

**EVALUATION REPORT
AIKEN/EDGEFIELD/SALUDA COUNTIES
REGIONAL SEWER LINE INFRASTRUCTURE
DEMONSTRATION PROJECT**

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Prepared for the National Rural Economic Development Institute at the University of
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INTRODUCTION

The South Carolina Rural Economic Development Council (SCREDC) serves rural areas and small towns in South Carolina by bringing state and federal agencies and rural interests together to develop and implement strategies to enhance community and economic development.

One of the tools SCREDC employs to test creative new approaches to rural development is the implementation of demonstration projects which encourage and promote collaborative practices. The Aiken/Edgefield/Saluda evaluation project was formed to examine how the consolidation of infrastructure in a region promotes long-term economic development.

The Highway 25 sewer line project is an example of public and private leaders cooperating to promote economic development. A precondition for attracting investments in rural communities is the availability of a centralized sewer system with the capacity to meet development needs. Local interest in economic development, trust among key leaders, and an incremental decision-making process helped to create a regional partnership for building and extending the Highway 25 sewer line in a process that began in 1991. The partnership was able to take advantage of an existing sewage treatment facility and contract a sewer line that serves a multi-county area. An overview of the history of this project illustrates the importance of regional collaboration and cooperative ventures for expanding sewer capacity in rural communities and small towns.

HISTORY OF THE INFRASTRUCTURE PROJECT

The Economic Development Partnership of Aiken and Edgefield counties is a non-profit development corporation with the mission of marketing the Aiken and Edgefield area for capital investment and job creation. When Columbia Farms, a poultry processing firm headquartered in West Columbia, South Carolina, chose a site on Highway 25 in Edgefield County to build a \$12.5 million plant, the Partnership worked with the company to plan for

the expansion. The biggest hurdle to constructing the facility that could eventually employ 250 people was the lack of sewer service to the proposed site.

The Edgefield Water and Sewer Authority and the Economic Development Partnership searched for funding to construct the sewer line necessary for the proposed Columbia Farms facility. The Authority was already operating three wastewater treatment facilities that served the towns of Johnston, Edgefield, and Trenton, and it would manage the construction and operation of the new sewer line project.

While the search for financing was underway, the South Carolina Department of Corrections began considering a site in the same area for a Youth Correctional Facility that would create 100 new jobs. The same infrastructure required for the Columbia Farms proposed site would be necessary for this facility. The state was willing to assist the sewer line construction by making funds available, providing prison labor, and allowing the use of prison construction equipment. These financial and related incentives encouraged the Economic Development Partnership and the Sewer Authority to expand the scope of the project beyond simply meeting the needs of the original users, and additional funds were sought to develop the Highway 25 area into an industrial corridor with the extended capacity sewer service.

The option of running the sewer line to the Edgefield treatment facilities in the three towns was ruled out. It would have led to overuse of their limited capacities. Since 1988, Edgefield County had provided water to the northern parts of the City of North Augusta, South Carolina and the southern parts of Edgefield County in exchange for North Augusta providing sewer service to the same areas. The Edgefield County Water and Sewer Authority and the City of North Augusta decided to expand this working agreement to include running the proposed sewer line further south to North Augusta where waste could then be routed through North Augusta lines to the Horse Creek Wastewater Treatment Plant for processing.

Located in Aiken County, the Horse Creek plant is less than three miles from the City of North Augusta. Owned and operated by the Aiken County Public Sewer Authority, the

facility was constructed in the early 1970s with 75 percent funding by the federal Environmental Protection Agency. Built to handle North Augusta and Aiken municipal waste along with waste from area textile mills, the facility was vastly underutilized after several mills closed down. With only half of its 20 million gallon a day capacity in use, Horse Creek officials were anxious to take on the extra treatment responsibility that the project offered. Plans were drawn up to have the proposed line run from the State Correctional Facility site south along Highway 25 to connect with the North Augusta system at the intersection of Interstate 20 and Highway 25, a distance of approximately twelve miles. From there, the waste would flow through existing lines to the Horse Creek plant.

In the fall of 1991, Columbia Farms indicated that they would postpone indefinitely their Highway 25 construction plans. Even with the initial impetus for the project lost, the momentum was underway to follow through with the infrastructure development. Construction of the sewer line extension was viewed as critical to the economic well being of Edgefield County and the surrounding area.

In January 1992, a preliminary report on the project was prepared by Site Consultants Incorporated of West Columbia, a consulting engineering firm hired by the South Carolina Department of Corrections. The report recognized the difficulty of projecting future infrastructure needs and stated that it can be unwise to build such a project without firm commitments from potential users. Nonetheless, the engineers viewed this project as a smart investment for several reasons, including:

- The sewer lines would serve the Department of Corrections facility that had committed to construction;
- With flexibility built into the initial plan, ongoing sewer line construction could be modified to meet future needs;
- The provision of sewer service along Highway 25 would parallel the existing water distribution system;
- By tying into the Horse Creek plant, which was designed to be a regional treatment

facility, the sewer line project would provide capacity to the Authority so that future needs could be readily met;

- The project could potentially lead to the Edgefield Authority ultimately eliminating the use of the other older wastewater treatment plants in Johnston, Edgefield and Trenton, if economics would allow.

As the project gained momentum, the objective expanded beyond to become a demonstration project for assessing the benefits of regionalization of infrastructure development for long-term economic growth. An additional goal was to explore the use of federal and state funding as a catalyst to encourage a regional approach to infrastructure development.

In the spring of 1992, the Upper Savannah Council of Governments began writing grant applications to request state and federal funding. The list of cooperating entities grew to include agencies at all levels of government, with five pools of money committed to the project. The Edgefield County Water and Sewer Authority received a \$757,000 Farmers Rural Development loan. The state Department of Corrections provided \$456,000, the state Budget and Control Board provided \$150,000, the federal Economic Development Administration contributed \$2 million in a grant tied to job creation, and a \$1 million federal Community Block Development Grant from the Department of Housing and Urban Development, also tied to job creation, was obtained. The total funding package was \$4,363,000.

One federal impediment was the Davis Bacon Act, which mandated that projects receiving federal money must pay the prevailing wage. This forced a decision to forego the state offer of several hundred thousand dollars worth of inmate labor and Department of Corrections construction equipment, thus allowing the Edgefield County Water and Sewer Authority to accept the federal grants of several million dollars.

When considering whether to proceed with such an infrastructure project that would promote industrial growth in the area, economic development leaders were evaluating a variety of factors to determine the need for this project. A discussion of some of those indicators follows.

PROFILE OF AIKEN, EDGEFIELD, AND SALUDA COUNTIES

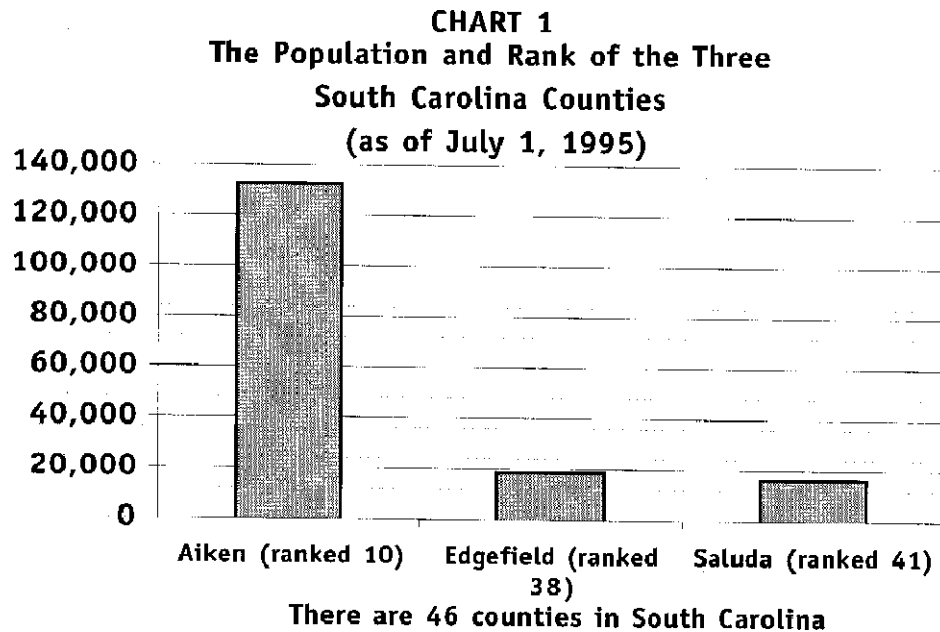
While the economies of Georgia and South Carolina have grown steadily over the last few years, growth in the Aiken area has been slowed by the lingering effects of job cutbacks at the Federal Government's Savannah River Site (SRS) located outside North Augusta, South Carolina. At its peak, the nuclear munitions facility employed over 25,000 people and had a tremendous ripple affect that stabilized the region's economy for over forty years.

SRS has traditionally been one of four economic anchors for the greater Aiken area and the surrounding region. The other three pillars of the regional economy include: The medical industry (the Medical College of Georgia and a veterans hospital help make the neighboring city of Augusta Georgia a regional leader in healthcare, and the Aiken Regional Medical Centers provide service to the entire Central Savannah River Area of South Carolina), a diverse manufacturing base which includes the poultry processing industry, agriculture and forestry.

When the SRS leg of the foundation began to weaken with the close of the Cold War in the early 1990s, the economic future of the entire region became less steady. Uncertainties were also expressed about the United States Army's Fort Gordon, which was Augusta Georgia's third largest employer. Even before the future of the Savannah River Site was thrown into question, local leaders were attempting to "shore-up" the other economic legs and diversify employment opportunities by aggressively promoting economic growth to fill in gaps left by defense associated businesses. However, despite these efforts, the Augusta - Aiken South Carolina economy today offers few opportunities for the well-trained and well-paid workers who leave SRS from a workforce that has been slashed in half since the early 1990s.

With ongoing development efforts like this infrastructure project, forecasters expect the economic growth of the region to remain steady, but not accelerate rapidly. In the past year, the Bridgestone - Firestone Corporation began to construct a \$400 million tire manufacturing plant a few miles from the project, which will employ 800 people in the year 2000.

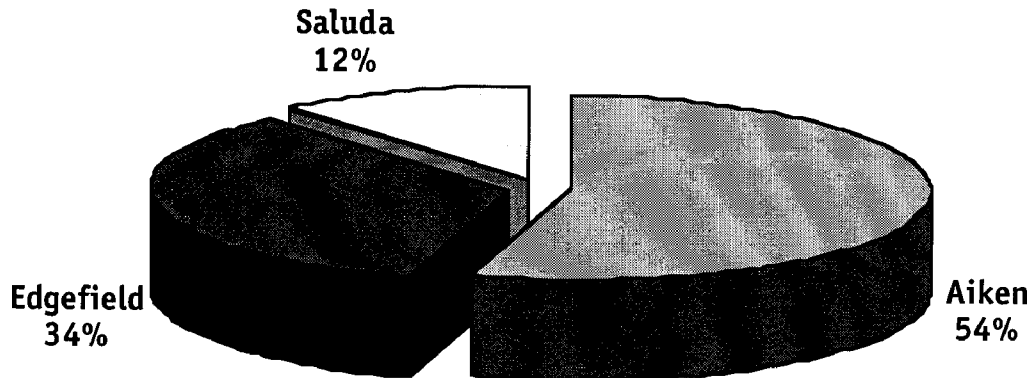
Numerous local leaders working together since 1988 saw the project through to fruition, and as mentioned before, several groups continue to serve the area in similar efforts.



Despite the forces of change, the population of Aiken County grew by 9.1 percent during the time period of 1990 to 1995, ahead of South Carolina's growth rate of 7.3 percent. The more rural counties of Edgefield and Saluda grew at a slower rate of 7.2 and 2.7 percent respectively. Further evidence of the more rural nature of Edgefield and Saluda counties is found in Chart 1 above, which shows the counties ranked among the least populous in the state. The overall population of South Carolina as of July 1, 1995 was 3,673,000.

Another reflection of the impact of the Savannah River Site is represented in Chart 2 below, which shows that a considerable number of Aiken residents were born outside the state and may have moved to the area to work at the Site. This number is well above the South Carolina average.

Chart 2
Percentage of Population Born Outside
South Carolina as of 1990
(State Average = 31.6 percent)



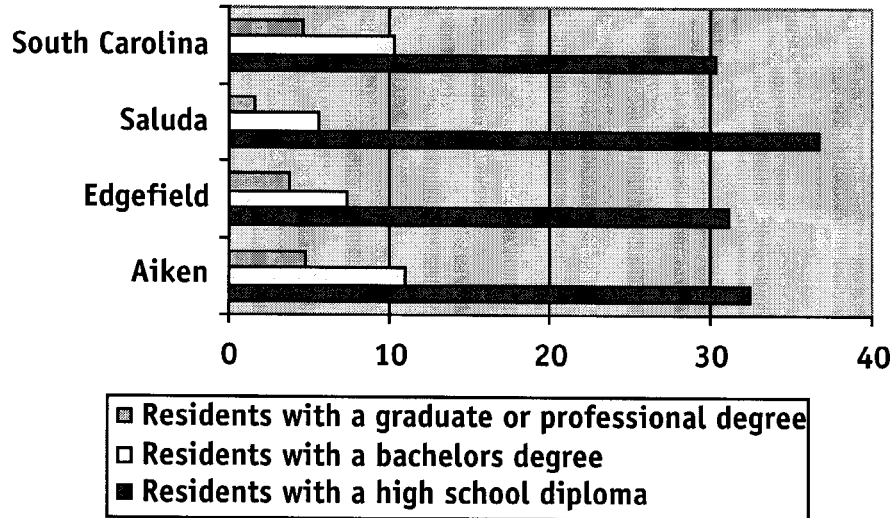
As of March 1998, the unemployment figures for South Carolina were at 2.4 percent. Aiken and Saluda were above the state figure at 2.7 and 2.9 percent respectively, and Edgefield stood at 2.9 percent. Clearly, none of these unemployment figures would be considered excessive.

As of 1990, the number of employed persons sixteen years and older in Aiken County was 55,268. Of that figure, 39,835 worked in the for-profit private sector and 4,026 worked for the federal government. The last number is clearly an impact of the Savannah River Site, as only three other South Carolina counties had a larger amount of federal employees.

Edgefield County had 8,324 employed persons, of which 5,882 worked in the for-profit private sector and 474 worked for the federal government. And the less populous Saluda County had the least amount of citizens in the workforce at 7,362. Among Saluda's workers, 5,250 were employed in the private for-profit sector and 177 were in the ranks of the federal workforce. The educational level of this workforce is displayed in Chart 3 above, where Aiken County's employee educational attainment closely mirrors that of the state and Edgefield and Saluda lag slightly behind in the area of college education.

While none of the unemployment indicators show that drastic measures are necessary to help the region, forward-thinking local officials in Aiken, Edgefield, and Saluda counties

CHART 3
Educational Attainment of Persons 18 years old
and Older as of 1990
(percentages shown below)



continue to pursue a cooperative approach to diversify and expand the area’s economic base, as expressed in the completion of this infrastructure project.

THE COMPLETED PROJECT

With a capacity of 5 million gallons a day, the sewer line became operation on May 31, 1995 with a final line of 24.8 miles in length and 18 inches in diameter. Total project cost was \$4.3 million and the project was completed under budget. Edgefield County’s use became 160,000 gallons per day, which will increase by 200,000 to 300,000 gallons when the federal prison becomes fully operational.

While it is still a little early to assess the full economic benefits of the sewer line project, Edgefield County has begun to see significant growth occurring in the area of the new development corridor. With a \$10 million dollar payroll, The Federal Bureau of Prisons will soon bring 350 jobs to the area. Menardi Criswell, a filter manufacturer, has moved to the Highway 25 corridor and created 300 jobs. Expansions have also occurred at existing plants like Milliken and Mt. Vernon/Riegel. And Bondex moved into the area with 15 jobs. Without the sewer line none of this growth would have been possible. It is anticipated that

the line could potentially meet the needs of all parties involved for the next twenty years. Significantly, sewer and line capacity is available for future industrial expansions.

A secondary project was completed in May of 1997 when Saluda County constructed a new line to connect to the Edgefield line. Saluda County now accounts for the majority of the 650,000 gallons of flow per day through Edgefield. This contribution is primarily from Amick Farms and Gentry Farms, poultry processing plants in Saluda County. Previously, these plants had their own treatment facilities, but with increasingly strict environmental regulations they were forced to seek alternative waste treatment in order to expand their operations or they would be compelled to reduce production. The prospect of the resulting loss of 300 jobs was instrumental in Saluda County leaders acquiring grant money to complete their segment of the line and connect with Edgefield's initial project. With the infrastructure in place, Saluda County may eventually increase its demand to 3 million gallons per day, and while the town of Saluda has not yet come on line, it may do so soon.

The annual cost to the Edgefield Water and Sewer Authority of operating and maintaining their segment of the line is \$50,000. Additionally, the Authority budgets \$420,000 to North Augusta for the use of that city's lines and treatment at Horse Creek. With expanding use, the Authority may have to increase the payment to \$700,000 this year.

THE FUTURE OF THE PROJECT

Due to limitations in the capacity of the North Augusta sewer lines, a proposal is underway for Edgefield's lines to bypass the City of North Augusta and route waste directly to Horse Creek and avoid this potential future bottleneck. The "Mims Branch" bypass will be a \$6.2 million direct-connect gravity-fed line with a flow capacity of 7 million gallons a day, of which Edgefield and Saluda counties will account for 4 million gallons. The line will flow through an undeveloped area of Aiken County. The City of North Augusta has an agreement with a developer to put a sewer line into the area when the new development begins. That residential line will be built with an increased capacity to encompass the needs

of the cooperating counties. The coalition has already been organized and discussions are underway to decide on funding sources and the exact distribution of the line's capacity and cost among the cooperators.

An additional consideration is whether neighboring McCormick County will build a sewer line to tie into Edgefield's. As the smallest county with the smallest customer base in the state, McCormick County is also faced with deciding how to meet its current and future wastewater treatment needs in light of stricter environmental regulations. Scarce resources can be spent to upgrade their current system, or the same amount of money can be invested in joining the regional cooperative effort already underway with Aiken, Edgefield, and Saluda counties to the east.

LESSONS LEARNED

Know Short and Long Term Needs

While it is difficult to forecast long-term needs, it is important to think about the future when planning expensive infrastructure projects. Decision-makers must maximize their return on the dollar and feel certain that their choice will allow flexibility and options down the road.

Led by sound technical expertise, planners and leaders in Aiken, Edgefield and Saluda counties have wisely elected to look beyond any imminent crisis in sewer service. *They have entered a cooperative agreement and made an investment that can potentially fulfill their needs, not only for the present, but hopefully for the next twenty years.*

Teamwork is Critical

The expense of complying with environmental regulations necessitates that local leaders not only have a vision for their individual communities, but also look outside their boundaries. Aiken and Edgefield had cooperated in the past when they provided service to outlying areas, and that experience of goodwill and trust made it easier to work together

again. Other public and private players who were also future-oriented and recognized the benefits of cooperation came together as well to plan and they did not waver from the original goal. Of course, such a cooperative effort requires communication and the willingness to compromise.

The Upper Savannah Council of Governments and the Economic Development Partnership of Aiken and Edgefield Counties are organizations that can offer a regional perspective. These agencies help areas realize see the need for a collaborative approach to problem solving and facilitate the team building process. Indeed, sewer treatment and environmental compliance have become too large for local entities to face alone.

Non-traditional roles are being established as a result of regionalism. The Edgefield County Water and Sewer Authority has become a broker of Aiken County sewer line and waste treatment. The Edgefield Authority's role may expand to include McCormick County and the town of Calhoun Falls in Abbeville County.

Checks and balances can be put into place to keep team members from straying from their common goals. The agreement that exists between Aiken and Edgefield counties prohibits Aiken from charging Edgefield more than they charge their own customers. And Edgefield is eligible for a price reduction because it is a high volume user. Edgefield also commits to a level of annual use, which helps North Augusta and Horse Creek plan their operations. *It may take a lot of effort to craft such relationships, but they are as much an investment as the infrastructure project itself.*

Speak the Language of Jobs and Economic Development

With a low level of unemployment, creating jobs was not the only impetus for area leaders to encourage industrial development when completing the original Edgefield County line. By promoting industry, they were also promoting the greatest capital investment into the area in relation to the number of service users.

In order to finance such a project, entities must take out a loan, get a grant, or do both.

While grants are attractive, they are usually tied to improving the local economy through the creation and retention of jobs and are generally not available to areas attempting to solve their environmental problems and meet environmental regulations, however urgent those needs may be. Thus, Edgefield project leaders were constantly forced to justify the project in terms of job creation, especially higher paying jobs. In fact, the sewer line has expanded incrementally from site to site into Saluda County following the promise of the creation of new jobs at each location. Entities interested in creating similar projects must be prepared to speak the language of jobs in order to gain a competitive advantage in securing financial assistance from the state and federal governments. *Job creation and increasing per capita income must be at the forefront of infrastructure projects in order to obtain public funding.*

Planning for Growth Must Be a Part of Infrastructure Development

Zoning is a critical tool to promoting proper growth in the area of the Highway 25 corridor. As the North Augusta metropolitan area moves toward Edgefield, residential growth that is incompatible to industry has spread into the area. While this is occurring, leaders are attempting to create a political environment conducive to some land use planning so that zoning in this rural setting may occur. These efforts take considerable effort and time. In fact, they may take as long as putting together the resources to get the sewer line in the ground. While a comprehensive plan for the Edgefield area is currently being developed, efforts are underway to find a landowner willing to sell 200 to 300 acres for an industrial park that will ensure would-be industries of having like-minded neighbors.

When committing to an investment in infrastructure, community leaders want to get the most out of public dollars, and industrial investments will return the greatest financial benefit to the economy and tax base of the area. Zoning also identifies where industrial growth may occur, which allows sewer and water officials to know where they should focus their planning efforts to meet future needs. *Community leaders must recognize that the*

successful construction of a sewer line will require turning attention to land use and zoning issues in order to reap fully the line's economic development potential.

Rural Areas Cannot Go Solo

Perhaps the most important lesson is that the cost of complying with increasingly strict environmental regulations makes regionalization the only viable approach to sewage treatment. As many areas like McCormick County have discovered, updating their own treatment facilities is prohibitively expensive, and new costly plants may be “at capacity” the day they become operational. These realities force rural areas to seek alternatives, and regionalization of services may be their best choice.

While the state Department of Health and Environmental Control is compelling smaller entities to join into regional efforts, grant money is generally more readily available for individual projects, not regional ones. McCormick County can seek grant support for an individual project that will link to a regional system, or borrow money, which is an expensive option for a rural area with a small customer-base to spread the debt service over.

The town of Calhoun Falls in Abbeville County is also considering running a line to the proposed McCormick line, which would then tie into the Edgefield line and ultimately, Horse Creek. *While located the furthest from the Horse Creek Wastewater Treatment Plant, the benefits of the regional effort are brighter than the prospect of remaining in the treatment business locally.*

Infrastructure projects such as sewer lines are the backbone of economic development in rural communities and elsewhere. Without these improvements, growth is limited. But it takes a strong team effort and trust among leaders to make a cooperative venture like the Aiken, Edgefield, and Saluda project work. In the future such teamwork may be the only way that rural areas can survive. *This collaborative effort is a model for other communities. It would be wise for them to also follow the best technical expertise, think in the long term, address the land use changes that may occur around the area of the infrastructure develop-*

ment, and seek to expand the base of cooperating partners incrementally. A common vision for resolving mutual problems and concerns, and relationships built upon trust are paramount to building and sustaining regional approaches to advancing an area's economic position.

SOURCES CONSULTED

Interviews

Adams, Wayne (1998, May 7). Interview with the County Administrator for Edgefield County, Edgefield, S.C.

Blayton, Kevin (1998, May 7). Interview with the Director of Engineering and Public Works for the City of North Augusta, North Augusta, SC.

Humes, Fred. Written information provided by the Director of the Economic Development Partnership of Aiken and Edgefield Counties.

Leaman III, Sam (1998, May 8). Interview with the Assistant Director of the Upper Savannah Council of Governments, Greenwood, SC.

Martin, Charles (1998, May 7). Interview with the City Administrator for North Augusta, North Augusta, SC.

Pettigrew Jr., John (1998, May 7). Interview with the Mayor of Edgefield, Edgefield, SC.

Richard Shaffer (1998, May 7). Interview with the Administrator of the Edgefield County Water and Sewer Authority, Edgefield, SC.

Reports

“Background Paper on Highway 25 Sewer Line,” Edgefield County by the Economic Development Partnership, November 1991.

“A Community Profile of Aiken, South Carolina,” Provided by the South Carolina Department of Commerce.

“A Community Profile of Edgefield, South Carolina,” Provided by the South Carolina Department of Commerce.

“A Community Profile of Saluda, South Carolina,” Provided by the South Carolina Department of Commerce.

Employment Data from the South Carolina Employment Security Commission.

Gordon, James. (January, 1992). Report on Sanitary Sewer Service Along U.S. Highway 25 Corridor. West Columbia, SC: Site Consultants, Inc.

“Memorandum on Federal Impediments to Economic Development,” South Carolina Rural Economic Development Council, November 6, 1996.

“1997-1998 Economic Profile of Aiken & Edgefield Counties,” Economic Development Partnership, Aiken, SC.

Pender, Ashley (Ed.). South Carolina Statistical Abstract: 1996, South Carolina State Budget and Control Board.

“Preliminary Engineering Report for Edgefield County Regional Sewer System,” Columbia, SC: Wilbur Smith Associates, September 1992.

South Carolina Rural Economic Development Council, Annual Report, December 31, 1996.

Stine, Stephen. (1993, July). “South Carolina Rural Development Council Regional Sewerage Treatment Demonstration Preliminary Assessment Report,” United States Department of Agriculture Forest Service.

Written information about the Savannah Valley Regional Sewer Project provided by the Upper Savannah Council of Governments, Greenwood, SC.

Written information about the South Carolina Association of Counties (SCAC) provided by the SCAC, Columbia, SC.

Newspaper Articles

Anonymous. (August 26, 1997). “Aiken Success Story.” The Augusta Chronicle, Augusta, GA. A4.

Anonymous. (November 24, 1994). “Edgefield’s Early Yule.” The Augusta Chronicle, Augusta, GA.

Decker, Twila. (February 23, 1992). “Sewer Service Key to Growth, Residents Told.” The State, Columbia, SC.

DeMao, Alisa. (January 15, 1998). “Georgia’s Population Continues to Grow: Moving Company Relocates Higher Percentage of People to Peach State Than Any Other State in 1997.” The Augusta Chronicle, Augusta, GA. B5.

Ezzell, Jimmy. (February 6, 1992). “Sewer Plan Outline for N.A.” The Citizen News, Edgefield, S.C.

- Joyner, Amy. (December 17, 1997). "Area Christmas Sales Brisk." The Augusta Chronicle, Augusta, GA. B5.
- Langley, Carl. (March 27, 1992). "Sewer Project Would Serve Prisons." Aiken Standard, Aiken, S.C, p. 1B.
- Parham, Steve. (December 19, 1991). "Sewer Line Talks Are Continuing." The Citizen News, Edgefield, S.C.
- Parham, Steve. (June 20, 1991). "Sewer Funding Available." The Citizen News, Edgefield, S.C., p. 1.
- Parham, Steve. (January 30, 1992). "Sewer Line Proposal Clears Key Hurdle." The Citizen News, Edgefield, S.C.
- Parham, Steve. (October 13, 1994). "Sewer Line Project Is Finally Complete." The Citizen News, Edgefield, S.C.
- Parham, Steve. (November 23, 1994). "ECWSA Lays Groundwork for Growth." The Citizen News, Edgefield, S.C.
- Roberts, John. (February 20, 1992). "Edgefield Plans on Sewer Boost." The Augusta Chronicle.