Bluffton Township Fire District

Strategic Plan FY14 –FY19

Adopted by the Fire Board March 18, 2014

# **Executive Summary**

The Bluffton Township Fire District was formed by the Beaufort County Council in 1978 when it issued the District its first charter to operate. The charter recognized the District's right to provide fire and rescue services to all areas of Beaufort County south of the Broad River, not to include Hilton Head and Daufuskie Islands. The charter also provided that the District be governed by a Board of Commissioners appointed by the County Council. Just recently, the County Council updated and standardized the charters of all County formed fire districts (Bluffton Township, Daufuskie Island, and Sheldon Township). The new charter maintains all of the provisions of the original charter but more clearly identifies the roles and interaction of the fire chief, county staff, and board members.

This new strategic plan updates and continues to build upon the successes gained through the implementation of the first Bluffton Township Fire District Strategic Plan published in July of 2008. We believe this plan provides a common sense approach to providing fire and emergency services which address the needs of the District's citizens. The plan also considers the costs for providing the needed services both efficiently and safely.

The strategic plan can only be successful if we have the commitment of our Commission, elected officials, citizens, and our personnel. To maintain consistency and ensure that our plan remains responsive to the needs of all stakeholders, it will be reviewed each December and updated as necessary.

The development of this plan is based out of the "guiding principles" found in the District's vision statement, mission statement, and core values. The administration worked closely with the members of the Fire Board to develop realistic goals and objectives to achieve the needs of the community while working within the guiding principles. Since the Fire Board members represent you, the public, this provides the fire department its most significant tie back into the community with its programs and services.

Our research indicates that even after the slowdown of the economy Bluffton is a very diverse community requiring full-service fire, rescue, and emergency medical services. Prior to 2007 and early 2008, the Bluffton community experienced explosive residential and commercial construction growth. With the growth came a higher demand for emergency services. Bluffton was transitioning from a predominantly rural type community into a more suburban/urban one. This change meant the fire department also had to adapt in its equipment, training, and tactics to meet the new challenges being presented. On July 22, 2008 the original strategic plan was adopted and was designed to meet those needs.

However, shortly after the adoption of the 2008 plan the economy stalled. Bluffton, like most communities saw developmental growth for all practical purposes cease. The area was plagued by record numbers of foreclosures, tumbling property values and unemployment. The fire department was not spared by any means and watched its operating revenues decrease each fiscal year from 2009 to the present when the County conducted its last property reassessment. Many of the projects and programs identified in the 2008 plan had to be re-evaluated and adjusted. Some were eliminated completely while others were slowed in their implementation schedules.

The 2013 reassessment should have set the bottom of the decline and it appears there is some positive movement in the economy. Therefore, along with other reasons already stated it is time to create a new Five Year Strategic Plan for the BTFD. We are a performance-driven and results-oriented department that focuses on customer service, continuous improvement, and the safety and welfare of our customers and employees. We believe this, the 2014 Strategic Plan, provides the District with the necessary direction to provide the best possible protection of life, property, and the environment from fire and other hazards over the next five years while maintaining efficiency and economy.

#### **Bluffton Township Fire District Administration**

John W. Thompson, Jr. – Fire Chief J. Paul Boulware – Deputy Fire Chief, Administration and Support Richard N. Cramer – Deputy Fire Chief, Operations

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## **Vision**

Our vision is to create a model of excellence in fire protection and rescue delivery, to be the leaders in fire protection and rescue for the District and support a customer-directed system to the citizens of our district.

We will pursue our vision in partnership with our associates, citizens, and suppliers. We will develop innovative programs and services to benefit our citizens and enhance the overall quality of life in our community.



Bluffton Firefighters work to extinguish a large fire in a golf cart storage area

### **Mission Statement**

The primary mission of the Bluffton Township Fire District is to plan, evaluate, and implement a range of programs designed to protect the lives and property of the inhabitants and visitors of the Bluffton Township Fire District from the adverse effects of fires, medical emergencies, or dangerous conditions created by either man or nature.

At Bluffton Township Fire District, we are committed to providing emergency services and rescue for our District in a courteous, costeffective, and professional manner.



Bluffton Firefighters work on the roof and from the platform of Truck #375 to extinguish a chimney fire. There was moderate damage to the chimney but only minor damage inside of the structure.

# Core Values

Respect	We respect our customers and strive to protect their dignity, choice, and modesty.
Cost	We administer necessary fire protection and rescue services without unnecessary cost to the citizens.
Continuous Improvement	We strive to continuously improve by seeking feedback from our customers, providing fire prevention education, and improving our delivery system through training and professional development.
Leadership	We believe that we must be the leaders in guiding the community toward a fire-free environment.
Service	We maintain an attitude and a commitment of going "above and beyond" in serving our customers.
Trust	We develop a synergistic environment by fostering a climate of trust and cooperation with all team members.
Loyalty	We are loyal to our District and community by word and attitude.



A Bluffton Fire Captain discusses tactics with a Firefighter at a residential structure fire. Coordination is critical to successful outcomes.

# Bluffton Township Fire District Fire Board Five Year Strategic Goals and Objectives

<ul> <li>provided to the citizens and visitors to the Fire District.</li> <li>Reduce response times</li> <li>Expand the number of District residences and other structures rated at the "3" or better level by the Insurance Services Office (ISO)</li> <li>Maintain positive citizen feedback at 90% or better.</li> </ul>
<ul> <li>Continuously identify, evaluate, and implement appropriate procedures, equipment, and personnel training to deliver required emergency services at a lower level of cost. Specific steps will be taken to initiate a program with Beaufort County Dispatch and EMS to reduce the redundancy in response to medical emergency calls.</li> <li>Number of cost reduction actions evaluated and implemented</li> <li>Millage value required to support department operations (control tax increases)</li> <li>Costs per call will be maintained at current levels or below if at all possible</li> </ul>
<ul> <li>Continuously improve the effectiveness of the Department's organization in order to provide the required number, diversity, and quality level of emergency service personnel as the District's demand for these services increases.</li> <li>Preparing staff in-house to promote to greater levels of responsibility in the department</li> <li>Limit the necessity to recruit outside of the existing organization required management level personnel</li> <li>Track and monitor annual training hours per employee</li> </ul>

	Develop a plan to describe and propose a new EMS support system	
Goal 4	<ul> <li>Maintain the Department's current infrastructure and identify, design, and fund additional infrastructure to support the Department's required expansion.</li> <li>1. Work on increased longevity of existing infrastructure</li> <li>2. Investigate the availability of new infrastructure</li> </ul>	
	on timely basis at a planned cost	
	on timely basis at a plained cost	
Goal 5	Cost effectively provide Fire Safety Education to the District's citizens and other groups by creating an improved public safety program targeting priority risk areas requiring increased community awareness.	
	<ol> <li>Track the number of citizens and other groups educated</li> <li>Track the cost per citizen involved</li> <li>Provide follow up surveys measuring the effectiveness of public safety education programs</li> </ol>	



Bluffton fire units work on an apartment fire. The fire was contained to the area of origin in about 30 minutes

## **Background**

"Beaufort County has experienced phenomenal growth over the last decade, primarily in the area of the county located south of the Broad River. This growth and its associated pressures on public services, infrastructure and quality of life are anticipated to continue into the foreseeable future (Beaufort County, 2007)".

This was the situation shortly before the current Strategic Plan was completed and adopted in July of 2008. The Bluffton Township Fire District (BTFD) was in a period of tremendous growth itself. Call volumes were on the increase as a result of the influx of new residents and businesses to support those residences. Sun City - Hilton Head was undergoing continued growth and was approaching build out at nearly 6,000 residential structures.

Fast forwarding to the present, some six years later, and the situation is quite different. The largest financial decline since the Great Depression began in late 2008 and has left severe and long term damage to the economy of the nation, state, and the Township. Housing values in the BTFD have dropped as much as 50% in some locales. Bank foreclosures and the jobless rate reached all-time highs and have not improved a great deal. As a result, the BTFD has seen a reduction in its revenue stream of 1% - 2% per year since 2009 and available information indicates this trend will continue if not deepen in 2014 with the completion of the state mandated countywide reassessment in tax year 2013.

Although the Fire District's revenues have declined, the pressure placed upon it by the public to provide service has not. According to U.S. Census Bureau statistics, the population of our area increased from approximately 12,000 full time residents in 2000 to more than 52,000 in 2010. Increases in population translate into a need for more services. Since 2007 call volumes for the BTFD have increased by better than 31%. During this same time period the District has watched its average response time (50<sup>th</sup> percentile) increase by 36 seconds or approximately 11%. The District attributes this to more congestion on the roadways, more calls, and in many cases longer travel distances as neighborhoods develop in the outer response limits of current fire station locations. The Administration believes this is not a problem that will solve itself, but rather is a problem that will only worsen as growth returns over the next few years.

Historical development trends indicate since the inception of Planned Unit Developments (PUD's) in the early 1960's, several common land use and

development patterns have been identified and used in our area. The following patterns were identified in the 2007 version of the Southern Beaufort County Regional Plan (SBCRP) and most are still valid today:

- 1. Large, amenity based, low density master planned communities make up the majority of development in Southern Beaufort County.
- 2. Planning of these communities is primarily a private endeavor. The communities maintain good internal road networks, quality services, private covenants, high development standards.
- 3. Development of the communities has been primarily through the use of the planned unit development zoning tool for greater flexibility for site design.
- 4. Outside the master planned communities, government has been faced with the challenge of providing roads, infrastructure, and land use regulations to connect the rest of the community together.
- 5. Many of the region's current transportation inadequacies are a result of poor connectivity between the master planned communities and insufficient land being available for an adequate road network.
- 6. Development is spreading north and west. Modern development began on Hilton Head Island and is now spreading into Bluffton and moving toward Jasper County, Chechessee, and Hardeeville.

According to the SBCRP 89% of the total land area in Southern Beaufort County is committed to development. The majority of the land, 62%, is scheduled to be used for residential development. Non-residential applications account for approximately 6% of the total land available. Parks and other open recreation spaces account for 19%, while government, schools, and other infrastructure account for approximately 2%. This information tells us that most of the development has been approved, however, in many cases the actual structures have yet to be built or completed.

Fortunately, development has been occurring at what are considered fairly low residential densities. An example of what residential density means can be found by observing Old Town Bluffton. Once all the commercial and unusable land areas are subtracted from the total land area of Old Town, the result is a residential density of 1.28 dwelling units per acre. By modern planning standards this is considered low density. Large PUDs such as Hampton Hall and Sea Pines have residential densities around 1.20 – 1.25 dwelling units per acre. Projections indicate that development will continue into the future at an even lower rate of approximately 1.11 dwelling units per acre in these types of communities. However, there was a trend prior to the recession for the development of communities with residential densities of 4 to 6 dwelling units per acre. This creates communities in which houses are closely grouped, streets tend to be narrow, and on street parking creates significant challenges for emergency vehicles. We refer to these developments as tract developments. There are several such communities within the response district such as Pine Forest Village, Saw Mill Forest, Pine Ridge, and the Farm at Buckwalter to name a few.

The County is now in the process of rewriting much of its Community Development Code. The new document outlines the County's plan to depart from zoning ordinances that are based strictly on use types to form based codes which concentrate on the development of neighborhoods in which all the necessary services are available, usually within walking distance. Emphasis is placed on developing a sense of "place" at the human scale. Form based development differs significantly from the current Beaufort County PUD model which relies more heavily on the automobile for residents to travel to the services they require on a daily basis. Under the form based model, neighborhoods form and may share contiguous borders and are typically linked by main arteries or roads. It would not be uncommon to find smaller grocery stores, pharmacies, restaurants, cafes, automobile repair shops, doctors' offices and etc. within walking distance of one's residence. The form based model attempts to limit the "walkable neighborhood" to within a one-quarter mile radius around the neighborhood's center. Population densities are concentrated in the neighborhoods and may actually be higher than those found in most PUD's. The result is more residents in a smaller area and less impact from people on natural resources. Even though there will likely be fewer tract type developments under the new code, population increases will likely occur and present additional demands for service on the Fire District.

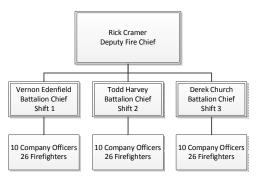
To determine a projected permanent population the county bases its estimate on the number of dwelling units that have been approved for future development through subdivisions, PUDs, and development agreements. The projected population based upon a total "build-out" situation is 36,035 for the Town of Bluffton and 45,478 for the unincorporated areas of Southern Beaufort County. This indicates a potential total population at build-out of 81,513 persons in the Fire District. At 52,000 residents, the Fire District is at 64% of the build out figure and just passed over 5000 calls for service per year.

Seasonal visitors to the area must also be considered when planning for the future of the District. Although Hilton Head is thought of as the resort hub for the area, Bluffton is closely tied to the success of Hilton Head. In addition, as Hilton Head approaches its build-out, Bluffton will become even more vital to the tourist industry. Visitors will be using our roads, businesses, and hotels as they come to the area for vacation and business. It is estimated that Southern Beaufort County can currently support a seasonal population of 50,653 (Town of Bluffton, 2007) p. 2-5). By the time build-out occurs, it is estimated this number will increase to 72,038 persons. (Town of Bluffton, 2007, p. 2-5). Therefore, the Fire District may have to someday support a population as high as 125,000 to 150,000 persons.



## **OPERATIONS DIVISION**

The Operations Division is the largest division in the fire department. The Operations Division is responsible for meeting the emergency services response needs of the community on a daily basis. The Operations Division is comprised of 112



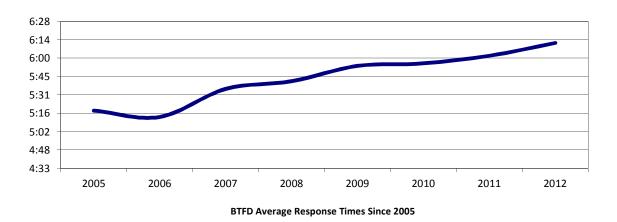
of the District's 126 employees and currently operates out of eight (8) strategically located fire stations providing fire, emergency medical treatment, and specialized rescue responses on a 24 hour per day, 7 days per week basis.

#### Fire Stations

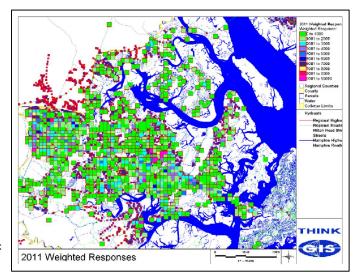
The Bluffton Township Fire District started with one small station manned by volunteers in downtown Bluffton. That single station was really nothing more than a garage to house the fire truck and provided coverage to the entire Fire District, an area of approximately 246 square miles. At that time the area was predominantly rural and call volumes were much lighter than they are today. As time has progressed the area has increasingly become more suburban in character. Growth required additional fire stations to meet the ever increasing demand for service. The locations for these stations were not necessarily derived out of planning or nationally recognized standards, but more out of the necessity to provide coverage to the most populated areas of the District. This meant the stations were located within the various communities of the District (Old Town Bluffton, Pritchardville, Buckingham, Sun City, and Indian Hill) as these locations gave the quickest access to the largest number of citizens.

As the District experienced significant growth in the early 2000's and prior to the recession, development began to occur in the areas between the older communities of Bluffton and the District began to "fill in". As a result the fire department is now faced with new densely populated areas opening up at greater distances from the current station locations. These new areas are beginning to generate calls for service and the travel distance averages for the current station locations are becoming greater. The result is a slowly increasing average travel time<sup>1</sup> to emergencies for the Fire District. This is a good indicator there is a need for additional fire stations if overall response times<sup>2</sup> are going to be maintained at acceptable levels.

The chart below demonstrates the trend.



Planning for future fire station locations is going to be critical to the success of the fire department in the out years, especially as build out is approached. The fire department through various computer software programs is able to plot and review run data as it directly relates to the geography of the Fire District. Future fire station location planning decisions will need to more heavily rely on this type of information if the department is going to place its new stations in the most advantageous locations. There are a variety of factors to be considered such as travel distances, average speed while responding, national response standards, and the road network. Geographic information systems (GIS) allow much more flexibility in the coordination of data and reporting. Both Beaufort County and the Town of Bluffton now have relatively advanced GIS capabilities that will be an asset in the planning of new fire station locations.



Example of a Response Report Available to the District

Currently the District staffs eight (8) fire stations. A brief description of each station and its capabilities is listed below.

**Fire Station #30**, located at 199 Bridge Street, is the newest fire station in the District just being open since August 2013. The new station replaces the old Station #30 which had served the community since 1978. Station #30 is 7200 square feet in size and is a modern state of the art facility. The station houses Engine Company #320 as well as a Beaufort County EMS unit and its crew.

**Fire Station #31**, located at 178 May River Road in the Pritchardville community, was constructed in 2003. The facility, although relatively small, is in good shape and houses Engine Company #321 as well as Tanker #341. There are several areas in the station's service area that are not serviced by fire hydrants. Tanker 341 provides a portable water supply for those areas. Overall, the station is in



Fire Station #31 - Pritchardville

good condition and has fixed back-up power in place. The station has experienced some minor roof leaks over the last couple of years. To date all of the leaks have been professionally repaired. The crews working at the station have undertaken several improvement projects on their own initiative. These projects include a partial renovation of the kitchen area, construction of a Captain's office space, and re-flooring of the bunk rooms. Most of these projects were completed without financial support from the District as the crews were able to secure materials through donations and provided the labor while on duty. The life expectancy of the station is an additional 20 - 25 years. Future renovations need to center around expanding storage and providing a dedicated physical fitness training area for the station.

**Fire Station #32,** located at 155 Callawassie Drive was constructed in 1998 and is home to Engine Company #322 and a Beaufort County EMS quick response vehicle (QRV). The station sits just outside the Callawassie Plantation gate and serves the northernmost part of the Fire District. The station is in good condition and is located as centrally as possible to cover its response area, which is the largest in the District. The addition of a fire station on the Oldfield tract will drastically reduce the response area but will do little to address the issue of response times into the remote areas of Spring Island. Short of building an additional station on Spring Island, this will continue to be an issue for the

District. The life expectancy of the station is an additional 15 -20 years without a major renovation. The District should consider such a renovation within the next 5 -10 years.



Fire Station #32 - Callawassie

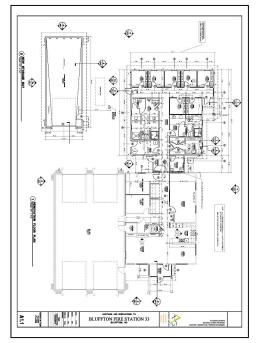
**Fire Station #33,** is located at 12 Buckingham Plantation Drive just off of Fording Island Road and serves the Jenkins Island, Wilton Graves Bridge, Buckingham and Moss Creek, areas. The station was constructed in 1993 and is home to



Fire Station #33 – Moss Creek/Buckingham

ambulance at the station is one of the recommendations made to the County from an independent study conducted to assess EMS operations in the community. The "new" station is approximately twice its original size with an expanded dayroom/kitchen, work out facilities, offices, and new individual sleeping quarters. The station is also fully sprinkled and its portable generator has the capacity to power the entire station in the event of power loss. The generator can also be disconnected and transported

Engine Company #323 and the District's reserve ladder truck #373. The building just underwent an extensive renovation and is now in excellent condition. The renovation was necessary to provide additional space for a Beaufort County EMS unit and crew. The staffing of an



Floor Plan of Renovations for Station #33

within the District in the event of hurricane evacuation. This is a feature the District adopted into its new prototype station plans. The life expectancy of the building should be 20-30 years.

**Fire Station #34** is located at 24 William Pope Drive and is just outside the main gate for Sun City. The building is owned by the County and the District provides one-half of the utilities and operating supply for the station. The station is home to Engine Company #324, Beaufort County EMS 8 and an EMS supervisor. Since the building is owned by the County, the District has little input into its maintenance plan. It is a goal of the District to work with the



Fire Station #34 – Sun City

County to have more input into the maintenance and upkeep of the Station as many times the District has funded repairs for the County. There have been discussions with the County in which the Fire District would take ownership

of the building. In the event the Fire District should obtain ownership of the building, a major renovation and expansion will be in order. Overall, the building is in fair condition, is very small, and has only minimal storage area available. Physical fitness work-out space is also very limited. Due to recent construction in the area, the drainage pattern for the area has changed. During periods of heavy rain the parking areas at the rear of the station flood. In the event of a hurricane or strong tropical storm, it should be expected that flood waters will enter the building and possibly make it unusable. Back-up electrical power is limited at the station as well. In its current state, the building has a life expectancy of 10 - 15 years at best without a substantial renovation.

**Fire Station #35** is located at 357 Fording Island Road and serves as the Fire District's Headquarters. The station was constructed in 2002 and is home to



Fire Station #35 - Indian Hill

Engine Company #325, Truck Company #375, and Battalion 1. The station also houses the administrative offices of the Fire Chief, Deputy Fire Chief of Administration/Support, Deputy Fire Chief of Operations Chief, Fire Prevention Division, Finance Administrator, Information Technology Division, and Training Division. The building is in good condition. However, there have been some issues with rot on the exterior of the structure, especially around the windows. The District has removed the damaged areas and replaced them with a new material in an effort to stop the progress of rot into the surrounding walls and structure. The repairs are currently holding and will be monitored for future issues. The life expectancy of the station is 20 -25 years. Some expansion of administrative office space may be required as the fire department continues to grow in the out years.

**Fire Station #36**, located a 2 Oak Tree Drive in Colleton River Plantation, and **Fire Station #37**, located at 564 Old Palmetto Bluff Road within Palmetto Bluff Plantation, are the District's newest stations. These stations were opened to alleviate ISO driven insurance rate increases for the citizens in these developments. The majority of both developments fell outside of the ISO mandated five (5) mile travel distance from the stations previously providing service. This resulted in ISO Public Protection Classifications (PPC) changing from 3 to 10 and a significant property insurance increase. The Fire District worked with both Colleton River and Palmetto Bluff to solve this issue. The result was permanent staffing of a fire station in each development. Crews are currently in "temporary" quarters at both locations with permanent stations in the planning stages for construction within the next five (5) to ten (10) years.

Construction on the Colleton River Station could be completed as early as July 2015 if not sooner. The Colleton River permanent station will be constructed as a joint venture between the Fire District and Colleton River's Home Owner's Association. The current agreement calls for a single bay, four person station located outside the rear gate of the development on Sawmill Creek Road. The agreement calls for Colleton River to build the "shell" of the building for up to \$200,000 and the Fire District will provide the infill for the interior at a cost of up to \$200,000. The Fire District will then lease the building shell from Colleton River for \$1200 per month for a term not to exceed twenty years. However, Colleton River now realizes the cost to construct a building meeting the development's architectural standards will likely exceed the budget provided in the agreement so it is likely further discussion and compromise will be needed to provide the station. A more realistic budget for the station will need to be determined and agreed upon by both the Fire District and Colleton River.

The Palmetto Bluff permanent station agreement is somewhat different than the Colleton River agreement. The agreement relates back to an earlier development agreement established between the Town of Bluffton and Palmetto Bluff that calls for a fire station and a truck to be provided by Palmetto Bluff. Since the Fire District is not a named party in the agreement, a separate agreement was constructed which names the District and provides for the same provisions. In addition, the new agreement also contains "trigger" events that will indicate when a new station must be constructed. The triggers are; a time limit of ten (10) years before the permanent station must be built; and/or in the event a building permit is issued outside the current five (5) mile ISO limit. The design of the station will also require agreement between the Fire District and Palmetto Bluff. The District's prototype plan has been presented to the management at Palmetto Bluff in an effort to eventually build a station that meets the needs of the District as well as the community.

Additional fire stations will be needed as growth returns to the District and the economy improves. The District holds development agreement rights with the Oldfield community and is awaiting enough growth within the development for additional infrastructure to support a fire station. Currently parts of Oldfield are outside the five (5) mile ISO limit. However, an automatic mutual aid agreement with the city of Hardeeville currently provides protection to those areas and meets ISO's requirements. There is some growth occurring inside of Oldfield and depending upon economic factors the need for a new fire station could occur within the next five (5) to seven (7) years. When commercial development begins to occur in the Oldfield area, the District should provide serious consideration to placing the station at that time.

The District also owns property on the Davis Road School tract located near the intersection of Hampton Parkway and Bluffton Parkway. In addition to the new school campus being planned, there is also a substantial amount of light to medium density commercial development projected along the Bluffton Parkway in the Hampton Lakes area. The Red Dam area of Sun City is reaching build out. Fire Station #34 is beginning to see the impact with increased call volume and increasing response time averages. The Hampton Parkway station will provide some relief for this situation. This may be the biggest deciding factor for the construction and staffing of the new fire station. Although there are plans for development, there is nothing on the short term horizon at this time except a medium sized nursing facility. The Fire Marshal has access to the development review process for both the Town and the County. As development permits are issued in the Hampton Parkway area, the Fire District should be prepared to place a fire station to coincide with the increase in growth.

An additional station inside the Red Dam area of Sun City may eventually be needed and should also be considered, especially if the call volumes continue to

increase leading to further lengthening of the response times. The District should at least have a discussion with Sun City in the next few months to discuss this potential issue and the availability of a suitable station site.

Another potential station location need is the Buckwalter area around the school complex on H.E. McCracken Circle. Several large tract style housing developments (Hampton Hall, Shell Hall, Pinecrest, The Farm, Pine Ridge, etc.) as well as the Bluffton Elementary School, Bluffton Middle School, and Bluffton High School are located in this area. This location is covered by both Station #30 and Station #31 and is located at the furthest point of the stations' response areas. Some very basic response studies indicate this area is in excess of the District's average response time. Also, the District is noticing an increase in the number of emergency responses to the area. It is believed this is related directly to the number of residents living within the various neighborhoods. The Hampton Parkway station, when built, will provide some relief to the neighborhoods (Sandy Pointe, Edgefield, the Townes, etc.) north of the Bluffton Parkway/Buckwalter Parkway intersection, but will have little effect on those south of the intersection.

The New Riverside area of the District is also slated for substantial growth and development. The Beaufort County School Board has purchased a considerable amount of property along New Riverside Drive in the vicinity of the construction entrance for Palmetto Bluff to build a school/schools to support the area. As development returns the District will need to consider station options for the New Riverside area.

#### Personnel and Staffing

The cost of providing services continues to increase. Fire administrators nationwide are constantly striving to locate and implement programs that provide the desired level of service at lower costs. Staffing is the greatest portion of the BTFD's operating budget and takes up approximately 90% of the funds available each year.

### Minimum Staffing

Currently the Fire District has eight (8) fire stations, with three (3) full-time shifts and 126 full-time paid employees. Each shift is assigned one (1) Battalion Chief, ten (10) Company Officers and (26) Firefighters for a total of 37 personnel at full staffing. However, due to vacation, sick leave, school, and other approved leave, the department rarely operates at full staffing. The lowest number of firefighters required to operate the department is 29 per shift. We refer to this number as the "minimum staffing level." Under minimum staffing rules, most engine companies are staffed daily with three (3) personnel and the District's aerial ladder, Truck 375, is always staffed with four (4) personnel.

### Implementation of a Limited Squad Concept and Staffing

The District is currently exploring the option of a limited squad response concept to alleviate certain engine companies from responding on non-emergency and medical calls. The concept is limited since it will apply only to Engine 320 (Burnt Church Road) and Engine 324 (Sun City). Engine 320 and Engine 324 are the busiest companies in the District and a large portion of their call volume is generated by medical and service related calls. Under this concept the District would place smaller staff vehicles at each of the stations and would staff the engines permanently with four (4) Firefighters. The staff vehicles will not have fire pumps, water, or fire hoses. Doing so will increase the minimum staffing level to 31 per day. This is possible without the hiring of additional personnel.

The concept calls for two personnel to move from the engine to the smaller vehicle (squad) whenever there is a medical or service call in the station's response area. The engine will remain in service staffed by the remaining two (2) Firefighters to respond to any fire, rescue, or additional medical calls in their response area. This is known as "2 and 2" staffing. In the event of a fire or major emergency, the squad crew can respond to assist the engine once patient care has been transferred to the County's EMS. Both Station #30 and Station #34 have back-up companies relatively close to respond and assist in the event the station is running in "2 and 2" mode and the squad is tied up. Although this is not the ideal situation, current run data does not indicate there is a high incidence of two emergencies occurring simultaneously in these response areas and thus the efficiencies gained by splitting the crew up may very well outweigh the potential negative of temporary reduced staffing on the engine.

### Implementation of a Pilot Study to Provide Emergency Medical Service (EMS) Including Transport by the BTFD

The above mentioned squad concept can easily be carried to the next step of providing full transport capability through the BTFD. In the event the BTFD begins to provide the transport service, the squads would no longer be needed. It is the administration's belief that fire based EMS provides several advantages

to the citizens of the District with the largest of those advantages being increased efficiency and reduced costs. Increased efficiency will occur because all of the emergency responders would be operating under one command structure and one set of policies and procedures. Reduced costs will occur because of the difference in pay methods employed due to Fair Labor Standards Act regulations and the ability to reduce staffing where duplication occurs in the current system.

The County's EMS study identifies a need for an additional ambulance south of the Broad River and just recently County Council approved the purchase of a new ambulance and the related staffing costs to man it. It is the administration's hopes the new ambulance will be placed somewhere in the Bluffton community.

The Fire District is already providing first response EMS coverage from each of its eight stations. The only service not provided is that of patient transport to the hospital. Beaufort County EMS currently has the charter and responsibility for that service. Current BTFD staffing is nearly adequate to take on the service. There would be the need for some additional hiring which could likely be accomplished by absorbing qualified BCEMS personnel into the District and cross-training them as BTFD Firefighters. Equipment is another area of discussion and depending upon the County's desire to transfer its current south of the Broad ambulances to the District, this could impart a significant capital outlay for District.



BTFD fire crews assist BCEMS on a vehicle accident scene.

The subject requires a significant amount of additional study and discussion. In addition, the District will need to get the buy in of the County at many levels up to and including the County Council. It is the Administration's recommendation this item be placed as a priority for investigation as a part of this plan.

## **Response Statistics**

Response statistics are commonly used by fire departments nationwide to measure their performance and effectiveness. The most commonly used statistics are:

- Incident statistics
- Response times and associated parameters
- Injury/fatality statistics (Firefighters and civilians)
- Occupancy and inspection statistics

Like all progressive modern fire departments, the Bluffton Township Fire District maintains such statistics. Statistics are routinely analyzed to determine trends and identify potential needs and areas for improvement. The community's need for our services is continuing to grow. Maintaining statistics will continue to be a priority for the department. Currently the District derives its statistical data from a variety of sources including:

- *Firehouse Records Management Software* Fire service reporting and data management software.
- *Tyler Bookkeeping Software* Financial management.
- *FleetPro* Vehicle fleet maintenance and supply inventory management software.
- *Beaufort County* Planning documents, growth estimates, development information, financial information, etc.
- *Town of Bluffton -* Planning documents, growth estimates, development information, etc.

There are a myriad of additional sources of information the District consults each day to support its operation. The sources listed above are those most commonly used.

### Incident Statistics

Incident statistics provide valuable information on how many times, for what types of emergencies, and where the department is responding. Incident statistics include such items as:

- Types of incidents to which the department responds.
- Number of incidents to which the department responds.
- Alarm distribution figures based on a normal day, week, and month.
- Property saved versus property threatened values.

This information is used to identify areas in which there may be issues related to fire protection in the community. Historical data is collected and compared to identify trends. Public information and education programs can then be developed to address the needs identified. Using the same logic, trends may also indicate areas where improvement is needed on the suppression side of the organization. This can indicate the need for new or additional equipment and staffing, increased training, new or revised policies, and response changes.

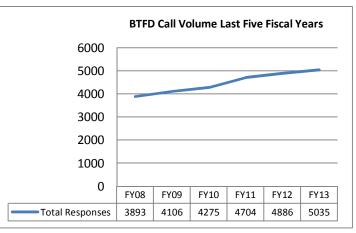
The District records incident statistics in nine categories. The categories are:

- Category 1: Fire
- Category 2: Rupture/Explosion with No Fire
- **Category 3:** Rescue and EMS
- Category 4: Hazardous Conditions with No Fire
- **Category 5:** Service Calls
- Category 6: Good Intent Calls
- **Category 7:** False Alarm and False Call
- Category 8: Severe Weather and Natural Disasters
- Category 9: Special Incident Types

These categories follow requirements established by the Federal Government under the National Fire Incident Reporting System (NFIRS). Information collected is used at the local level, but is also submitted to the State of South Carolina for compilation with data from other departments. Eventually the information is grouped with data from across the nation to help identify the overall fire problem in the United States.

Although the flattening of the economy beginning in late 2008 had an impact on growth in the area the District still maintained modest growth in its calls for service. The chart indicates the District's calls for service over the last five years

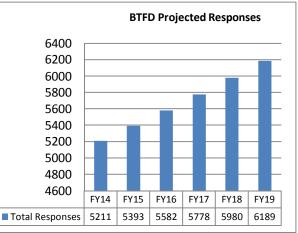
and shows an average increase of 5.87% per year. From FY10 to FY11 the District saw an increase in call volume of greater than 10%. However, during that time frame, the Administration requested personnel start recording all calls for service including "lift and assist" responses.



Previously crews had not consistently recorded these incidents as they are

considered non-emergency. The change in reporting practices accounts for a small portion of the change in call volume. Therefore, it is difficult to ascertain a "true" annual increase over the time period. The increase from FY11 through FY13 is 3.5% and this appears to be consistent and more closely comparable to earlier averages. Assuming a 3.5% increase per year the District may be

responding to as many as 6200 calls by FY19. The rate at which sustained growth returns to the area will have a large impact on the rate at which call volume will increase. The Administration will continue to monitor the increase rate and plan accordingly. Statistics also indicate the department will continue to become more



heavily involved in EMS. In general, as an area grows there tends to be more stress placed upon the EMS and law enforcement systems rather than the fire suppression system, since both services are directly related to human elements found in the community. The fire department will continue to see an increase in emergency medical incidents because it provides first response medical services.

### **Response Times**

Response time is a measurement of how quickly the District can place personnel and equipment on an emergency scene and deploy those resources to affect a positive result. The measurement of response times has long been a tool used by emergency services as benchmarks to measure service levels. Response time generally consists of three components.

The first component is **call processing time and dispatch**. This time is measured from the time the phone is answered in the Dispatch office until the call is completely dispatched to the emergency responders, which in this case is the fire department. The nationally recognized standard for call processing time is a total of 60 seconds, 95% of the time. (NFPA 1710, 2004 edition) Call processing times are not readily available to the Fire District as they are maintained internally by the County's emergency dispatch center located in Beaufort. Therefore, the District currently has little control over this segment of the response time.

The second component is what is known as **turnout time**. This time is measured from the time the tones activate in the fire station until the unit is in-route and rolling toward the emergency incident. During this time period firefighters must react to the tones, don the appropriate gear and equipment, board the apparatus, and start the response. The nationally recognized standard for turnout time is a total of 60 seconds, 90% (90<sup>th</sup> percentile) of the time. (NFPA 1710, 2004 edition) Tracking turnout times is again a function of the dispatch center. However, the County's dispatch center does not actively track this time for the fire districts in the county. The District has, however, adopted a policy of personnel having to be on the road and responding within 60 seconds of the station alert. The Battalion Chiefs are instructed to monitor the calls and make sure personnel are responding in a timely manner.

The third component is what is known as **travel time**. This is the time it takes the fire apparatus to drive to and arrive on the scene of an emergency incident. The nationally recognized standard is four minutes or less, 90% (90<sup>th</sup> percentile) of the time for the first fire unit to arrive and deploy and 8 minutes or less, 90% (90<sup>th</sup> percentile) of the time for the entire first due complement of equipment to arrive and deploy (NFPA 1710, 2004 edition). On EMS calls the standard requires a first responder or higher level person to arrive on scene in four minutes or less, 90% (90<sup>th</sup> percentile) of the time. An Advanced Life Support unit should arrive within 8 minutes or less, 90% (90<sup>th</sup> percentile) of the time. (NFPA 1710, 2004 edition)

BTFD Percentile Times – Calendar Year 2012			
Percentile	Travel Time		
10	03:02		
20	04:05		
30	04:47		
40	05:25		
50	06:01		
60	06:40		
70	07:20		
80	08:14		
90	09:41		
100	40:34		

**How Does the BTFD Measure Up to the Standard?** This chart indicates the BTFD's 90<sup>th</sup> percentile time is 9 minutes, 41 seconds. This means a BTFD fire apparatus arrives first due on scene within 9 minutes, 41 seconds or less, 90% of the time which is more than twice the value of 4 minutes, 0 seconds indicated in NFPA 1710. The chart also indicates the BTFD meets the standard only 20% or less.

The three components added together make up the response time for an incident. Some services record deployment time as an additional measure. NFPA does not recognize this as a benchmark and includes deployment time in the travel time measurement. This is how it is measured in the BTFD. Another critical factor not considered here is the time it takes for the citizen to access the emergency system. Once an emergency is recognized it takes some time for the call to be made, transmit through the public communications system (phone, cell phone, radio, etc.) and alert the Dispatch center. Therefore, the total time it takes for a response vehicle to arrive on scene can be quite long, especially if one or more of these components is not monitored and managed appropriately.

The District's records management system (RMS) tracks times for all incidents to which the fire department responds. The following times are recorded:

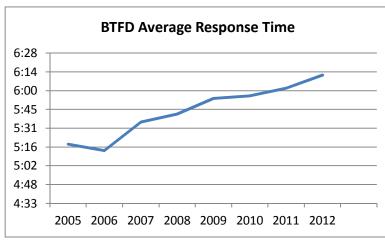
- Time in-route to the scene (10-76 time)
- Time of arrival on the scene (10-23 time)
- Time of arrival at a medical patient (at patient time)
- Time the unit cleared the scene and is available for another call (10-24 time)
- Time the unit is secured back in the station. (Signal 110 time)

The time between the tone sound in the station and the arrival time on scene is what the District considers its response time. The average response time (50<sup>th</sup> percentile) for calendar year 2012 was 6 minutes, 18 seconds. This figure was computed by taking the total number of minutes spent responding for all units and dividing the total by the number of emergency alarms. Although this number sounds relatively low, it can be misleading. As described earlier in this report, the District is witnessing a steady increase in its response time averages each year. The following data taken from the January 8, 2013 Arrival Time Report, which is the final summary of responses for the time period of January 1, 2012 through December 31, 2012 indicates the diversity in response times across the District.

Station	Shift 1	Shift 2	Shift 3	All Shifts
30	05:59/430 calls	06:13/322 calls	06:37/374 calls	06:15/1126 calls
31	07:04/117 calls	06:39/109 calls	07:14/116 calls	07:00/342 calls
32	07:35/58 calls	07:44/56 calls	08:39/45 calls	07:56/158 calls
33	05:25/139 calls	05:22/127 calls	06:20/156 calls	05:45/422 calls
34	05:41/266 calls	06:24/288 calls	06:50/290 calls	06:20/844 calls
35	05:43/283 calls	05:43/200 calls	06:22/235 calls	05:56/718 calls
All Stations	05:58/1293 calls	06:12/1101 calls	06:43/1216 calls	06:18/3610 calls

BTFD Calendar Year 2012 Average Response Times

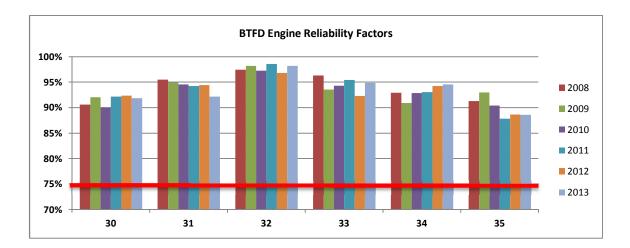
The times reflected above continue similar trends for previous years with Stations #30 and #34 being the busiest, while Station #32 is the slowest. However,



as was discussed earlier in this report, the District average response time (50<sup>th</sup> percentile) is increasing annually. The following table indicates the annual change in average times since 2005. Prior to the housing boom and

explosive growth in the community the average response time was around the 5:16 mark. Since that point the average has increased almost one full minute and trends indicate the increases are not flattening out. Although a detailed study is required to definitively identify the reasons for the increases. The Administration feels it is safe to assume increased call volume coupled with longer response runs into the new "in-fill" areas of the District are playing a major role in response time increases.

This theory is further supported by the fact that unit response reliabilities across the District have not decreased. This indicates BTFD response units are in their stations the majority of the time and able to respond first due to emergencies in their areas. Therefore, they are not busy on other calls when a new call comes out forcing a unit from another response area to respond. The chart below indicates the District's unit reliabilities.



The benchmark most progressive fire departments strive to meet is a reliability of 75%. If the reliability of a unit drops below the 75% mark, a situation called cueing may occur. Cueing indicates there are numerous times where calls had to be answered by another unit, or "stacked", until the primary unit could clear another call to answer them. When this occurs, response times lag waiting on the unit to clear the call. This indicates the need for another unit in the station to assist with the call volume. Currently none of our stations meet this criterion for requiring additional units.

#### **Response Routes and Issues**

The road network found within the District does not lend itself to speedy response. The District finds itself with several gated communities having one or possibly two entry and exit points. In addition, there is no true gridded street system in the District. Instead, many of the communities consist of meandering, narrow roads that make safe travel when responding difficult due to numerous curves, blind spots, and non-regulated on-street parking. Old Towne Bluffton has a partially gridded street system. However, the streets are narrow and in many cases privately owned and not well maintained which makes access even more difficult.

The growth of trees into and across the roadways is another issue facing first responders in the BTFD. There are several areas in which large tree growth hinders the District's ability to respond and access emergencies. A couple of examples include the large trees at the entrance to Belfair and the large trees throughout Spring Island which not only overhang the road, but also the driveways and access points to residences. Strict tree trimming ordinances and the fact that many of the trees are old and protected often make it difficult to convince property owners and developers of the need to trim back the trees or work with the District to find equitable solutions.

The Fire District is in the coastal region of South Carolina with many waterways and tributaries impacting the response routes of the fire department. This means there are several bridges around the District over which heavy fire apparatus must travel. To complicate the matter many of these bridges are within gated and private communities. Although bridge plans are normally approved at the time of construction there are few rules and procedures in place to guarantee they remain safe for fire department vehicle access. The fire codes indicate bridges must be tested and certified. However, the County is not currently providing or requiring such certifications be maintained. This is becoming an increasingly serious problem, especially in large communities such as Palmetto Bluff where several parts of the development are connected by bridges. Considering many of the District's fire apparatus are 20 tons or heavier, bridge safety is a significant factor when evaluating response routes.

A possible solution to some of the response route issues involves working closely with the county, state, and local community to provide controlled emergency access points into areas that may otherwise be blocked by gates or other boundaries. An example is the potential for a gate which could connect Colleton River Plantation and Moss Creek Plantation. The two neighborhoods lie adjacent to one another. However, the communities are separated by a chain link fence. Response times into the back portions of Moss Creek are delayed since the engine covering that area must come from Buckingham Plantation Drive. Now that the Colleton River Station is manned, it is in closer proximity to many of the outlying areas of Moss Creek. An access gate through the dividing fence along Colleton River Drive would give the Colleton River engine access to Moss Creek and would cut the response time. The costs for such a project are not significant, especially when considering the good the gate could provide. Public-private partnerships could be created to work on the funding. There are several other areas in the District which may provide better access but warrant further study.

Identifier	Goal	Estimated Completion Date	Fire Board Goal Reference
OG-1	Develop and maintain a fire station and facility maintenance plan.	July 2014	2, 4
OG-2	Construct the permanent station in Colleton River Plantation.	July 2015	1, 4
OG-3	Construct the permanent station in Palmetto Bluff Plantation	July 2017	1, 4
OG-4	Consider the construction of the Davis Road fire station	Annually	1, 4
OG-5	Construct the construction of the Oldfield fire station	Annually	1, 4
OG-6	Consider construction of a Sun City – Red Dam fire station	Annually	1, 4
OG-7	Consider the construction of New Riverside fire station	Annually	1, 4
OG-8	Implement the squad concept for EMS first response at stations 30 and 34	July 2014	1, 2
OG-9	Conduct a pilot study for EMS transport service by the BTFD	January 2015	1, 2

#### **OPERATIONS DIVISION STRATEGIC GOALS**

OG-10	Implement EMS transport service on a trial basis.	January 2016	1, 2
OG-11	Conduct a detailed response time study to	January 2015	1,2
	identify factors leading to elongated response		
	times and propose solutions		

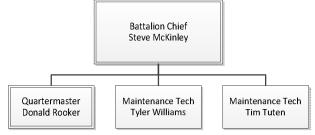


Engine 320 Awaits the Landing of a medical helicopter. The BTFD routinely establishes landing zones when a medical helicopter is landing to pick up a critically injured patient.

## MAINTENANCE DIVISION

#### **Fire Apparatus and Equipment**

The current fleet of BTFD vehicles is in good condition and capable of meeting the needs of the Fire



District. The only areas in which the District is currently lacking are reserve fire engines and aerials. The District currently has only one (1) reserve engine and one (1) reserve aerial. The reserve engine is stationed at the Sun City Station (#34). Prior to the staffing of Stations #36 and #37, the engines located in Colleton River and Palmetto Bluff were being utilized as reserves as needed. Now that those stations are fully manned, the apparatus assigned there are in service daily and not available as reserve units. The reserve aerial is housed at the Moss Creek Station (#33).

The BTFD Maintenance Division is responsible for the maintenance and serviceability of the response fleet. A significant part of the maintenance program is the planning for replacement of vehicles. The Maintenance Chief reviews the status of the fleet and updates the District's vehicle replacement plan (VRP) annually. Replacement projections are then factored into the District's strategic financing plans. The Maintenance Chief relies upon national standards, industry best practice information, and more importantly the maintenance history and condition of each vehicle to make replacement recommendations for the VRP. The chart below reflects vehicle replacements expected by type and projected for the current fiscal year (FY2014) through FY2025.

Fiscal Year	Engines Due for Replacement	Aerials Due for Replacement	Rescues/Specialty Vehicles Due For Replacement	Staff Vehicles Due for Replacement
2014	0	0	0	0
2015	1	0	1	0
2016	0	0	0	3
2017	1	0	1	0
2018	1	0	1	0
2019	1	0	0	2
2020	1	0	0	0
2021	1	0	0	0
2022	1	1	0	0
2023	0	0	0	0
2024	0	0	0	0
2025	0	0	0	0

#### Fire Engine Replacement

As is evidenced by the areas shaded light green in the chart, the District will need to purchase a new fire engine each year beginning FY2015 through FY2022 with the only exception being FY2016. The District last purchased a new fire engine in FY2009 at a cost of \$405,000. Fire truck manufacturers indicate costs rise approximately 3% -5% per year for new trucks. This estimate does not include additional costs that may be incurred as a result of changes in governmental regulations and other industry standards. An example of such a change is the diesel emission standard which recently changed and added approximately \$50,000 to the price of a new truck. The chart below indicates how a 3% cost increase per year affects the total cost of replacing the majority of the fleet between now and FY22.

Fiscal Year	Projected Vehicle Cost at 3% Increase	Number Required	Total Cost
FY14	\$469,506	0	
FY15	\$483,591	1	\$483,591
FY16	\$498,099	0	
FY17	\$513,042	1	\$513,042
FY18	\$528,433	1	\$528,433
FY19	\$544,286	1	\$544,286
FY20	\$560,615	1	\$560,614
FY21	\$577,433	1	\$577,433
FY22	\$594,756	1	\$594,756
Proceeds from sale of	engines as they are replaced	1	<\$500,000>
	TOTALS	7	\$3,302,156

BTFD Vehicle Replacement Requirements FY14 through FY25

Projected BTFD Engine Fleet Replacement Costs-Engines Replaced Individually FY14-FY25

An alternative solution would be to replace the entire fleet of eight (8) front line engines and two (2) reserves at one time. Under this plan the District would enter into a contract with a fire engine manufacturer to build the new equipment as well as sell off the old equipment owned by the District. The chart below indicates the costs for such a plan.

Fiscal Year	Projected Vehicle Cost at 3% Increase	Number Required	Total Cost
FY14	\$469,506	10	\$4,695,060
FY15	\$483,591	0	\$0
FY16	\$498,099	0	\$0
FY17	\$513,042	0	\$0
FY18	\$528,433	0	\$0
FY19	\$544,286	0	\$0
FY20	\$560,615	0	\$0
FY21	\$577,433	0	\$0
FY22	\$594,756	0	\$0
Proceeds from sale of er	igines as they are replaced	1	<\$1,100,000>
Discou	nt for bulk purchase at 5%	1	<\$234,750>
	TOTALS	10	\$3,360,310

Projected BTFD Engine Fleet Replacement Costs-Entire Fleet Replaced at One Time FY14-FY25

To finance the plan the District would need to enter into a lease agreement which would mean the assumption of debt. It is assumed the term for the lease would be 10 - 15 years which is the life expectancy of a fire engine. The cost of borrowing money is relatively inexpensive at this time and analysts believe future trends will see interest rates slowly increasing from current values. In addition to potential cost savings, standardization can have positive impacts on the overall operation of the fire department by:

- 1. Standardizing maintenance procedures, parts, and equipment. Currently Maintenance Technicians must be versed in many different makes and models of fire apparatus.
- 2. Standardizing training and operating procedures. Currently the Training Division must train and evaluate BTFD personnel on the operating procedures for several different makes and models of fire engines and pumps.
- 3. Standardizing equipment locations on the engines for the response crews to reduce response and action times. Currently response crews must learn the location of equipment on each engine, since they are all laid out somewhat differently. Even though the District attempts to keep the layouts very similar, different trucks in different model years require some modification of the equipment layout.
- 4. Standardized engines provides for more even wear of the apparatus across the entire fleet. Under this plan engines will no longer be assigned a station, but rather, since they are all alike will be rotated out at each periodic maintenance (PM) appointment. When the engine reports for PM its crew will transfer to one of the available reserves and continue in service. After the engine is serviced it will placed into the reserve fleet and rotated out with the next engine needing a PM.

5. Potentially allowing the District's Maintenance operation to serve as the fleet warranty service center for the manufacturer. This is becoming increasingly common with many of the major manufacturers. During the contract negotiations for the project, the District would request to be named as the warranty maintenance center for its own trucks. The District's mechanics will then perform the warranty work and the manufacturer will provide the parts and reimburse some or all of the labor costs.

The biggest disadvantage to the replacement of the fleet at one time is probably the initial outlay of capital. Although over the term of the fleet replacement project there is a substantial cost savings, the District is faced with finding approximately 3.4 million dollars to finance the project. On a fifteen (15) year bond at 4% interest this equates to a payment of approximately \$240,000 per year.

Another potential disadvantage occurs with the mass production of the same truck. The District must make certain the specifications for the engines are accurate and error free. In the event there is an error in the fabrication of one truck, there will likely be the same error in each truck. This could become very costly to repair, since the District will be asked to sign off on the specifications prior to the start of construction of the vehicles. The District will need to work closely with the apparatus manufacturer during this process. Utilizing known and experienced apparatus builders will be vital to the success of the project.

#### Aerial Apparatus Replacement

The District recently purchased a 100 foot aerial platform from Pierce Corporation of Appleton, Wisconsin. This vehicle was purchased to replace the Sutphen SPH -100 aerial platform mentioned earlier in this report. The new truck is a 2012 model and was purchased as a used demonstrator truck directly from Pierce. The vehicle is also a true "truck" in the sense that it does not have a fire pump or a water tank. This allows the truck to carry all its needed equipment on board and eliminates the need to always "chase" it with a squad unit for equipment. The squad only responds to specialized rescues such as confined space and hazardous materials emergencies.

The reserve aerial is a Pierce quint apparatus meaning it has a fire pump, water tank, aerial device, fire hoses, and ground ladders. This allows the vehicle to serve as either an engine or an aerial based upon the needs of the emergency at

hand. This unit will remain in reserve but is approaching sixteen (16) years of age and is scheduled for replacement in FY22. However, the District may be forced to purchase another aerial sooner than FY22.

All indications are that medium density commercial construction will be the norm for the future. With commercial construction comes the need for additional aerial apparatus units. Actual placement of the aerials should be coordinated as development continues. It is possible the District may eventually need as many as three (3) to four (4) aerial apparatus in service at any given time. This can be accomplished by having smaller quint apparatus (50 – 75 foot aerial ladders) at either end of the District (Station #33 and Hampton Lake or New Sun City) with the 100' platform aerial truck in the center of the District. An additional quint should be considered for Oldfield depending upon the amount of multi-family construction that occurs in the Okatie area.

#### Specialty Vehicle Replacement

Not only does the Fire District operate engines and aerials, it also operates the following specialty vehicles; one (1) Battalion Chief response vehicle; one (1) brush fire response vehicle; one (1) rescue unit; two (2) service units. Depending upon the revenue streams over the next few years, some of all of the replacement vehicles for these units may need to be financed. Since these vehicles will cost less than \$100,000 to replace, the use of Impact Funds is not possible.

The current Battalion Chief's vehicle was repurposed from a staff vehicle two years ago. Due to the number of miles the vehicle travels per year it is approaching the end of its useful life and is due for replacement in FY15. The Deputy Chief of Operations is working with the Maintenance Chief and Battalion Chiefs to develop a set of specifications and projected cost for a new vehicle to be included in the FY15 budget request. Once replaced the old Battalion vehicle will remain in reserve and will be used when the new Battalion vehicle requires service. Additionally, the District needs to consider it will need a second Battalion vehicle if and when the next new fire station is constructed. At that time, the department will be large enough to require two (2) Battalion Chief's on duty at any given time. This will require an additional response vehicle.

The District's brush fire response vehicle is assigned to the Wildland Firefighting team and consists of an old Malphrus Construction pickup which was purchased about five (5) years ago for little cost. The Wildland team has worked closely with the US Fish and Wildlife Service as well as the South Carolina Forestry

Commission to secure a pump, water tank, hose, and related equipment for the truck at little to no cost to the Fire District. However, the truck is aging and its years of service with Malphrus Construction are wearing on it. The unit is scheduled for replacement in FY17.

The District's rescue unit is used to support specialized rescues and hazardous materials response. The vehicle is a repurposed soda truck which the District was able to purchase at a greatly reduced cost since the vehicle had already been retired from service in the drink business. The vehicle has a limited response role and is currently serving the District well. The new Pierce 100' platform will have enough storage space that some of the equipment currently carried on the rescue can be carried on the aerial. This will further reduce the need for the rescue to respond and may extend its service life. The vehicle is beginning to accumulate some maintenance costs and is scheduled for replacement in FY18. The vehicle will be re-evaluated annually to determine if its replacement can be extended.

The District also operates two (2) service units. These units provide breathing air and ancillary equipment to the scenes of fires and other emergencies as needed. The largest of the units operates from Fire Station #35 (Service 365). The second and smaller unit operates out of Fire Station #32 (Service 362). Both of these units have limited response duties and are in good shape. Service 362 was recently repowered. These units will continue to be evaluated, but neither is scheduled for replacement within the next ten (10) years.

#### Staff Vehicle Replacements

To accomplish its mission the Fire District also operates several smaller vehicles which include cars and pick-up trucks. These vehicles are used by all Divisions within the fire department to respond to emergencies, conduct fire inspections, provide transportation for personnel to attend out of District training classes, and to conduct routine, daily business. Generally these vehicles have a long service life and when they are in need of replacement the District uses state purchasing as its source. State purchasing meets the requirements of the County for procurement and in most cases the pricing is much better than that obtained through an internal BTFD bid process. There are three (3) vehicles scheduled for replacement in FY16 and two (2) vehicles scheduled for FY19. Generally reserve funds are used to purchase replacement staff vehicles as their cost is small enough to not warrant a need for financing.

#### Permanent Maintenance Facility

A permanent facility for the District's vehicle maintenance function is desperately needed. Currently the Maintenance Department works out of a rented space in the former Black Diamond Business Park. The facility is severely undersized for the type of work being performed by the District's Maintenance Technicians. In addition, the building itself is in very poor condition and there is little support from the company who owns the building on making repairs. For example, the Fire District has replaced the heating, ventilation, and air conditioning system, upgraded the garage floor to accept heavy trucks, and made other repairs to make the building serviceable for the District's use. There is also concern that the complex may be sold or left for foreclosure as many of the warehouses are now vacant and the complex's largest renter of space is currently building a new structure elsewhere in Bluffton to house their operations.

Another factor to consider is the District took on vehicle maintenance services for the Town of Bluffton a little over two years ago. The partnership has generated almost \$50,000 in additional revenue for the District since its inception. There are other opportunities to explore and potentially expand the business to other agencies such as Beaufort County and the School District. However, to do so will require additional space than what is available at the current location. The goal would be to have the business support not only itself but a portion of the maintenance program for the Fire District.

The final factor and the most important is that of safety for the personnel working in the maintenance shop. The close quarters create a safety hazard, especially when one technician is working on a fire truck while another is working on a police or other vehicle simultaneously. Under these circumstances there is little space left to move around and perform the work required. In the event of an emergency with a lift or other piece of equipment, there is little room to escape the hazard.

To safely and properly provide the services required of the maintenance crew, it has been determined that a building with at least four (4) apparatus work bays, office and break space, high rack storage, climate controlled storage for the quartermaster, and specialty work areas (SCBA, welding, etc.) are required. The recommended site for the building is behind the new Fire Station #30 on a section of the property the District already owns. A budget of 1.25 million dollars is estimated for the project and financing of some sort will likely be required. The

new facility is one of the highest priority capital projects for the administration for FY15 – FY16.

Identifier	Goal	Estimated Completion Date	Fire Board Goal Reference
MG-1	Construct a new Maintenance garage facility	July 2015	2, 4
MG-2	Complete a cost analysis study related to fire engine fleet replacement.	January 2015	2, 4
MG-3	Develop and maintain a facilities maintenance plan	July 2014	2, 4
MG-4	Conduct a study to determine the viability of expanding vehicle maintenance services to other agencies such as Beaufort County, Beaufort County School District, and the Beaufort County Sheriff's Department	July 2015	2, 4
MG-5	Develop a succession plan for the development and continuity of leadership within the Maintenance Division for the next fifteen years	January 2015	2, 3

#### MAINTENANCE DIVISION STRATEGIC GOALS



Bluffton Firefighters work to remove patients from an overturned school bus. Firefighters are trained in many different areas of response and rescue. Mass casualty incidents occur infrequently, but crews must be ready to handle them.

#### TRAINING DIVISION

#### Basic Firefighter Training

All firefighters are trained and certified to the International Fire Service Accreditation Congress



(IFSAC) Firefighter 2 level. All new firefighters who cannot show proof of SCFA 1151 (Firefighter Candidate School) will be required to attend the eight (8) weeks of training provided through the South Carolina Fire Academy (SCFA). The SCFA is considered one of the premier firefighter training facilities in the United States. In addition to the IFSAC Firefighter I and II certifications, new firefighters also receive training and certification to the Operations level in Hazardous Materials while in recruit school. Upon completion of the SCFA recruit school employees meet all the requirements for the Occupational Safety and Health Administration and National Fire Protection Association as a firefighter. New employees also undergo an intense orientation program over their first year to acclimate to the department, the procedures, and the methodologies of operations of the District.

#### Company Officer Training

All Company Officers are trained and certified to at least the IFSAC Fire Officer I level. Lieutenants and Captains receive specialized training in incident management, strategy and tactics, and leadership development. In addition, prior to promotion to Lieutenant, employees must complete the District's Company Officer Training Course (COTC). The COTC is a four day program and developed by the Training Division to provide basic knowledge to the aspiring Officer on subjects such as department rules/regulations, department goals/objectives, time management, report writing, basic budgeting, crew/personnel management, and how to make the transition from Firefighter to supervisor.

Battalion Chiefs receive the same training as the Lieutenants and Captains and are required to attend at least one National Fire Academy Course prior to promotion. All company officers are also required to attend quarterly training on subjects directly related to their jobs and the management of their personnel. Attendance at the National Fire Academy in Emmitsburg, Maryland is also strongly recommended for all Company Officers.

#### Medical Training

Prior to February 1, 2008, all response personnel were required to obtain and maintain certification as medical first responders. On February 1, 2008 the standards were upgraded to require all new employees to obtain certification as an emergency medical technician (EMT), and now in another effort to increase our level of service the department is requiring all firefighters to be EMT's. This new requirement will become effective on January 1, 2015. South Carolina uses the National Registry of EMT's training and certification program as its training program. Personnel who successfully complete the training are certified by both the South Carolina Department of Health and Environmental Control (DHEC) and the National Registry. Currently the department has 107 employees certified at the EMT or Advanced EMT level. The department also has 16 of those personnel certified as Paramedics. Paramedics are permitted to perform skills above and beyond those of the basic EMT's. These skills involve advanced life support skills such as cardiac monitoring, defibrillation, intravenous (IV) therapy, and drug administration. As with basic EMT's, all paramedics are certified by the National Registry and DHEC.

All personnel regardless of their certification participate in a rigid monthly medical training program offered by the department. This program consists of two to three hours of training monthly per member on medically related skills, subjects, and issues. The monthly medical training provided in the program meets or exceeds the national standards and the training provided also qualifies for re-certification continuing education units. Although our medical training program is currently sufficient for the needs of the department, as we grow and the department moves more toward an EMS provision agency, the medical training program will have to be reviewed and assessed for its viability.

#### Specialized Training Programs

The department supports several specialty teams. Those teams are:

- Bluffton/Hilton Head Island Hazardous Materials Response Team
- Bluffton/Hilton Head Island COBRA (WMD) Basic Response Team
- Urban Search and Rescue (USAR)Regional Response Team 4
- South Carolina Urban Search and Rescue Task Force 1 Response Team
- Bluffton Township Fire District Confined Space Rescue Response Team

Personnel serving on these teams undergo training above and beyond that required for the other firefighters. Personnel have attended training at such institutions as:

- National Energetic Materials Research and Test Center (NEMRTC), Socorro, NM.
- US Army Chemical/Biological Research and Test Center, Anniston, AL.
- Bechtel Corporation Radiological Research Facility, Las Vegas, NV.
- Texas A&M Extension Service (TEEX), College Station, TX
- Louisiana State University Emergency Response College, Baton Rouge, LA.

In addition to attending the specialized off-site training, personnel on specialized teams also drill together on a regular basis locally. Because of the amount of training required to provide these services, personnel on specialized teams will continue to have to attend training programs off-site not only in the immediate future, but for years to come.



Members of Regional Response Team 4 (RRT-4) pose for a photo at a recent training deployment exercise. The BTFD and the Hilton Head Island Fire and Rescue Division jointly make up the team which is a local support branch of the State's larger Urban Search and Rescue Team (SC-TF-1)

#### Advanced Education – College Degrees

The District is interested in assisting its members to achieve a college degree to enhance their career. Minimum entrance requirements currently do not require a degree for employment. However, the position descriptions for Fire Chief, Deputy Fire Chief of Administration/Support, Deputy Fire Chief of Operations, and Battalion Chief indicate a bachelor's degree or higher is desired. Credit is given year for year for experience to those employees who do not have a degree (4 years' experience above and beyond the normal experience requirement for a position qualifies for a Bachelor's Degree). An additional requirement of National Fire Academy Executive Fire Officer Program participation and/or completion is also listed as desirable for Deputy Chief and Fire Chief. Currently there are eleven employees with Associate Degrees and seventeen employees with Bachelor's Degrees. The department currently provides tuition reimbursement to those pursuing a degree in a related field. Since implementing the tuition reimbursement program, we have had seven members pursue degree programs with this assistance.

#### Apprenticeship Carolina

The District has teamed with Apprenticeship Carolina to create an Apprenticeship Firefighter credential. This program follows the steps outlined in our Promotional Policy through Firefighter II. Once a suppression employee completes this two-year program he/she will be considered a Journeyman Firefighter. The Bluffton Township Fire District will be the first fire department in the state of South Carolina to initiate this type of program.

#### Live Fire Training Facility

The District has established the profound need of a dedicated Fire Training Facility/Area within the boundaries of the Bluffton Township Fire District. This improvement project would provide the necessary area and facilities to enable the Training Division to carry out the goals and objectives established in our training program. The Fire District Training Program is designed to meet the numerous standards established by NFPA, OSHA and ISO. This training is currently accomplished through various means and avenues created by the staff of the Training Division. This training is accomplished by utilizing commercial



Firefighters train for a rescue of a victim from a BJWSA water tower.

business parking lots, side streets in low density neighborhoods, back pads of fire stations, the MCAS burn facility in Beaufort, the Parris Island burn facility and any other location that we can find that suits our needs. The Fire District has seen tremendous growth in a very short span of time, which makes the lack of facilities inadequate to meet the current needs of the district and entirely inadequate to meet projected needs of the district. Based on the number of personnel, required training hours and the logistical requirements needed to accomplish the training, it is time that the Fire District has its own facility to conduct training.

There are many monetary advantages the Fire District will realize by having our own training facility and some of those advantages will come in the form of overtime savings during training, less wear and tear on apparatus, fuel savings and facility use fees. Having a facility that rests within the Fire District will also provide many logistical advantages. Currently we must rely on other agencies and their facilities in order to complete the required live fire training. This requires support from the outside agency and we must then conform to their rules and availability. In some cases dependability becomes an issue as maintenance problems arise and we have no control regarding the timespan of repairs. When situations such as these occur we are forced to cancel training, which wastes overtime pay and fuel. Another issue rests with moving apparatus to the training location and ensuring that we have adequate coverage within the district. Having a facility within the district will make this process easier and allow us to train on certain disciplines much more often.

While convenience isn't always necessary, it will definitely play a large factor in improving the level of training within the Fire District. Having a central location that is easily accessible by all on duty units will give us the opportunity to conduct surprise drills that will be much more realistic. Also, if a drill gets interrupted because of emergency calls, having our own facility will afford us the opportunity to either continue that day or reschedule at our convenience.

Other than the initial cost of construction and occasional maintenance cost there really is no disadvantage to having our own training facility. As stated earlier, having this facility will afford the district the opportunity to conduct realistic training any time, day or night, 365 days a year without the hassle of asking permission from another organization and costly travel.

Approximately three years ago the Training Division, in conjunction with several firefighters who volunteered their time, worked many hours designing a facility

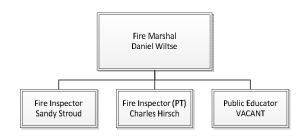
that we felt would meet the current and projected needs of the district. The facility was designed to meet the needs of our fire based training as well as many facets of our Special Operation's needs. The team met with representatives from various fire training facility manufactures and explored many of the design features and construction materials. One manufacture (Fire Facilities) went the extra mile and had their engineers and architects complete drawings that met our specifications. Fire Facilities provided the fire district a complete set of drawings and a quote based on the specs. The quote was based on materials and shipping only and totaled approximately \$450,000.00 dollars. Fire Facilities is actively working to re-quote the spec with current pricing. The company is also providing us with current pricing on base models that it has pre-designed. Based on estimated cost of the burn building and projected cost of the remaining infrastructure such as land work, roads, cement pad and vertical construction of the building, we feel strongly that this entire project could be completed for approximately \$1,500,000.00.

Identifier	Goal	Estimated	Fire Board
		Completion	Goal
		Date	Reference
TG-1	Complete the ongoing Leadership Audit	July 2014	2, 3
	succession planning project. Include a		
	mentoring program as a component of the plan		
TG-2	Identify options for ongoing additional Company	January 2015	2, 3
	Officer development and construct an		
	implementation plan for the training.		
TG-3	Develop a Driver/Operator Training and	January 2015	2, 3
	Promotional Process		
TG-4	Develop and administer a Station Officer (Sr.	January 2015	2, 3
	Captain promotional process		
TG-5	Develop a video library of the skills required for	January 2016	2, 3
	each position in the BTFD		
TG-6	Explore the options for an inter-department or	July 2014	2, 3
	inter-agency emergency medical technician		
	(EMT) training program		
TG-6	Evaluate and improve upon the college tuition	Annually	2, 3
	reimbursement program		
TG-7	Evaluate all position descriptions as to the actual	Annually	2, 3
	content and duties performed in each position.		
	Work towards higher level degrees for all		
	positions from Lieutenant and up.		
TG-8	Construct a dedicated training facility.	July 2018	1, 2, 3, 4

#### TRAINING DIVISION STRATEGIC GOALS

#### FIRE PREVENTION DIVISION

The overall goal of the Fire Prevention Division is to protect the lives and property of the citizens and visitors of the Bluffton Township Fire District through the use of fire inspections, plan



review, education, and fire cause determination. Currently, the Fire Prevention Division is made up of the Fire Marshal, one (1) Fire Inspector, one (1) Part-Time Fire Inspector and the Public Education Officer. The Fire Prevention Division is committed to providing the highest level of expertise and professional service to its customers. The Division supports the needs of other department divisions by reducing the hazards and complications that emergency personnel may face when responding to emergency situations. This is accomplished through education, engineering, and enforcement.

The Fire Prevention Division has the following goals for the upcoming years:

*Continuing Education:* We will continue to maintain staff training/certifications through education and promote further educational opportunities. Currently we receive training through various methods such as South Carolina Fire Academy Quarterly Fire Marshal Trainings, South Carolina Fire Marshals Association Conferences, National Fire Academy Coffee Break Trainings, etc. We look to provide more specific training in the areas of fire sprinkler and fire alarm systems so that we can stay up to date with code revisions because they are vital to public safety where installed. We will also look at providing further education in the areas of public speaking and writing to ensure that our message is clear whether it is in writing or when educating the public.

*Staffing:* We currently have two personnel in our staff that are already retired. We would like to see another full time person be added to the staff so that he/shewould be adequately trained and ready to fill those positions once these staff members have moved on. This could take some time to get someone trained to that level which means we will need to hire someone soon.

*Relationships:* The staff will continue to maintain and improve relationships with all customers, both internally and externally. Relationships with both the Town of Bluffton Building Safety Department and the Beaufort County Building Department are important as they are our enforcement agencies if a business is noncompliant. Building these relationships may also foster enough trust that the Fire District can regain the ability to write code citations and not have to rely on another agency to do so.

*Fire Investigation:* We will continue to maintain our training/certification for all of our Fire Investigation Team members. A long term goal for this team will be to be able to provide hands on fire investigation training. This can be done by working with the Training Division when developing their training facility.

*Pre-Planning:* A short term goal for this area will be to ensure that all pre-plans are done a standard way to ensure that the information that is needed in the event of an emergency is located on the pre-plan and that the pre-plan is done in accordance with ISO and NFPA Standards. This can also be an assignment for the new staff position.

*Public Education:* The public education program will continue to provide the same services as it has including community CPR training, community first aid training, fire extinguisher training, and fire safety education. The Community Risk Reduction Plan will be evaluated to determine its effectiveness and to determine if modifications need to be made. Additional fire prevention programs will be evaluated and reviewed to determine if the Bluffton Township Fire District residents can benefit from them. The Public Education Officer will also look into other resources to distribute safety messages through social media, print media, Beaufort County Channel, Sun City TV, HOA/POA newsletters and other media outlets.

Identifier	Goal	Estimated Completion Date	Fire Board Goal Reference
FPG-1	Study the use of engine/truck companies assisting in the performance of routine, low hazard occupancies	July 2015	2, 5
FPG-2	Build strong relationships with both the Town of Bluffton and Beaufort County's building departments.	Ongoing	1, 2, 5
FPG-3	Provide a sustainable fire scene investigation solution for the BTFD	July 2014	2, 5
FPG-3	Provide a sustainable and accountable pre- emergency planning process for the BTFD.	January 2015	2, 5
FPG-4	Complete the Comprehensive Risk Reduction Plan and present to the Fire Board.	July 2014	1, 2, 5
FPG-5	Develop a system(s) to review and evaluate all public education programs for their effectiveness and make necessary changes.	January 2015	2, 5
FPG-6	Develop a uniform tracking system for all public education events and activities	March 2014	2, 5
FPG-7	Continue to use social media and increase its	Ongoing	1, 2, 5

#### FIRE PREVENTION DIVISION STRATEGIC GOALS

	use accordingly		
FPG-8	Study the need to purchase a fire safety house	January 2016	2, 5
	for the District.		
FPG-9	Continue to develop and administer the	Ongoing	1, 2, 5
	community wide CPR program with a broader		
	automated external defibrillator (AED)		
	component. Consider involvement with the		
	Town of Bluffton and Beaufort County		



A Bluffton Firefighter works to extinguish a fire while preserving as much evidence as possible. This assists members of the BTFD's Fire Investigation team in locating the origin of the fire and potential causes.

### ADMINISTRATIVE AND SUPPORT DIVISION

The Administrative and Support Division (Admin/Support)



provides direct coordination and support to the Operations Division. The functions found under Admin/Support are vehicle and facility maintenance, training, fire prevention/investigation, information technology. Employee services such as payroll administration and employee benefits also fall under the Admin/Support Division.

#### Laws, Regulations and Standards

The District must comply with many laws, regulations, and standards. As in any business with employees, the District must comply with all federal, state, and local labor regulations, the largest two areas being that of occupational workplace safety, which is monitored by SC OSHA, and proper calculation and payment of wages for hours worked monitored by DOL Wage-Hour Division. The Admin/Support Division assists the Fire Chief in making certain the District is in compliance with all applicable regulations. At this time the District is in compliance with these regulations.

Information in the Annual Report for 2007 indicated an unusually high number of minor workplace injuries. Since these injuries occurred on duty, the result was several hours of lost time for employees and ultimately an increase in our Worker's Compensation premiums. The District has made a conscious effort over the last six (6) years to evaluate the causes of workplace injuries and has developed a plan to address the causes. The District has seen a decrease in the amount and severity of workplace injuries. However, there is still work to be done. Safety is a primary concern for the administration and steps are being taken to further reduce the incidence of workplace injuries.

The National Fire Protection Association (NFPA) publishes consensus standards for all aspects of the fire and life safety industry. Although these standards do not usually carry the weight of law, they are nationally recognized as best practices for fire service delivery, code enforcement, and safety policy. NFPA has input into everything we do from the design of our fire trucks, to the specifications of our protective gear, to the stations from which we operate and to the way in which we respond and handle emergencies. As technology changes and time advances, so do the standards. The Standards have become increasingly stringent with a resulting increased dollar cost required to achieve and maintain compliance.

The District attempts, like all progressive fire departments, to follow the NFPA standards. The main standards impacting us directly are NFPA 1901: Standard For Automotive Fire Apparatus, NFPA 1500: Standard on Fire Department Occupational Safety and Health Program, NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments and NFPA 1971: Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting.

Currently the personal protective equipment (PPE) worn by our firefighters meets the requirements of NFPA 1971. A complete set of PPE includes a protective jacket, protective pants, protective boots, helmet, gloves, and protective hood. The District recently negotiated a new contract for the construction of its gear and locked in a price for five (5) years at cost of \$2500 for a set of PPE. Like most equipment, the components wear out, especially under the stresses and conditions in which firefighters work. We estimate a set of gear will last approximately five years if properly maintained. The District developed a replacement plan in which approximately 20 sets of gear are replaced annually. This allows for the replacement of the gear in small increments and does not place a tremendous financial strain on the budget in any one particular year.

The District attempts to comply with NFPA 1500 and its related standards as closely as possible. However, the document is close to 1800 pages in length and is extremely comprehensive. Very few departments are in full compliance with the document. Most departments attempt to meet the main components of the document, such as maintaining a safety program, providing for firefighter physicals and health (this is also an OSHA requirement), on-scene accountability and adopting an incident management system. The District is currently in compliance with all of these components.

As with other NFPA Standards, the District attempts to follow NFPA 1710 as closely as possible. NFPA 1710 deals primarily with the manner in which the District provides service. The standard sets benchmarks for response time, staffing, and operations at fire and EMS incidents. The standard identifies the following benchmarks for paid fire departments:

#### NFPA 1710 Staffing and Response Time Guidelines

Staffing	
Engine Companies	4 Persons Minimum
Truck Companies	4 Persons Minimum

Response Guidelines – Fires		
Call Processing Time*	60 seconds or less 90% of the time	
Turnout Time	60 seconds or less 90% of the time	
Arrival of First Engine Company	4 minutes or less 90% of the time	
Full First Alarm Assignment Arrival	8 minutes or less 90% of the time	

Response Guidelines – EMS	
Arrival of First Responder Unit	4 minutes or less 90% of the time
Arrival of Advanced Life Support	8 minutes or less 90% of the time

Full First Alarm Assignment	
Command and Control	1 Incident Commander
Water Supply	1 Driver/Operator
Attack Line	3 Firefighters
Backup Line	3 Firefighters
Search and Rescue	2 Firefighters
Ventilation	2 Firefighters
Aerial Operations	1 Driver/Operator
Rapid Intervention	2 Firefighters
Total Personnel Required	15

\*It should be noted that the call processing time is controlled by Beaufort County Dispatch. This is not a value for which the District can directly control.

#### NFPA 1710 Staffing

Since it is the policy of the District to operate fire apparatus at a minimum staffing level of 3 persons, this currently does not meet the minimum staffing guidelines in the 1710 Standard. Additional personnel are not currently available to maintain 4 persons on each apparatus at all times. This is not an uncommon practice in most fire departments and is actually closer to the norm than the exception.

#### NFPA 1710 Response Guidelines

Although the District maintains good records and statistics on response times, there are no minimum values established by the District. In other words, the District has not adopted benchmarks by which it can measure its performance in this area. By combining minimum staffing values and required response values, a document known as a "Standard of Coverage" can be created. The Standard of Coverage then provides the measuring tools needed to evaluate our basic performance. The District currently has response time averages in the 6 to 6.5 minute range. As discussed earlier in this report, as the District continues to grow significantly without the addition of new fire stations, these times will continue to increase.

#### NFPA 1710 Full First Alarm Assignment

The standard calls for a minimum of 15 personnel on scene within 8 minutes, 90% of the time. The Bluffton Township Fire District first alarm response consists of 3 Engine Companies, 1 Truck Company, and a Battalion Chief. Assuming we are working at minimum staffing levels the total personnel on scene would be 14 (each engine carries 3 personnel; the truck carries 4 personnel; and the Battalion Chief). Staff Chief Officers usually respond to fire emergencies as do some off-duty department members. However, it is impossible to count these members as part of the initial response. Therefore, the District is not meeting the basic minimums of the standard's requirement for a first alarm assignment.

#### Insurance Services Office (ISO)

The Insurance Services Office (ISO) is an independent agency responsible for rating a community's fire service. The ISO inspects fire departments and determines what is known as a Public Protection Classification (PPC) for the department. The PPC is based on a scale of 1 - 10, with a score of 1 indicating exemplary fire services, while a score of 10 indicates the fire service does not meet minimum recognized criteria.

The Bluffton Township Fire District currently holds a "split" PPC of 3/9 (valid as of 2013). Most of the District is covered by the "3" rating and this places the District in the top 3.4% of all fire departments in the country. In addition, the lower the PPC score, the better the insurance rate citizens enjoy on their property. Recently the District manned stations in Colleton River and Palmetto

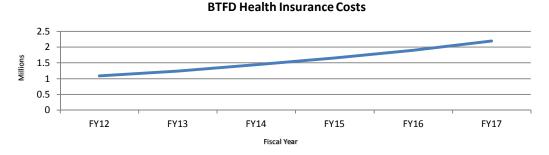
Bluff. Both of these communities had areas exceeding the five (5) mile travel distance from a station and their residents were in danger of seeing substantial increases in homeowners insurance. There are other areas in the District, primarily in the Pritchardville and Callawassie areas, with the higher 9 rating. This is not so much a result of travel distance to a station but lack of an acceptable water supply (fire hydrants) in the communities. To solve this problem the District will need the assistance of the Beaufort Jasper Water and Sewer Authority (BJWSA). The administration feels this to be a high priority for the next five years and will press for enhancements to the water system. In addition, the administration will continue to carefully consider ISO in its decisions, especially those relating to station placement, staffing, and equipment purchases. Each of these items has a direct bearing on current and future ISO ratings of the department.

#### Salaries and Benefits

In the early 2000's the County Fire Chiefs Association (BCFCA) presented the results of a salary study conducted by an external consultant to the County Council. The study indicated Firefighter salaries in Beaufort County were as much as 25% below regional averages for Firefighters. The BCFCA suggested 5% increases in salary for five (5) consecutive years to close the gap. The first increase was implemented in FY2007 with the second increase following in FY2008. In 2009 the economic decline struck the nation and funds were not available to continue the increases in FY10, FY11, or FY12. Smaller 2% increases were provided in FY13 and FY14's budgets.

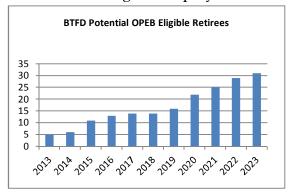
Overall the morale, especially in relation to salaries has been good, even though the troops did not receive the larger increases discussed. In most cases the line employees have been very understanding of the District's financial position. However, a good faith effort from the Administration is required to maintain the positive morale. Since it has been over five (5) years since the original salary study, the Administration should take on a new salary study for the personnel of the BTFD and develop an implementation plan for the results of the study to be presented to the Fire Board for consideration.

The District continues to offer an attractive benefits package to its employees which includes low cost health, vision, and dental insurance, pension plans, participation in the South Carolina Deferred Compensation Program (SCDCP), employee and family wellness programs, and for those who qualify, postemployment health insurance coverage (OPEB). There are two problems looming on the horizon for the District. The first is the cost of health insurance. Health insurance costs continue to increase each year. Since FY12 the District has seen its insurance costs increase by approximately 30%. If the increases continue at the current trend, the District's costs for health insurance will cross the 2 million dollar per year mark in FY2017.

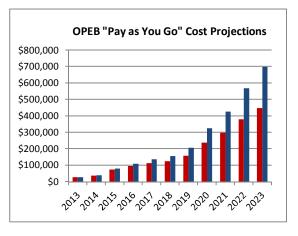


Currently health insurance costs make up 13.7% of the District's total operating budget. Since revenues over the same time period are only projected to increase modestly at 1%, the funding of the current program at current rates is becoming unsustainable as health insurance costs will comprise approximately 20% of the District's total operating budget by FY2017. Therefore, a short term goal for the administration will be to develop an action plan to address the need for continuing good health coverage at a more stable and manageable cost. In this discussion the Administration will also have to consider the potential implications of the Patient Protection and Affordable Care Act (PPACA). Even though implementation of the employer mandate within the Act has been temporarily postponed, there are long lasting requirements that must be considered for the future.

The second problem is that of funding for the District's other post employee benefit (OPEB) requirement. All employees hired by the Fire District prior to July 1, 2009 are entitled to individual lifetime health care coverage paid for by the Fire District after retirement. To receive the benefit the employee must meet several requirements based upon service time and age at retirement. In compliance with Government Accounting Standards Board (GASB) Rule #45 the District has to identify its potential OPEB requirement through actuarial studies. As of June 30, 2013, the District's OPEB liability was \$6,262,081. This amount is currently unfunded. Each year the plan is not funded adds to the accrued liability. Currently the Fire District has six (6) retired employees drawing the benefit. The District is funding the benefit on a "pay as you go" basis at approximately \$30,000 per year in the operating budget (.3% of the budget). Several OPEB eligible employees will be able to retire within the next ten years.



In addition to the cost issues with the OPEB, the health insurance plan the District uses includes the retirees. A condition of the plan is that no more than 10% of the total plan membership can be retirees. This equates to 13 retired members based upon the current size of the District's workforce. Eventually an alternative plan will need to be started to cover the retirees. Although this sounds relatively This will result in a significant drain on the operating budget as is evidenced by the accompanying charts. By FY2023 the "pay-as-you-go" costs to the District could exceed \$400,000 per year. In the event costs increase at the current trend of 15% increase per year that figure climbs to almost \$700,000 in FY2023.



simple, to control the costs, the plan may have to offer benefits different than those offered to full time employees. The entire issue requires much more study and has the potential for substantial impact on the District. Therefore, it should be considered one of the Administration's highest priorities with the implementation of this Strategic Plan.

Identifier	Goal	Estimated Completion Date	Fire Board Goal Reference
AG-1	Conduct a comprehensive review of all policies and procedures for current compliance with applicable federal, state, and local regulations	January 2015 Ongoing	2
AG-2	Complete an "in-house" ISO evaluation based upon the latest ISO standards to determine needs and develop a plan to maintain or better the current rating.	July 2015	1, 2
AG-3	Conduct a comprehensive firefighting water availability study for the Fire District and enter	July 2015	1, 2

#### ADMINISTRATIVE DIVISION STRATEGIC GOALS

	into discussion with BJWSA regarding needs.		
AG-4	Create a comprehensive salary survey and	July 2015	2
	develop an implementation plan for the results		
AG-5	Create a comprehensive benefits analysis and	July 2016	2
	develop a plan to implement the findings. The		
	analysis should consider health insurance		
	costs/benefits, a solution for the OPEB		
	requirements of the District, and further		
	development of wellness programs now offered.		
AG-6	Complete a standard of cover survey and	July 2016	1, 2
	present to the Board for approval		
AG-7	Pursue national accreditation through the	July 2017	1, 2
	Center for Fire Accreditation International		
	(CFAI).		
AG-8	Place a greater emphasis on locating grant	July 2014	1, 2
	funding.		
AG-9	Increase the emphasis on achieving diversity in	July 2014	1, 2
	the workplace. Develop and present a diversity		
	plan and present to the Board.		
AG-10	Develop a succession plan for the development	January 2015	2, 3
	and continuity of leadership within the		
	Information Technology Division for the next		
L	fifteen years		



Bluffton Firefighters work to extinguish a large fire in a warehouse. The Firefighters are using defensive fire attack tactics due to the volume and intensity of the fire.

#### <u>Appendix A</u>

#### **Needs Assessment Analysis**

- 1. The organizational structure of the Fire Department is adequate for the current demographics of the District. However, with the addition of one additional station, the Department will need to consider a two (2) Battalion structure.
  - The upper administration structure (Fire Chief and two (2) Deputy Chiefs) is adequate for the department for the next few years.
  - Currently one (1) Battalion Chief per shift supervises the entire operational district on a daily basis. As the District continues to develop, there will be the need for an additional Battalion Chief on each shift.
  - Based upon current span of control guidelines provided to fire service organizations, a supervisor can effectively manage between three (3) and seven (7) companies with the optimum number being five (5).
     Battalion Chief is 8:1. Therefore, the span of control is already being exceeded and a second Battalion Chief should be considered as early as the FY15 budget.
- 2. The facilities of the District are for the most part in good condition. The District must take the necessary steps and plan for continuing maintenance on these buildings.
  - The District needs to maintain its comprehensive maintenance and repair program which includes scheduled and projected maintenance upgrades, and repair for its current and future facilities.
- 3. Current station locations are viable and will be adequate if supported by additional new stations in the proper locations.
  - Comparing growth statistics to station locations indicates as many as four new stations may be required within the next ten years.
  - Stations should be located based upon several factors. The three main factors are response time, density, and special hazards (target hazards).
  - We are currently projecting stations as needed in the following areas:
    - → Davis Road/Hampton Parkway: This station will assist in the rapidly developing Bluffton Parkway-West area, Southern Buckwalter area, and Sun City-Red Dam area. These areas have a mix of residential and commercial structures. In addition, the new

Davis Road school complex, current Bluffton schools complex on H.E. McCracken Circle are located in the service area of this station. Although the area is predominantly residential at this time, the forecast is for additional commercial occupancies to be built over the next 2 -3 years. This area is currently served by Stations 30, 31, and 35 depending upon the incident's location. Response times are long into the area from the available stations because the area is at the outer fringes of the stations response areas.

- Oldfield area: Property for this station is provided for through the 0 Okatie Community PUD. This station will provide a station approximately half-way between the current Callawassie station (32) and the Sun City station (34). This will effectively cut our largest response district into thirds. The Oldfield area is scheduled to see some additional light commercial development as well as some multi-family dwelling units. Currently the District operates an Automatic Aid Agreement with the Hardeeville Fire Department out of the Cherry Point station for ISO grading purposes. Our experience has been that this agreement is onesided, in that the Bluffton Township Fire District provides equipment and manpower more times than aid is received. The Cherry Point station is under manned with only one person on the fire engine, so what help the station can provide is very limited. Upon completion of the Oldfield station, the Cherry Point agreement will no longer be required for ISO grading. The administration will rapidly move to dissolve the Automatic Aid Agreement and convert it into a standard Mutual Aid Agreement.
- Sun City (Red Dam Area): Sun City is approaching 6000 dwelling units, making it by far the largest residential area in the District. Response profiles into the newer portions of the community will reach the point where they will easily exceed 5 to 6 minutes. As a result, an additional fire station will likely be required in the Red Dam area inside the development. The Davis Road/Hampton Parkway station will provide some support. However, the road network within Sun City must be considered. Response times are delayed because apparatus must negotiate winding roads with blind curves and numerous intersections.
- *Palmetto Bluff East/Village Station:* The property and funding for a station and equipment in the Eastern portion of Palmetto Bluff will be acquired through a developmental agreement. Under the agreement, Crescent Development group will pay all costs

associated with the construction of the station and the purchase of the needed equipment. Currently crews are housed in a temporary facility in the golf maintenance area of the community. The agreement also stipulates several "triggers" which when met will require the construction of the station. Considering the rate of construction and infra-structure development in the Bluff this station could easily be completed and manned within the next three to five years.

Colleton River/Sawmill Creek Road Area: Another area requiring 0 assistance due to response time is the Sawmill Creek Road -Colleton River Plantation area. Recently the District manned an engine stationed in the back side of Colleton River Plantation. This vehicle is so positioned for ISO grading purposes and the crew is housed in temporary quarters at the golf maintenance facility. The living conditions are acceptable, but the space is extremely limited and difficult to work within. Colleton River has proposed a station along Sawmill Creek Road which would provide rapid access not only to Colleton River but also the Sawmill Creek area and Outlet Malls along Fording Island Road. A station so positioned will meet the requirements for ISO for all of Colleton River Plantation. Although there is limited construction along Sawmill Creek Road, there is considerable construction within Colleton River. The location specified by the administration of Colleton River provides direct access to Sawmill Creek Road and rapid access to the back gate of Colleton River.

## 4. The District currently has adequate staffing at the response level. The District will need to provide for additional staffing as new stations are constructed.

- The administration believes that a station should be staffed fully when it is constructed.
- Projected staffing for fire stations includes:
  - Four firefighters per shift for each additional engine company
  - Four firefighters per shift for each additional truck company
  - One Battalion Chief per shift for each 4 6 stations supervised.
- To build the additional stations mentioned above total daily staffing will increase to 11 engine companies (44 Firefighters), 1 truck company (4 Firefighters), 2 Battalion Chiefs. For three shifts this equates to 147 Firefighters which is 36 more than the 111 currently on the line.

- 5. The District currently has a functional and effective training program for its employees. The training program will need to continue to target officer and driver/operator development as the department continues to grow.
  - Approximately 10% or less of the Company Officer's job is managing emergency incidents. The remaining 90% of the time is spent managing people. Over the last five years the Training Division has developed and administered a Company Officer "training academy" which has been well received. However, the class is conducted only once annually and lasts five consecutive days. Training will need to continue developing managerial and leadership training that coincides with and complements the basic Officer training academy.
  - The Driver/Operator is another position requiring a tremendous amount of specialized training. The District currently utilizes courses delivered by the South Carolina Fire Academy as its core program. There is little input directly from the Fire District. The Training Officer is also working on developing a training plan that addresses the needs of the Driver/Operator so the District has a comprehensive and well-structured program. In addition, the District needs to create a position/rank specifically for the Driver/Operator of the apparatus. Doing so will create a stronger sense of ownership for the drivers in regard to the equipment they maintain and operate. This will also place accountability on the drivers for their rigs and will lead to enhanced safety of their crews and the public.
  - As the District has grown to eight station,s it is becoming increasingly difficult for the Training Division to actively "perform" all the training required to the line personnel. One of the main duties of the Company Officer is to train his/her personnel the tasks and responsibilities of the job. One of the tasks of the new administration is to push down to the Company level those tasks, such as training, to the officers. The Training Division has reached a point where it must also transition into a role of program management and support and out of the direct delivery role. This is a substantial change for the District, but one which must be considered. Funding is not available for additional Training staff to support the needs of the current program as the Department grows.

- 6. The District currently provides limited assistance to those attempting or completing college degree programs.
  - Currently the job descriptions for all positions above the rank of Captain have some degree requirement. National trends for the fire service are placing heavier emphasis on such degrees. However, very few of the senior officers have college educations. Instead they receive credit for experience in lieu of a degree. We recognize that experience is just as valuable, if not more so, than a degree in some instances. However, the education and discipline gained by obtaining a degree is beneficial, especially from a professionalism standpoint. In progressive fire departments, college degrees for all officers are quickly becoming the norm rather than the exception. The District began providing limited assistance to those interested in obtaining degrees about three years ago. The District provides up to \$1000 per year to qualified employees seeking a degree. The program has been well received and the administration is starting to see even its Senior Officers starting to work on and complete degrees. This program should be increased as funds become available.

## 7. The District continues to see an increase in the amount of EMS related responses it makes. This trend will continue into the future, especially as the area continues to develop with additional residential communities.

• Of the 3765 emergency responses conducted by District personnel in 2007 at the time of the writing of the initial strategic plan, 1668 were rescue and EMS related. In 2013 the District responded to 5188 calls for service. Of these calls, 2632 were for medical related incidents. In both cases EMS calls make better than 50% of all responses and the District realizes EMS response is vital to the community. However, the Fire District realizes no revenue from this service, unlike Beaufort County EMS, which charges per call to respond. In many cases, a District fire engine is the first emergency help on scene, since the County only provides three (3) ambulances south of the Broad River at any given time. In many cases, District personnel routinely treat and stabilize the patient while awaiting the arrival of a Beaufort County ambulance. It should be noted that Beaufort County has plans to establish fourth ambulance in the Bluffton community in the near future. This will help with EMS response times, but will not alleviate the need for the BTFD to respond to assist.

- With the continued growth in the area, it is a safe assumption that the District will continue to run an ever increasing number of medical related emergencies. A conservative 3% increase in call volume annually over the next five years would project that the District will respond to approximately 3100 EMS-related calls per year by 2019.
- With this in mind, the District is investigating the possibility of increasing its service level to include EMS transport. We are currently providing EMS level treatment with our Basic EMT's and Paramedics. The next logical step is to provide transport to the medical facility. Since EMS is one of the services the County provides directly, it may be difficult to convince the Council that fire-based EMS will work in the Bluffton district. Operationally, beginning an EMS service will be a tremendous change in our organization and the way we operate and think but it can be accomplished with the proper planning and leadership.

### 8. The District needs to consider national accreditation but as a minimum needs to develop standards for response and coverage.

- Currently the District has no written Standard of Response Coverage, making it difficult to accurately measure our response effectiveness. We track our response time, but not in the manner indicated by national standards. The Center for Fire Accreditation International (CFAI) has developed a method for creating and evaluating response standards for fire departments. This method takes into consideration pertinent OSHA, NFPA, and ISO criteria. This is a good method for the District to use to determine its standards.
- Response standards are valuable when determining station and equipment locations. Currently station locations have been determined primarily based upon ISO guidelines, which are based strictly upon travel distance from the station to the incident location. There is little consideration given in the current system as to actual response time. However, total elapsed time from call receipt to arrival, deployment, and incident mitigation are better indicators of what makes the Fire Department successful in stopping fires and intervening successfully in emergency medical incidents before they become catastrophic. The District's response standards and future planning for station locations needs to take into consideration all of these factors.

The Standard for Response and Coverage is the single largest component of the national accreditation process. If the District completes its standard of cover, it would not take much to complete the national accreditation requirements. National accreditation indicates the District is progressive, professional, and in compliance with most national standards. It is a symbol of excellence that only 187 other fire departments in the world have achieved.

# 10. The Fire District currently has a general Fire Prevention program for the public. The primary elements of the program need to be evaluated to guarantee the program is meeting the needs of the community.

- The current Fire Prevention program targets the community's young and old. The program is based upon national averages that indicate the young and old are the most likely to suffer harm from the effects of fire. In reality, the current program is more closely a Public Awareness program than it is an education program.
- The current program has not been validated or tracked to indicate its effect on the reduction of fire and emergencies in the community.
- The Fire Marshal and Inspection staff attempts to educate the public during the performance of their daily duties. This is effective and should be considered a portion of the complete Public Education program.
- The Public Education Officer should continue to develop and reevaluate the Comprehensive Community Risk Reduction Plan as needed to make certain public education programs are meeting the true needs of the community.

### 11. As the District's operating budget continues to tighten, the District will need to explore alternative options for funding its programs.

 The District will continue to explore grant funding for equipment and programs. There are several federally funded programs to potentially assist the department. However, the current trend is that many of these programs are "drying up". Immediately after the 9-11 attacks, government funds became very plentiful. Unfortunately for the fire service, many of these funds were directly managed or administered through law enforcement at the federal and state levels, as terrorism is viewed as a law enforcement issue. This created and still continues to create roadblocks for fire department access to the funds.

- Another potential source of revenue increase may occur from Impact Fees. During the recent budget review session with the County Finance Committee, this subject was brought up for discussion. Apparently the Impact Fee process has not been reviewed in the last ten years. The District should maintain a close watch on this subject and make sure it is adequately addressed at the County level.
- The District can also pursue other more traditional funding methods, such as bonds and lease purchases for capital improvements. It is the intent of the administration to maintain an extremely low debt ratio, although such funding methods stretch the repayment of funds out over a longer period, yielding lower annual payments with a smaller impact on the operating budget annually. Debt incurred includes interest, and ultimately adds to cost over time.
- 12. The District has reduced its use of vendor-provided training and supplemented its use of in-house training for the majority of its training program. As the Department continues to grow and develop, it will become increasingly more important to continue to decrease the District's reliance on vendors and increase reliance on its own training programs.
  - The Department continues to reduce its use of external vendors for training. This reduces costs and allows for more interaction between the personnel being trained and the supervisors providing the training. In essence, this is fostering team building. For the first time ever, the Training Division is running a recruit school inhouse at the Fire District. Because the District does not have its own burn facility, the recruits will be performing training not only at locations around the Fire District, but also at the burn buildings on both Parris Island and the Marine Corps Air Station in Beaufort.
  - To provide the necessary training for our personnel, the Training Officer needs the proper tools and resources. Our current training area, located off of Ulmer Road, is only adequate for very basic training evolutions, such as hose advances, ladder skills, and search and rescue. The property on which the facility is constructed does not belong to the District and is not secured. A community member allows the District to use the property for the purpose of training. It is the administration's concern for safety and liability that limits the amount and types of training permitted on the site.

The District received some credit on its last ISO inspection for the training area. However, the lack of an NFPA approved building to conduct live fire training was noted and will be a concern for future ISO inspections.

As such, the District must use the Marine Corps Air Station (MCAS) burn building to conduct live fire training. Live fire training is required by OSHA on an annual basis. ISO in its recently updated standards requires each member of the department to attend 18 hours of hands-on training in an NFPA approved facility. The District has struggled for years to logistically send all of its firefighters to MCAS once per year (6 hours). Now that the ISO requires three times that amount as well as the fact that the District has 111 Firefighters on staff, this is virtually impossible to achieve. The District is in serious need of its own dedicated NFPA approved training area as discussed earlier in this report.

## 13. The District currently provides vehicle maintenance services for its operating fleet. As with all portions of the Department, as the District grows, so should the Maintenance Division.

- The current Maintenance Division consists of one supervisor, two vehicle technicians and the Quartermaster. The supervisor holds the rank of Battalion Chief and also serves as a vehicle technician as needed. The Maintenance Division has taken on all logistical responsibilities for the District including vehicle maintenance, station maintenance, medical supply orders, and station supply orders.
- The Maintenance Division just finished the installation of an automated supply ordering system through the District's FleetPro software. The system allows for electronic ordering of all station and medical supplies while keeping totals on costs for supplies used.
- The Maintenance Division took over the vehicle maintenance responsibilities for the Town of Bluffton three years ago and has made great progress with the venture. The building currently used by Maintenance is in significant need of replacement due to its limited size and capability. Replacement of the building is a priority for the Administration over the next one to two years.

#### Appendix B

#### **Financing the Strategic Plan**

Without funding the Strategic Plan cannot be properly realized. The Fire District's main source of funding comes from tax revenues generated by property taxes on real and personal property. The District keeps tax revenues in two funds. The general fund provides for the operation of the fire department and includes both personnel and non-personnel expenses. In addition, some capital projects are funded directly out the general fund, depending on the strength of the fund and its revenue stream.

The second fund is the debt service fund. This fund is made up of tax revenue which was levied strictly to meet the debt needs of the Fire District. This fund is generally used for larger capital projects requiring the District to enter into debt due to the amount of the project. Projects financed out of the debt service fund are those which the general fund will not support and impact fees are lacking or restricted from use.

Beyond tax revenues, the District also has an alternative source of funding through building impact fees. Impact fees are charged on each new structure built in the District. Impact fees are restricted in how they may be spent, generally requiring a project to be of more than \$100,000 in value. Impact fee projects must also meet other criteria and are considered system improvements needed due to growth in the area. Impact fees cannot be used to fund personnel expenses in any way.

At the start of FY14 (July 1, 2013), the District held the following amounts of money in reserve in each of the following funds:

General Fund -\$3,363,009Debt Service Fund- \$0 (District is debt free)Impact Fund -\$563,322

Below is the proposed financing scheme for the FY14-FY19 Strategic Plan. The scheme takes into consideration personnel costs, operating costs, and additional costs related not only to the strategic plan, but also the vehicle replacement plan (VRP) and facilities maintenance plan (FMP). As in all financing schemes there are some assumptions that were made. The scheme assumes there is a 2.5% cost increase for personnel and operating. A second assumption is that property values will increase at a rate of 2% per year throughout the life of the plan. Finally, the scheme assumes the County Council will approve minor tax increases over the life of the plan.

#### Fiscal Year 2014 Financing Plan

EXPENSES	
PERSONNEL	9,705,632
NON PERSONNEL EXPENSE	1,017,771
	_,•_;;;
TOTAL OPERATING BUDGET	10,723,403
	-, -,
CAPITAL EXPENSE GENERAL FUND	2,064,421
Fraser Construction - Completion of Station #30 (BTFDSP1)	370,147
Mitchell Brother's Construction - Station #33 Construction (BTFDSP1)	757,466
PPE Replacement Program	66,808
Pierce Manufacturing - Truck 375 Purchase (VRP)	870,000
CAPITAL EXPENSE DEBT SERVICE	0
CAPITAL EXPENSE IMPACT FEES	0
TOTAL REVENUE REQUIRED	12,787,824
REVENUES	
MILLAGE OPERATIONS FULL ROLL FORWARD	24.02
MILLAGE DEBT	0.00
MIL VALUE	434,870
REVENUE PROJECTED FROM TAXES OPERATIONS	10,445,577
REVENUE PROJECTED FROM TAXES DEBT	0
REVENUE OPERATIONS ACTUAL	10,445,577
REVENUE DEBT ACTUAL	0
REVENUE IMPACT FEES	200,000
TRANSFER TO GENERAL FUND FROM IMPACT FEES (T375)	563,322
SALE OF SUTPHEN AERIAL PLATFORM	305,000
TOTAL REVENUE ACTUAL	11,513,899
FUND VALUE PROJECTIONS	
	2014
GENERAL FUND BALANCES	1,889,084
DEBT SERVICE	0
IMPACT FEES	200,000
TWO MONTHS OPERATING RESERVE	1,787,234
30% of EXPENDITURES OPERATING RESERVE	3,217,021

#### Fiscal Year 2015 Financing Plan

9,988,185
1,090,444
11,078,629
314,132
62,500
12,000
26,000
45,000
8,800
15,000
15,000
25,000
30,000
26,000
38,682
10,150
665,000
200,000
200,000
12,571,893
24.27
1.50
443,567
10,765,381
665,000
11,430,381
0
0
205,000
205,000
<b>205,000</b> 0

## Fiscal Year 2015 Financing Plan (continued)

FUND VALUE PROJECTIONS				
GENERAL FUND BALANCES	1,261,704			
DEBT SERVICE	0			
IMPACT FEES	405,000			
TWO MONTHS OPERATING RESERVE	1,846,438			
30% of EXPENDITURES OPERATING RESERVE	3,323,589			

### Fiscal Year 2016 Financing Plan

EXPENSES	
PERSONNEL	10,237,890
NON PERSONNEL EXPENSE	1,117,705
TOTAL OPERATING BUDGET	11,355,595
	,,
CAPITAL EXPENSE GENERAL FUND	260,140
PPE Replacement Program	62,500
Fire Hose Replacement	12,000
Replacement DC Admin/Support Vehicle (VRP)	25,000
Replacement BC Traininig Vehicle (VRP)	25,000
Driver Promotions (BTFDSP2)	80,000
LP12 Cardiac Monitor Upgrades	45,490
AED/Cardiac Monitor Accessories	10,150
CAPITAL EXPENSE DEBT SERVICE	665,000
CAPITAL EXPENSE IMPACT FEES	0
TOTAL REVENUE REQUIRED	12,540,875
REVENUES	
MILLAGE OPERATIONS FULL ROLL FORWARD	24.52
MILLAGE DEBT	1.47
MIL VALUE	452,439
REVENUE PROJECTED FROM TAXES OPERATIONS	11,093,798
REVENUE PROJECTED FROM TAXES DEBT	665,000
REVENUE OPERATIONS ACTUAL	11,758,798
REVENUE DEBT ACTUAL	0
REVENUE IMPACT FEES	210,125
TRANSFER TO GENERAL FUND FROM DEBT SERVICE (S33)	0
TRANSFER TO GENERAL FUND FROM IMPACT FEES (T375)	
SALE OF SUTPHEN AERIAL PLATFORM	
TOTAL REVENUE ACTUAL	11,968,923

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# Fiscal Year 2016 Financing Plan (continued)

FUND VALUE PROJECTIONS					
1,404,767					
0					
615,125					
1,892,599					
3,406,678					

### Fiscal Year 2017 Financing Plan

EXPENSES	
PERSONNEL	10,493,837
NON PERSONNEL EXPENSE	1,145,648
TOTAL OPERATING BUDGET	11,639,485
CAPITAL EXPENSE GENERAL FUND	122,000
Fire Hose Replacement	12,000
Replacement Brush Fire Response Unit (VRP)	100,000
Exterior Painting Station #31 (FMP)	10,000
CAPITAL EXPENSE DEBT SERVICE	665,000
CAPITAL EXPENSE IMPACT FEES	0
TOTAL REVENUE REQUIRED	12,548,485
REVENUES	
MILLAGE OPERATIONS FULL ROLL FORWARD	24.77
MILLAGE DEBT	1.44
MIL VALUE	461,488
REVENUE PROJECTED FROM TAXES OPERATIONS	11,431,046
REVENUE PROJECTED FROM TAXES DEBT	665,000
REVENUE OPERATIONS ACTUAL	12,096,046
REVENUE DEBT ACTUAL	0
REVENUE IMPACT FEES	215,378
TOTAL REVENUE ACTUAL	12,311,424
FUND VALUE PROJECTIONS	
GENERAL FUND BALANCES	1,739,328
DEBT SERVICE	0
IMPACT FEES	830,503
TWO MONTHS OPERATING RESERVE	1,939,914
30% of EXPENDITURES OPERATING RESERVE	3,491,845

### Fiscal Year 2018 Financing Plan

EXPENSES	
PERSONNEL	10,756,183
NON PERSONNEL EXPENSE	1,174,289
TOTAL OPERATING BUDGET	11,930,472
CAPITAL EXPENSE GENERAL FUND	279,500
PPE Replacement Program	62,500
Fire Hose Replacement	12,000
Replacement Rescue Unit (VRP)	150,000
Furnishings and Fixtures for the Palmetto Bluff Station (BTFDSP2)	50,000
Accreditation Program Fees (BTFDSP2)	5,000
Video Conferencing System Upgrade (BTFDSP2)	0
CAPITAL EXPENSE DEBT SERVICE	665,000
CAPITAL EXPENSE IMPACT FEES	750000
Station #32 Upfit	750,000
TOTAL REVENUE REQUIRED	13,904,472
REVENUES	
MILLAGE OPERATIONS	25.02
MILLAGE DEBT	1.41
MIL VALUE	470,717
REVENUE PROJECTED FROM TAXES OPERATIONS	11,777,346
REVENUE PROJECTED FROM TAXES DEBT	665,000
REVENUE OPERATIONS ACTUAL	12,442,346
REVENUE DEBT ACTUAL	0
REVENUE IMPACT FEES	220,763
TRANSFER TO GENERAL FUND FROM DEBT SERVICE (S33)	0
TRANSFER TO GENERAL FUND FROM IMPACT FEES (T375)	
SALE OF SUTPHEN AERIAL PLATFORM	
TOTAL REVENUE ACTUAL	12,663,109

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## Fiscal Year 2018 Financing Plan (continued)

FUND VALUE PROJECTIONS				
	2018			
GENERAL FUND BALANCES	1,971,703			
DEBT SERVICE	0			
IMPACT FEES	301,266			

TWO MONTHS OPERATING RESERVE	1,988,412
30% of EXPENDITURES OPERATING RESERVE	3,579,142

## Fiscal Year 2019 Financing Plan

EXPENSES			
PERSONNEL	11,025,087		
NON PERSONNEL EXPENSE	1,203,646		
TOTAL OPERATING BUDGET	12,228,734		
CAPITAL EXPENSE GENERAL FUND	124,500		
PPE Replacement Program	62,500		
Fire Hose Replacement	12,000		
Replacement Staff Vehicle (VRP)	25,000		
Replacement Staff Vehicle (VRP)	25,000		
CAPITAL EXPENSE DEBT SERVICE	665,000		
CAPITAL EXPENSE IMPACT FEES	0		
TOTAL REVENUE REQUIRED	13,142,734		
REVENUES			
MILLAGE OPERATIONS FULL ROLL FORWARD	24.52		
MILLAGE DEBT	1.39		
MIL VALUE	480,132		
REVENUE PROJECTED FROM TAXES OPERATIONS	11,772,827		
REVENUE PROJECTED FROM TAXES DEBT	665,000		
REVENUE OPERATIONS ACTUAL	12,437,827		
REVENUE DEBT ACTUAL	0		
REVENUE IMPACT FEES	226,282		
TRANSFER TO GENERAL FUND FROM DEBT SERVICE (\$33)	0		
TRANSFER TO GENERAL FUND FROM IMPACT FEES (T375)			
SALE OF SUTPHEN AERIAL PLATFORM			
TOTAL REVENUE ACTUAL	12,664,109		
FUND VALUE PROJECTIONS			
	2019		
GENERAL FUND BALANCES	2,056,297		
DEBT SERVICE	0		
IMPACT FEES	527,547		
TWO MONTHS OPERATING RESERVE	2,038,122		
30% of EXPENDITURES OPERATING RESERVE	3,668,620		

#### <u>Appendix C</u>

## Strategic Plan Goal Priority, Timeline, and Summary

ldentifier	Goal	Estimated Completion Date	Fire Board Goal Reference	Division(s) Involved	Lead Project Manager Assigned	Projected Cost	Funding Source	Notes
OG-7	Implement the "squad" concept for EMS first response at fire station 30 and fire station 34.	Jul-14	1, 2	О, М, Т	R. Cramer	\$85,000*	Operations Budget	*Projected costs include new vehicles and equipment. Should the District or County be able to repurpose vehicles it already owns, this cost could be minimal. Amount does not qualify for Impact Fee use.
MG-3	Develop and maintain a facilities maintenance plan.	Jul-14	2, 4	O, M	McKinley	Staff Costs	Operations Budget	The maintenance department over time has been restructured to include the Quartermaster position. The addition of a full time building maintenance technician may be required by FY16.
TG-1	Complete the ongoing Leadership Audit succession planning project. Include a mentoring program as a component of the new succession plan.	Jul-14	2,3	T, O, M, A, FP	Sheriff	Staff Costs	Training Budget	All leaders above at the rank of Senior FF-C and above are involved in this project.
TG-6	Explore the options for an inter-department or inter-agency emergency medical technician (EMT) training program.	Jul-14	2, 3	т	Sheriff	Staff Costs	Operations Budget	The District is utilizing one of its paramedics to deliver in-house remedial medical training.
FPG-3	Provide a sustainable fire scene investigation solution for the BTFD.	Jul-14	2, 5	FP, O, T	Wiltse	Staff Costs	Fire Prevention Budget	
FPG-4	Complete the Comprehensive Risk Reduction Plan and present it to the Fire Board.	Jul-14	1, 2, 5	FP, O, T	Wiltse	Staff Costs	Fire Prevention Budget	
AG-8	Place greater emphasis on grant funding for the District	Jul-14	1, 2	A	Boulware	\$1,000	Admin. Budget	The District will contract with a professional grant writer for assistance in locating and obtaining grant funds.

Identifier	Goal	Estimated Completion Date	Fire Board Goal Reference	Division(s) Involved	Lead Project Manager Assigned	Projected Cost	Funding Source	Notes
AG-9	Increase the emphasis on achieving diversity in the workplace. Develop and present a diversity plan to the Board.	Jul-14	1, 2	Α, Ο, Τ	Thompson	\$1,000	Admin. Budget	
OG-8	Conduct a pilot study for EMS transport service by the BTFD.	Jan-15	1, 2	A, O, T, M	Boulware	Staff Costs	Operations Budget	
OG-10	Conduct a detailed response time study to identify factors leading to elongated response times and propose solutions.	Jan-15	1, 2	O, A,	R. Cramer	Staff Costs	Operations Budget	
MG-2	Complete a cost analysis study related to fire engine fleet replacement	Jan-15	2,4	M, A	McKinley	Staff Costs	Maint. Budget	
MG-5	Develop a succession plan for the development and continuity of leadership within the Maintenance Division for the next fifteen years	Jan-15	2, 3	Μ, Α, Τ	McKinley	Staff Costs	Maint. Budget	
AG-10	Develop a succession plan for the development and continuity of leadership within the Information Technology Division for the next fifteen years	Jan-15	2, 3	Α, Τ	Payne	Staff Costs	Admin. Budget	
TG-2	Identify options for ongoing additional Company Officer development and construct an implementation plan for the training.	Jan-15	2, 3	Т, О	Sheriff	Staff Costs	Training Budget	
TG-3	Develop a Driver/Operator training and promotional process.	Jan-15	2, 3	T, O, M, A	Sheriff	\$75,000	Training Budget, Operations Budget	Costs are to create a new position titled Driver/Operator with an accompanying 5% pay increase. The positions are needed to increase accountability and safety.

Identifier	Goal	Estimated Completion Date	Fire Board Goal Reference	Division(s) Involved	Lead Project Manager Assigned	Projected Cost	Funding Source	Notes
TG-4	Develop and administer a Station Officer (Sr. Captain promotional process).	Jan-15	2, 3	T, O, M, A	Sheriff	\$25,000	Training Budget, Operations Budget	Costs are to create a new position titled Senior Captain. There will be one (1) Sr. Captain per station and he/she will oversee the maintenance, pre-plans, hydrant flows, hose testing, supply ordering and etc., for the station. The positions are needed to increase accountability at the station level.
FPG-5	Develop a system(s) to review and evaluate all public education programs for their effectiveness and make necessary changes.	Jan-15	2, 5	FP, O, T, A	Wiltse	Staff Costs	Fire Prevention Budget	
AG-1	Conduct a comprehensive review of all policies and procedures for current compliance with applicable federal, state, and local regulations.	Jan-15	2	A, M, T, FP, O	Boulware	Staff Costs	Admin. Budget	
0G-1	Construct the permanent station in Colleton River Plantation.	Jul-15	1, 4	A, O, FP	Boulware	\$200,000	Impact Fees*	*\$200,000 in impact fees were budgeted in the FY14 for this project.
MG-1	Construct a new maintenance garage facility	Jul-15	2, 4	M, A	McKinley	\$1,500,000	Debt Service	The District has no debt. However, the District's reserves are at approximately \$2 million and should not be reduced further. This project could be rolled into a single bond offering along with other projects in this plan.
MG-4	Conduct a study to determine the viability of expanding vehicle maintenance services to other agencies such as Beaufort County, Beaufort County School District, and the Beaufort County Sheriff's Office.	Jul-15	2,4	M, A	McKinley	Staff Costs	Maint. Budget	
FPG-1	Study the use of engine/truck companies assisting in the performance of routine, low hazard occupancies.	Jul-15	2.5	FP, O	Wiltse	Staff Costs	Fire Prevention Budget	

Identifier	Goal	Estimated Completion Date	Fire Board Goal Reference	Division(s) Involved	Lead Project Manager Assigned	Projected Cost	Funding Source	Notes
AG-2	Complete an "in-house" ISO evaluation based upon the latest ISO Standards to determine needs and develop a plan to maintain or better the current rating of the District.	Jul-15	1, 2	A, O, M, FP, T	Boulware	Staff Costs	Admin. Budget	
AG-3	Conduct a comprehensive firefighting water availability survey for the Fire District and enter into discussions with BJWSA regarding long term needs.	Jul-15	1, 2	FP, O, A	Wiltse	Staff Costs	Admin. Budget	
AG-4	Create a comprehensive salary survey and develop an implementation plan for the results.	Jul-15	1, 2	A	Thompson	\$10,500*	Admin. Budget	Costs are to complete the survey only and are considered as a part of the HR Consultants annual fee. Implementation costs may be substantially more and will need to be evaluated at the conclusion of the study.
OG-9	Implement EMS transport services on a trial basis.	Jan-16	1, 2	O, M, T, A	R. Cramer	Unknown	Operations Budget	Costs will vary depending upon how large a stake the County takes in the implementation. Should the District simply take possession of the County's ambulances and equipment, costs will be much lower than if the District must start from scratch.
TG-5	Develop a skills video library.	Jan-16	2, 3	Т	Sheriff	Staff Costs	Training Budget	
FPG-8	Study the need to purchase a fire safety house for the District	Jan-16	2,5	FP	Wiltse	Staff Costs	Fire Prevention Budget	Project is a prime candidate for a grant.
AG-5	Create a comprehensive benefits analysis and develop a plan to implement the findings. The analysis should consider health insurance costs/benefits, a solution for the OPEB requirements of the District, and further development of wellness programs now offered.	Jul-16	2	A	Thompson	Staff Costs*	Admin. Budget	*The benefit analysis can be structured and managed by the HR Consultant as part of the annual fee. The implementation of the solutions determined will likely be costly and must be considered at the time of the study.

ldentifier	Goal	Estimated Completion Date	Fire Board Goal Reference	Division(s) Involved	Lead Project Manager Assigned	Projected Cost	Funding Source	Notes
AG-6	Complete a standard of cover survey and present to the Board for approval.	Jul-16	1, 2	O, A, FP	R. Cramer	Staff Costs	Operations Budget	Precursor to the beginning of the accreditation process.
0G-2	Construct the "permanent" fire station in Palmetto Bluff.	Jul-17	1, 4	O, A	Boulware	\$50,000	Operations Budget	New furnishings and incidentals for the station and fire apparatus are paid for through development agreement with the developer.
AG-7	Pursue national accreditation through the Center for Fire Accreditation International	Jul-17	1, 2	O, A, FP, M, T	Thompson	\$5,000	Admin. Budget	Fees and materials for the accreditation process.
TG-9	Construct a dedicated training facility within the boundaries of the BTFD.	Jul-18	1, 2, 3, 4	T, O, A	Sheriff	\$1,500,000	Debt Service	Consider funding with the maintenance garage project.
FPG-6	Develop and administer a uniform tracking system for all public education events and activities.	March 2014	2, 5	FP	Wiltse	Staff Costs	Fire Prevention Budget	
OG-3	Consider the construction of the Davis Road fire station.	Annually	1, 4	O, A	Thompson	\$2,200,000	Evaluate	
OG-4	Consider the construction of the Oldfield fire station.	Annually	1, 4	O, A	Thompson	2,200,000	Evaluate	
OG-5	Consider the construction of Sun City - Red Dam fire station.	Annually	1, 4	O, A	Thompson	\$2,200,000	Evaluate	
OG-6	Consider the construction of a New Riverside fire station.	Annually	1, 4	O, A	Thompson	\$2,200,000	Evaluate	
MG-6	Maintain and update, at least annually, the District's vehicle replacement plan (VRP).	Annually	2,4	M, O	McKinley	\$3,500,000	Fund Balance, Debt Service	Engine replacement plan should be considered as soon as possible. Consider same bond as maintenance garage.
TG-7	Evaluate and improve upon the college tuition reimbursement program.	Annually	2, 3	T, O, A	Sheriff	\$10,000	Training Budget	Increase the operations budget line by an additional \$10,000 as a placeholder.

Identifier	Goal	Estimated Completion Date	Fire Board Goal Reference	Division(s) Involved	Lead Project Manager Assigned	Projected Cost	Funding Source	Notes
TG-8	Evaluate all position descriptions as to the actual content related to the skills and duties performed. Work towards a plan to implement higher level degrees for all officer level positions and greater.	Annually	2, 3	T, O, A, M, FP	Boulware	Staff Costs	Admin. Budget	
FPG-2	Build strong relationships with both the Town of Bluffton and Beaufort County's building departments.	Ongoing	1, 2, 5	FP, A	Thompson	Staff Costs	Admin. Budget	
FPG-7	Continue to explore options for social media use in the mission of the department. Increase social media use accordingly.	Ongoing	1, 2 5	FP, A	Wiltse	Staff Costs	Fire Prevention Budget	
FPG-9	Continue to develop and administer the community wide CPR program with a broader automated external defibrillator (AED) component. Consider involvement with the Town of Bluffton and Beaufort County.	Ongoing	1, 2, 5	FP, A	Wiltse	Staff Costs	CPR Budget	