

11

Beaufort County Comprehensive Plan

Community Facilities



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Introduction

The SC Local Government Comprehensive Planning Enabling Act (1994) requires a community facilities element “which considers water supply, treatment, and distribution; sewage system and wastewater treatment; solid waste collection and disposal, fire protection, emergency medical services, and general government facilities; education facilities; and libraries and other cultural facilities.”

Some of these services are provided by County Departments. These include the General Government, the Detention Center, Emergency Management, EMS, Libraries, Parks and Recreation, and Solid Waste/Recycling. For each of these community facilities, this chapter provides an assessment of existing conditions, projects future needs and provides recommendations on how to implement and fund these recommendations.

The remaining community facilities addressed in this chapter are provided by other government agencies that are fully or partially autonomous of County Government in planning and budgeting issues. These facilities include fire protection, schools, water supply and waste water treatment. For these facilities, recommendations are focused on issues of mutual concern shared between Beaufort County and these governmental agencies.



General Government

Beaufort County has expanded its facilities over the past 20 years to accommodate growing service demands due to population growth. While this chapter analyzes the impacts of existing and projected population growth on specific County services (Detention Center, Emergency Management, EMS, Libraries, Parks and Recreation, and Solid Waste/Recycling), the impact of growth has affected all County services and departments.

NORTHERN BEAUFORT COUNTY

During the years 1987-1993 the County constructed the Government Center at 100 Ribaut Road in Beaufort for the purposes of consolidating most of its administrative and judicial functions into a central area at the County seat. Over the last five years, Beaufort County has outgrown that space. In 2003, the County moved its engineering department and development services administrator to the Beaufort Industrial Village (BIV). Since that time other departments followed suit and two new office buildings were constructed, one is under construction, and one more is planned for the BIV.

SOUTHERN BEAUFORT COUNTY

Beaufort County first added a satellite office outside the Town of Bluffton in 1978 to accommodate the increasing need for services in that area of the County. Among the County departments that have offices in Bluffton are Building Codes, Parks and Leisure Services, Public Works, Alcohol and Drug Abuse, other County health agencies, and the Magistrate's Office. To respond to the increasing demands for County services in southern Beaufort County, the County now occupies 18,000 square feet of space in the Myrtle Park Professional Center on Bluffton Parkway. Beaufort County also occupies approximately 24,000 square feet on Hilton Head Island with offices for the magistrate, probate court and sheriff's deputies who are contracted to work in the Town.

CONCLUSION

Beaufort County's rapid growth rate over the last 20 years has greatly increased the space needs for general government offices. While these growth trends are anticipated to continue over the next 20 years, the expansion of the municipalities will have an uneven impact on the demand for specific County services. Some County departments, such as the Assessors will continue to expand with population growth, while other departments, such as Building Codes may experience a tapering off in demand due to more growth occurring within municipal boundaries.



Due to rapid growth in population in southern Beaufort County there has been a trend to locate more services in that region. By way of departmental survey, it is estimated that 97,000 square feet of additional office space will be needed to house the South County General Administration Building by the year 2017. The survey also recommended 60,000 square feet of space for the Beaufort County Alliance for Human Services and the Shared Space Initiative; and 24,000 square feet for an additional animal control facility in southern Beaufort County.

In northern Beaufort County the Sheriff's Office and Emergency Management have outgrown their existing Law Enforcement Center at 2001 Duke Street behind the Government Center. Within the existing Law Enforcement Center, personnel are sharing offices, closets have been converted to offices, and there is no storage space. Likewise, the Detention Center is in need of expansion. Inmates are housed in the gymnasium and temporary cots are placed on the ground in cells designated for one person.

With thousands of square feet of building space planned, Beaufort County has an opportunity to incorporate energy and resource-efficient principles into existing, new and renovated structures. This approach will allow Beaufort County to leverage both energy and cost savings, while improving the overall work environment within its buildings. This reduces the environmental impact of construction-related activities while producing ongoing savings to the taxpayer.

RECOMMENDATIONS

The recommendations in this section apply to all Beaufort County services and facilities.

Recommendation 11-1: Monitoring and Evaluation of Space Needs

Beaufort County should continually monitor and evaluate the space demands for its departments while being mindful of the impact of both

population growth and municipal annexations on the need for County services.

Recommendation 11-2: New Law Enforcement Center

Beaufort County should construct a new Law Enforcement Center that will consolidate all the space needs for the Sheriff's Department and provide additional space at that site to house the Emergency Management Department, the Emergency Medical Services (EMS) headquarters, and the Management Information Systems (MIS) Department.

Recommendation 11-3: Southern Beaufort County Offices

Beaufort County should expand its services in southern Beaufort County to better serve the needs of its residents in that region.

Recommendation 11-4: Consistency with Other Chapters of the Beaufort County Comprehensive Plan

Beaufort County should ensure that the location and quality of development of its new and existing facilities meet the Land Use and Natural Resources goals of its Comprehensive Plan.

- New County facilities should have high architectural, site design, and landscaping standards:
- New County facilities should adhere to strong environmental standards working around the natural features of the site and providing effective stormwater management; and
- Existing facilities should be brought up to these standards when renovated or expanded.

Recommendation 11-5: Energy and Resource Efficient Design

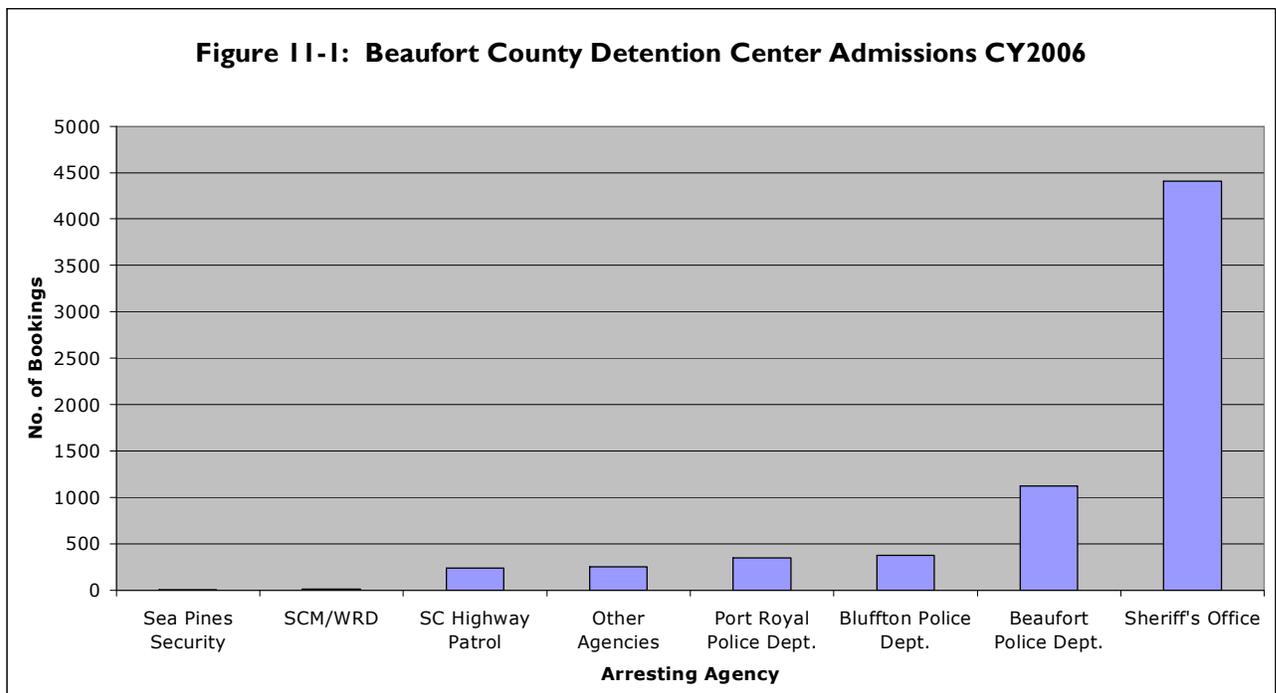
When planning future community facilities (or major renovations to existing facilities) Beaufort County should register the proposed project, and gain certification under the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED) program, or meet similar standards of development (i.e. EarthCraft).

Detention Center

The Detention Center was built in 1992 and houses inmates that have been arrested by various law enforcement agencies. Inmates are held in the Detention Center for pretrial, sentencing, or are being kept for other agencies. In FY 2006, a total of 6,754 inmates were booked. The major booking agency was the Beaufort County Sheriff's Office.

DETENTION CENTER CAPACITY

The capacity system is based on two terms, rated and operational. The rated capacity of the facility is 255 with an operational capacity of 204. The reason for the difference between rated and operational capacities is due to classification of inmates. There are various classifications of inmates requiring separate housing. These include male, female, super max, maximum, close, medium, and minimum security.



For example, the Female Housing Unit has 40 beds and if the Center only has 20 female inmates, then the extra 20 beds cannot be utilized for male inmates. The average monthly population has increased from 80 in 1992 to 288 in 2006. Average length of stay is also an important factor that affects the Detention Center population. The longer people stay in the facility, the higher the average daily population gets. The average length of stay has increased from five days in 1992 to 16 days in 2006. A Beaufort County Correctional Study completed in 2000 by Carter Goble Associates, predicts, based on an average of five forecast models, that the average daily population will be 276 inmates by 2015. In 2006, the average monthly population was already 288.

WORK RELEASE

Work release allows sentenced inmates to work regular jobs in the community while serving their sentences. Often inmates in these programs are required to help defray the cost of their incarceration and make court ordered payments. During non-working hours, the work release inmates return to the housing unit to “serve their time”.

A work release facility and operation provide the courts with an effective alternative to strict incarcerations, one that enables the defendant to contribute financially to family financial obligations while incarcerated. For a work release program to function effectively, work release inmates should be housed away from the general detention center population. Currently, there is no true work release program available in Beaufort County. The inmates who could be “work release” are housed with the general Center population and may go out to work on civic projects such as general maintenance, but are not paid for their efforts.

JUVENILE DETENTION

Beaufort County does not have facilities to house juvenile offenders. Beaufort County juveniles who are arrested and placed in pre-trial detention are transported to the State’s juvenile justice facility in Columbia - a round trip of 300 miles. This distance makes it difficult for the families of the juvenile offenders to visit and support them. The costs to Beaufort County associated with this activity include transportation (two sworn officers must accompany each juvenile) and a per diem charge submitted to the Office of Juvenile Justice. To assess the exact costs, the number of committals, number of detention days, boarding costs, and transport cost must be known.

Juvenile detention facilities are costly to operate, especially as stand-alone facilities. State requirements include a security staffing to detainee ratio of 1:8, exclusive of staff involved in local juvenile transports. A staff person who is dedicated to the juvenile function must administer

the program. An education program must be provided and counseling staff must be available.

FUNDING

Funding for the Detention Center comes from the General Fund based on an annual budget that is prepared by Detention Center staff. A recent Capital Funding gap analysis identified that a capital investment of \$12,000,000 is needed to maintain current levels of service as a result of future growth in Beaufort County. The Detention Center currently has a 255 bed rated capacity and this study determined that an additional 227 beds will be needed.

CONCLUSIONS

The most recent Beaufort County Correctional Planning study was completed in 2000 and conditions have changed since then. Over the past 15 years, the average daily population has risen by 360 %. It is obvious that Beaufort County's Detention Facility capacity should be increased. To help the community function to support families of incarcerated persons, other correctional needs should be addressed as well, including the development of a true work release facility and increase in Beaufort County Juvenile Detention capacity.

RECOMMENDATIONS

Recommendation 11-6: Assess Current Conditions

County Council should direct Detention Center staff to conduct a study to assess current conditions at the Detention Center. The study should include:

- A prediction of the adult Detention Center population over the next 20 years and estimate of the space needed to house them.
- A mechanism to set up a work release program that is separate from the general population and allows inmates to earn money to contribute to fiduciary responsibilities.
- An assessment of juvenile detention rate and costs over the past 10 years including future predictions for the next 20 years. The assessment should consider local agreements with surrounding counties to hold their juvenile detainees to help justify the expense of a juvenile detention facility to be sited within the confines of the Beaufort County Detention Center.
- County Council should implement measures necessary to carry forth an action based on the results of the study.

Recommendation 11-7: Expanded Detention Center

County Council should direct the Sheriff's Office and the Detention Center to coordinate the possible relocation of the Law Enforcement Center and expansion of the Detention Center (see Recommendation 11-2).



Emergency Management

The Beaufort County Emergency Management Department was created in 1961 to establish, develop, coordinate, and provide for civil defense and emergency preparation in the County. The Department employs 70 persons responsible for daily operations. These operations include:

- Emergency preparedness;
- Operation of Central Dispatch and the E-911 Program*;
- Enforcement of the Beaufort County Hazardous Materials Ordinance;
- Coordination of the Hazardous Materials Response Team;
- Managing communication equipment for fire, police and EMS; and
- Issuance of all house addressing to ensure that correct data is available for Central Dispatch and 911.

The Department is housed in the County's Law Enforcement Center within the Government Complex. The Emergency Management Department has outgrown its existing office space. Closet space is being used as office space; there is no storage space; and training facilities are not adequate.

DISPATCH CENTER

Beaufort County's consolidated Dispatch Center was built in 1989 and is housed in the County's Law Enforcement Center, within the Government Complex. The Center provides state-of-the-art technology and communications capabilities. The Center provides dispatching services for all County and Municipal Law Enforcement Agencies, Fire Departments, Emergency Medical Services, and a variety of other public safety agencies. The Town of Hilton Head Island has its own Dispatch Center, which dispatches fire and EMS units for the Town and Daufuskie Island.

TRAFFIC MANAGEMENT CENTER

The County operates 43 surveillance cameras along its major highways offering live video of traffic conditions to the County's Emergency

Management Department. Based on the images, the Department can send vehicles to remove wrecked or stranded vehicles, place electronic message boards to alert drivers to detour options, and broadcast traffic conditions over designated AM radio stations. The system helps officials respond quickly to unforeseen events, and thereby minimize delays for motorists (and, accordingly, helps maintain the maximum traffic-carrying capacity of these roadways). Images from the cameras are also placed on the County’s web site allowing motorists to assess traffic situations before leaving home. The County is planning on funding a study that will recommend a comprehensive Intelligent Transportation System “architecture” that effectively integrates the traffic cameras with signal timing and message boards to respond to traffic conditions. The Department is working on transitioning the operational hours of the Traffic Management Center from six days per week of service to seven days per week.

EMERGENCY EVACUATION

Hurricanes are a reality along the Southeast coast and Beaufort County, while remaining relatively unscathed over the last 50 years, is still vulnerable to their destructive power. Beaufort County has an emergency evacuation plan that directs traffic along designated routes to get people inland as quickly as possible in the event of an evacuation. Table 11-2 summarizes projected evacuation times. Estimated evacuation times in northern Beaufort County are significantly shorter than those in the southern part of the county.

Table 11-2: 2007 Estimated Evacuation Times

Traffic Control	Northern Beaufort County	Southern Beaufort County
No Traffic Controls	5.8 to 15.7 hrs.	12.3 to 26.7 hrs.
3-lanes out, 1-lane in on US 278 and US 21	5.3 to 12.7 hrs.	9.5 to 19.0 hrs.
4-lane contra flow on US 278 and US 21	5.1 to 11.4 hrs.	8.7 to 18.4 hrs.

*Based on the 2007 Hurricane Evacuation Route Clearance Time Analysis (PBS & J)

Therefore, the Emergency Evacuation Department recommends allowing some movement of the southern Beaufort County traffic north across the Broad River Bridge to evacuate through the northern corridor. Evacuation times are not only affected by the conditions inside of Beaufort County. The roadway conditions and future development in Jasper and Hampton Counties are an important factor in the movement of evacuation traffic inland. For example, the Traditions development in Hardeeville when completed has been projected to increase estimated evacuation times of Beaufort County residents by 5%. Conversely, the widening of SC 68 in Hampton to four lanes will facilitate the movement of northern Beaufort County traffic.

FUNDING

The Emergency Management Department serves as an emergency dispatcher for all municipalities in the County except for the Town of Hilton Head. Funding for the Department comes from the County's general fund, the CIP fund, municipalities, and state and federal sources.

CONCLUSIONS

The Emergency Management Department currently lacks adequate space to provide for its existing operations. Future growth in Beaufort County will create the need for additional office space and updated equipment.

In addition to new office space, an upgrade of the county radio and mobile data communications system is needed. The Beaufort County 800 MHz trunking system is the primary means of radio communications for local government within Beaufort County. It is used on a daily basis for all public safety agencies and local governments to maintain and control their operations. Under the FCC order for rebanding the 800 MHz radio spectrum it will be necessary for Beaufort County to change its radios to meet the new frequency requirements. The radio infrastructure to include the base stations and controllers will have to be changed within the next three years as they are out of production and parts and support will no longer be available. Upon completion of rebanding and upgrading the infrastructure the system will be a digital system meeting APCO 25 standards. This will allow Beaufort County to maintain interoperability with state and other government systems.

Finally, the Department's computer aided dispatch (CAD) system is over 15 years old and does not have the ability to adopt new technology. CAD also serves as the base to support other software that provides records management to all public safety agencies and management software for the Detention Center.

RECOMMENDATIONS

Recommendation 11-8: Relocate the Emergency Management Department to the proposed Law Enforcement Center

The County should build an appropriate facility to house the Emergency Management Department within or attached to the proposed Law Enforcement Center (see Recommendation 11-2).

- The Emergency Management Department needs to undergo a thorough inventory of its existing and future space and operation needs and plan for adequate floor space within the proposed Law Enforcement Center. This inventory should include the

Department's needs for the safe housing of delicate equipment, training areas, and storage.

Recommendation 11-9: Radio Central System and Computer Aided Dispatch (CAD) Replacement

In order to maintain interoperability with state and other government systems, Beaufort County should replace its Radio Central control system and its computer aided dispatch (CAD) system.

Recommendation 11-10: Emergency Evacuation

Beaufort County should work cooperatively with its municipalities, inland counties and the state to ensure that emergency evacuation times are minimized.

- Hurricane Evacuation Route Clearance Time Analysis: Beaufort County should implement the recommendations of the Hurricane Evacuation Route Clearance Time Analysis.
- Inland Counties: Beaufort County should work cooperatively with Jasper and Hampton Counties to support initiatives that reduce evacuation times.
 1. Beaufort County should support the widening of SC 68 in Hampton County to facilitate the emergency evacuation of northern Beaufort County residents.
 2. Beaufort County should work cooperatively with Jasper County, the City of Hardeeville and LCOG.



Emergency Medical Services

The Beaufort County Emergency Medical Services (EMS) Department serves all areas of Beaufort County with the exception of the Town of Hilton Head Island. These services include emergency medical care and transport; and inter-hospital transport from Beaufort Memorial Hospital and the U.S. Naval Hospital to hospitals in Charleston and Savannah. EMS does not provide routine convalescent transportation, such as taking patients home from the hospital, clinics, or private doctors' offices. The Emergency Management Department provides dispatching for EMS at the Law Enforcement Center.

EXISTING FACILITIES

EMS operates 11 stations throughout the county (see Map 11-1). With the exception of the Headquarters station on Depot Road in Beaufort, the EMS stations are housed within fire stations in the various fire

Table 11-3: Stations and EMS Vehicles

EMS Unit	Purpose	Location	Station Address
EMS 1	Ambulance	Beaufort	2727 Depot Rd.
EMS 2	Ambulance	Beaufort	602 Parris Island Gtwy.
EMS 3	Ambulance	Dale	66 Kean Neck Rd.
EMS 4	Ambulance	Daufuskie	400 Haig Point Rd.
EMS 5	Ambulance	St. Helena	1617 Sea Island Pkwy.
EMS 6	Ambulance	Bluffton	1 Bridge Rd.
EMS 7	Ambulance	Beaufort	733 Sam's Point Rd.
EMS 8	Ambulance	Sun City	25 William Pope
EMS 9	Ambulance	Callawassie	155 Callawassie Dr.
EMS 25	QRV	Fripp Island	291 Tarpon Blvd.
EMS 26	QRV	Sheldon	5 Fire Station Rd.
EMS 21	Director	Beaufort	2727 Depot Rd.
EMS 22	Deputy Dir.	Beaufort	2727 Depot Rd.
EMS 23	Training/QRV	Beaufort	2727 Depot Rd.
EMS 24	Supervisor/QRV	Beaufort	2727 Depot Rd.

districts. Currently there is a ratio of 2-3 fire stations per ambulance in most fire districts. The headquarters station at 2727 Depot Road houses the administrative staff along with the training room and supply storage. System-wide equipment includes nine primary ambulances, two quick response vehicles (QRV's) and seven back-up ambulances. Nine stations have a full ambulance with a minimum of two emergency medical technicians (EMT's), one of which is certified at the paramedic level, the most advanced certification for a pre-hospital care provider. In addition, EMS operates two QRV's staffed with one paramedic which provide emergency medical services but cannot transport patients. All stations are equipped to provide advanced life support services. There are currently 74 full-time, 14 part-time and six volunteer staff members. Full-time field personnel work 24-hour on and 48-hours off shift rotation, with the first 24 of the 48 subject to recall.

LEVEL OF SERVICE

EMS response time to any service area in the County is eight to ten minutes. The Department's goal is a five minute response time Countywide. In order to keep response time to a minimum, the EMS stations operate on a tiered response system based on ambulance relocation. Ambulances in Beaufort County are frequently relocated to strategic locations to provide better response time when other ambulances are busy. This helps to ensure that all areas of the County receive the best coverage possible.



EMS operates two QRV's staffed with one paramedic which provide emergency medical services but cannot transport patients.

FUTURE NEEDS

In 2007, EMS upgraded their billing and patient data collection system to electronic means. This has streamlined operations and increased efficiency; however, more wireless transmission locations ("hot spots") are needed throughout the County so that the EMT's can provide patient care reports and billing information to the headquarters when out in the field.

The need for new station locations is determined by call volume trends in different areas of the County. New stations are being considered at the proposed Palmetto Bluff fire station in the Bluffton Fire District and possibly at an additional site on Lady's Island.

The Department's headquarters, which also house in-service training space and supply storage, are outdated and currently are not serving the Department's needs.

FUNDING

Funding for EMS comes from the County general fund. A user fee collected from clients is deposited into the general fund. In 2006, EMS collected \$1,621,000 in fees.

CONCLUSIONS

Co-locating the EMS stations at fire stations has worked well for the Department. The EMS staff are able maximize coverage and response time by utilizing a tier system based on ambulance relocation. Continual monitoring and upgrades by the EMS staff provide Beaufort County one of the best equipped EMS departments in South Carolina. However, the deteriorated condition of the administration building at 2727 Depot Road is not serving the Department's current needs.

RECOMMENDATIONS

Recommendation 11-11: New EMS Stations

The Beaufort County EMS Department should work with the Bluffton Fire District and the Lady's Island Fire District to collocate three new EMS stations to respond to future call volume trends in those areas of the County.

Recommendation 11-12: House EMS headquarters in the proposed Law Enforcement Center

Beaufort County should include the EMS administrative offices, training center and storage space needs in the planned Law Enforcement Center (LEC) complex. In addition to EMS, other related departments including the Dispatch System, Emergency Services and Traffic Management should be housed in the new LEC. This will allow for efficient communication regarding shared requirements.



Libraries

Beaufort County has a countywide system of libraries that serve the unincorporated county and its municipalities. The system consists of five branches with a total of 89,783 square feet of building space. Collectively, the branch facilities house 230,910 items, which include books, reference volumes, DVD's, cassettes and CD's.

The Beaufort County library system operates as a fiscal and administrative department of County government and employs 57 full time and 27 part time persons. The Beaufort County Library Board of Trustees acts as an advisory body to County Council. The Board establishes library policy, monitors library operations, and makes recommendations to County Council concerning budget and planning and development.

LIBRARY FACILITIES

Three of the County's five branches are located in northern Beaufort County and two are in southern Beaufort County. Table 11-4 provides a summary of Beaufort County's Library System.

Table 11-4: Summary of Library Facilities in Beaufort County

Facility	Square Ft.	Staffing (full-time/part-time)	Collection Items
Beaufort*	34,000	31/8	84,900
Lobeco	4,000	4/1	19,800
St. Helena	1,000	1/2	9,700
Bluffton	25,000	11/8	37,200
Hilton Head I.	26,000	10/8	85,100
Total	90,000	57/27	236,700

*Includes administrative and technical office space and staff.

LIBRARY FACILITIES SIZE AND LOCATIONAL CRITERIA

The Library's current policy is to favor larger regional facilities that offer comprehensive services. This means fewer but larger facilities to ensure consistent comprehensive service among the branches. The Library has outlined several criteria for site location that include access and visibility

from an arterial highway, proximity to commercial properties, access to sewer and water, and avoidance of flood prone areas.

LEVEL OF SERVICE STANDARDS

In the past, Beaufort County adopted the level of service for library building space as 0.6 square feet per capita for planning purposes. Several trends are driving the need for more library building space. The influx of technology in libraries has created the need for more space for computer work stations. Also, public libraries are increasingly becoming centers for community activities requiring large meeting spaces and smaller conference rooms for special programs such as after school homework centers. Therefore, current national standards recommend a per capita building level of service between 1.25 and 1.6 square feet. Beaufort County has also adopted a level of service standard of 3.5 collection items per capita.

LIBRARY FACILITIES MASTER PLAN

The Beaufort County Library Facilities Master Plan recommends adopting a 1.25 square foot per capita building space level of service. Applying this higher level of service, the plan proposes three



The 25,000 square foot Bluffton Library was opened in 2002.

Table 11-5: Planned Library Facilities

Planned Library Facility and Location	Square Footage
New St. Helena Branch, Penn Center	21,100
Burton Wells Branch, move admin/tech offices from Beaufort, Burton Wells Park	46,200
Hilton Head Branch – addition	21,800
Beaufort Branch- renovation	12,500
New Lady’s Island Branch, no site identified	19,100
New Okatie Branch, Okatie Center	29,500
New Pritchardville Branch, no site identified	29,500
Lobeco – addition	4,400

Source: Library Facilities Master Plan, Beaufort County Library Department

renovations/additions and five new libraries to be constructed over the next 10 years to meet both existing deficiencies and future population growth. The cost of these proposed facilities along with the necessary collection materials and furniture, fixtures and equipment is estimated to be over \$74 million. Table 11-5 lists the major projects to be completed in the next 10 years.

FUNDING

Approximately 90% of the Beaufort County Public Library’s funding comes from County funds. Operations and maintenance costs are paid for from the County’s general fund. Capital costs are funded with

impact fees. In 1999, Beaufort County passed an impact fee ordinance for libraries which was later revised in 2006. The fees pay for the impact of future development on library facilities; specifically building space, collection materials, furniture/fixtures & equipment, and land. Based on projected population growth, the fees are estimated to generate approximately \$16 million in revenue. Most of the remaining funds will have to come from the State of South Carolina through appropriations and competitive grants. The Friends of the Library also helps the Library through cash contributions, book sales, and volunteer services.

CONCLUSION

A comparison of Beaufort County's Library facilities to recommended national level of service standards shows that the county is deficient in meeting current needs let alone the demands of future population growth. The Library Facilities Master Plan indicates that it will cost over \$74 million to meet these needs in capital costs alone. Library impact fees, which can only be applied to future facilities needs, are estimated to generate approximately \$16 million leaving \$58 million in capital needs unfunded. Therefore, the County will need to aggressively pursue additional funding sources to close this gap.

RECOMMENDATIONS

Recommendation 11-13: Level of Service

This plan recommends the following levels of service for libraries:

- Building Space: 1.25 square feet per capita
- Collection Materials: 3.5 items per capita

Recommendation 11-14: Address the Funding Gap

This plan recommends the following strategy for closing the projected funding gap of \$58 million to meet existing and future needs for library facilities:

- Continually pursue outside funding sources, such as foundations, and state and federal grants;
- Initiate capital campaigns to solicit funding for individual library building projects from corporate and private donors; and
- Utilize the Capital Projects Sales Tax to fund capital needs for libraries. This would be pursued via countywide referendum once the existing Capital Projects Sales Tax expires in 2012.



Parks, Recreation, and Open Space

Beaufort County's parks, facilities, recreation programs and open spaces are an important component of the region's quality of life and also provide an important means of making the County's natural amenities accessible to both residents and visitors. Beaufort County's rapid population growth and change in demographics require the County to continually reevaluate its park facilities, services, and programs to respond to these changes. Future population growth will also have a significant impact on the ability of the County's ability to respond to increased demands for regional park land and facilities. This section provides a summary of Beaufort County's existing park network, park facilities, recreation programs and open space, and provides recommendations on the quantity and type of parks to address future population growth.

EXISTING PARK LAND AND FACILITIES

This plan categorizes Beaufort County Parks into four distinct types: neighborhood parks, community parks, regional parks and special use parks. Table 11-6 provides a general description of the ideal acreage and mix of facilities for each park type. Beaufort County has over 1,243 acres of County and municipal parks. This regional park network is enhanced by Hunting Island State Park, Pinckney Island National Wildlife Refuge, and the Victoria Bluff Heritage Preserve which make up over 7,225 acres. Beaufort County park facilities include ball fields, tennis courts, basketball courts, community centers, gymnasiums, swimming pools, skate parks, walking trails, playgrounds, and picnic areas. Appendix A provides a complete inventory of these parks along with the facilities located in each of the parks. The locations of these parks are shown on Maps 11-2 and 11-3. The quantity and acreage of each park type is summarized in Table 11-7 below.

Table 11-6: Beaufort County Park Types

Park Type and Description	Acreage	Description and Typical Park Facilities*
Neighborhood	1-5 acres	Playground; Basketball Court; Picnic Facilities; Restrooms; Open Green Space
Community	25+	Community Center; Playground; Basketball Court; Picnic Facilities; Restrooms; Open Green Space; Tennis Courts; Baseball/Softball Fields; Soccer/Football Fields; Walking/Bike Trail
Regional	75+	Athletic Complexes (Soccer, Baseball, Football, Tennis); Recreation Centers (Administration, Fitness, Racquetball, Meeting Rooms, Classrooms, etc.); Walking Trails; Bike Trails; Picnic Areas; Basketball Courts; Playgrounds; Amphitheater; Open Green Space; other amenities per community desires
Special Use	varies	Nature Center, Beach access, archaeological and historic sites, Kayak Launching area; Horse Trails; etc.

Source: Beaufort County Department of Parks and Leisure Services (PALS)

*PALS typically works with the public to determine desired facilities for individual parks.



Jarvis Creek Community Park located on Hilton Head Island is an innovative approach to solving a much needed stormwater drainage problem while protecting water quality, preserving and enhancing the natural environment, and providing a much needed passive recreation area for the island.

Table 11-7: Existing Park Land in Beaufort County

Park Type	Quantity	Acreage
Pocket*	23	27.3
Neighborhood	24	137.7
Community	13	376.5
Regional	4	474.0
Special Use**	16	7453.0
Total	80	8468.5

*The pocket parks in this inventory are owned and maintained by the municipalities

**Includes Hunting island State Park, Pinckney Island National Wildlife Refuge and Victoria Bluff

In addition to park facilities, some recreational facilities are offered by the Beaufort County School District. A good example is the school complex on Hilton Head Island which provides the community with various athletic amenities. In order to maximize County resources, PALS has proposed an official agreement with the School District and its staff to permit the greatest possible use of school facilities to increase the quality and consistency of youth recreation opportunities and to permit the greatest possible use of school facilities by the general public. PALS has an existing contract to utilize the Marine Corps Community Services (MCCS) fields and facilities when the military is involved with County leagues and programs.

FUTURE PARK NEEDS

Based on an analysis of population growth and current park inventory, the future park needs are summarized in Tables 11-8 and 11-9.

Table 11-8: Future Park Needs in Northern Beaufort County and the Greater Bluffton Area

Park Type	Park Name or Location	Existing Land Available	Land Needed
Port Royal Island			
Neighborhood	Jericho Wells Park	5	
	Port of Port Royal ¹	15	
	Grays Hill Area		10
	Clarendon Plantation	10	
	Seabrook/Stuart Point		10
Community	Southside Park ²	12	
Regional	Burton Wells Park ³	312	
Special Use	McLeod Farms	95	
Lady's Island			
Neighborhood	Northern Lady's Island		10
	Southern Lady's Island		10
Community	Crystal Lake Park	20	
	Northern Lady's Island		25
St. Helena Island			
Neighborhood	Coffin Point	2.3 ⁴	
	Ann Fripp		10
	Warsaw		10
	Eddings Point	2	
Special Use	Fort Fremont	15	
Sheldon			
Neighborhood	Sheldon/Paige Pt. Area		10
Community	Lobeco		25
Greater Bluffton Area			
Neighborhood	Camp St. Mary's ⁵	9.8	
	Palmetto Bluff Park	10	
	Alljoy Road/Ulmer area		10
	Daufuskie Island Park	4	
Community	Jones Estate	70	
	Berkeley Hall	20	
	Okatie Park		25
	Victoria Bluff area		25
Regional	Buckwalter Park ⁶	142	
	Okatie Preserve	119	
Special Use	Altamaha	100	
	Lemon Island	573	
Total Land Needed			180

¹ To be developed by the Town of Port Royal

² To be developed by the City of Beaufort

³ Future Phases include additional ballfields, a tennis complex and trails

⁴ Old Waterslide Property

⁵ Kayak Dock on site, remaining site is undeveloped as a park

⁶ Future Phases include the development of additional soccer fields, a recreation center, aquatics center, baseball complex, tennis center and passive uses

In northern Beaufort County and in the greater Bluffton Area, 180 additional acres of park land needs to be acquired to serve future demand for park land. The Town of Hilton Head Island Comprehensive Plan identified the need for 253 additional acres of park land to serve future needs on the Island. Land purchased through the Town’s Land Acquisition Program could potentially be used for these needed parks.

Table 11-9: Future Park Needs on Hilton Head Island

Park Type	Quantity Needed	Acres per Park Type	Total Acres Needed
Neighborhood	14	1-5	35
Community	3	20-80	150
Regional	1	50-85	68
Total Acreage Needed			253

Source: Town of Hilton Head Island Comprehensive Plan, Parks and Recreation Element (2005)



PALS recreational programs include competitive sports such as youth football, cheerleading, soccer, basketball, softball and adult softball and soccer.

RECREATIONAL PROGRAMS AND ACTIVITIES

PALS operates numerous programs in a wide variety of activities. Recreational programs include competitive sports such as youth football, cheerleading, soccer, basketball, softball, and adult softball and soccer. PALS offers swimming lessons as well as lifeguard and water safety courses. PALS also offers after school programs, senior citizen programs along with activities such as aerobics, yoga and tae kwon do. Many of these programs are run in cooperation with area agencies and groups. For example, PALS offers the “Learn to Swim” program in conjunction with the School District aimed at teaching elementary-age school children how to swim.

ADMINISTRATION, MAINTENANCE AND OVERSIGHT

PALS is a County department that is currently administered by two directors divided between northern and southern Beaufort County. Maintenance of the County parks is the responsibility of the Public Works Department. There are 33 facilities under the jurisdiction of PALS. Many of the facilities and programs in southern Beaufort County are owned by one jurisdiction and operated and maintained by another (see Appendix A). Oversight of PALS is provided by a nine member advisory board appointed by County Council that establishes fees and provides advice and recommendations on policy and programs.

PARKS AND RECREATION FUNDING

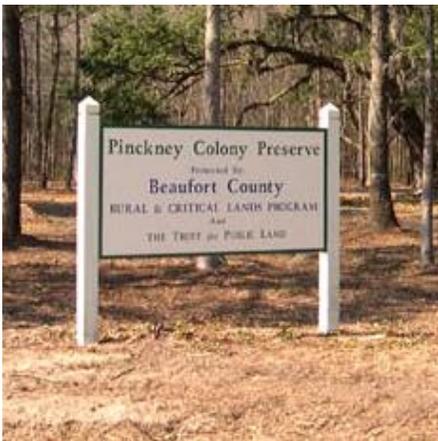
General Fund: Funding for PALS activities and park maintenance comes from the County’s general fund. The two PALS directors set the budget for northern and southern Beaufort County programmatic activities. The director of Public Works sets the budget for maintenance of PALS facilities. Both departments are represented on the committee responsible for developing the county’s capital improvements program.

Impact Fees: Park facilities and land needs that result from new development are funded in part by impact fees. Impact fees have been established in five service areas within the County.

Table 11-10: Parks and Recreation Facilities Development Impact Fee Schedule by Service Area

Service Area	Fee per Dwelling Unit
Town of Hilton Head	\$627
Town of Bluffton; Bluffton-Okatie	\$1,385
City of Beaufort; Town of Port Royal; Port Royal Island	\$81
Lady's Island	\$429
St. Helena Island	\$775

Based on future growth projections for the year 2025, park impact fees are projected to generate approximately \$39 million in revenue.



The Beaufort County Rural and Critical Land Preservation Program has purchased over 350 acres of land that have the potential to be developed for passive recreation uses.

Funding for Land Acquisition: The Beaufort County Rural and Critical Land Preservation Program has purchased over 350 acres of land that have the potential to be developed for passive recreation uses. Properties falling in this category include Fort Fremont, Crystal Lake, Lemon Island, Altamaha, Okatie Preserve, and Pinckney Colony Reserve. The program restricts the use of lands purchased through this program to passive uses. The Town of Hilton Head Island's Land Acquisition Program is a good source of future park land on the island.

Private Sources: Private developers have donated much of the existing active parkland in the Bluffton Area as part of Development Agreements. The Town of Bluffton, through development agreements acquired the land for Oscar Frazier Park; Buckwalter Regional Park; 10 acres in Palmetto Bluff and 90 acres in the Jones Tract for the development of future parks. The Town also acquired \$750,000 for the design and construction of these park facilities.

Revenue Generating Park Amenities: Other than the occasional rental of athletic fields, this revenue source is largely untapped in Beaufort County. Many municipal and county park systems provide such amenities as water parks, campgrounds, meeting facilities, and picnic shelter rentals. If successfully conceived and managed, these amenities have the potential not only to pay for themselves, but also to provide additional revenue to cover facilities that do not generate revenue.

PUBLIC ACCESS TO WATER

Beaufort has over 44 miles of coastline and approximately half of the area of the County is comprised of creeks, bays, and salt marshes. Providing public access to this amenity is vital to both the quality of life for the area's residents and to the economic health of the region's tourism industry.



Beaches are public lands that serve as a linear special use park.

Beach Access: Between mean high tide and the water, beaches are public lands that are under the jurisdiction of the SCDHEC Office of Coastal Resource Management (OCRM). This area serves as a linear special use park. In southern Beaufort County, Hilton Head Island has nine public access points with approximately 1,400 parking spaces along its 19 miles of beaches. Daufuskie Island has approximately 3 ½ miles of beach with only one public access point. In northern Beaufort County, only Hunting Island State Park's three miles of beach is easily accessible. Public access to the beaches of Harbor and Fripp Islands is highly restricted with only Harbor Island requiring a gate fee and very limited parking.

Boat Landings: The Beaufort County Public Works Department maintains and manages 26 public boat ramps, six public recreational water accesses, and eight fishing piers to facilitate the public in pursuit of water activities. The locations of these facilities are identified on Map 11-4. Special events such as the Beaufort Water Festival, the Governor's Cup, shrimp baiting season, cobia season, and other similar events create high demand for the County's existing facilities. In 2007, SCDHEC/OCRM published the *South Carolina Five Coastal County Boat Ramp Study*. This study provided a detailed assessment of the County's existing boat landings and provided the following general findings and recommendations

- There is a major need for more parking at existing boat ramps;
- Existing boat landings need to be upgraded and repaired with new restrooms, more trash disposal, and better lighting;
- Certain accesses should be designated for non-motorized uses such as fishing, crabbing, kayaking, canoeing, and viewing; and
- Passenger cars should not park in car/trailer parking spaces

The study also provides detailed, site-specific recommendations for improvements to each of the County's boat landings.

MULTI-USE PATHWAYS AND TRAILS

Multi-use pathways and trails typically serve a diversity of transportation needs. Walking, running and cycling are activities enjoyed by both very young and older residents. The Town of Hilton Head Island has developed over 51 miles of public multi-use trails and over 23 additional miles planned in their 10-year CIP. Efforts elsewhere in Beaufort

County include the 5-mile New River Trail, and multi-use pathways along Buckwalter Parkway and Bluffton Parkway.

In 2003, the County adopted the *Beaufort County Trails and Blueway Master Plan* that depicts routes for the development of a trail and blueway network. The plan prioritizes the establishment of a trail on the abandoned Port Royal to Yemassee rail line and the establishment of a trail on a water line easement that connects Parris Island to Burton Wells Park and to the US Marine Corps Air Station. The plan also promotes multi-use trails along the County's major corridors (US 278, SC 170 and US 21).

CONCLUSIONS

Beaufort County is faced with the dual challenge of upgrading its current recreation facilities to serve existing demands and expanding its park network to serve future population growth. Many of the County's existing facilities are outdated and must be upgraded or replaced. New park facilities only add to the maintenance burden. The Beaufort County Parks, Recreation and Open Space Plan was completed in 1995 and adopted as part of the 1997 Comprehensive Plan. The Plan set forth specific per capita level of service goals for each park type and for recreation facilities. Development and demographic trends over the last 10 years and changes in park management call for the need to develop a new parks master plan that provides for strategies to improve existing facilities while expanding the park network to serve future growth.

In the last 10 years, the County has moved toward offering more passive park amenities, due in part to the acquisition of over 350 acres of land through the Rural and Critical Lands Preservation Program. While this additional park land has the potential to expand and diversify the County's park network, stewardship of the property needs to be planned and budgeted so that appropriate management activities are taking place and the property is being protected in an environmentally responsible fashion.

RECOMMENDATIONS

Recommendation 11-15: Parks Master Plan

Beaufort County Council should develop a new parks, recreation and open space master plan. The Master Plan should include the following:

- An analysis of existing park facilities and programs and a survey of residents to determine demands for park services;
- A detailed analysis of current maintenance conditions, type of programs and/or facilities offered, the annual visitation of each facility, and the annual cost to maintain each park;
- A list of future park and recreation needs;
- A park maintenance plan;

- Identification of park equity issues as well as inclusion of the stewardship responsibility associated with the Rural and Critical Lands Preservation program
- Review of the current park management organizational structure and recommendations for reorganization if warranted;
- Analysis of existing and future funding sources that include identification of state and federal funding to support parks and recreation programs; and
- Oversight by a stakeholders group representing a diverse group of citizens.

Recommendation 11-16: Improve Existing Recreational Facilities

Beaufort County should make the best use of its existing recreational facilities by upgrading and improving existing parkland and facilities so that residents may use them to their fullest potential.

- A team of County officials consisting of members of the Public Services Committee of County Council, PALS, the PALS Advisory Board, Public Works and the Risk Management Office should be assembled to evaluate the current conditions of park facilities. This evaluation should lead to a prioritized list of repairs and upgrades and the costs associated with these improvements. This information would greatly assist staff and elected officials in determining annual budget needs for existing park maintenance. This information would also assist in determining future maintenance costs and manpower requirements before additional parks or facilities are added.

Recommendation 11-17: Develop New Parks and Recreation Facilities

Beaufort County should develop additional regional, community, and neighborhood parks to meet current and future recreation needs and to serve different geographic areas.

- Implement future phases of Beaufort County's two existing regional parks – Burton Wells Park and Buckwalter Park.
- Provide recreation facilities for park lands that are currently undeveloped. These lands include Camp St. Mary's, Okatie Preserve, Jones Tract Park, Altamaha, Crystal Lake, Fort Fremont, and Jericho Wells Park.
- Purchase land and develop recreational facilities for additional neighborhood and community parks as indicated in Table 11-8.

Recommendation 11-18: Marsh and Water Access

Beaufort County should improve and increase public access to water and marshes by improving access on waterfront and marsh front properties currently owned by the County or other public entities; by purchasing additional waterfront and marsh front properties through the Rural and Critical Lands Preservation Program; and by providing incentives to encourage public access to the water in private developments.

Recommendation 11-19: Boat Landings

Beaufort County should direct staff to review, prioritize and implement the recommendations of the *South Carolina Five Coastal County Boat Ramp Study*.

Recommendation 11-20: Multi-Use Pathways and Trails

Beaufort County and its municipalities should coordinate and place additional emphasis on expansion and implementation of a multi-use pathway system through the Southern Beaufort Greenway Plan, and the Beaufort County Trails and Blueways Master Plan.

- Identify a strategy for prioritizing, phasing, funding, and accomplishing the identified needs.
- Establish a rail/trail on the abandoned Port Royal to Yemassee rail corridor. Implementation of this corridor is recommended to provide an alternative transportation mode for those along the US 21 corridor. This corridor would provide a trail that is separated from automobile traffic, enhancing safety for all users.
- Incorporate the Beaufort County Trails and Blueways Master Plan into roadway improvement plans for SCDOT, the County and its municipalities and include these plans for purposes of right-of-way acquisitions, design and funding.

Recommendation 11-21: Management of Passive Parks

Beaufort County should provide a park stewardship position to manage the County's passive park land. Passive park lands include those parks purchased through the Rural and Critical Lands Preservation Program and passive uses in the County's two regional parks.

Recommendation 11-22: Identify and Pursue Future Funding Sources

Beaufort County should develop a strategy to fund existing and future park needs by expanding on existing funding options and seeking new sources of funding.

- Impact Fees: Revise Beaufort County’s park impact fees to reflect the most recent population growth estimates and future park needs.
- Grants: Aggressively seek state and federal grants to support County recreation facilities and programs
- Joint Recreation Facilities: Work with the Beaufort County School District and other recreation providers to maximize the number of recreation facilities available to county residents.
- Joint Purchasing: Work with other agencies and departments that have land needs, such as the School District, to jointly purchase land for needed facilities. Combine resources with other recreation providers to jointly purchase expensive, labor saving equipment needed for high quality field maintenance and used on a seasonal basis.
- Private Sources: Require large developments to provide usable, active parkland and associated recreation facilities.
- Revenue Generating Park Amenities: Pursue park facilities that generate revenue via user fees. These facilities include water parks, campgrounds, tennis facilities, and picnic shelters.



Sheriff's Office

The Sheriff's Office currently employs 191 law enforcement officers and 22 administrative personnel. The upper tier of the organizational ladder of the Sheriff's Office includes a drug analysis lab, an evidence section, the Office of Professional Responsibility, a training/support section, a recruiting section, the Reserve Deputy Sheriff Program, and a crime prevention specialist. The Enforcement Division is divided into northern and southern sections and includes a coroner's office liaison. The chief activities of the Enforcement Division are patrol, investigations, joint enforcement traffic team, marine and beach patrol, animal control, the Airport Security Program, litter control, victim's advocacy, and sex offender registry. The Administrative Division covers warrants, civil process, courthouse security, auditor's liaison, criminal records, criminal negotiation team, "Crime Stoppers", multi-jurisdictional drug task force, the K-9 unit, special assignments unit, special weapons & tactics (SWAT) unit, dive team, and the robot team.

SHERIFF FACILITIES

The Sheriff's Office is located at the County Government Center in the Law Enforcement Center at 2001 Duke Street in Beaufort. There is also a substation south of the Broad River that serves Hilton Head Island. Services to the Town of Hilton Head Island are provided on a contractual basis. The main facilities are both outdated and inadequate for the current needs of the Sheriff's Office. There is no general storage space at the facility because several storerooms have been converted to offices. Many offices are shared by multiple officers. There is no interview room or location where victims or suspects can be interviewed in private. The building's roof leaks in multiple places and the HVAC system rarely works properly. There are several smaller substations around the County that service the patrol officers during their shifts with computer access. The Drug Analysis Lab is housed on the University of South Carolina Beaufort New River Campus on Rt. 278. The DNA Lab is scheduled to be in the Beaufort Jasper Water Services Authority building on the corner of Rt. 170 and Snake Rd.

CONCLUSIONS

The Sheriff's Office has outgrown its existing Law Enforcement Center at 2001 Duke Street behind the Government Center. Within the existing Law Enforcement Center, personnel are sharing offices, closets have been converted to offices, and there is no storage space.

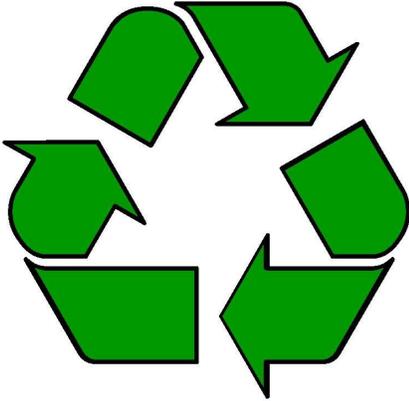


Due to the unique nature of Beaufort County, it is difficult to apply national guidelines relating the number of sworn law enforcement officers per capita of population. The most critical factor in determining the number of deputies needed is the County's geography. Beaufort is a county of islands, creating long travel distances and times between two locales that may only be separated by a few hundred yards of water. The County also supports a high level of seasonal tourism and an increasing population base. These factors also contribute to the difficulty in adapting commonly accepted guidelines regarding level of service.

RECOMMENDATION

Recommendation 11-23: New Law Enforcement Center

Beaufort County should construct a new Law Enforcement Center that will consolidate all the space needs for the Sheriff's Department (see Recommendation 11-2).



Solid Waste and Recycling

Solid waste management consists of three separate activities: collection, disposal, and recycling. In Beaufort County, public collection of solid waste and recycling is handled by the Public Works Department through a system of 12 staffed convenience centers (collection facilities) and one un-staffed convenience center on Daufuskie Island (see Map 11-5). The County finances the operations of all convenience centers and residential solid waste disposal and recycling.

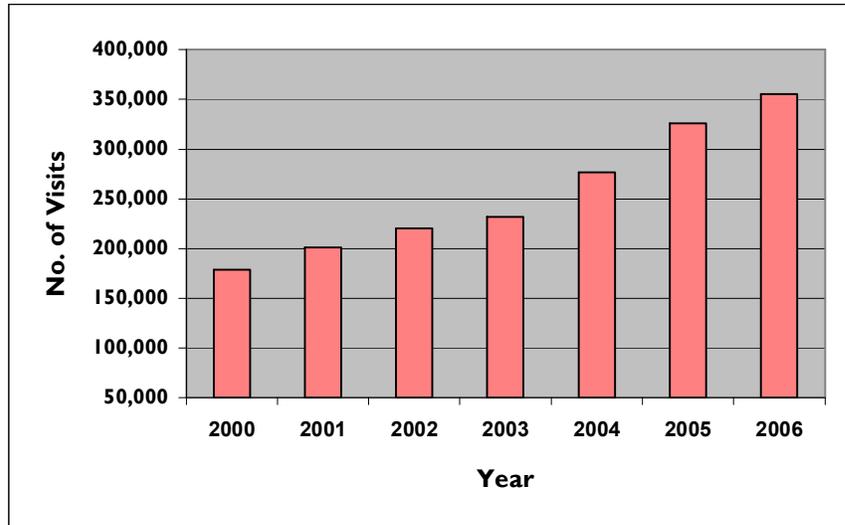
The City of Beaufort, Town of Port Royal, and the Town of Bluffton provide curbside solid waste and recycling collection. Residents of the unincorporated areas of the county and Hilton Head Island who desire curbside collection of household solid waste must contract with private companies for those services.

CONVENIENCE CENTERS

Although the convenience center concept works well in rural communities, in high traffic areas there are limits to how much waste can be collected at satellite stations and transported to a landfill. This is partially due to the logistics of emptying and replacing waste containers. Under the current setup, the County is required to staff, maintain, manage collection, and pay for disposal of items from the convenience centers. Five of the 12 convenience centers – Hilton Head, Gate, Shanklin, St. Helena, Bluffton, and Lady's Island – account for 80 % of the convenience center traffic. For example, the number of vehicles visiting the Hilton Head convenience center has increased from about 175,000 in 2000 to over 350,000 vehicles (or 83 vehicles per hour) in 2006, a 50% increase in traffic (Figure 11-11).

The high traffic volume combined with the limited weekend hours of the landfill used by the County, over burdens the system on weekends. These factors create a constant challenge for County staff and contractors to keep up with the volume of waste to be handled.

Figure 11-11: Increase in Traffic Volume at the Hilton Head Convenience Center.



In 2000, as part of its solid waste management planning process, Beaufort County determined that the density of single-family households and the amount of solid waste generated in Solid Waste Districts 6 (Burton) and 7 (Lady's Island) warranted consideration of providing curbside collection services to households in these districts. Curbside collection costs and various system parameters, including public vs. private collection services have been analyzed to determine whether curbside collection is warranted. Industry estimates to justify curbside pick-up is 40-50 residents per square mile. The 2007 dwelling population densities in the nine solid waste districts all satisfy that criteria. The highest residential population densities in the unincorporated districts within the County are Burton, Bluffton, and Lady's Island. The transfer to curbside collection would reduce the need for household garbage and recycling collection at the Gate, Shanklin, Lady's Island, Bluffton, and Pritchardville convenience centers. Hilton Head Island also has a very high population density with no mandated curbside pick-up, but this area is under the jurisdiction of the Town of Hilton Head.

SOLID WASTE DISPOSAL

The County's solid waste is disposed of at Hickory Hill Landfill. Approximately 138,700 tons of solid waste were disposed of in FY 2007. Construction and demolition material is diverted to one of the two construction and demolition landfill sites utilized by the County. One, Barnwell Resources, is located in Beaufort County. The other, Oakwood Landfill, is in Jasper County. Yard waste from the municipalities and convenience centers is disposed of by incineration at

Greenspace Inc., in Jasper County or disposed of in one of the construction and demolition landfills.

Hickory Hill Landfill is owned by Waste Management and located in Jasper County. The County has a contract to deliver (or cause to be delivered) at least 117,203 tons per year of solid waste through June, 2010. The Hickory Hill Landfill has an estimated lifetime of 20 years. The tipping fee is high compared to what other local governments in the region are paying. It is not feasible to develop a new landfill in Beaufort County due to multiple factors that include the geology of the area; existing state laws that prevent the establishment of new landfills within 75 miles radius of an existing landfill; and the high cost of land.

In 2005, in an Evaluation of Solid Waste Management Alternatives, a directive to the County was to build a transfer station to facilitate use of alternative facilities for Beaufort County's waste. The primary reason for using a transfer station is to reduce the cost of transporting waste to other facilities. Six facilities within a 175 mile radius were identified as possible Beaufort County disposal sites. The process of developing transfer capacity will take approximately four years. A transfer station would prolong the life of Hickory Hill as well as offer alternatives to Beaufort County for waste disposal and help to control disposal costs in the future.

RECYCLING

Recycling is one strategy to reduce the amount of solid waste that enters the Hickory Hill Landfill. The County has a contract with the Hickory Hills Materials Recovery Facility (MRF) which is owned by Waste Management Inc. and located at their Jasper County complex. The MRF processes recyclables collected at the convenience centers as well as recyclables collected through other programs in the County. There are two means of providing recycling services to residents – convenience centers and curbside collection. Drop-off services and curbside collection should not be considered “either/or” options. The two methods should be used in the County to complement each other and increase participation and recovery.

Recycling at Convenience Centers: Recycling opportunities are available at eight of the twelve convenience centers. The eight centers that recycle do not accept all materials for recycling. For example, only four convenience centers recycle tires and white goods. Even though the Solid Waste and Recycling Department interacts in the community to educate and promote the use of the County's centers for recycling and reuse, lack of convenience is a major barrier to widespread recycling.

Curbside Recycling: Curbside collection is the most effective method to ensure high participation and recovery rates. Curbside

recycling service is provided by the City of Beaufort, Town of Port Royal, and Town of Bluffton, and is available in some Planned Unit Developments serviced by contract with private companies. The Town of Hilton Head provides no mandated curbside collection opportunities for solid waste or recycling to citizens yet generates about 30% of the residential waste in Beaufort County.

FUNDING

The County pays for the entire cost of residential solid waste disposal. The cost of commercial solid waste disposal is paid by the generator. The source of funding for County Solid Waste and Recycling Program is the general fund. The budget is based on recommendations from the Solid Waste Manager. The Department also receives grants to help promote recycling from the South Carolina Department of Health and Environmental Control as well as from other sources.

OVERSIGHT

The county is divided into nine Solid Waste Districts to facilitate management, services and control costs. In 1996, Beaufort County Council established the Solid Waste and Recycling Board, a volunteer citizen board, to advise Council on all aspects of public solid waste management and to develop a comprehensive plan for Solid Waste Management that was approved in 2000. An Evaluation of Solid Waste Management Alternatives was completed in 2005. A comprehensive data set on all solid waste and recycling activities to facilitate analysis and planning has also been developed.

CONCLUSIONS

Population density and the size of municipalities within Beaufort County have changed drastically in the past 20 years and, therefore, methods of solid waste and recycling management must change to provide for future needs. Residents who live in unincorporated areas and on Hilton Head Island must haul their recyclables to a convenience center. This extra step makes many citizens chose to dispose of items with the household garbage that could otherwise be recycled. Dwelling unit densities have increased to the point in all solid waste districts where curbside pick-up of solid waste and recycling is reasonable. Convenience centers will continue to work well in rural communities where, due to low population density, it is not feasible to provide curbside collection. In urban areas, however, their future role will likely be to complement curbside collection by providing a disposal site for items that are not easily picked up curbside.

Beaufort County currently has one disposal and recycling option, the Hickory Hill landfill and MRF, owned and operated by a single company and located in Jasper County. The disposal fee is higher than others in

the area and the estimated life of the landfill is approximately 20 years. The contract will be renegotiated in 2010, so the timing is right to increase the County's solid waste disposal options. It is unfeasible to develop a landfill in Beaufort County and there is an abundance of capacity in landfills in the greater region. Therefore, the best option is to develop capacity to send waste to an existing landfill by building a transfer station in the county.

RECOMMENDATIONS

Recommendation 11-24: Future Disposal Sites

County Council should direct its staff to design and implement a plan for provision of multiple disposal alternatives for the County.

- The County should continue efforts to form alliances with neighboring counties to develop alternative methods for waste disposal and recycling.
- The County should initiate the placement of a transfer station and a MRF in Beaufort County to provide an alternative to disposal and recycling at the Hickory Hill Landfill and MRF.

Recommendation 11-25: Provide Curbside Collection in High Density Areas

County Council should direct County staff to explore means of initiating mandated curbside pick-up for solid waste and recycling in Districts 6, 7, and 9; and encouraging the Town of Hilton Head to provide or require curbside pick-up.

- The County should explore an exclusive franchise system, allowing haulers to bid on servicing an entire Solid Waste District or a designated area within the Solid Waste District if not feasible for one hauler to service the entire district. This will help to reduce costs for citizens and decrease truck traffic in residential neighborhoods.
- The County should work with the Town to explore the provision of mandatory franchised curbside and recycling collection administered by the Town of Hilton Head
- The County should increase the efficiency and capacity of its high-usage convenience centers by installing trash compacting equipment to complement curbside collection.

Recommendation 11-26: Recycling of Yard Waste

County Council should direct staff to continue to pursue recycling options for yard waste as an alternative to placement in a construction and demolition landfill or incineration.



Fire Protection

Fire services in Beaufort County are offered by nine separate providers including three municipal fire departments, five special purpose tax districts, and one public service district. All emergency dispatching in the county is coordinated from the County’s Law Enforcement Center (LEC), except for the Town of Hilton Head Island which has its own dispatch system.

Table 11-12: Beaufort County Fire Protection Providers

Municipal Fire Departments	City of Beaufort/Town of Port Royal Town of Hilton Head Island Town of Yemassee
Special Purpose Tax District	Burton Lady’s Island/St. Helena Sheldon Bluffton Township Daufuskie Island
Public Service District	Fripp Island

Table 11-13 provides a summary of the personnel, area and population served and number of calls received by each of the fire protection providers. Over 400 certified firefighters, paid and volunteer, staff a total of 32 stations throughout Beaufort County. The Town of Hilton Head and Bluffton District serves the largest population of about 41,000. The Bluffton and Burton Districts serve the largest areas of about 245 square miles and the Fripp Island District serves the smallest area of 5 square miles. Map 11-1 shows the boundaries of the areas served by the fire districts and the locations of existing and proposed stations.

ISO RATING

The Insurance Services Office (ISO) has established a Public Protection Classification System commonly used to review the firefighting capabilities of individual communities. The best rating is 1 and the worst is 10. Areas with mixed urban and rural receive two ratings, the first number indicating urban, and the second rural. Ten percent of the

districts' overall score is based on how well the fire department receives and dispatches fire alarms, 50 % of the score is based on fire department operations, and 40 % is based on the community's water supply. The County's municipal areas generally have a low ISO rating while the rural areas have high ISO ratings (Table 11-13).

Table 11-13: Beaufort County fire protection summary by district.

District	ISO Rating	Personnel Paid/Vol.	Area (sq. mile)	Pop. Served	No. of Calls 2006
HHI	3	105/0	54	41,039*	6,026
Bluffton	5	106/30	246	40,500	3,640
LI/SH	4/9	64/10	140	25,000	1,909
Burton	4/9	50/10	240	24,000	2,591
BFT/PR	Bft 2/PR 3	38/35	18.2	21,000	2,300
Sheldon	5	15/27	83	5,000	607
Fripp Island	5	19/29	5	800	218
Yemassee	5	0/9	6.2	712	198
Daufuskie Island	5	12/17	8	427	

* plus 48,398 seasonal population

EXISTING CAPITAL FACILITIES

Table 11-14 provides a summary of the capital facilities of each of the fire protection providers.

Table 11-14: Summary of Existing Capital Facilities

Fire Protection Provider	# of Stations	Total Sq. Ft.	Summary of Apparatus
Hilton Head Island	7	60,406	9 pumpers, 2 aerials, 32 other fire vehicles
Bluffton	7	37,091	8 pumpers, 3 tankers, 1 aerial
Lady's Island/St. Helena	5	27,800	8 pumpers, 1 tanker, 2 aerials, 2 squad, 4 service vehicles, 5 other vehicles
Burton	5	29,900	7 pumpers, 1 tanker, 2 aerials, 1 squad, 1 service vehicle, 5 other vehicles, 2 jet ski
City of Beaufort	3	18,100	5 pumpers, 2 reserve pumpers, 3 aerials, 2 special purpose, 2 service squads, 8 administrative vehicles, 1 boat
Sheldon	2	8,200	3 pumpers, 2 tankers, 2 squad, 4 other vehicles
Fripp Island	1	10,000	2 pumpers, 1 squad, 1 service vehicle, 1 other vehicle
Yemassee	1	7,500	3 pumpers, 1 tanker, 1 squad
Daufuskie Island	1 plus 1 substation	7,700	1 pumper, 2 tankers, 1 aerial, 1 service vehicle

PROJECTED FUTURE CAPITAL NEEDS

Based on anticipated future population growth, the Bluffton District has the largest future capital needs with plans for eight more stations to be constructed within the next 20 years. The Lady’s Island/St. Helena district has the next highest construction requirement with plans for three new stations. Burton and Sheldon districts both plan for construction of two new stations. Other districts will be renovating, upgrading and replacing existing stations.

Table 11-15: Summary of Future Capital Needs

Fire District	# of Stations	Total Sq. Ft.	Summary of Apparatus
Hilton Head Island	4 replacements, 1 training facility	48,000	10 pumpers, 2 aerials
Bluffton	8	56,000	7 pumpers, 1 aerial
Lady’s Island/St. Helena	3 new, 1 replacement, 1 renovation	30,500	5 pumpers, 1 tanker, 1 aerial, 5 other vehicles
Burton	2	13,800	4 pumpers, 1 tanker, 2 aerials, 1 service vehicle, 5 other vehicles
City of Beaufort/Port Royal	1 station, 1 maintenance fac., and 1 training fac.	25,000	
Sheldon	2 new, 1 upgrade	12,500	2 pumpers, 1 tanker, 1 aerial, 2 squad, 1 service vehicle
Fripp Island	None planned		1 pumper, 1 aerial, 1 squad, 1 service, 1 other
Yemassee	1 upgrade	5,000	1 pumper, 1 tanker, 1 squad, 1 service, 1 other vehicle
Daufuskie	None planned		None planned

FUNDING

The Bluffton Township Fire District is authorized to fund both operating/maintenance expenses and capital infrastructure costs through property tax millage. The 2006 millage rates of the District are 20.3 per \$1000 of assessed value for operations and 0.70 per \$1000 of assessed value for debt service on capital needs. The Burton, Lady’s Island/St. Helena, Sheldon and Daufuskie districts also receive their funding from tax levies. Burton has the highest rate at 51.9. Millage rates are listed in Table 11-16.

In addition to property tax revenue, the Bluffton, Burton and Lady’s Island/St. Helena Fire Districts each receive impact fees to pay for future capital needs generated by projected future growth.

Table 11-16: Property tax levies on assessed value to fund Beaufort County Fire Districts in 2006.

	Bluffton	Burton	LI/SH	Sheldon	Daufuskie
Operations Millage	20.3	51.9	28.9	34.9	29.7
Debt Service Millage	0.7	6.0	1.4	2.5	2.6

Hilton Head Rescue Fire Department funding comes from the Town’s General Fund operations, and as such, is funded through general revenues such as property and hospitality taxes. The Town currently pledges a portion of the hospitality tax to pay debt service for fire rescue projects. The hospitality tax is a 1% tax on the sale of prepared meals and beverages. This source is currently generating approximately \$2.3 million annually, of which approximately \$696,000 is being used for fire/rescue debt service. The City of Beaufort and Town of Yemassee fire departments are also funded from their municipal general fund operations. Fripp Island is a public service district and their funding comes from property taxes levied only on Fripp Island.



FIRE DISTRICTS AND FUTURE MUNICIPAL GROWTH

Beaufort County, the City of Beaufort, and the Town of Port Royal have delineated their future municipal boundaries to include all of Port Royal Island and Lady’s Island. These municipal boundaries encompass all of the Burton Fire District’s service area and roughly half of the Lady’s Island/St. Helena Fire District’s service area. In 2000, the Burton Fire District entered in to a 10-year court ordered contractual agreement to provide fire and emergency medical services to areas that were annexed by the City of Beaufort and Port Royal. Burton and the Beaufort/Port Royal fire districts cooperate to provide emergency responses on Port Royal Island. While, the increased number of calls places an additional burden on the Burton Fire district, to date, Burton has not had to add more staff or equipment to service the current contract.

CONCLUSIONS

The fire districts are well aware of the changing population needs in Beaufort County and are making appropriate plans for the future by monitoring their service districts. The greatest capital needs are with the Bluffton Fire District, which is planning to build five to eight new stations over the next 20 years. Lady’s Island/St. Helena, Burton, and Sheldon all have 2-3 new facilities planned for construction. The remaining districts are planning to maintain, replace or renovate existing facilities.

While the Town of Hilton, the City of Beaufort and the Town of Port Royal each have acceptable ISO ratings of 2 and 3, the rural areas located within the Lady’s Island/St. Helena and the Burton districts have very poor ISO ratings.

Although the Burton Fire District currently provides fire and emergency medical services to properties within its service area that were annexed by the City of Beaufort and Port Royal, a longer term agreement needs to be explored that outlines the future roles of the municipal fire departments and the Burton and Lady’s Island/St. Helena Fire Districts.

RECOMMENDATIONS



Recommendation 11-27: Land Use and Population Projections

Beaufort County should work cooperatively with the fire districts and other fire protection providers to provide updated land use and population projections to be used by the fire districts to project future capital needs.

Recommendation 11-28: Improve ISO Ratings

Beaufort County should support the fire districts efforts to improve ISO ratings by providing excellent dispatching services, improving upon and enforcing building codes, and supporting public water improvements in areas with inadequate water pressure.

Recommendation 11-29: Cooperative Future Planning with Municipalities

Beaufort County should encourage the Burton and Lady’s Island/St. Helena Fire Districts to work cooperatively with the City of Beaufort and Town of Port Royal to determine the future roles of those two fire districts.



Public Schools

The Beaufort County School District is composed of 18 elementary schools, six middle schools, and four high schools. The District currently serves over 19,000 students countywide and employs approximately 2,500 persons.

EXISTING SCHOOL CAPACITY AND ENROLLMENT

Table 11-17 provides a comparison of student enrollment data for the '06-'07 school year broken down by cluster and school type. Clusters

Table 11-17: Existing School Capacity and Enrollment by Cluster

School Types by Cluster	Capacity*	'06-'07 Enrollment*	% Utilized
Beaufort Cluster			
Elementary (7)	3,622	2,844	78.5
Middle (2)	1,881	1,312	69.8
High (1)	1,595	1,591	99.7
Total	7,098	5,747	80.9
Battery Creek Cluster			
Elementary (5)	2,831	2,061	72.8
Middle (2)	1,951	1,055	54.1
High (1)	1,505	1,358	90.2
Total	6,287	4,474	71.2
Bluffton Cluster			
Elementary (3)	2,066	2,571	124.4
Middle (1)	909	1,010	111.1
High (1)	1,452	1,345	92.6
Total	4,427	4,926	111.3
Hilton Head Island Cluster			
Elementary (4)	2,423	1,990	82.1
Middle (1)	1,007	944	93.7
High (1)	1,400	1,148	82.0
Total	4,830	4,082	84.5

*Source: Programs, Demographics and Facilities Plan, 2007, Associated Planning & Research, Inc.

**Source: Beaufort County School District

are the way the School District organizes schools geographically. Generally each cluster serves one high school. Existing deficiencies in school capacity have their greatest concentration in the Bluffton Cluster which has been experiencing the highest rate of population growth. There are additional localized deficiencies at Coosa Elementary in northern Lady’s Island which is currently operating at 135% of capacity; and at Beaufort High School and Battery Creek High School, which are operating very close to capacity. To address existing school deficiencies, the District has committed to build three new schools – Bluffton Middle School and Red Cedar Elementary School in Bluffton and Whale Branch High School in the Seabrook area of northern Port Royal Island (Table 11-18).



PROJECTED FUTURE ENROLLMENT AND FACILITY NEEDS

In 2007 the Beaufort County School District contracted with Associated Planning and Research, Inc. to conduct a 5-year facilities planning report. The report recommends the construction of two new elementary schools in Bluffton and one new elementary school in northern Lady’s Island over the next five years. The report also recommends that the District should plan for the construction of a new middle school and high school in the Bluffton area over the next 10 years.

Table 11-18: Proposed New Schools to address Existing Deficiencies and Future Needs

Proposed School	Location	Capacity
New Schools Under Construction		
Red Cedar Elementary	Bluffton (Shults Tract)	800
Bluffton Middle	Bluffton (Shults Tract)	950
Whale Branch High School	Port Royal Island (Seabrook)	650
5-Year Plan Recommendations*		
M.C. Riley Early Learning Center	Bluffton	400
Bluffton Early Learning Center	Bluffton	400
Jones Tract Elementary School	Bluffton (Jones Tract)	800
Future Elementary School	Bluffton (SC 170 & Bluffton Parkway)	800
Northern Lady’s Island Elementary School	Lady’s Island (north of Coosa Elementary)	800
5-10 Recommendations*		
New Middle School	Bluffton (SC 170 & Bluffton Parkway)	950
New High School	Bluffton (SC 170 & Bluffton Parkway)	1500

*Source: Programs, Demographics and Facilities Plan, Associated Planning and Research, 2007



CONCLUSIONS

Based on projected student enrollment estimates, the Beaufort County School District will need to construct five new schools and two early learning centers to serve population growth over the next 10 years. The magnitude of this public facility need has several regional implications:

- Approximately \$330 million will be needed to cover land and school facility costs over the next 10 years. The District and local governments will need to actively seek alternative funding sources to cover these capital costs.
- The District will need to purchase 115.5 acres of land for future school sites. These sites will need to be accessible to future student populations and be consistent with local land use plans. Therefore, the School District needs to work cooperatively with County and municipal planners to choose appropriate future school sites.
- The School District will be seeking new school sites in high growth areas of the county where vacant land is both scarce and expensive. Other community service providers such as parks, libraries, and fire protection will also need to site additional facilities in these areas.

RECOMMENDATIONS

Recommendation 11-30: Funding of Capital Needs

Beaufort County should work cooperatively with the School District to seek alternative funding sources to pay for future school facilities.

- School Impact Fees: The County and the School District should lobby the State Legislature to enable local governments to establish impact fees for schools.

Recommendation 11-31: Cooperative Planning

Beaufort County should work cooperatively with the School District to coordinate the timing and siting of future school facilities.

- Intergovernmental Agreement: The County and the School District should formalize process for coordinating school planning through an intergovernmental agreement
- Coordinated Growth Tracking: Beaufort County and the School District should work together to maintain a common regional growth tracking system, combining a land demand and land use forecasting model with other regional models (such as the transportation model) to be used by the School District to project future facility needs.

- Review of Major Development Projects: Beaufort County should work cooperatively with the School District and the municipalities to develop and implement a procedure where major development proposals are reviewed by the School District prior to their approvals to ensure the proposal does not have an adverse impact on current school capacity.
- Future School Sites: The County and the School District should work cooperatively to locate future school sites that are consistent with County and municipal land use plans. The County will encourage cooperation between the School District and other community facility providers (parks, libraries, fire protection) to coordinate future land purchases to serve mutual needs.

Recommendation II-32: Pedestrian Friendly Schools

Beaufort County should coordinate with the School District to organize public policy and public infrastructure commitments to promote neighborhood and pedestrian friendly schools.

- Location of Schools: Beaufort County should work cooperatively with the School District to seek future school sites that are located in close proximity or within residential areas so children can walk to school.
- Development Standards: Beaufort County should establish development standards that require a strong pedestrian orientation in residential areas so that pedestrian ways are available for children to safely walk to school.



Water Supply And Wastewater Treatment

The primary provider of water and wastewater treatment in Beaufort County is the Beaufort-Jasper Water & Sewer Authority (BJWSA). BJWSA is a Special Purpose District independent from Beaufort County and created in 1954 by the State Legislature. The Authority was initially charged with the development of a long-term, reliable supply of water for Beaufort and Jasper Counties. In 1972, the enabling legislation was amended to include the responsibility of wastewater treatment. Financing for the Authority is based on revenue bonds, since the Authority does not have the power of taxation. BJWSA has, since 1987, utilized impact fees to assist in financing the construction and extension of infrastructure. These fees are charged to developers as part of any new development.

WATER SUPPLY

Water services in Beaufort County are currently provided by approximately 16 public and private agencies, including six governments, four public service districts, and six private water companies. Although the County has a variety of different water retailers, most of them utilize the same source of water, the Savannah River, as distributed by BJWSA, which maintains all water transmission lines.



SOURCES OF DRINKING WATER

Surface Sources: The Savannah River is the primary source of drinking water in Beaufort County. BJWSA operates two treatment plants in Jasper County that supply Beaufort County residents and businesses with an average of approximately 20 million gallons per day (MGD) and a maximum demand of 39 million MGD, representing over 75% of the county's water.

Table 11-19: Sources of Drinking Water in Beaufort County

Water Source	Provider	Area Served	Current Maximum Daily Demand (MGD)
Savannah River – Purrysburg Plant	BJWSA	Greater Bluffton Area, northern Hilton Head Island	15.0
Savannah River – Chelsea Plant	BJWSA	Okatie, Port Royal I., Lady’s I., St. Helena I.	24.0
Upper Floridian, Middle Floridian and Cretaceous Aquifers	Hilton Head PSD #1; South Island PSD; Broad Creek PSD	Hilton Head Island	10.5
Private Wells		Sheldon Twp., Sawmill Creek, Pritchardville, golf course and landscape irrigation	n/a

According to the Water and Wastewater Master Plan (2005 BJWSA) water demands are estimated to double over the next 20 years to as much as an average of 56 MGD and a maximum daily demand of 96 MGD. BJWSA is currently permitted to withdraw 100 MGD from the river. While safe yield of the Savannah River appears to be adequate over the next 20 years, the capacity of the river would be limited if the City of Atlanta is permitted to tap the river as a water resource. While the State of Georgia currently prohibits Atlanta to access the Savannah River, South Carolina seeks to reach agreement with Georgia concerning the ultimate allocation of the river for drinking water.

Public Groundwater Sources: On Hilton Head Island, three public service districts (PSD’s) supply approximately 10.5 MGD from the Upper and Middle Floridian Aquifers and the Cretaceous Aquifer. Water from the Middle Floridian Aquifer and the Cretaceous Aquifer require reverse osmosis to remove salt and other minerals from the water to make it potable. Both the PSD #1 and the Broad Creek PSD supplement their groundwater supply with surface water purchased wholesale from BJWSA.

Private Wells: Private wells provide drinking water to residents and businesses in Sheldon Township (north of the Whale Branch River) and in portions of Pritchardville and Sawmill Creek in southern Beaufort

County. Irrigation of golf courses and other heavily landscaped areas also creates a demand for groundwater resources.

THREATS TO GROUNDWATER QUALITY

Beaufort County lies above the northernmost reaches of the Floridian Aquifer, which historically has supplied the region with a reliable source of water. Since the late 1970's, however, concerns have been raised over the issue of saltwater intrusion into the aquifer. Several extensive studies conducted in the 1980's led to the conclusion that the 14.5 million gallons per day of groundwater on Hilton Head Island that was being pumped was reducing the upward pressure of the freshwater in the aquifer that normally prevented saltwater intrusion. Since the 1980's, over \$40 million has been spent in southern Beaufort County to provide alternative sources of drinking water primarily from the Savannah River.

As part of the "Sound Science Initiative", Georgia contracted with the South Carolina DHEC to provide monitoring wells in Southern Beaufort County. The wells revealed that there are three separate points of saltwater intrusion into the aquifer in the county; one underlying northern Hilton Head Island, one underlying the Pinckney Island National Wildlife Refuge, and one under the Moss Creek area. These infiltration points are threatening water quality for those residents in areas like Sawmill Creek, and Pritchardville that are on private wells and for developments still using groundwater for irrigation.

WASTEWATER TREATMENT

Wastewater treatment services in Beaufort County are primarily provided by BJWSA via four wastewater treatment plants – Cherry Point and Palmetto Bluff in southern Beaufort County and Port Royal and St. Helena in northern Beaufort County. The Town of Hilton Head Island is served by three Public Service Districts which each have their own wastewater treatment plant. The USMC Air Station, Laurel Bay and Parris Island are currently served by individual wastewater treatment plants owned and operated by the Department of Defense. Independent wastewater treatment facilities and individual on-lot septic systems serve the remainder of the county.



PUBLIC WASTEWATER TREATMENT

BJWSA is the primary provider of public wastewater treatment in Beaufort County. Hilton Head Island is served by its three public service districts.

Section 208 Plan: The relationship between Beaufort County and BJWSA is addressed by Section 208 of the Federal Clean Water Act 1972, which requires development of water pollution abatement plans and designation of planning, management and service agencies to

implement those plans. The Lowcountry Council of Governments (LCOG) has been designated as the Water Quality Planning Agency for Beaufort, Colleton, Hampton, and Jasper counties. LCOG prepares and revises the Lowcountry Areawide Water Quality Management Plan which provides the regional framework and policies for all management and service agencies with the region.

Beaufort County Council is the management agency for the unincorporated areas of the County. As part of its management responsibilities, Beaufort County must approve the location of new treatment facilities, and ensure compliance and consistency regarding location, operation and maintenance of treatment facilities with the Lowcountry Areawide Water Quality Management Plan and any local plans, especially the Comprehensive Plan.



Disposal of Treated Wastewater: BJWSA and other major utilities utilize two basic methods for the disposal of treated wastewater: direct discharge to surface waters and wetlands and land disposal.

- Surface Water Discharge: In Beaufort County, surface water disposal of sewage effluent is limited primarily to the Beaufort River and the Great Swamp (Laurel Bay currently discharges effluent into the Broad River).
- Land Application: The remainder of the effluent in Beaufort County is disposed of by land application. Cherry Point, St. Helena and Palmetto Bluff deliver treated effluent to golf courses for irrigation. Land application of properly treated effluent benefits the supply of groundwater by reducing the demand for groundwater for irrigation while helping to recharge the aquifer.

PACKAGE TREATMENT FACILITIES

In addition to public wastewater treatment facilities, there are several large, privately owned and operated package treatment facilities. These include Callwasie Island, Spring Island, Moss Creek, Pleasant Point, Harbor Island, Fripp Island and two plants on Daufuskie Island. Most of the package treatment plants currently operating in Beaufort County were constructed between 1950-1986 by private developers. These plants have generally experienced problems because of age and inconsistent maintenance. There are, however, situations in which small plants are desirable. Properly constructed and maintained small plants may be the only solution for sewage disposal in areas where the installation of regional sewer is too costly, such as in Community Preservation areas in rural parts of the county. If regional service becomes available, these systems should be removed from service within a reasonable period of time and flow diverted to the permanent facility where the sewage can be more efficiently treated to a higher quality.

INDIVIDUAL ON-LOT SEPTIC SYSTEMS

The remainder of Beaufort County residents are served by individual on-lot septic systems. Of all the methods of wastewater treatment, on-lot septic systems have the greatest potential to adversely affect surface and ground water quality. While on-lot septic systems are common in rural areas where it is often impractical to extend public sewer, Beaufort County has many moderate density “suburban” communities that are still served by individual septic systems (see Map 11-6 and 11-7). Many of these systems are not functioning properly. A 1995 Systems Performance Survey conducted by the South Carolina Department of Health and Environmental Control (SCDHEC) on Individual Onsite Wastewater Treatment and Disposal Systems documented a 31 % malfunction rate among those systems surveyed in Beaufort County. The report concluded that “the region with the greatest limitations for onsite treatment and disposal is the coastal plain.”⁵

The *Beaufort County Special Area Management Plan (SAMP)* recognized this water quality concern and recommended the development of a comprehensive on-site disposal system program. The SAMP recognized that State septic system requirements do not account for the Lowcountry’s high water table and do not control density of individual septic systems. These two factors heighten the risk of degrading water quality. The SAMP called for the adoption of more stringent septic system standards and for regular programs of inspection and maintenance to be implemented by Beaufort County. To help facilitate this recommendation, from 2000 to 2004, cooperative efforts between Beaufort County OCRM, Clemson Extension, SC Sea Grant and SCDHEC produced the *Onsite Septic System Inspector Training Program* and a comprehensive *Beaufort County OSDS Management Plan* prepared by The National Environment Services Center (NESC). To date, however, the County has not implemented this program.

RECOMMENDATIONS

Recommendation 11-33: Preserve Groundwater Quality

Beaufort County should support efforts to preserve groundwater quality by reducing and eliminating heavy usage of groundwater resources in southern Beaufort County.

⁵ DHEC, *1995 Systems Performance Survey, Individual Onsite Wastewater Treatment and Disposal Systems, Final Report*, Division of Onsite Wastewater Management, 1995.

- Beaufort County should require all new major development to hook up to public water supply to place no further strain on groundwater resources.
- Beaufort County should encourage existing heavy users of groundwater to partner with BJWSA to use treated effluent for irrigation of golf courses and other landscaped areas.

Recommendation 11-34: Reduce Demand for Irrigation

Beaufort County should encourage the use of native plants and xeriscape landscape practices to reduce demand for the use of both ground and surface water for irrigation.

Recommendation 11-35: Extension of Public Water

Beaufort County should support the extension of public water in the Seabrook/Stuart Point CP, Dale CP, the Pritchardville CP, and other rural communities that are currently served by private wells.

- Beaufort County Council should work with the Lowcountry Council of Governments and other agencies to pursue grants to assist affected low and moderate income residents with water service lines and tap-in fees.
- The County should work with BJWSA to ensure that future water lines are adequately sized for fire protection.

Recommendation 11-36: Address Concentrations of On-lot Septic Systems

Beaufort County will work with BJWSA to identify and prioritize areas with the highest concentration of on-lot septic systems to be connected to public sewer.

- Areas with concentrations of septic systems need to be prioritized based on two factors: the number and density of on-lot septic systems and the environmental sensitivity of the surrounding region. Based on prioritization of these sites Beaufort County should support BJWSA to extend public sewer to those areas receiving the highest priorities.
- Beaufort County should work with the Lowcountry Council of Governments and other agencies to pursue grants to assist affected low and moderate income residents with laterals and tap-in fees.

Recommendation 11-37: Address SAMP Recommendation for Onsite Wastewater Treatment and Disposal Systems (OSDS)

Beaufort County should organize a task force to implement the Onsite Wastewater Treatment and Disposal Systems recommendations of the SAMP. Representatives should include municipalities, local DHEC offices, Natural Resource Conservation Service-USDA, BJWSA, Beaufort County Stormwater Utility Board, and Beaufort County Department of Public Works. This OSDS task force should address these SAMP recommendations:

1. Develop inspection and maintenance standards by the establishment of a wastewater management district that addresses all septic systems in the county.
2. Develop a comprehensive on-site wastewater disposal management program.
3. Develop innovative standards for on-site wastewater disposal.
4. Develop new standards for household appliances.
5. Adopt a manual of alternative Onsite Wastewater Treatment and Disposal Systems.
6. Review DHEC Regulations 61-56 to identify duplications in recommendations prior to the enactment of a county Onsite Wastewater Treatment and Disposal Systems ordinance.

Recommendation 11-38: Limit Expansion of Sewage Lines to Land Within the Growth Areas

Beaufort County should not target the expansion and location of new regional sewage collection and transmission facilities in rural areas except where a documented public health or environmental safety issue has been identified.

Chapter
11
Community
Facilities

Map 11-1
Fire Protection
& EMS

LEGEND

- Existing Fire Station
- Proposed Fire Station
- + EMS Facility

- Beaufort County Boundary
- Fire District Boundary

2010
Beaufort County
Comprehensive
Plan



Chapter
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Community
Facilities

Map
Map 11-2

Parks & Preserved Land
Northern Beaufort County

LEGEND

-  Preserved Land
-  Park
-  Undeveloped Park or Potential Park Area
-  Proposed Park

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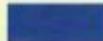
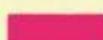


Chapter
11
Community
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Map 11-3
Parks &
Preserved Land

Southern Beaufort
County

LEGEND

-  Preserved Land
-  Park
-  Undeveloped Park or Potential Park Area
-  Proposed Park

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Map 11-4

Boat Landings

LEGEND

- Existing Boat Landing
- * Proposed Boat Landing
- Proposed Improvements

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Chapter
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Community
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Map 11-5
Solid Waste Districts
& Facilities

LEGEND

-  Convenience Drop-Off Center
-  Landfill
-  Un-manned Drop-Off Center
-  Generalized District Boundaries

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Chapter
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Facilities

Map 11-6

Wastewater
Treatment Plants

Northern Beaufort
County

LEGEND

- Public Wastewater Treatment
- Military Wastewater Treatment
- Private Treatment Facility
- Septic System Concentrations of On-lot

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Chapter
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Map 11-7

Wastewater
Treatment Plants

Southern Beaufort
County

LEGEND

- Public Wastewater Treatment
- Military Wastewater Treatment
- Private Treatment Facility
- Septic System Concentrations of On-lot

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