1,660,000
 Non-federal heritage expenditures in the future (eg: TEA-21, Augusta-Richmond and Columbia County SPLOST) will, in all likelihood, greatly exceed the \$1,000,000 minimum

3.3 Phase I: Maximize the Impact of Initial Investments and Build Capacity

Seven overall strategies are suggested for Phase I. Each strategy includes a number of mutually supportive actions that bridge multiple management elements. Table 3 itemizes the key actions by strategy, and includes a proposed ACA annual budget that covers the Phase I planning period.

Strategy 1: Complete and fully use initial improvements

In association with its community partners, the ACA has been creating new activity venues along the Canal corridor. In Phase I, priority should be placed on completing the initial improvements and programming activities in order to use the new venues.

Finish Initial Facilities and Venues

Key projects planned for completion within the first few years should have the highest priority. These projects include the multi-use bikeway, the Petersburg boats and docks, and the Headgates restorations and site improvements. Collectively, these three projects have the potential to greatly increase activity along the Canal corridor. Other projects planned in Phase I include improvements to Chafee Park and the Waterworks; both locations could become important open space

and interpretive resources. The Chafee Park Master Plan should be finished within the year, while a plan for the Waterworks is anticipated to commence in 2000. In realizing these plans, the ACA's success at leveraging funds from various federal and local sources for current physical improvements would set a good precedent for future success.

Support Activities to Program and Use Venues

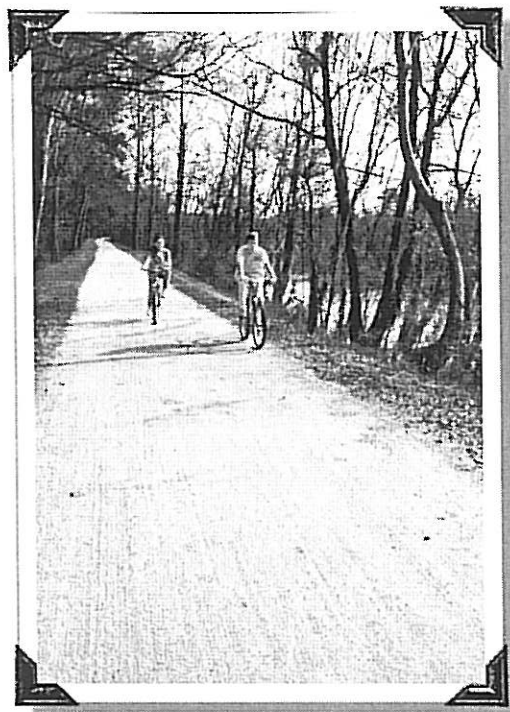
Educational programs, special events, and activities should be initiated to effectively use these new facilities and venues. The success of ongoing events, such as the Canal Discovery Days, and educational programs such as the Canal Ecology Tours, demonstrates the potential of Canal activities to generate increased use of the Canal. With the addition of new attractions, such as the Barbecue Shed and Dance Pavilion in the Headgates area, opportunities for programming activities should increase significantly. Controlled concessions should also be provided for food and drink, as well as canoe and bike rentals, as demand warrants. The Canal Authority can encourage diverse use of the corridor through activity and education grants in Phase I that encourage a creative range of effective recreational, cultural, and environmental activities. Although Canal venues should be used to host activities whenever possible, off-site demonstrations and programs should also be sponsored to increase the Canal's regional visibility.



During Canal Discovery Days, diverse groups celebrate their heritage.

Develop Information and Marketing Materials

In support of the new venues and their associated activities, events, and educational programs, the ACA should create material in various media for increased visibility and use. ACA financial support for the first few years should focus on marketing and public information materials that promote the new venues and associated programs.



The nearly complete bikeway and multi-use trail will provide cyclists and walkers a seven mile long scenic recreation corridor, connecting the natural setting of the Upper Canal with to the downtown riverfront.

Strategy 2: Expand efforts to conserve the Canal's natural features

The Canal's designation by local, state, and national authorities as a protected resource is a significant achievement. This success reflects a strong commitment by the ACA Board and community members to protect the Augusta Canal as a public open space. Phase I offers the opportunity to build upon this initial conservation success through a number of actions:

Keep Development From Encroaching on the Canal's Natural Setting

The spectacular natural setting of the Upper Canal is threatened by encroaching residential development in Columbia County and the existence of undeveloped parcels zoned for industrial development adjacent to the NHA boundary. With current restrictions only limiting development within 100' of the NHA boundary, the character of the Upper Canal would change significantly if the vacant parcels are developed. Recognizing the risk of incompatible development, the ACA should remain proactive in acquiring land or conservation easements, such as the area adjacent to Warren Lake. A Phase I priority should be conserving the Upper Canal area through either acquiring additional land or lobbying landowners and local authorities for strengthening land use controls that limit development. Potential land use tools include the creation of conservation easements and the rezoning of industrial uses to those more compatible with the natural setting.

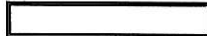
**Table 3
Augusta Canal
Management Plan Elements**

	Facility Development	Resource Stewardship	Heritage Programming & Outreach	Heritage Infrastructure	Planning & Design Assistance	Total
1.1 Complete and fully use initial improvements						
1.1.1 Finish initial facilities and venues						
a. Headgates master plan improvements	\$3,000,000					
b. Headgates restoration of buildings		\$942,000				
c. Headgates restoration of the locks		\$975,000				
d. Petersburg boats and docking				\$730,000		
e. Multi-use bikeway trail	\$1,000,000					
g. Chafee Park physical improvements	\$1,000,000					
h. Waterworks area plan	\$40,000					
1.1.2 Support activities to use venues						
a. event/activity grants (venue specific)			\$30,000			
b. education grants (venue specific)			\$30,000			
1.1.3 Promote improvements through exhibits						
a. interpretive materials & exhibits				\$750,000		
b. information material (brochures, etc.)				\$120,000		
1.1 Sub-Total						\$8,617,000
1.2 Expand efforts to conserve natural features						
1.2.1 Prevent encroachment on natural settings						
a. acquisition of buffer lands **		\$3,000,000				
b. technical assistance for land-use controls					\$20,000	
1.2.2 Initiate resource protection efforts						
a. environmental conservation grants		\$70,000				
b. historic preservation grants		\$70,000				
c. technical assistance for conservation efforts		\$30,000				
1.2.3 Improve setting through mitigation efforts						
a. mitigation grants (road screening, etc.)		\$70,000				
b. technical assistance		\$20,000				
1.2 Sub-Total						\$3,280,000
1.3 Broaden the scope of interpretation						
1.3.1 Central visitors center				\$500,000		
1.3.2 Complete interpretive planning efforts						
a. Canal-wide interpretive plan				\$70,000		
b. archaeological study of Headgates				\$50,000		
1.3 Sub-Total						\$620,000

Table 3 (con't)
Augusta Canal
Management Plan Elements

	Facility Development	Resource Stewardship	Heritage Programming & Outreach	Heritage Infrastructure	Planning & Design Assistance	Total
1.4 Define and formalize partnering relationships						
1.4.1 Friends group assistance						
a. seed funding					\$30,000	
b. technical assistance					\$10,000	
1.4.2 Identify new partners						
a. event/activity grants (Canal-wide)			\$30,000			
b. education grants (Canal-wide)			\$30,000			
c. curriculum grants (Canal-wide)			\$30,000			
d. research grants (Canal-wide)			\$30,000			
1.4 Sub-Total						\$160,000
1.5 Expand ACA Management Capacity ***						
1.6 Canal discovery center feasibility study	\$60,000					
1.6 Sub-Total						\$60,000
1.7 Raise ACA profile in community projects						
1.6.1 Programming						
a. educational demonstrations and programs			\$22,500			
b. special events			\$22,500			
1.6.2 Planning and design assistance						
a. technical assistance (workshops, etc.)					\$30,000	
b. financial assistance (grants, etc.)					\$60,000	
1.6 Sub-Total						\$135,000
3 Year Phase I Expenditures Total	\$5,100,000	\$5,177,000	\$225,000	\$2,220,000	\$150,000	
Grand Total						\$12,872,000

KEY



3 year ACA-leveraged budget (reflects 1:1 ACA to Partner commitment)

*

budget allocation reflects ACA 20% commitment only (balance from TEA-21 grants)

**

Administrative expenses (not a management element)

Initiate Resource Protection Efforts

Working in cooperation with a Friends group (if established) and public agencies, the ACA should initiate resource protection efforts to improve the ecology of the Canal environs. As part of this objective, elements of the cultural landscape, such as the Canal banks and tow-path should be restored in a manner that complements the preservation of associated buildings and structures. Through offering conservation grants targeting efforts, such as the restoration of native vegetation and wildlife habitats, the ACA can enhance the Canal's natural resources while developing settings for environmental education and interpretation. Activities and programs in support of conservation and protection efforts should also be sponsored by the ACA through grants that raise community awareness about the Canal's natural features.

Enhance the Canal's Setting Through Mitigation Efforts

ACA-led conservation actions should include efforts to mitigate features that negatively impact the Canal's historic and natural settings. The ACA should work in cooperation with public officials to remove contemporary intrusions, such as overhead power lines in the urban sections of the Canal. A related initiative could be mitigation grants to encourage Georgia DOT and the CSX Railway to introduce visual and sound buffers along the transportation corridors running through the NHA. In support of these mitigation efforts, the ACA should work with local authorities to ensure litter collection (especially after large events) and restrictions on motorized boating and informal camping are enforced.

Strategy 3: Broaden the Scope of Interpretation

An interpretive strategy should be developed to coordinate interpretation of the Canal's three emerging venues. The Headgates area in the Upper Canal area, the Chafee Park/Harrisburg area (including the Powderworks and the existing mills), and the Enterprise Mill area each have unique and complementary resources to interpret.

An interpretive strategy would coordinate the activities and events that use the facilities and venues along the Canal corridor. Phase I efforts should involve strategic planning and the creation of some initial exhibits and materials associated with the recently completed Canal improvements.

Establish a Central Visitors Center

The strongest option for a central visitors center location is the Enterprise Mill. As a landmark with high visibility and strong downtown access, the Mill would be ideal as an interpretive venue and staging area for Canal recreational activities, including Petersburg boat docking. If the Enterprise Mill option is deemed unfeasible, a second option would be the construction of a new facility in Chafee Park that is linked to interpretive venues in the immediate area.

Expand the Interpretation of the Augusta Canal Story

The first step for the ACA will be to complete strategic planning efforts, including the archeological study of the Headgates and a corridor-wide interpretive plan. Both plans should be completed within 1-2 years. The interpretive plan's scope should include the determination of visitor experience and prioritization of themes which explain the Canal's history. Figure 5 illustrates the Canal's eight key interpretive venues.

The interpretive strategy should be closely coupled with an approach to the visitor experience. Assuming that the ACA develops a central visitor center, the Plan should address use of the facility and should be coordinated with other interpretive venues along the Canal.

The interpretive plan should also focus on identifying and prioritizing the stories to be told. The Canal's significant natural and built resources, and their associated themes, have been studied through planning efforts such as the 1993 Augusta Canal Master Plan. What is needed now is a place-based strategy for the ACA to tell a set of stories along the Canal. Key interpretive themes with wide appeal that should be further investigated include: the social history of the Canal, focusing on the stories of class, race and gender; the area's unique Fall Line ecology; the story of the 19th century engineering of the canal's locks and dams; and the Canal's significance in the industrialization of Augusta and a larger region. The success of the recently launched Oral History Project suggests that there will be strong interest in future efforts that expand the scope of the Canal's interpretation. Along with prioritizing the Canal stories, the interpretive plan should determine if sites such as Chafee Park and the Powderworks warrant archaeological studies similar to the effort in the Headgates area.

Strategy 4: Define and Formalize Partnering Relationships

Outreach efforts that build a local constituency for the ACA's preservation, conservation, and interpretation initiatives should be priorities of Phase I. Since each management element requires different types of involvement, the ACA's outreach to prospective partners should be broad and comprehensive, beginning immediately in Phase I and continuing throughout the planning period. Financial support in Phase I should establish an independent Friends Group and create partnerships with individuals and groups who will directly collaborate on ACA initiatives.

Assist the Creation of a Friends Group

The establishment of an advocacy group that taps the significant energy, interest and commitment of Canal users is the highest priority. A Friends group would demonstrate to local civic and business leaders that support and interest in the Canal runs deep and is community wide. Taking a cue from Friends groups in other parts

of the country, a "Friends of the Augusta Canal" could be independent of the ACA, but an important partner for many initiatives. The group could become an advocate for environmental protection and mitigation efforts along the Canal and might take a leading role in volunteer recruitment and fundraising for large facilities.

The ACA can help establish an effective Friends group, through seed funding and the sponsorship of leadership training workshops.

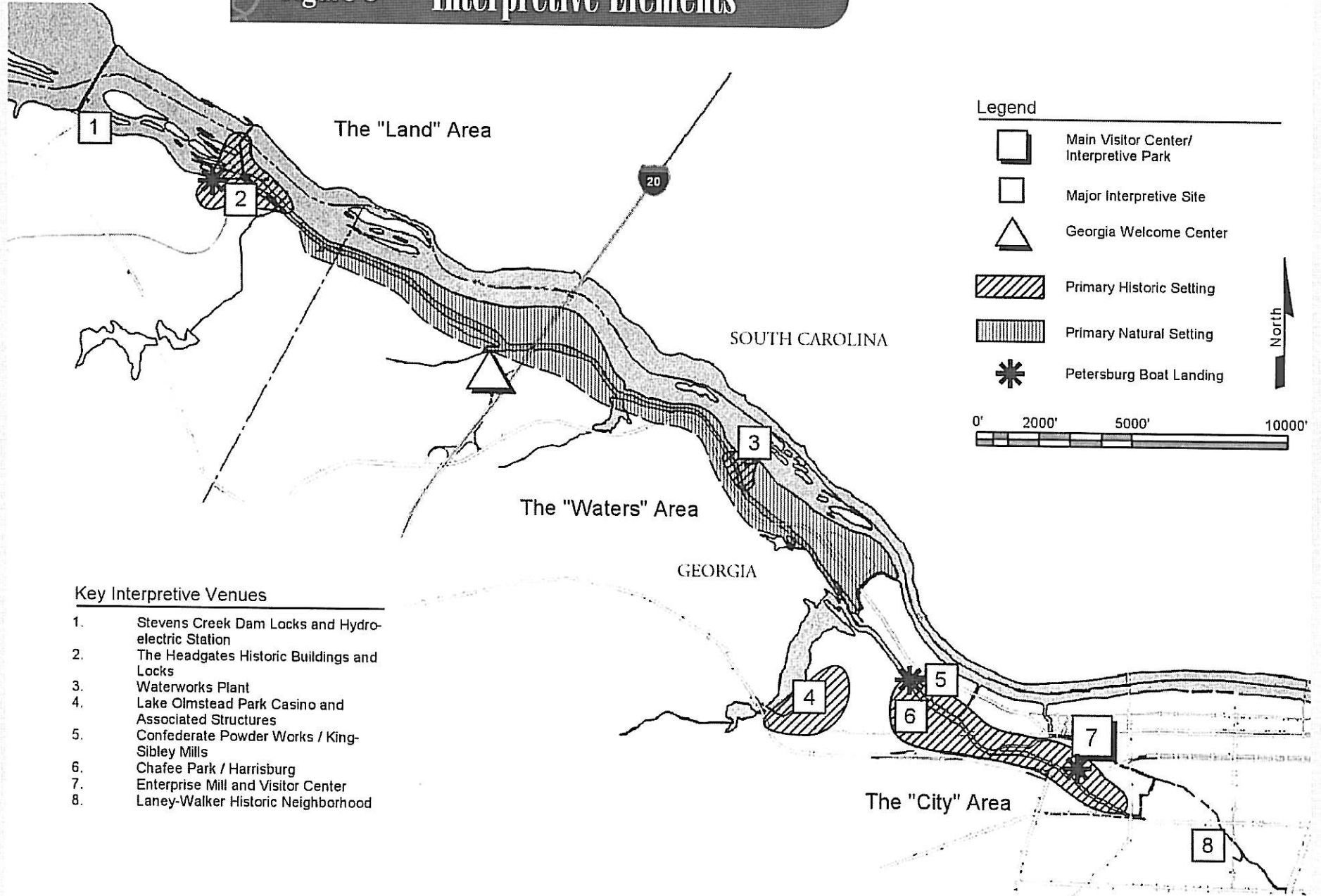
Identify Other Partners

Forging relationships is another key element of early ACA outreach efforts. Through public meetings and interviews associated with creation of the Management Plan, it is clear that there are a number of organizations and individuals with an interest in the Canal and expertise to contribute to ACA efforts. By offering grants for activities and curriculum development, the ACA could encourage outside groups and individuals to develop and implement creative activities and programs that relate to the new venues along the Canal. Beyond funding support, the ACA should also assist its fledgling partners in improving their management and fundraising capabilities so that they may be able to independently initiate future activities. Capacity building initiatives may involve workshops and seminars funded by the ACA, covering a range of topics such as grant writing, curriculum development, and non-profit management. Strong interest in the recently-launched Augusta Canal Oral History project demonstrates the potential for interpretive outreach to capture the many stories about the Augusta Canal.



Figure 5

Interpretive Elements



Strategy 5: Expand ACA Management Capacity

Expanding the capacity of the ACA to accomplish its management objectives is a priority of Phase I efforts. Priorities for action include: organizing the expanded ACA Board, hiring staff or park rangers, maintaining facilities along the Corridor, and recruiting volunteers and interns to staff facilities, lead tours, and develop interpretive programs. As ACA acquires artifacts, documents, and other collections, it should develop a collection management plan to insure that those resources are appropriately cataloged, stored, and preserved.

Organize the Enlarged ACA Board

The recent expansion of the ACA board from five to twelve members is the most immediate opportunity to broaden the scope of ACA activities and increase its regional visibility. A thorough training and orientation program should be developed immediately to offer new board members sufficient background on the key issues and directions for the Canal. The orientation may include the creation of a briefing book and workshops that offer a thorough overview of the Canal's resources and institutional environment.

Once the orientation for new ACA board members is complete, a working structure to take advantage of the energy and ideas of the expanded board needs to be developed. Several committees should be established to advise and support ACA efforts. These committees could include: (1) Project Development, focused on leveraging partnerships for capital improvements; (2) Events and Programs, focused on marketing efforts and attracting partners for programs that interpret the Canal's resources and use its facilities; (3) Planning and Design Assistance, to extend ACA technical and financial assistance towards community projects in support of ACA objectives; and, (4) Finance, to provide input and oversight to budgetary matters, including the identification of new sources of revenue.

All committees should encourage the active participation and eventual membership of community partners with an interest and expertise in the committee subject area. With ongoing training and support from on-call consultants, the committees will be able to advise the Board as to appropriate actions and initiatives for establishing and managing the ACA's technical and financial assistance programs.

Increase ACA Staffing and Support

As improvements are made and use of the Canal increases, the ACA should increase staffing and support. The ACA should ensure that adequate policing of the Canal and maintenance of its venues is in place. Demand for such efforts will only increase as new facilities are built and use of the corridor as a place for recreation and special events increases. Staffing needs may be met through either hiring park rangers or working out shared agreements with area public agencies to meet staffing needs.

As new venues are created and programs expand, the ACA should also recruit and train volunteers that will lead tours and staff interpretive facilities. Additionally, an internship program should be created during this period through partnering with area universities. Through this partnership, students in the natural sciences, education, and history can be recruited to work with the ACA, conducting research or developing curriculum that supports interpretation of the Canal.

Strategy 6: Explore the Feasibility of a Canal Discovery Center

The high quality of the Canal's natural environment and a strong community interest in conservation were identified over the course of the Management Plan planning process.

Community support for the creation of a discovery center has been further strengthened by the recent formation and rapid growth of the local Southeastern Natural Sciences Academy.

Leading the process to investigate the creation of an innovative signature project along the Canal will raise the ACA's community profile and rally interest and support in other Canal activities. Since development of the facility will involve many phases, it is important to initiate efforts in the first year of Phase I. Although public input during the feasibility study process may reveal different priorities, the Center is currently envisioned as a community destination and educational resource hosting exploratory education programs, exhibits and related interpretation, and research activities.

The first step is to launch a feasibility study that should include:

- **assessing existing and potential community resources and organizations which can partner in and/or contribute to the concept**
- **defining a program of uses and requirements for the proposed facility**
- **assessing potential candidate sites, including suitability and availability**
- **defining capital and operating cost requirements**
- **determining if community support is great enough for the project to move forward**

Identifying a strong partner to develop and manage programs at the Center will be a key priority during the feasibility study process. Interviews and the public workshop related to the development of this Management Plan demonstrate strong interest in activities related to the Canal's natural environment. Already, one organization - Southeastern Natural

Sciences Academy (SNSA) - has responded to the community's environmental interests through a development campaign to create a Natural Sciences Museum Complex and Nature Park. Currently envisioned for downtown Augusta, the facility is planned to initially include classrooms, labs, and a natural sciences library and museum; eventually, a conservatory and butterfly house are planned. With plans to expand its popular educational programs and tours related to the Fall Line ecology, SNSA is a potential partner for programs and demonstrations in the proposed Canal discovery center. Other potential partners for the discovery center should be identified over the course of developing the feasibility study.



Strategy 7: Raise the ACA's Profile in Community Projects with Canal Impacts

The Canal can once again play a major role in setting new economic directions for the greater Augusta community. Major public works underway offer an important opportunity for the ACA to increase its profile in the community and promote physical improvements that reinforce ACA objectives. Efforts are already moving ahead to link planned Canal improvements in the Chafee Park area in conjunction with downtown investment and the 15th Street extension/Broad Street corridor. Another effort (the

3rd Level Canal improvements and Gas Company remediation project) is being coordinated with community development efforts planned for the Laney-Walker neighborhood on the southeast edge of the Canal. Beyond the significant and immediate impact each project will have on the NHA, positive long-term economic development and revitalization benefits will be possible if the ACA takes an active part in the planning process. As the projects take shape, the ACA should play an important role through planning and design review, technical and financial assistance, and programs or demonstrations that increase community participation and awareness about the issues involved.

3.4 Phase II: Complete Facility Improvements and Increase the Visibility of the Heritage Area as a Regional Resource

The six key strategies for Phase II build upon the achievements of Phase I:

Strategy 1: Complete a Distinct Visitor Experience of Linked Venues

The physical image and identity of the Canal should be fundamentally established at the start of Phase II. Actions led by the ACA should enhance existing improvements and lead new improvements in the following areas.

Complete a Central Visitors Center and a Series of Interpretive Park Venues

The highest priority for Phase II is realizing the interpretive plan's recommendation for the preferred visitor experience. If the preferred option for locating a central visitors center in the Enterprise Mill can be finalized, efforts should go towards outfitting the space and developing interpretive materials and exhibits. The secondary option of building a visitors center along Pearl Avenue in Chafee Park, as proposed in the recently completed Sibley/King/Harrisburg

District Master Plan, will require more lead time to complete. A key requirement for either option is that the visitors center should be at least 10,000 square feet and has space to accommodate uses including: exhibit and demonstration space, offices for the ACA, a gift shop, and classrooms. The central visitors center should include strong outdoor connections to nearby resources.

Additional improvements and self-instructing interpretive exhibits at key settings along the Canal, including the Headgates and Waterworks area, should also be completed in Phase II. As a series of interpretive venues, all improvements should complement the program for the central visitors center.

Develop a Network of Connected Open Spaces

As facilities and venues are completed, settings along the Canal should be connected, creating a network of active and quiet zones. Active facilities, such as the multi-use trail and sports fields, should be linked, but nevertheless, separated through landscaping and grading to secluded wooded areas along the river banks, with a quiet, natural setting. Priority projects to complete by the end of Phase II include: open space amenities associated with the 3rd Level Canal remediation; the Fall Line and Bartram Trail's footpaths and boardwalks; extensions between the finished multi-use trail and the Augusta Regional Transit System (ARTS) network under development; Chafee Park and the remaining Lake Olmstead improvements, including a trail link along the South Bank between the two parks.

Improving access along the Canal for a broad audience, both young and old, active and sedentary, should be a complementary focus of ACA efforts in Phase II. By the end of the phase, active and passive modes of travel through the corridor should be possible. Active modes will include hiking, biking, canoes, and kayaks. Passive modes will include self-guided car trips in the lower Canal sections or boat cruises.

Create Distinctive Entrances

The visibility of the Canal should be further enhanced in Phase II through improvements to entrances along the National Heritage Area perimeter. The ACA should offer grants for improved landscaping and signage at key gateways, such as the Headgates, Waterworks, Chafee Park, and Laney-Walker. This will serve to establish a sense of entrance that reinforces the Canal's emerging identity as a corridor with distinct venues and settings to explore.

Strategy 2: Create a Vital Setting and Surrounding Context

In addition to Canal-wide efforts to complete an engaging visitor experience, the ACA should work in Phase II to reinforce the distinct character of the Canal's three regions and improve the condition of its surroundings. Historic preservation and environmental conservation grants started in Phase I should be continued in Phase II, as local partnerships are strengthened. Major efforts initiated in Phase I, such as the preservation of historic mill structures, will be multi-year efforts continuing well into Phase II. Other projects, such as the restoration of native vegetation, the establishment of wildlife habitats, and the mitigation of features incompatible with the Canal's natural setting, are ongoing and will require steady ACA technical and financial assistance. New initiatives, such as reclamation of the landfill and borrow pits, may also emerge as priorities once a broadly supported reuse option emerges. Activity and program grants in support of the ACA's preservation and conservation efforts could be expanded in Phase II, extending beyond Canal concerns to link with regional interests, such as the ecology of the Savannah River watershed and the connection between the Canal area and the Phinizy Swamp area.

Strategy 3: Play an Active Role in Urban Canal Area Redevelopment Efforts

The ACA should work with public agencies to guide redevelopment of the Enterprise Mill/Saint Sebastian Way area and the nearby neighborhoods of Harrisburg and Laney-Walker. In each of these areas, public investments completed in Phase I should lead to significant opportunities for redevelopment. Although public agencies will lead most redevelopment efforts, the ACA should play a visible supporting role. As redevelopment unfolds, ACA assistance should include financial and technical support for key projects and ongoing planning and design review.

Support the Creation of the Enterprise Mill Commercial District

The anticipated completion of major investments along West Broad Street and the Saint Sebastian Way/Greene Street extension in Phase I should result in redevelopment interest in the Canal area between the Enterprise Mill and Medical Complex. The ACA could offer technical and financial assistance for the restoration and reuse of significant structures, such as the Sutherland Mill, and the creation of

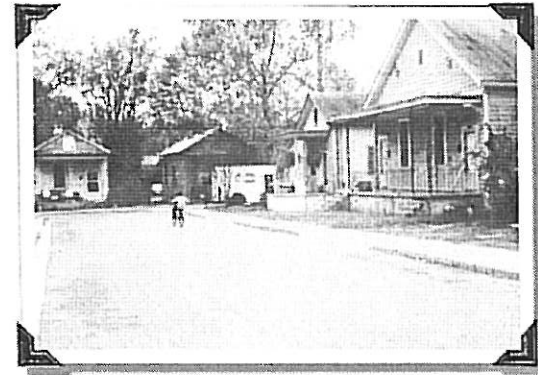
an open space network encompassing the 2nd Level Canal and its associated sites, including Hawk's Gully and the Canal Basin.

Assist Neighborhood Revitalization Efforts

The ACA should also be involved in efforts to revitalize the Harrisburg and Laney-Walker neighborhoods, capitalizing on the large public works projects expected to be completed in Phase I. In both areas, the ACA should work with its public partners to identify funding sources, such as Augusta/Richmond County Special Local Option Sales Tax (SPLOST) revenues, that can be leveraged with ACA federally funded site improvements. Priority should be given to projects that will act as catalysts for private investment. Direct improvements by the ACA should focus on Chafee Park and West Broad Street in Harrisburg, and focus on Dyers Park and the open spaces created along the re-watered 3rd Level Canal in Laney-Walker. Additional ACA technical and financial support in the neighborhoods should be extended to public and private partners involved in building community facilities and housing in these areas.

Sponsor Community Building Programs

In addition to sponsoring capital improvements, the ACA can provide grants for modest community projects that increase neighborhood identity and pride in Harrisburg and Laney-Walker. Community grants could encourage groups to complete facilities, such as playgrounds and community gardens, and streetscape improvements including historic lighting and festive banners. Activity grants could also be offered, encouraging neighborhood residents to sponsor clean-up days or festivals in the new open spaces.



In addition to sponsoring capital improvements, the ACA can provide grants for community projects and events that increase neighborhood identity and pride in Harrisburg and Laney-Walker.



The construction of Saint Sebastian's Way and the Greene Street extension will complement the \$17 million rehabilitation of the Enterprise Mill, increasing development interest in the 2nd Level Canal area between the Mill and Medical Complex.



Strategy 4: Create a Center of Learning and Discovery

As partnerships are strengthened and the ACA budget for heritage programming and outreach efforts increase, significant new opportunities will be realized. At this stage the Canal can become a regional learning and discovery center for all ages.

Develop Additional Interpretive Materials and Exhibits

Following the development of an interpretation strategy and provision of initial materials prescribed in Phase I, exhibits and materials should be created to broaden the scope of interpretation. Static and interactive exhibits, both temporary and permanent, will help interpret the Canal venues and associated programs. Larger permanent exhibits might be created for sites, such as the I-20 Information Center and either a Canal visitor center or a collection of key venues, depending on the outcome of the interpretation strategy. A collection of smaller temporary exhibits and interactive displays should also be developed to place in off site locations such as the local museums, the Convention & Visitors Center, the Cotton Exchange Visitors Center, the airport, and major hotels. Other interpretive materials to develop might include shelters, plaques, wayside signs, traveling exhibits, and interactive displays for during community festivals.

Interpretive materials should also be developed during Phase II to increase community awareness and interest in active conservation and preservation in the Harrisburg and Laney-Walker areas. In Chafee Park, preferably near the Petersburg Boat Docks, interpretive exhibits could include materials and/or models of the Powderworks plant and a restored mill house with period furnishings open to the public. In Laney-Walker, interpretive plaques and restored historic homes could help educate the community about the area's significant role in the early growth and development of the city.

Sponsor Activities and Programs

Educational programs and demonstrations closely associated with the interpretive exhibits and venues should remain a priority for Phase II efforts. Education grants should target an expanded audience, reaching both students and teachers; an increase in the number of on-site and off-site venues hosting programs; and, a wider range of demonstrations and programs, covering the Canal's historical, environmental and recreational resources. Additional research and curriculum grants should be developed to target regional and national groups with an interest in the Canal's unique Fall Line ecology and its role in the industrialization of the South.

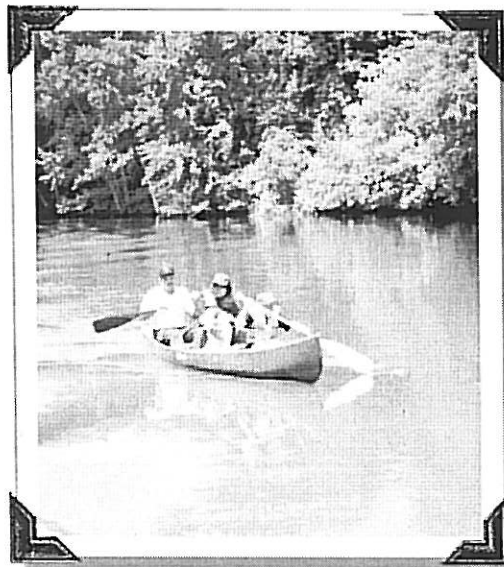
Strategy 5: Implement the Recommendations of the Discovery Center Feasibility Study

The outcome of the Phase I feasibility study will determine the Center's scope, location, and scale. If recommendations are positive, attention in Phase II should turn to securing a site and raising money to build and operate the facility and its programs. The ACA could take the lead in coordinating efforts for site acquisition and preparation, while partners interested in using the facility could lead fundraising efforts. Even if the recommendations do not endorse building a discovery center, the ACA should continue to expand successful interpretive programs and demonstrations started during the outreach in Phase I.

Boating is one of the most popular recreational activities along the Canal and Savannah River, with the Headgates the key launching area.

Strategy 6: Lead the Visioning and Planning for Later Physical Improvements

During the first few years of Phase II the ACA should assess the remaining physical improvements with significant community support. Because some projects may not be realized until after 2012 (when federal heritage funds may no longer be available) priority should be placed on crafting implementation strategies that leverage the financial support of multiple public and private sector partners. Attention should focus on sponsoring redevelopment plans for the urban sections of the canal and feasibility studies for proposed recreational and interpretive venues. New recreational facilities, in particular, have been identified as having significant community interest through the planning process for the Management Plan. Water-based recreational development opportunities to investigate include a kayak run. Potential land-based recreational opportunities include a variety of new sporting venues that would make good use of the former city landfill and borrow pits.



Strategy 7: Move Towards Sustainable Management and Funding

In the early years of Phase II, the ACA should make some strategic decisions about the role of the Board beyond the sunset of heritage funding in 2012. The timing of such an appraisal would be ideal; early partnering experiments should be in place and the expanded ACA Board will have completed its period of transition. The critical long-term management choice is whether or not the ACA Board should maintain a high level of involvement in all five management element areas. Specifically, the question to ask is, will the ACA Board continue to take an active role in facility development and resource stewardship efforts? or, will the Board's attention narrow and focus only on community outreach efforts?

Regardless of the ACA's long-term role, priority should be placed on increasing the management capacity of its partners throughout Phase II. Financial and technical assistance should be extended to successful partners, encouraging them to take the initiative in leading facility development, resource stewardship, and programming efforts, as they develop capacity. Support for ACA partners may lead to a variety of long-term management structures and new revenue sources, including licensing and concessions, to ensure that Canal-related programs and venues are sustained far beyond 2012.



4 Costs and Revenues

4.1 Estimated Expenditures

Table 4 identifies key Canal expenditures by the ACA over the course of the planning period. A total of approximately \$40,873,000 is needed for the ACA to achieve the Action Agenda. This total reflects only improvements that will require ACA financial assistance. Based on current trends, the actual total expenditures for Canal-related improvements will likely be much higher during the planning period. Already, a number of public agencies and private interests have initiated new public works and community development projects in the Canal area that will not require ACA financial assistance. Community-sponsored improvements along the Canal are consistent with the demonstrated support evident from previous years. As noted in Table 2, over \$28,600,000 in Canal-related expenditures have been committed or planned between 1998 to 2000, with the ACA-leveraged portion of the total less than \$4,000,000.

**Table 4:
Planned ACA-Leveraged Canal Expenditures**

Expenditures by Management Element	13 Year Planning Period Total (FY 2000-2012)	Expenditures by Management Element	13 Year Planning Period Total (FY 2000-2012)
Facility Development (key projects)		Heritage Infrastructure (key projects)	
Parks, Recreation & Interpretive Facilities	\$13,951,000	Exhibits, Materials & Media	\$3,407,000
Chafee Park & Headgates site improvements		Petersburg boats	
Central visitors center in the Enterprise Mill		outfitting interpretive facilities	
Trails, including the Multi-use & Evans to Lock Bikeway		Marketing & Public Information	\$900,000
Access Improvements	\$3,978,000	newsletter, brochures, maps	
canal bridges		Sub-total	\$4,307,000
boat landings		Heritage Programming & Outreach (key projects)	
streetscapes, access roads, and parking lots		Special Events	\$500,000
Sub-total	\$17,929,000	activity/event grants for natural and cultural Canal themes	
Resource Stewardship (key projects)		Educational & Cultural Programs	\$1,000,000
Historic Preservation	\$3,130,000	educational demonstrations and programs	
Headgates buildings & locks restoration		curriculum grants	
Chafee Park area historic preservation		research grants	
Land Conservation	\$2,000,000	Sub-total	\$1,500,000
additional buffer lands		Planning & Design Assistance (key projects)	
Natural Resource Protection & Mitigation	\$10,807,000	Technical Assistance	\$200,000
landscape treatments		planning and design review	
native vegetation and habitat restoration		Financial Assistance	\$1,000,000
canal bank stabilization, dredging		grants for public improvements	
visual and acoustic buffers along transportation corridors		Sub-total	\$1,200,000
Sub-total	\$15,937,000	Total Estimated ACA-leveraged Expenditures	\$40,873,000

Notes:

* 13 year budget reflects a 1:3 federal heritage funds to ACA and partners commitment

4.2 Anticipated ACA Revenue Sources

The ACA has the track record and support to realize the goals of the Management Plan. Already, the ACA has demonstrated the ability to leverage partnerships for Canal improvements that far exceed match requirements. As identified in **Table 2**, approximately \$3,900,000, in ACA-leveraged expenditures have been committed or planned for fiscal years 1998 to 2000, with only \$1,750,000, from federal heritage funds. Since partner commitments are increasing and community support is growing, the ACA is well-positioned to continue leveraging local and federal support to realize the Management Plan's vision for the Canal.

Table 5 offers a summary of planned ACA-leveraged Canal expenditures and the proposed sources of funding.

Federal Heritage Funds

The ACA's funding authorization of \$10,000,000, with annual appropriations not to exceed \$1,000,000, requires a 1:1 match. However, in order to achieve the Action Agenda, a stronger match will be required. As identified in **Figure 5**, the planned ACA-leveraged expenditures of approximately \$40,800,000, will require a 1:3 ratio of federal heritage funds to other ACA-leveraged funding sources. With its demonstrated success at leveraging funds far in excess of match requirements, the ACA is in a good position to succeed in realizing its Action Agenda.

Local Revenue

Key sources of local revenue to match the federal heritage funds have been ACA water revenue and the Special Local Option Sales Tax (SPLOST). As a symbol of significant support from the Augusta-Richmond government, dedicated water revenue has been and will continue to be a primary source of ACA funding. Current projections anticipate an average of \$275,000, in annual water revenue for the duration of the planning period.

The Special Local Option Sales Tax is also expected to be a major continuing source of local funding for the ACA, although the level of financial support is subject to approval by county-wide ballots in Augusta-Richmond and Columbia Counties. In order to ensure future sales tax revenue, the ACA should continue to prioritize capital improvements for SPLOST ballots that have broad community appeal, especially in Augusta-Richmond where city-county government consolidation in 1995 has broadened the base of constituents and created competition for public sales tax dollars.

Other Revenue

Throughout the planning period the ACA should stay committed to identifying partners and opportunities for funding support. New and important sources of revenue are likely to be identified as the ACA broadens its scope of efforts and raises its involvement in the local community. One area of significant potential is the licensing of Canal merchandise and concessions at Canal venues.

Other key sources of ACA revenue have included National Park Service (NPS) technical assistance funds and TEA-21 federal transportation funds. Annual NPS support of \$75,000, has been received since 1997 and is expected to remain relatively steady throughout the planning period. Transportation enhancement funds (TEA-21), however, have significantly increased over the past few years. In fiscal years 1998 and 1999 alone, the ACA secured over \$3,200,000, in ISTEA and TEA-21 allocations. Although appropriations require a competitive application process, the ACA's demonstrated success at leveraging local support encourages future TEA-21 funding support will be received.



**Table 5:
Planned Canal Improvements and Expenditures (\$, Fiscal Year 2000-2012)**

Expenditures by Management Element	Proposed Allocation of Federal Heritage Funds	Proposed Match from Relatively Secure Sources of ACA Income	Likely Additional Match from Other Public/Private Sources	13 Year Planning Period Total (FY 2000-2012)
Facility Development				
Parks, Recreation & Interpretive Facilities	\$3,415,000	\$3,415,000	\$7,121,000	\$13,951,000
Access Improvements	\$968,000	\$968,000	\$2,042,000	\$3,978,000
Sub-total				\$17,929,000
Resource Stewardship				
Historic Preservation	\$765,000	\$765,000	\$1,600,000	\$3,130,000
Land Conservation	\$490,000	\$490,000	\$1,020,000	\$2,000,000
Natural Resource Protection & Mitigation	\$2,645,000	\$2,645,000	\$5,517,000	\$10,807,000
Sub-total				\$15,937,000
Heritage Infrastructure				
Exhibits, Materials & Media	\$835,000	\$835,000	\$1,737,000	\$3,407,000
Marketing & Public Information	\$220,000	\$220,000	\$460,000	\$900,000
Sub-total				\$4,307,000
Heritage Programming & Outreach				
Special Events	\$123,000	\$123,000	\$254,000	\$500,000
Educational & Cultural Programs	\$245,000	\$245,000	\$510,000	\$1,000,000
Sub-total				\$1,500,000
Planning & Design Assistance				
Technical Assistance (Design Review, etc.)	\$49,000	\$49,000	\$102,000	\$200,000
Financial Assistance (grants, etc.)	\$245,000	\$245,000	\$510,000	\$1,000,000
Sub-total				\$1,200,000
Total Estimated Expenditures	\$10,000,000	\$10,000,000	\$20,873,000	\$40,873,000

5 Environmental Assessment

5.1 Purpose and Need

5.1.1 Introduction

In 1996 Congress designated the Augusta Canal as a National Heritage Area: a resource of state and national significance. Beginning in the 1840s, the development of the canal system was important to the growth of Augusta as a major cotton shipping and manufacturing center. Today Augusta's is one of the most intact canal systems in the United States, playing an important role as a recreational resource for the city by providing biking, hiking, boating, and fishing amenities.

Designation as a National Heritage Area requires the submittal of a Management Plan for adoption by the Secretary of the Interior. Integral to this process is the preparation of an Environmental Assessment which presents several Management Plan alternatives and an assessment of environmental consequences for each alternative. The Management Plan alternatives represent options for use and protection of natural resources with various levels of federal, state, local, and private-sector involvement. The analysis identifies the "Preferred Alternative" with the logic and rationale for its selection.

Because of the conceptual nature of the Management Plan alternatives, the Environmental Assessment is presented at a commensurate level, providing a broad overview of potential impacts related to specific elements of each alternative. It is expected that when individual components of the Management Plan are implemented, a more detailed in-depth analysis of environmental impacts will be conducted as appropriate.

5.1.2 Project Location

The Augusta Canal National Heritage Area is located northwest of Augusta's downtown area and runs parallel to the Savannah River. The project area boundaries extend from Stevens Creek Dam to the Third Level Canal, adjacent to the Laney Walker neighborhood, as illustrated in Appendix Exhibit 1.

5.1.3 Background

The 1996 designation of the Augusta Canal as a National Heritage Area was a logical evolution from previous planning and advocacy efforts, which began in the mid 1970s with city and

state involvement for parks and related private development. These studies and actions, described below, defined the importance of the Canal as a resource and developed planning recommendations for its preservation and development:

- 1974: Augusta Canal Plan and Program - proposed the creation of a state-owned and managed linear regional park west of Twelfth Street, a local park east of Twelfth Street, a state park along the downtown Riverfront, and reuse and redevelopment of private lands adjacent to the Canal in urban areas.
- 1975: Augusta Canal Environs Study - proposed detailed recommendations for specific land uses suggested by the 1974 study, including the designation of a preservation zone in the vicinity of the King and Sibley Mill; new and adaptive reuse housing; and development of new parks and recreation areas.
- 1976-77: U.S. Department of the Interior Historic American Engineering Record - prepared detailed field studies documenting the history and physical characteristics of the Canal Waterworks and several important mill structures.
- 1977: National Register of Historic Places - nominated the Canal itself and the Sibley, King, Enterprise, and Blanche Mills
- 1979: Third Level Canal Drainage Improvement Study - included archaeological studies which recommended registration of additional buildings and structures to the National Register.
- 1989: Augusta Canal Authority - established by the Georgia General Assembly to "... promote the revitalization and development of the City of Augusta through the

creation of parks, recreation areas, and ...[to]... develop and promote for the public good and general welfare trade, tourism, commerce, industry, and employment opportunities."

- 1993 Master Plan - developed through a public process, proposed designation as a National Heritage Area; creation of a multi-use riverfront park of regional and state-wide importance; development of the corridor as a highly accessible educational resource; encouragement and facilitation of economic development at the edge of Augusta's downtown.

5.1.4 Project Purpose

The studies listed above provided the data and planning framework that demonstrated the need to establish a National Heritage Area as a means of preserving and interpreting the Canal and related resources in a manner which enhances the natural and urban environment of Augusta. The objective of this approach is to ensure the preservation of the intact canal system, its surrounding natural resources, and its historic context. These efforts will provide a means of communicating the Canal's role in the histories of Augusta's development and 19th century American industry. They will also provide the vehicle upon which to capitalize on the Canal's rich natural resources, and contribute to the local economy.

The November 1996 federal Omnibus Park and Public Lands Bill, which designated the Augusta Canal as a National Heritage Area, and the State of Georgia's Regional Important Resource Program designation in 1994, have provided the potential for implementing the 1993 Master Plan. The availability of federal heritage support funding enables a range of activities that take the proposal one step closer to implementation.

5.1.5 Proposed Action

The Management Plan incorporates the priorities of the 1993 Master Plan and establishes a conceptual program for accomplishing them. The first of the Master Plan's four priorities - define and designate an Augusta Canal National Heritage Area - has already been accomplished through the 1996 federal designation.

The remaining three priorities are to:

- Create a multi-use riverfront park of regional and state-wide importance – The 1993 Plan suggested that the area between the Canal and the Savannah River be established as a park which combines natural settings and man-made recreational areas along a greenway. Proposed actions in the Management Plan Alternative are based on the 1993 Plan.
- Develop the corridor's potential as a highly accessible educational resource – Another point of emphasis for the 1993 Master Plan uses the Canal's historic and natural areas to develop programs and demonstrations. Actions in the Management Plan Alternative follow through on this priority.

Facilitate economic development at the edge of Augusta's Downtown – A final priority in the 1993 Master Plan encourages actions that would benefit the City's economy and its development climate. Actions included in the current Management Plan Alternative which reflect this priority include a coordinated development and preservation initiative along the corridor to take advantage of the Canal's location near the Medical Campus, and initiatives to attract housing and employment that will transform the edge of the downtown into supportive and active development.

The Management Plan provides an outline of actions to achieve these priorities over the next dozen years to 2012. The Plan, which involves both the public and private sector, describes the various project elements, identifies areas of responsibility, and proposes a two-phased schedule.

5.1.6 Governing Regulations

The Omnibus Parks and Public Lands Bill: This bill designated the Augusta Canal as a National Heritage Area; established a timetable for the Augusta Canal Authority's submittal of a Management Plan to the Secretary of the Interior; established criteria for approval/disapproval of the Management Plan; included provisions regarding the implementation; recognized the role of the ACA, local governments, and the state of Georgia in promoting economic and industrial development in a manner consistent with the Plan; and authorized provision of grant and technical assistance.

State of Georgia's Regionally Important Resource Program designation, 1994: The State of Georgia has adopted a designation for "Regionally Important Resources," aimed to make local governments and decision-makers more aware of and sensitive to the growth, development, and protection of these resources. The State recommends that local governments adopt its policies, such as regional review of planned projects and issues which may affect the resource. The hope is to also raise awareness and communication among communities and provide a "peer" review for county and town projects. These policies, however, are not mandated and are a passive type of protection. There are neither defined incentives for governing bodies to comply with, nor disincentives for inappropriate actions. The Augusta Canal

National Heritage Corridor is a pilot project for this initiative and is showing some success.

National Environmental Policy Act (NEPA) of 1969: This law requires the consideration of the social, economic, and environmental impacts of all federally funded projects. All federal agencies are required to prepare detailed studies of impacts and alternatives to large actions by the federal government. NEPA also requires that the interested and affected public be involved in the study process before decisions are made. This Environmental Assessment has been prepared under NEPA guidelines to determine if the proposal has the potential for significant impacts, and will lead to the preparation of a Finding of No Significant Impact (FONSI).

Section 106 of the National Historic Preservation Act of 1966: This section requires that federal agencies with direct or indirect jurisdiction over a federal, federally assisted, or federally licensed undertaking afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on undertakings that affect properties included in or eligible for inclusion in the National Register of Historic Places before the agency's approval of such an action.

National Park Service (NPS) Director's Order 2: Park Planning (1998): This guidance describes the decision-making process that results in the goals and actions for the national park system and those units of the national trails system administered by the National Park Service.

The Endangered Species Act: This act requires consultation with the U.S. Fish and Wildlife Service or National Marine Fisheries Service on any federal action which may affect endangered or threatened species or candidate species, or may result in adverse modification of critical habitat.

Executive Orders 11988 and 11990 regarding Floodplain Management and Wetlands Protection: These orders direct the NPS to avoid, to the extent possible, the long- and short-term adverse impacts associated with modifying or occupying floodplains and wetlands. The orders also direct the NPS to avoid direct or indirect support of floodplain or wetland development whenever there is a practicable alternative.

Executive Order 12898 regarding Environmental Justice in Minority and Low-Income Populations: This order directs federal agencies to assess whether their actions have disproportionately high and adverse human health or environmental effects on minority and low-income populations.

Secretarial Order 3175 and Environmental Compliance Memorandum 95-2: These measures require federal agencies to specifically address environmental impacts of proposed actions on Indian Trust Reservations.

5.2 Alternatives

5.2.1 Introduction

In developing the Management Plan, it was agreed that three possible options would be evaluated, including a "No Action" scenario. The purpose of the "No Action" option is primarily to provide a comparison with existing conditions, should no Management Plan be adopted. The three alternatives, described below, are evaluated for impacts on environmental resources at a broad conceptual level commensurate with the scale of the Management Plan.

5.2.2 Alternative A: No Action

In this alternative, no management plan would be implemented or accepted. The Augusta Canal Authority (ACA) would not be likely to receive further federal heritage funding, inasmuch as the legislation designating the National Heritage Area requires the adoption of a Management Plan and makes further funding subject to the acceptance of the Plan. In this case, the ACA would have to rely exclusively upon local sources of funding. Although local canal-related revenues might still be available to the ACA, the opportunities for external technical assistance would be lost and coordination of management of resources and facilities within the National Heritage Area (NHA) would be done at the local level.

5.2.3 Alternative B: Current Trends "Bricks and Mortar" Alternative

Alternative B represents a continuation of the current trends of ACA management and implementation. Under this alternative, the major priorities for ACA activities would remain: facility development; resource stewardship (focused on preserving historic buildings and acquiring land buffers along the perimeter); funding and management support for programming activities or creating interpretive materials and information; planning and design support (primarily through ACA's comments on actions by other public agencies).

5.2.4 Alternative C: Recommended Management Plan

The Recommended Management Plan Alternative incorporates a coordinated strategy for recognition, use, and enhancement of the tangible resources within the NHA boundary, combined with actions to expand public understanding and appreciation of these resources. The strategy emphasizes a coordinated set of actions balanced between the following charted management elements.

5.2.5 Comparison

Comparison of the five plan elements under the three alternatives is presented on the tables in the Alternatives Table, next page.

Comparison of the Three Alternative Management Plans

Plan Element	Alt. A - No Action	Alt. B - Bricks and Mortar	Alt. C - Recommended Management Plan
Facility Development	Contingent on local funding, public and private	ACA funding and management support concentrated on creation of additional interpretive and recreational facilities Some parks and trails would also be developed	ACA funding of physical improvements relating to interpretation, education, and recreation in the Canal and adjoining areas ACA direct and partnership funding with other agencies/institutions to improve access and visibility
Resource Stewardship		Preservation focused on restoring historic structures in Headgates area Conservation limited to land acquisition to buffer project boundaries Remediation focused on financial support for major public works within the NHA and immediate surroundings	ACA promotion of comprehensive long-term preservation, conservation, and reclamation ACA support of preservation of historically or culturally significant artifacts, buildings, and districts. Direct investment and assistance to public and private initiatives to preserve resource settings Advocacy for preservation initiatives ACA initiative of landscape management to conserve and restore cultural landscapes and natural resources of the Canal and nearby riverfront
Heritage Programming and Outreach		Continued support of a few annual special events geared to awareness building Reliance on external organizations to provide additional educational program either on- or off-site	ACA support of interpretive, educational, and recreational activities which build public awareness and understanding of the Canal and economic sustainability Encourage development and partnerships to create new interpretive and educational programs on the Canal's history and ecology Direct sponsorship or endorsement of special awareness building events
Heritage Infrastructure		ACA development of limited collection of exhibits; directional and interpretive signage Marketing through promotional information such as brochures, maps, and newsletter	ACA development of directional and interpretive signage Provision of brochures and signage aimed at assisting Canal users to improve their experience Marketing through visual and printed media to local and regional tourists
Planning and Design Assistance		Limited ACA sponsored assistance primarily by means of review and comment on major public works improvements affecting the NHA	Provision of direct planning and design assistance programs to encourage site-specific and area-wide development and preservation, compatible with goals of the ACA Continued review and comment on projects in Richmond and Columbia Counties affecting the NHA Technical and financial assistance to other organizations with properties within and adjacent to the NHA

5.3 Affected Environment

5.3.1 Natural Resources

Physiography and Soils

The Augusta metropolitan area straddles the Piedmont Plateau to the northwest and the Atlantic Coastal Plain to the southeast. The Augusta Canal Heritage Area runs parallel to the Savannah River. The Piedmont Plateau section of the project area has gently rolling slopes, although in some sections, such as the Headgates, there may be some steep slopes. The Coastal Plain section of the project area lies within the flat Savannah River floodplain, which is well protected from flooding by engineered structures such as the Clarks Hill Dam and the Augusta Levee.

The project area reflects Augusta's position directly along the fall line which separates the Piedmont Plateau from the Atlantic Coastal Plain. Soils in this area fall into three associations: alluvial, coastal plain, and Piedmont Plateau. The latter two are the more predominant soils in the project area. The Piedmont soils are characterized by gently sloping to steep clay loam, generally shallow and prone to erosion. The Atlantic Coastal Plain soil association is represented by generally gently sloping to steep, and generally well-drained sandy loam soils. Alluvial soils are level to nearly level, deep, well-drained to poorly-drained floodplain soils with loam or fine sandy loam surface layers and a dark brown silt loam or silty clay subsoil.

Geology in the Piedmont Plateau section consists primarily of massive dense volcanic rock formations, and in the Atlantic Coastal Plain section of the Tuscaloosa formation is composed of compacted quartz sand.

Water Resources

Surface Water - The Georgia Department of Natural Resources has classified both the Savannah River and the Augusta Canal as "fishing streams," and they are both used in this fashion. The section of the Savannah River in the project area and the Canal benefit from their location downstream of the Savannah River Rapids, the point at which the river crosses the granite ledges of the Fall Line. The rapids, pools, and the agitation of the water over the rocks have created outstanding conditions for feeding and spawning grounds for a wide variety of fish and other aquatic life.

The Canal and the Savannah River have excellent water quality, enabling the former to serve as the City of Augusta's drinking water supply. In addition, the Canal continues its historic use as a source of hydropower for adjacent industries. Recreational uses are limited to non-motorized boating and fishing, since the strong current precludes any swimming.

Wetlands - The Augusta Canal Margins belong to the Palustrine system of wetlands, forested with such trees as sweetgum, red maple, ash, elm, and alder (see Appendix Exhibit 2 for National Wetlands Inventory Map of the Canal). The Canal lies within a Zone A (an area of high flood risk) of the Augusta-Richmond Flood Insurance Rate Map published by the Flood Emergency Management Agency; however, most of the Canal area, except for a section around Lake Olmstead, has not been studied to determine flood elevations. The major flood protection requirements under the city's flood ordinance are that buildings constructed in a high risk area be elevated two feet above the flood elevation; and if the structure occupies more than 1 acre of the floodplain, the propo-

nent needs to submit a No-Rise Certification which demonstrates that the structure would not increase the risk of flooding.

Vegetation and Fish

The majority of the land in the project area, outside the urbanized lower section, is floodplain forested, consisting primarily of hardwoods. Around the Headgates, the forest succeeding former agricultural fields is predominantly pine with southern magnolia as an occasional understory tree. Adjacent and south of the Savannah River shoals, the dominant species in the floodplain forest is hackberry with a thick understory of privet. North of Rae's Creek, other co-dominant species include sweetgum, water oak, elm, and sycamore. This forested area occupies both the southern canal shores and the "island" between the Canal and the Savannah River. The Savannah River provides habitat for many varieties of fish. A listing of the fish species found in the vicinity of the Canal, compiled by the Georgia Department of Natural Resources, is found in Appendix Exhibit 3.

Threatened and Endangered Species

The Georgia Department of Natural Resources Natural Heritage Program has listed the following species as Rare Natural Elements in Augusta :

- Aster georgianus Georgia Aster GA
- Fusconaia masoni Atlantic Pigtoe Mussel
- Hymenocallis coronaria Spider Lilly
- Lindera subcoriacea Bog Spicebush GA
- Sarracenia rubra Sweet Pitcherplant
- Stylisma pickeringii var. pickeringii Pickering Morning-glory

"GA" indicates Georgia protected species. None of these species is also protected at the federal level. Species without protection status are being tracked or studied for determination of conservation status by the Department of Natural Resources. Appendix Exhibit 4 contains a list of Special Concern Plants and Animals in Richmond and Columbia counties.

Mineral Resources

The only significant mineral resource found in the Project Area is the Martin Marietta crushed stone quarry, located adjacent to the Canal in the Upper Section.

5.3.2 Existing Land Use and Zoning

Land use

Land use within the Canal project area varies from section to section, reflecting the changes which have developed as the Canal enters Augusta. Appendix Exhibit 5 identifies generalized land use within and adjacent to the Canal.

- Upper Canal: A large proportion of the land abutting the Canal is undeveloped. Major existing uses include the large Martin Marietta quarry and related industrial uses on adjacent lands on its south side. Low density residential development occurs in Columbia County to the extreme west of the study area. Significant tracts of land on both sides of the Canal are heavily wooded, including the entirety of the elongated island between the Canal and the River. Warren Lake, a conservation area, abuts the Canal at the southern end of this section. A Delta Airlines reservation call center has recently been constructed adjacent to Warren Lake. This project is part of a larger parcel—bounded by the Canal, Riverwatch Parkway, and I-20—that is planned for mixed-use development (River

Shoals). Highway I-20 crosses the Canal and the Savannah River and land area on both sides in an east-west direction.

- Midsection Canal: The area between the Canal and River, extending approximately from the Waterworks to the Sibley Mill complex, remains undeveloped forested open space, and surrounds the site of a former landfill. Below the Waterworks facility, a landscape nursery abuts the Canal and the neighborhood. Below this area, a major public recreational area, Lake Olmstead, abuts and enters the Canal about mid-point of this section. The former city stockade, the Green Jackets baseball stadium, and other institutional uses—including a cemetery—are located around the lake's perimeter. To the south, a cohesive residential neighborhood extends, in various places, up to the Canal edge; this includes the Harrisburg Historic Working Housing Neighborhood on the south side of Calhoun Expressway. Other land uses include commercial use along Calhoun Expressway and Washington Road at the southern end of this section of the Canal. This segment of the Canal corridor is carved into irregular parcels by four major rights of way: the Canal, overhead lines of Georgia Power, the Riverwatch Parkway, and the Seaboard Rail Line.
- The Urban Canal: In the vicinity of the Sibley and King Mills, the character of development is historic, with an industrial emphasis on the River side of the Canal and the Harrisburg neighborhood's many churches, to the land-side, split by the Calhoun Expressway. From the King Mill to the end of the Canal, uses are mixed, with an industrial flavor which stems from the original purpose of the Canal. Over time, many industries have diminished,

leaving either marginally used properties or new replacement uses. These range from a wide mix of commercial and industrial uses along Broad Street to mixed industrial and redevelopment parcels between 12th and 15th, to an area with significant cleared lands in the Laney-Walker vicinity. Additionally, major new uses in the vicinity includes the Medical Campus, the Civic and Convention Center, and selected new individual developments.

Zoning

Generalized zoning patterns along the Canal corridor, including portions of Richmond and Columbia counties, are illustrated in Appendix Exhibit 6. Significant zoning features within Richmond County and Augusta include:

- A Planned Development Riverfront Zone running generally from the midpoint of the Urban Section of the Canal to the River, with modifications closer to downtown as the Canal veers away from the River. Within this zone, proposals are subject to approval of a Riverfront Development Review Board for their compliance with multiple (although discretionary) standards intended to protect this area. Generally, this zone does not extend landward of the Canal and does not include the Canal as it approaches the downtown.
- "Light and Heavy Industry" zoning of large undeveloped tracts of land to the east and west of I-20 and to the land-side of the Canal, which includes any uses allowed in Business District zones; however, dimensional requirements (such as setbacks, ranging from 10-25 feet) are modest and no residential uses are permitted.

- "Agricultural" zoning represents most of the undeveloped land between the Canal and the River, permitting a broad variety of uses including: single family residential uses, agricultural and related uses and structures, governmental and municipal uses, noncommercial boat slips or marinas, and public or private clubs, recreational facilities such as golf courses, fishing lakes, pools, or other similar recreational facilities.
- "Light Industry" zoning of a large tract of land between the Canal and the River, east of Lake Olmstead, is consistent with the original purpose of the Canal as a power source for industry. Residential uses are not allowed within this type of Light Industrial Zone.
- "Business" zoning is most evident as the Canal corridor enters the more heavily developed part of the City beyond the industrial area starting at 15th Street, except for the vicinity of the Medical College of Georgia.

Within Columbia County, the land including the lock and dam area easterly to the county line is zoned M-2 for general industrial use. This zone appears to overlap a portion of the Martin Marietta quarry, but continues to include the Canal and the Savannah Rapids Pavilion area. Further west, land in the county is zoned predominantly R-1, for low density residential, with a small pocket of R-2 zoning for medium density residential use. Columbia County does not include historic district zoning in the Canal vicinity.

Property Ownership

The general ownership of property along the Canal corridor is illustrated in Appendix Exhibit 7. It is broken down into the following general categories:

- Public parks and recreation land, including the Savannah Rapids Pavilion site (recently improved by Columbia County), Warren Lake, Eisenhower Field, Lake Omstead Park, Chaffee Park, and the Dyess Recreation Center.
- Publicly-owned undeveloped property, including significant lands owned by the City of Augusta between the Canal and the Savannah River, property acquired by the State for the Riverwatch Parkway and I-20, and other smaller parcels along the corridor.
- Major public uses, including the City Public Works Depot along Broad Street, Senior Housing accessed from Walton Way, and property controlled by the Medical College of Georgia or other Medical Campus users.
- Large, privately-owned, undeveloped tracts, including the Martin-Marietta quarry site, property held by the Brandenburg interests to the east of I-20 along the Riverwatch Parkway, and a large parcel owned by Georgia Better Farms Inc., west of I-20.
- Other major private parcels, including historic properties owned by Avondale and Spartan Mills, extending across the Riverwatch to the River, Enterprise Mill, and Sutherland Mill and related sites. Other major privately held parcels along or nearby the Canal include the nursery east of Lake Olmstead, the Walton Rehabilitation Hospital, Southern Road Builders along 13th Street, holdings of Georgia Power, and parcels owned by the Gas Company toward the easterly end of the corridor.

5.3.3 Transportation

Roadways

The Canal Project Area includes four major road arteries in addition to a number of major roadways serving the downtown Augusta area. These roadways are shown in Appendix Exhibit 8.

- I-20, which crosses the Canal and the Savannah River, provides westbound access to the Georgia Welcome Center just south of the Canal and eastbound access to South Carolina.
- The Riverwatch Parkway (which crosses under I-20) parallels the Canal, and crosses over it west of Lake Olmstead. At 15th Street it provides access to the one-way pair of Reynolds and Jones Streets, serving the downtown, as well as to 15th Street, serving the Medical Complex and other uses to the south of Walton Way.
- The Seaboard CSX Railroad, whose tracks weave across the Riverwatch Parkway and the Canal, crosses many existing streets at grade, including the area in front of the Sibley Mill, Broad Street, 15th Street, and many other downtown streets to the east. Train traffic at these grade crossings is relatively frequent, causing backups.
- The John C. Calhoun Expressway, an elevated, grade separated facility between Lake Olmstead and 13th Street, crosses the Canal twice: once over the first level Canal between the Enterprise and Sutherland Mills, and again over the third level canal near 13th Street.
- Major downtown streets include: 15th Street and 13th Street in the north-south direction; Reynolds, Jones, Broad and Greene Streets; and Walton Way, an east-west direction. Fifteenth Street leads

south, providing access from the Riverwatch Parkway to Walton Way and the Medical Complex and includes the historic Butt Bridge crossing the Canal. The section of the street between Broad and Greene Streets is currently being upgraded as part of the Greene Street Extension, improving access between downtown and the Riverwatch. Thirteenth Street leads north, crossing the River into South Carolina. Reynolds and Jones Streets form a one-way pair serving downtown from the Riverwatch Parkway. Broad Street is the principal retail street of downtown Augusta, running east to west through the central city and leading to the Riverwatch and Calhoun Expressway. Greene Street is both residential and institutional in character, and leads directly to the Calhoun Expressway on-ramps. Walton Way is a major growth corridor serving the Medical Complex and growing retail strip uses to the west, as well as providing highway access at the edge of downtown to the east.

In addition to the Greene Street Extension project, another new roadway project is the St. Sebastian Extension which is planned to improve access to and from north and northwest of downtown Augusta. One of its major goals is to eliminate the traffic congestion problems currently resulting from at-grade conflicts between railroads and vehicles. The design contract has recently been awarded.

Construction is forecasted to begin between 2001 and 2003, and will probably take two to three years to complete.

Public Transportation

Augusta and Richmond County's 1996 consolidation created a unified transportation system which is accessible to 41% of the county popu-

lation. The bus service accounts for less than 1 percent of all travel in Richmond County; however, there are plans to expand facilities over the next ten to fifteen years, including an increase of the Downtown shuttle service, establishment of a transfer facility in South Richmond County, and consideration of expanded service into South Carolina.

The Augusta Canal is currently well connected to the Augusta Public Transit system. Eighty five percent of the public transit routes originate from the main transfer facility located adjacent to the Canal at the intersection of 15th and Broad Streets. Five of these routes have direct access to the Canal, serving just under 25 percent of the 1998 system wide ridership.

Regional bus service is provided by Southeastern Stages, whose terminal is located at the corner of Greene and 12th Streets.

Bikeways

Recreational bicycle trails currently exist on both sides of the Canal and along the Savannah River. As part of its long-range transportation planning, the Augusta-Richmond Planning Commission has included bicycle access as an alternative transportation means, and in the Augusta Regional Transportation Study as revised in January 1999, developed a list of 118 bicycle corridors including five within the project area (see Appendix Exhibit 9 from the ARTS Plan). Several of these are likely to be constructed before 2004: one as a part of the St. Sebastian Road Extension, one connecting Lake Olmstead Park to the Canal, one located along the Canal between the Headgates and 13th Street, one connecting Evans town center to the Headgates, and one connecting Augusta and North Augusta across the Savannah River.

5.3.4 Recreation

Augusta and the surrounding area contain many recreational resources, the Canal itself being one of the foremost. Currently the Canal provides facilities for biking, jogging, and kayaking. Two major recreational facilities adjacent to the canal and owned by the Augusta-Richmond Metropolitan government are Eisenhower Field and Lake Olmstead Park. At a more neighborhood level, agencies with facilities in the vicinity of the Canal include Augusta Trees and Parks Department and Augusta-Richmond Recreation Department, with eight recreation sites and five parks. The Augusta National Golf Course, a world-renowned private course that annually hosts the Masters Tournament, is near the Canal. The Phinizy Swamp is a significant environmental resources on the outskirts of Augusta.

State and national parks in the Augusta area include Sumter National Forest in South Carolina, and in Georgia:

- Elijah Clark State Park on the western shore of Lake Clark northwest of Augusta
- Hamburg State Park on Lake Hamburg, six miles northeast of Warthen
- Magnolia Springs State Park, five miles north of Millen
- Mistletoe State Park on Clarks Hill Lake

5.3.5 Socio-Economic Consideration

Demographics

The City of Augusta is the central city in the Augusta Metropolitan Statistical Area (MSA) which includes Richmond, Columbia, and McDuffie Counties in Georgia, and Aiken and Edgefield Counties in South Carolina. In 1999,

the population of Augusta -Richmond county was 191,800: about 40 percent of the MSA's total population of 463,080. The City of Augusta, like other central cities, has been particularly impacted by suburbanization that has occurred over the last three decades. In 1960, the population within the City of Augusta limits represented 31 percent of the metropolitan area population; in 1990 the percentage had declined to 11 percent. While the urban population had decreased, the region's growth from 1960 to 1990 increased by 73 percent from 230,000 persons to just under 397,000 persons.

Growth in the region continues to be robust. Population trends in the Augusta-Aiken MSA have continued to propel the area at a strong rate of growth, increasing by 13.6% between 1990 and 1997 to an estimated population of 471,360, representing the second largest in growth area in the state (see Appendix Exhibit 10). This growth is projected to continue, with over 500,000 persons in the metro area by 2005.

Growth immediately around the Canal is varied. According to the recent Augusta 2001 - A Strategic Assessment, as a result of intense growth in the northwest area of Augusta around the National Golf Course, land is at a premium. This area, which abuts the upper and central canal reaches, is generally affluent but is experiencing problems of shifting commercial development, with pockets of over-development and under-utilized commercial space. The lower section of the Canal abuts the center of the city, including Historic Augusta. This is an area with historic resources, manufacturing, and low- to moderate-income residential housing.

Employment in the Augusta metropolitan area is split among services (25 percent), wholesale/retail trade (22 percent), manufacturing (20 percent), and government (20 percent), with other sectors such as construction and finance account for fewer employees. The majority of employment occurs in Richmond County, with services and retail constituting the major sectors.

As identified in Appendix Exhibit 11, the major employers in Metro Augusta (Augusta-Richmond County) are the U.S. Army Signal Center at Fort Gordon; the medical community, including the Medical College of Georgia, University Hospital, VA Medical Center, Eisenhower Army Medical Center, and Greenwood State School and Hospital; and government, including Richmond County and Columbia County school systems and Augusta-Richmond County government. The medical community is centered around the Medical Complex located near the Augusta Canal. The Savannah River Site in South Carolina, 25 miles southeast of Augusta, is another major employer, but is located outside Metro Augusta.

Augusta's balanced demographic profile is a major contributing factor to its growth. The population is nearly equally divided between male and female, 49% and 51% respectively. About half the population (54%) is between the ages of 18 and 54. Racially the population is nearly equally divided between Afro-American (45%) and Caucasian (52%). Economically, 51% of the households have an effective buying power income ranging between \$25,000 and \$99,999; however 35% of the households have effective buying power between \$25,000 and \$49,000.

Land Use:

Office

The downtown has been the traditional location for office type uses, but the development of over a half million square feet of new office space in the suburban areas has eroded the position of the downtown in office markets. It is expected that the central part of Augusta, however, will continue to be an important office and service sector location, particularly with the strength of the regional health services sector.

Residential

For the last two decades, the metro area has absorbed an average of just under 3,000 dwelling units a year, the great majority being developed as single family homes in the suburbs. Continuing population growth and decline in household size would suggest a continuing demand for residential development in the metro area. While most of the residential development has been in the suburbs, the Port Royal project added 56 units in downtown. Additionally, apartment units have been added as part of the renovated Enterprise Mill on Greene Street and several projects on Broad Street, which include apartments above the ground floor retail.

Retail

Limited retail activity is located in downtown Augusta, while the major retail activity can be found in the suburban malls and shopping centers located in West and South Augusta. The downtown area is readjusting its marketing profile, with efforts to introduce niche markets such as upscale retailing, outlet, and specialty type (antique row) retailing. The regional malls will continue to dominate in the general merchandise categories, but specialized niche mar-

kets may be available in Augusta, particularly as related to development of the recreation, cultural, and visitor services sectors.

Manufacturing

The metro area and the Chamber of Commerce has made a special effort to encourage manufacturing in the metro area. A number of new major plants have been built in the metro area, and older operations such as the Sibley and King Mills continue to operate adjacent to the Canal. New industry, however, will tend to locate in more suburban areas.

Tourist/Visitor Sector

This sector of the economy has seen increased activity in the last decade, as Augusta has become an increasingly important visitor destination. Attractions and events within Augusta, ranging from the world-renowned Master's Golf Tournament to the boat races on the Savannah River, bring both participants and spectators into Augusta. In addition, special events such as the Cutting Horse Futurity, National Barrel Horse Association World Championships, Southern National Dragboat Races, and Riverwalk events attract large numbers of visitors annually.

Convention center bookings are good, and the motorcoach tour group business has been increasing significantly within the past few years. This sector of the economy is expected to continue its growth, becoming even more important in the future. The Plan for the Augusta Canal must be particularly sensitive to opportunities in this market sector.

5.3.6 Community Cohesion

The Augusta Canal has had the support of the community since the late 1980s, when a group of community leaders launched an effort to conserve the Canal Corridor and its historic and natural resources. These efforts led to the creation of the Canal Authority in 1989. Since that time, support for the Canal's conservation has broadened to create a strong local constituency.

Support and interest in the conservation of this local resource increased during the 1992-1993 Master Planning process. As development pressures in the Upper Canal area threatened the resource, community support intensified and has culminated in both state and federal recognition of the importance of the Canal's conservation and restoration to Augusta's heritage and economy.

The Augusta Canal National Heritage Area has a strong connection to the adjacent neighborhoods. In addition to its historic link to the Canal-side mill complexes, it is also tied to the adjacent Lake Olmstead recreational area, the expanding Medical Center area, the historic downtown, and the historic Laney-Walker neighborhood. The Canal is a unifying link to each one of these areas individually and to all of them together.

5.3.7 Cultural Resources

The Augusta Canal and sections of Augusta contain many historical and cultural resources which are, to a large extent, the basis for the designation as a National Heritage Area. Many of them are listed or eligible for listing on the National Register, and some resources are solely designated under the Augusta Historic Preservation Ordinance.

In addition to the Augusta Canal Industrial District, there are 38 other sites in Richmond County and four in Columbia County listed on the National Register. The majority of the sites in Richmond County (listed below) are in proximity to the Canal. Stallings Island in Columbia County is part of the National Heritage Area, located on the Savannah River.

Richmond County National Register Sites:

- Academy of Richmond County
- Augusta Cotton Exchange Building
- Stephen Vincent Benet House
- Bethlehem Historic District
- Brahe House
- Broad Street Historic District
- Church of the Most Holy Trinity
- College Hill
- Darling, Joseph House (in Martinez)
- Engine Company Number One
- First Baptist Church of Augusta
- First Presbyterian Church of Augusta
- FitzSimons-Hampton House
- Fruitlands
- Gertrude Herbert Art Institute
- Gould-Weed House
- Green Street Historic District
- Harris-Pearson-Walker House
- Harrisburg/West End Historic District

- Lamar Building
- Joseph Rucker Lamar Boyhood Home
- Laney-Walker North Historic District
- Liberty Methodist Church (in Hephzibah)
- Meadow Garden
- Old Medical College Building
- Old Richmond County Courthouse
- Pinched Gut Historic District
- Reid-Jones-Carpenter House
- Sacred Heart Catholic Church
- Sand Hills Historic District
- St. Paul's Episcopal Church
- Seclusaval and Windsor Spring (in Hephzibah)
- Shiloh Orphanage
- Springfield Baptist Church
- Springfield Baptist Church (Boundary Increase)
- Summerville Historic District
- Tubman High School
- Woodrow Wilson Boyhood Home

In addition, the following several sites have been identified as being Eligible for National Register listing:

- The Baston-Skinner-Mackay House
- Fifth Street Highway Bridge over the Savannah River
- Riverside Mills located on the banks of the Savannah River between 13th Street and

11th Street.

- Sixth Street Southern Railway Bridge over the Savannah River
- Southern Railway Freight Depot adjacent to the levee between 5th and 6th Streets.
- Augusta Iron and Steel Corporation
- Southern Milling Company
There are three properties with pending nominations to the National Register:
- Bath Presbyterian Church, Bath-Edie Road, Blythe (submitted spring 1998) (Also designated as under Augusta Historic Preservation Ordinance)
- United States Courthouse, 500 East Ford Street (submitted summer 1998)
- Kessel Bakery Building
Augusta Historic Preservation designated properties are:
- Liberty United Methodist Church (in Hephzibah)
- Bath Presbyterian Church (in Blythe)
- Seclusaval (in Hephzibah)
- Bethlehem Historic District
- Trinity C.M.E. Church
- Christ Episcopal Church
- Downtown Historic District
- Summerville Historic District
- Maddox Property (in Hephzibah)

5.4 Environmental Consequences

The Environmental Assessment for the Augusta Canal National Heritage Area evaluates a set of management strategies, programs, and policies, but not specific projects. Therefore, the potential environmental impacts and benefits relate to broad scale concepts and strategies rather than direct effects from the implementation of actual projects. It is assumed that individual federally assisted projects will require separate more detailed and specific assessments when they are undertaken.

5.4.1 Methodology

The three alternatives considered for the assessment were developed and thoroughly considered with extensive public involvement. They were evaluated to determine potential impacts and benefits based on a qualitative assessment and an understanding of the goals of the Heritage Area Management Plan. The assessment was conducted using available published materials and information gathered from interviews. The scope of this project does not provide for field work.

Environmental Media	No Action: Option A	Bricks and Mortar: Option B	Recommended Plan: Option C
Natural Resources			
· Soils	No effect	No effect	No effect
· Water resources	Potential for negative effects which might result from inability to make improvements to Canal infrastructure or influence adjacent development; benefits from any projects which improve structures or conditions along waterfront, thus eliminating potential sources of pollution, run-off from derelict buildings, Canal, and canal associated structures. Depends on local funding.	No negative effects. Benefits from any projects which improve structures or conditions along waterfront, thus eliminating potential sources of pollution from derelict buildings, Canal, and canal associated structure. Since this approach would focus on facility development and would benefit from federal funding, there is greater potential of improvements and concomitant elimination of potential sources of pollution.	Same as Option B, with added benefit of potential additional improvement funding resulting from leveraged private-public investments and pro-active involvement with other public or private projects, realizing open space amenities, such as Gas Company remediation, Third Level Improvements, and 15 th Street/St. Sebastian's Way.
· Wetlands	No effect	No negative effect.* Benefits from purchase of buffer lands in Upper Canal and Third Level Canal would prevent development encroachment.	No negative effect.* Benefits same as Option B, plus promotion of and partnerships in long-term conservation and reclamation of cultural landscape and natural resources; awareness and education of wetland resources resulting in expanded heritage programming, signage, and marketing.
· Vegetation	No effect	No negative effects.* Benefit of reduced development potential adjacent to Canal as a result of buffer land purchases such as that proposed along the Upper Canal; creation of a buffer around Lake Warren.	Same as Option B,* plus benefits accrued from preservation and conservation projects resulting from pro-active involvement in local projects; assistance to local public and private entities; ecological education programs; improved public awareness from expanded access, marketing, and heritage infrastructure improvements.

Environmental Media	No Action: Option A	Bricks and Mortar: Option B	Recommended Plan: Option C
• Threatened Plants and animals	No effect, but perhaps increased risk of habitat degradation from development encroachment.	No negative effects.	No negative effects. Significant conservation funding and attention will enable implementation of projects such as habitat restoration, reintroduction of native species, and removal of invasive species such as Chinese Privet in the shoals area.
• Land Use/Zoning	Potential for increased development adjacent to Upper Canal and incompatible redevelopment around Third Level Canal.	No negative effects; improved recreation facilities; access to Canal; linkages to other adjacent resources. No zoning changes contemplated.	Same as Option B, with added benefits resulting from technical and financial assistance to other groups; proactive involvement in public and private projects with potential to affect the Canal.
• Threatened Plants and animals	No effect, but perhaps increased risk of habitat degradation from development encroachment.	No negative effects.	No negative effects. Significant conservation funding and attention will enable implementation of projects such as habitat restoration, reintroduction of native species, and removal of invasive species such as Chinese Privet in the shoals area.
• Land Use/Zoning	Potential for increased development adjacent to Upper Canal and incompatible redevelopment around Third Level Canal.	No negative effects; improved recreation facilities; access to Canal; linkages to other adjacent resources. No zoning changes contemplated.	Same as Option B, with added benefits resulting from technical and financial assistance to other groups; proactive involvement in public and private projects with potential to affect the Canal.

* The overall management plan is judged to have no negative effect. It is possible that subsequent construction projects not addressed in detail at this time could have limited impacts on floodplains and/or wetlands. However, it is judged that such impacts can be effectively mitigated and would need to be considered at the time such projects are proposed.

Environmental Media	No Action: Option A	Bricks and Mortar: Option B	Recommended Plan: Option C
Transportation	Potential negative effects on potential additional bikeways because of lack of federal Heritage Planning funds.	No negative effects. Benefits from availability of funding resources for such projects as the Bikeway/Multi-Use Trail. Bikeway improvements will also provide greater access to length of Canal, resulting in a greater appreciation of the resources by users.	Same as B plus potential benefits resulting from technical and financial assistance to public and private projects as well as pro-active involvement in local and state projects to ensure that Canal's interests are safeguarded, including collaboration with local transit authority and ARTS regarding transportation facilities.
Recreation	Loss of opportunity to benefit from federal funding associated with adoption of the Management Plan would be a potential negative factor for the community and region. Limited local funding would potentially affect the ability to sustain a satisfactory level of general maintenance.	Expanded recreational facilities created through Management Plan would benefit the community and region at large. Such recreational facilities would include bikeway/multi use trail; limited improvements to Chaffee Park, the Headgates, the Waterworks area, Petersburg boats and docking; and the creation of an open space network and access to the Canal.	Same as Option B, with additional benefits derived from ACA grants for environmental conservation, streetscape/gateway improvements, grants to mitigate adverse visual and acoustical impacts of railroads and highways; assistance for programming and interpretation; education and marketing programs; and ability to coordinate with other projects and private initiatives.
Socio-economic	Benefits would be limited because of local funding constraints. No federal funding available.	Implementation of Canal improvements would create a significant local and regional resource which would increase usage of the Canal, provide benefits to surrounding areas and neighborhoods, and generate economic activity from Canal improvements, usage, and increased visitations.	Same as Option B, with additional social and economic benefits resulting from partnerships and leveraging of ACA funds. ACA's technical and financial assistance to other organizations and expanded marketing and educational programs would serve as a greater reinvestment catalyst. By being able to participate in other private and public projects affecting the Canal, the ACA would be able to broaden the effectiveness of the NHA's programs to improve surrounding areas, such as the Harrisbury and Laney-Walker neighborhoods, stimulating the economy.

Environmental Media	No Action: Option A	Bricks and Mortar: Option B	Recommended Plan: Option C
Community Cohesion	No negative effects. Limited benefits due to reliance on availability of local funding.	No negative effects. Benefits would result from an increased understanding of the Augusta Canal's role in the city's and region's development. Improvements to the Canal and preservation of historic resources, especially in historic neighborhoods like Laney-Walker, would increase strength of the existing community and its sense of heritage.	Same as Option B, with additional benefits to the community derived from expanded capability for resource stewardship, heritage programming and outreach, heritage infrastructure improvements, and planning and design assistance.
Cultural Resources	No negative effects.* Benefits would be limited to such facility improvements as Headgates Buildings restoration and the Petersburg tour boats and docking. Educational and interpretive programming would be limited to available local funding.	No negative effects.* Benefits from restoration of historic structures in the Headgates area, Petersburg tour boats and docking; limited heritage programming and outreach to build public awareness and understanding of historic resources; creation of a limited collection of exhibits and interpretive infrastructure and programming.	No negative effects.* Benefits to cultural resources through restoration of historic structures in Headgates area; construction and operation of Petersburg tour boats and docking; provision of technical and financial assistance to programs for conserving the Canal's natural features and setting; completion of an interpretive strategy; partnering with other organization to create heritage programming and outreach programs; improving the Canal setting and surrounding context through historic preservation grants; development of interpretive materials and exhibits by ACA and in partnership with others; and involvement in neighborhood planning of abutting historic neighborhoods of Harrisburg and Laney-Walker.

* It is assumed that future projects undertaken as a consequence of this plan, whose scope is not yet fully defined, will comply with the Secretary of the Interior's Standards for Historic Preservation, Section 106 compliance review, and provisions of the Native American Graves Protection and Repatriation Act (NAGRA).

5.4.2 Summary of Environmental Consequences

The proposed Management Plan represents a comprehensive strategy, including plan elements and policies, for the Augusta Canal National Heritage Area. It sets forth a blueprint for future actions and relationships. It does not represent a recommended physical project per se with direct physical impacts. Options B and C, unlike Option A: "No Action," would have positive impacts on the ecological and cultural resources in the Heritage Area.

The Recommended Option offers the greatest opportunity for benefiting the Heritage Area because it provides a means to leverage resources to meet the purpose of the project. In addition to recommending the same physical improvement agenda for the ACA as are included in Option B, it includes programs and strategies which will broaden the public education, marketing, and economic development stimulation, and protection and enhancement of natural and cultural resources. These objectives will be accomplished through technical and financial assistance, active involvement in relevant planning issues and development projects, and outreach/partnering strategy aimed at working together with other groups to maximize program effectiveness.

Option A: "No Action" would not be beneficial to the Heritage Area. The ACA's reliance on local funding sources would severely constrain its ability to improve and maintain the physical features in the project area, improve access, conduct educational programs, build awareness and understanding of the natural and cultural resources, and work with other groups to expand the effectiveness of its efforts. In some cases, the lack of financial capability to make

physical improvements could result in conditions which adversely affect the natural and cultural resources. Educational programming would be significantly curtailed, as would the ACA's ability to be a catalyst for economic development. The inability to work in collaboration with other projects and to be involved in local planning issues would hinder comprehensive planning and management.

5.4.3 Direct and Indirect Effects

The Recommended Option would result in direct improvements to and conservation of the natural and cultural resources. It would also produce direct economic effects through its effective marketing and outreach programs and its ability to affect other development related to the Heritage Area. The education programs would be key to building an understanding of and constituency for the Canal's role in history and in Augusta's development.

The lack of a Management Plan would directly result in denying the Heritage Area any added resources of federal assistance, thereby limiting the ACA's ability to carry out its mission. Lack of a Plan would also weaken initiatives by others to protect the historic, cultural, and community resources, and could be deleterious to efforts to enhance Augusta's development. Limited funding would directly affect the level of educational programming and understanding of the area's heritage.

5.4.4 Cumulative Impacts

This section is intended to discuss related projects and the interrelationship of their effects with those of the Management Plan. Under the Recommended Option, the ACA will have the ability to work with and be involved in other projects which could affect the Heritage Area. This ability is geared to ensure that the Heritage Area will be protected from adverse effects of other projects, as well as to leverage other activities to enhance the development of surrounding areas. An example of this would be the relationship to the Harrisburg and Laney-Walker neighborhoods and ability to link to other regional natural resources, such as Phinizy Swamp and the Sumter National Forest.



Credits

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Plan photos are the property of the Augusta Canal Authority
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