



# **HART COUNTY FIRE DEPARTMENT LONG-TERM PLAN 2010**



Archway Partnership

## **HART COUNTY COMMUNITY OVERVIEW**

Hart County is located on the border of Georgia and South Carolina, immediately south of Interstate 85, within one of the fastest growing areas of the United States. It is strategically located in the middle of four rapidly expanding metropolitan areas: Atlanta, Gainesville, and Athens, Georgia, and the Greenville-Spartanburg-Anderson metropolitan area of South Carolina. Hart County covers a land area of 257 square miles.

In 2005, an estimated 24,036 residents made their homes in Hart County. The county includes two incorporated cities within its boundaries. Hartwell serves as the county seat and is the largest municipality, with just over 4,200 residents. It is located in the center of Hart County, close to Lake Hartwell. The second incorporated city is Bowersville, a small community of about 340 residents that is located in the northwestern part of the county.

## **PLANNING PROCESS**

The Hart County Fire Department began the process of developing a long-term plan for the department in late May 2009. The planning team included Fire Chief Jerry Byrum, Assistant Fire Chief Mike Milford, Fire Board Members/Station Captains Mark Hill, Randall Simpson, David Ray, Teddy Gibson, Joseph Haley, Stan O'Bannon, Marshall Norton, Training Captain Alan Daniel, and County Administrator Jon Caime. Ilka McConnell conducted the benchmarking survey and compiled departmental information from planning team members and other sources to document the plan.

The planning process began with initial discussions between the Fire Chief and the County Manager. Online research was conducted to identify several examples of long-term and strategic plans developed by other rural and volunteer fire departments. The Fire Chief reviewed the plans to identify components he thought were important in creating this plan. An important step was meeting with the Fire Chief and members of the Fire Board to discuss the department's short and long-term plans. The meeting included a discussion of department equipment, facilities, and training needs as well as larger county-wide issues and needs impacting the fire department.

Follow-up conversations with the Fire Chief, County Manager, and Training Captain further clarified other parts of the plan. A small benchmarking survey of comparable and similar county fire departments provided points of reference regarding the services and operations of the department.

## PERSONNEL

### Overview

The Hart County Fire Department is a combination department, led by a full-time Fire Chief. The Fire Department currently includes almost 150 volunteer and two full-time firefighters. Figure 1 is a high-level organizational chart of the department. Each of the eight fire stations is staffed by volunteer firefighters and managed by elected officers. The Station Captain is responsible for ensuring the proper readiness of their station's equipment and personnel to respond to emergencies. Each Station Captain is assisted by two Lieutenants, two Sergeants, and a Training Officer. The Department also has 36 Safety Officers.

Central Station has two full-time firefighters in addition to its volunteers and elected officers. The full-time firefighters work Monday through Friday from 8 a.m. to 4:30 p.m. Their primary duties are to respond to daytime calls and to support volunteers at all eight fire stations by performing hydrant and pumper tests and maintenance, checking equipment, ensuring station readiness, and handling record retention.

The Fire Chief reports directly to the County Manager and leads the department with guidance from a Fire Department Advisory Board. The Fire Board is composed of one member elected from each of the eight stations, the Fire Chief, the Assistant Fire Chief, and the Training/Safety Captain. All members except for the Fire Chief serve without pay and their terms of office are indefinite until their successors are elected and/or qualified. The Fire Department Advisory Board meets monthly, and their duties are:

- To advise, guide and steer the administration of the Fire Department in providing the services of the department to the County residents.
- To ensure the operation of the Fire Department adheres to all Federal, State and County regulations and laws.
- To select candidates for Fire Department employees and submit these candidates to the Board of Commissioners.

### Future Personnel Needs

#### *1. Full-Time Firefighters*

As Hart County grows, fire planning team members recognize the need to add additional full-time personnel to the department. The availability and response time of a predominantly volunteer force depends heavily on volunteers. To ensure rapid response time, volunteers are ideally employed locally and are geographically close enough to respond to emergencies within their station's service area during the work day.

The ISO rating process credits points up to 15% based on the number of personnel who are normally at a fire station and available for first alarms of fire. The ISO reduces the value for volunteers because of delays related to communication, decisions, or the amount of time it takes for responders to assemble. The department's proposed plan is to hire four additional full-time firefighters to assign to Station 1 (Central) by the year 2015. This will raise the number of full-time firefighters employed by the department to six. It will enable scheduling these personnel to work a schedule of 24 hours on/48 hours off.

## *2. Full-Time Training Captain*

The Hart County Fire Department currently has a volunteer training captain, Alan Daniel. The Fire Board identified a full-time training officer as a key personnel need as the department grows. The ISO rating process credits points up to 9% based on training. The ISO's assessment includes training facilities, training at fire stations, building familiarization, and pre-fire planning inspections. A full-time Training Captain would be responsible for coordinating ongoing training activities for firefighters at all of the fire stations as well as the county's training facility. The position would assist each station and the Fire Chief with maintaining training and other personnel-related records. The training officer would also be tasked with researching and writing grants for the entire department, which is currently handled by the volunteer training captain.

Board members noted a connection between training activities, updated equipment, and volunteer recruitment and retention. In recent years, the fire stations have shifted towards regularly including training and skills development into fire station meetings. Board members believe that offering regular training opportunities has helped with volunteer recruitment and retention. This year, the department also held its first annual firefighter games, which fostered friendly competition among personnel from each of the eight fire stations in training-related activities. In response to interest from neighboring communities, the department hopes to host a larger event next year in coordination with fire departments from surrounding counties.

## *3. First Responders*

One of Hart County Fire Department's goals is to assume responsibility for rescue operations in addition to fire. The National Fire Protection Association's standard 1006 requires individuals performing technical rescue operations to have medical training. First Responders/Emergency Medical Responders (EMR) are trained to provide advanced first aid and some limited emergency medical care until advanced medical responders such as Paramedics or Emergency Medical Technicians (EMTs) arrive. As the Department makes plans and implements steps to add rescue capability, having an adequate number of volunteers who are certified as First Responder/EMRs is critical.

The Department has approximately 40 First Responder/Emergency Medical Responder (EMR) volunteers who need to be recertified. Fifteen additional volunteers are in the process of earning their initial certification. While getting the certification is voluntary for the firefighters, the Fire Chief has a goal of having 50-55 volunteers certified as First Responder/EMRs. The Department has 3 instructors certified to teach new classes as well as recertify current First Responder/EMRs. In addition, the instructors offer classes approximately once monthly to ensure that volunteers remain current on information and skills.

## *4. Volunteer Recruitment*

The Hart County Fire Department currently has 147 volunteer firefighters. Table 1 lists the number of volunteers affiliated with each fire station. As shown, the number of volunteers at each station ranges between 16 and 21. Not reflected in the table are the two full-time, paid firefighters employed by the department. Both are assigned to Station 1



(Central) during weekday working hours, and full-time firefighter Teddy Gibson also serves as the volunteer Captain of Station 4 (Shoal Creek).

**Table 1.** Volunteers by Station

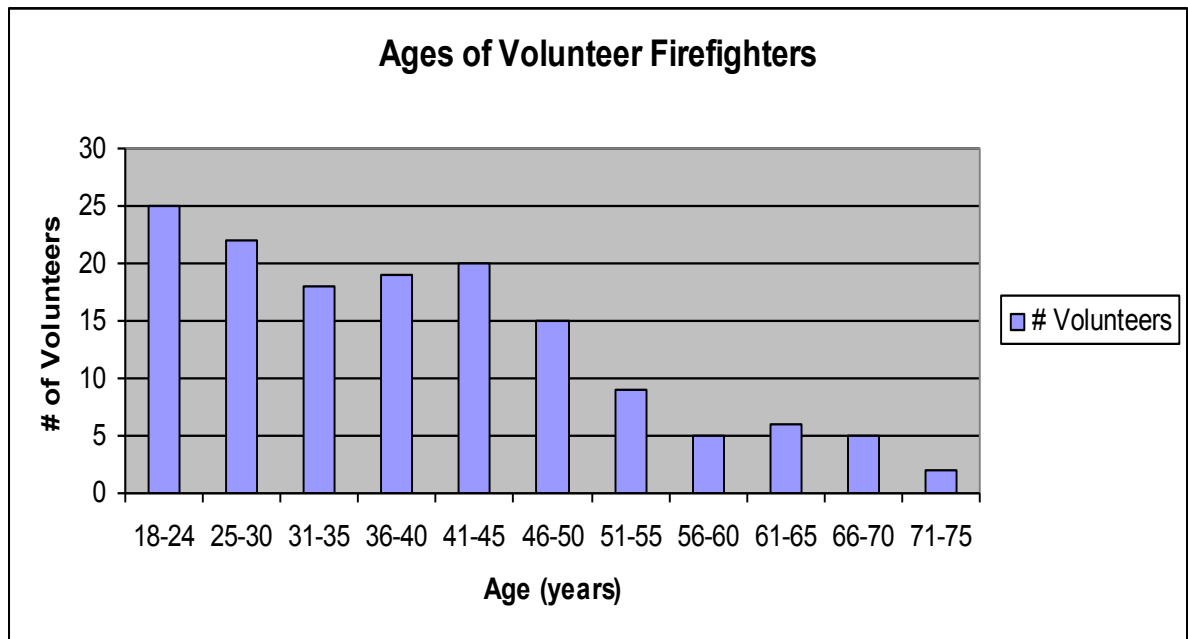
<b>Station #</b>	<b>Name</b>	<b># Volunteers</b>
Station 1	Central	17
Station 2	Reed Creek	17
Station 3	Goldmine	21
Station 4	Shoal Creek	18
Station 5	Bowersville	16
Station 6	Nancy Hart	21
Station 7	Bio	19
Station 8	Vanna	18
<b>TOTAL</b>		<b>147</b>

With expected future growth in the areas of Hart County served by Stations 2, 4, and 5, these stations may need to recruit additional volunteers as call frequency increases. Recruiting additional volunteers may prove a challenge in areas of the county where much of the population growth is anticipated to be retirees or second home owners. Retirees may not fall within departmental targets for age or the necessary physical condition required for firefighting. Second homeowners are not permanent residents, living in the county on a seasonal basis.

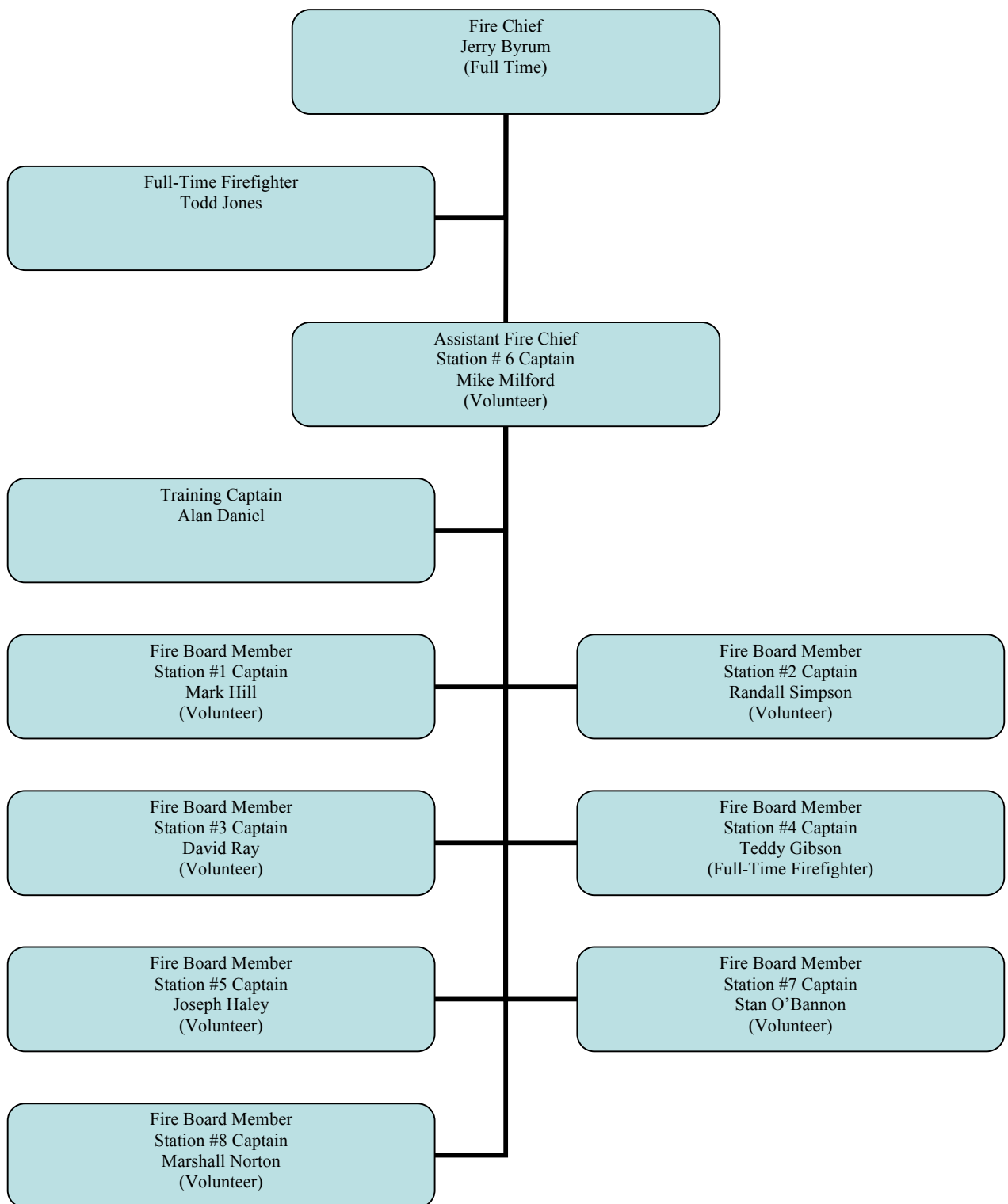
It is important to have sufficient volunteers who are able to respond to daytime calls in a timely manner. Timely daytime response time requires a volunteer who works in close proximity to his/her station, who is self-employed, or whose employer is supportive of his/her volunteer commitment to the Fire Department. The station currently pages volunteers from the 2 closest stations to an incident to ensure there will be adequate personnel able to respond.

Another key consideration in recruiting volunteers is ensuring multiple age groups are represented to sustain the fire service. Chart 1 illustrates the age distribution of Hart County volunteer firefighters. Firefighters between the ages of 18 and 30 years account for 32% of all volunteers in the department. Approximately 25% of Hart County Fire Department volunteers are between the ages of 31 and 40 years. Almost 24% of volunteers are ages 41 to 50 years. These statistics indicate that the department has a healthy mix of volunteers within different age groups.

**Chart 1.** Age Distribution of Volunteer Firefighters



**Figure 1:** Hart County Fire Department Organizational Chart



## FACILITIES

### Fire Stations

Hart County currently has eight fire stations located throughout the county. Each station serves a five road-mile radius. Figure 2 is a map of the county with the location of the eight existing stations listed below numbered and marked in orange. The circles around each station indicate that station's service area. Suggested locations for future stations at Mt. Olivet and Sardis/Liberty Hill are shown on the map in blue.

Table 2 provides the name and number assigned to each station, the station's location, and fire call information. Fire call totals are provided for 1993, 2002/2003, 2007, and 2008. This data was compiled from records maintained by the department of each fire call. Station #1 has historically received the greatest number of calls, likely due to its centralized location and role in supporting the other stations. In 2007, Stations #4 and #5, located in the growing northwestern portion of Hart County, tied in handling the second highest number of calls.

**Table 2:** Fire Calls by Fire Station 1993, 2002/2003, 2007, and 2008

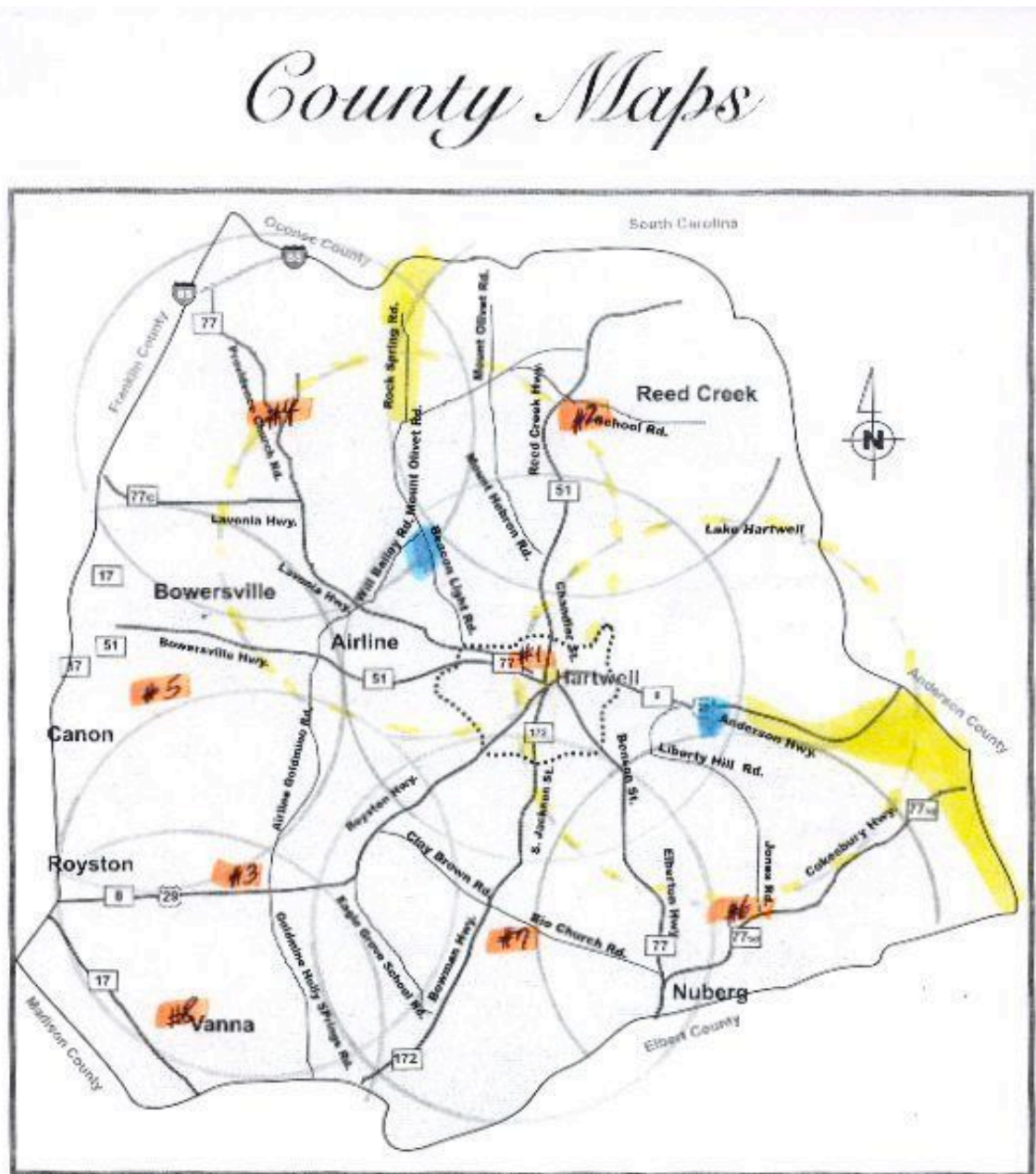
Station		Number of Calls			
Name	Location	1993	2002/2003	2007	2008
#1 Central	N. Carolina Street, Hartwell	87	61	91	94
#2 Reed Creek	Reed Creek School Rd., Hartwell	14	39	23	37
#3 Goldmine	Goldmine-Airline Rd., Canon	23	25	12	34
#4 Shoal Creek	Providence Church Rd., Lavonia	23	36	43	44
#5 Bowersville	Bethany-Bowersville Rd, Bowersville	27	27	43	27
#6 Nancy Hart	Cokesbury Hwy, Hartwell	22	39	28	43
#7 Bio	Bio Church Rd., Hartwell	2	24	13	22
#8 Vanna	Joe Findley Rd., Royston	5	12	19	20
Total		203	263	272	321

*Source: Hart County, 1993, 2005, 2007, 2008.*

### Fire Department Training Facility

Hart County Government has supported the fire department in developing a fire training facility over the past several years. The training facility is located at the Hart County public works complex off of State Highway 172, and includes a fire truck pump test pit and a live fire training unit. Hart County Fire Department instructors use the facility to conduct fire behavior training sessions as well as live fire evolution training. The fire department and county have plans for other training facilities to be added and improvements to be made to this site over the next several years. For example, the department hopes to install a drill tower at the site by 2011 and pave the driving pad by 2015. The county intends to offer this facility for use of adjacent counties and municipalities.

Figure 2: Map of Hart County Fire Stations



STATION #9 - MT. OLIVET  
STATION #10 - SARDIS

Hart  
COUNTY

## Priority Station Improvement Needs

### Population Growth in the County

When planning for future fire station facilities improvements, it is helpful to review population trends within Hart County as well as to consider the population distribution among Census Blocks. While more updated data will be forthcoming pending the upcoming 2010 United States Census, this information is nevertheless helpful in determining where changes are occurring. It is also invaluable in evaluating where public resources such as fire stations, equipment, fire hydrants, and personnel can be most efficiently utilized.

The largest increase for a Census Block within Hart County during the period from 1990-2000 was a 33% increase in population in block 9602 in the northwestern section of the county, served by Station 4 (Shoal Creek) and Station 5 (Bowersville). This area of the county is influenced by its close proximity to I-85 and also includes a small part of Lake Hartwell. The second largest increase between 1990-2000 was 22% for Block 9601, which contains most of the lake shore in Hart County and is served by Station 2 (Reed Creek). Block 9603 in the southwestern section of the County had a 17% increase in population, possibly influenced from the Athens Metropolitan Statistical Area (MSA). This Census Block is served by Station 3 (Goldmine) and Station 8 (Vanna). The remaining two blocks saw population increases of 12% and 11%.

**Table 3:** Populations of Hart County Census Blocks

<b>Census Block</b>	<b>Station(s) Located Within Census Block</b>	<b>1990</b>	<b>2000</b>	<b>% Change '90-00</b>
<b>9601</b>	Reed Creek (#2)	4,161	5,065	22%
<b>9602</b>	Shoal Creek (#4), Bowersville (#5)	2,327	3,096	33%
<b>9603</b>	Goldmine (#3), Vanna (#8)	2,386	2,788	17%
<b>9604</b>	Bio (#7), Central (#1)	4,835	5,410	12%
<b>9605</b>	Nancy Hart (#6)	6,003	6,638	11%

*Source: U.S. Census*

Population density is also important when planning for fire services. Table 4 shows the population density for geographic areas within Hart County for the Census years 1990 and 2000. The regions reported for these areas are not of equivalent land area. The southeast region, which includes the City of Hartwell, covers a significantly larger land area than the other three regions. Correlating to its larger land area, a higher percentage of the population lives in the southeast region and there is greater population density. The population growth in the northern section of the County has also resulted in a higher density of the population in that part of Hart County. The data clearly indicates that, between 1990-2000, the population of the northern sections of the County grew at a more rapid rate than the rest of the County.

**Table 4: Population Density – Hart County**

Census Division/ <i>Area of County</i>	Square Miles	1990			2000			Change '90-00
		Pop.	% of County	Persons/ SM	Pop.	% of County	Persons/ SM	
<b>Bowersville/ Northwest</b>	47	2,369	12.0%	50.6	3,096	13.50%	66.1	31%
<b>Royston/ Southwest</b>	23	2,450	12.4%	107.4	2,788	12.10%	122.2	14%
<b>Hartwell/ Southeast</b>	160	10,736	54.5%	66.9	12,048	52.40%	75.1	12%
<b>Reed Creek/ Northeast</b>	49	4,157	21.1%	85	5,065	22.00%	103.6	22%
<b>Total</b>	232	19,712	100.0%	84.9	22,997	100.0%	99	17%

Source: U.S. Census.

### Priority Facility Needs

Station 2 (Reed Creek) and Station 4 (Shoal Creek) are the top priorities identified by the planning team for needed station improvements.

### Station 2: Reed Creek



**Station 2: Reed Creek**

As mentioned previously, Station 2 (Reed Creek) serves the area of Hart County included in Census Block 9601, which experienced the second highest growth of the



county's Census Blocks during the period 1990-2000. The area served by Station 2 includes a number of homes on the shoreline of Lake Hartwell.

Station 2 (Reed Creek) is in poor condition and will need to be replaced with a larger facility in the near future. The Fire Planning Team anticipates the need for a new Reed Creek Fire Station by 2011. The county already owns land near the existing station that is currently being used as a convenience center. The Fire Chief and Training Captain recently wrote and submitted a grant application for funds to construct a new station. If the grant is not successful, the anticipated cost to build a new station will be roughly \$675,000.

It is located in an area of the county that does not currently have water lines or fire hydrants. As a result, firefighters from the station always require backup when responding to a fire because the water capacity of the pumper truck is limited. To address this, the department would like to replace the T-1 with a mini pumper/rescue truck that can be used as backup response assistance for all stations, particularly Station 2. The estimated cost for the mini pumper/rescue truck is \$130,000.

#### **Station 4: Shoal Creek**



Station 4: Shoal Creek

Station 4 (Shoal Creek) is currently housed in an old school building originally constructed in 1925. It is located in an area of Hart County that experiencing both

residential and commercial growth. Hart County's Gateway Industrial Park and access to Interstate 85 are located in the station's service area. Hart County currently has a service agreement with the City of Lavonia to provide fire response for Gateway Industrial Park. The City of Lavonia Fire Department owns an aerial ladder truck which is essential for protecting multi-story businesses located within Gateway. This service agreement has resulted in lowering the ISO rating to 4 for Gateway.

As Gateway Industrial Park Phases I and II and the entryway to Hart County from I-85 continue to develop with the addition of industries and businesses, Station 4's facilities, equipment, and response time will become increasingly important. The purchase of an aerial ladder truck is essential to enable the Hart County Fire Department to respond to multi-story industrial structural fires within Gateway. The Department's current plans are to purchase a new aerial truck in 2012, at an estimated cost of \$400,000. The Department will initially search for a used truck.

### **Planning for Additional Stations**

The Hart County Fire Department does not currently meet the accepted ISO minimum distance criteria that all properties within the county are located within 5 road miles of a fire station. To address ISO criteria and to serve the anticipated needs of future development within the county, the Fire Board recommends the construction of two additional stations. These stations are indicated in blue on the map in Figure 2. Planning timelines are outlined below for possible additional stations At Mount Olivet and Sardis/Liberty Hill.

#### **Station 9 (Mt. Olivet)**

2011: Start the drive to solicit membership for a Station #9 in the Mt. Olivet community  
2012:

- Build Station #9 in the Mt. Olivet Community and equip it with a pumper and a brush truck.
- Work on getting the fire department included on the next SPLOST tax to purchase new truck for Station #9 (Mt. Olivet).

#### **Station 10 (Sardis/Liberty Hill)**

2013: Start a drive to solicit membership for a Station #10 in the Sardis/Liberty Hill Community.

2014: Build a Station #10 in the Sardis/Liberty Hill Area and purchase a new engine for this station.

## EQUIPMENT

### Apparatus Replacement Plan

This equipment replacement plan is included as a general guide for the estimated replacement of key Hart County Fire Department apparatus. All vehicles are checked and tested periodically by firefighters and officers for serviceability, condition, repair needs/cost, and compliance with current equipment and fire safety regulations. When specific equipment is identified as in need of repair or replacement, the Fire Chief and Fire Board members will make a recommendation regarding the appropriate action to ensure fire response service demands continue to be met.

**Table 5:** Vehicle Replacement Plan

VEHICLE	STATION #	MAKE YEAR	EST. LIFESPAN	EST. REPLACE DATE	EST. REPLACE COST
E-1 International Pumper	1	2003			
No. 2 International Tanker/Pumper	1	1979			
No. 3 T-1 GMC Grass Truck	1	1998			
No. 4 International Tanker/Pumper	1	1989			
No. 5 Ford Pumper/Grass	1	1991			
No. 7 Ford F-350 Air Light Truck	1	1991			
E-2 International Pumper	2	2006			
No. 1 International Front Mount Pumper	2	1981			
No. 2 International Tanker/Pumper Truck	2	1991			
No. 3 International	2	2004			
No. 4 Tanker/Pumper Truck	2	1971			
No. 5 Chevrolet Grass Truck	2	1979			
E-3 International Pumper	3	2003			
No. 1 International Front Mount Pumper	3	1981			
No. 2 International Tanker/Pumper	3	1994			
No. 3 Jeep 5/4 Ton. Grass Truck	3	1967			
No. 4 International Fire Knocker Pumper	3	1981			
No. 5 Jeep 5/4 Ton Grass Truck	3	1967			
No. 6 Chev. Air Truck	3	1963			
E-4 International Pumper	4	2004			
No. 1 International Front Mount Pumper	4	1981			
No. 2 International Tanker/Pumper	4	1993			
No. 3 Jeep 5/4 Ton Grass Truck	4	1967			
No. 4 International Fire Knocker Pumper	4	1991			
No. 5 GMC First Responder Truck	4	1995			
GMC Front Mount Pumper (Reserve)	4	1981			
E-5 International Pumper	5	2006			
No. 1 International Front Mount Pumper	5	1981			
No. 2 International Tanker/Pumper	5	1986			
No. 3 Dodge 4/4 Grass Truck	5	1976			
No. 4 International Fire Knocker Pumper	5	1991			

No. 5 Jeep 5/4 Ton Grass Truck	5	1967			
E-6 International Pumper	6	2004			
No. 1 International Front Mount Pumper	6	1981			
No. 2 International Tanker/Pumper	6	1993			
No. 3 Dodge Grass Truck	6	1991			
No. 4 International Fire Kocker Pumper	6	1990			
No. 5 Jeep 5/4 Ton Grass Truck	6	1967			
E-7 International Pumper	7	2006			
No. 1 GMC Front Mount Pumper	7	1981			
No. 2 International Tanker/Pumper	7	1994			
No. 4 International Fire Kocker Pumper	7	1981			
No. 5 Dodge Grass Truck	7	2000			
E-8 International Pumper	8	2006			
No. 2 International Tanker/Pumper	8	1984			
No. 3 Ford F350 Grass Truck	8	1998			
No. 4 International Fire Kocker Pumper	8	1987			

### Priority Needs

The Fire Planning Team has developed the following comprehensive timeline and cost estimates for purchasing, constructing, and replacing mobile assets (apparatus, and equipment), fixed assets (facilities), and personnel:

<b>Mobile Asset Needs (in order of suggested priority)</b>	<b>Estimated Cost</b>	<b>Suggested Timeline</b>
Replace 16 pagers	\$6,800	2010
Purchase small grass truck	\$50,000	2010
Purchase breathing apparatus & equipment on ISO equipment lists	\$75,000	2010
Replace 16 pagers	\$6,800	2010
Purchase small grass truck	\$50,000	2010
Purchase mini pumper/rescue truck that can be used for backup response assistance for all stations, especially Station 2 (Reed Creek)	\$130,000	2011
Purchase small grass truck	\$50,000	2011
Purchase 8 sets of extrication equipment	\$120,000	2011
Purchase pumper truck for new Station 9 (Mt. Olivet) - SPLOST?	\$200,000	2012
Purchase brush truck for new Station 9 (Mt. Olivet) - SPLOST?	\$50,000	2012
Purchase mini-pumper for full-time staff at Station 1 (Central) - SPLOST?	\$130,000	2012
Replace 25 sets of turn-out gear	\$55,000	2012
Purchase tanker truck	\$100,000	2012
Purchase aerial truck for multi-story industrial fires at Gateway	\$400,000	2012
Replace 25 sets of turn-out gear	\$55,000	2013
Purchase tanker truck	\$100,000	2013
Purchase engine for new Station 10 (Sardis/Liberty Hill)	\$200,000	2014
Purchase used aerial truck for Station 1 (Central) - equidistant to almost all businesses and multi-story structures in the county	\$200,000	2014

<b>Fixed Asset Needs (in order of suggested priority)</b>	<b>Estimated Cost</b>	<b>Suggested Timeline</b>
Build new Fire Station 2 at Reed Creek Convenience Center property	\$675,000	2011
Install a Drill Tower at the Training Center	\$2,500	2011
Build new Fire Station 9 in Mt. Olivet	\$600,000	2012
Pave driving pad at Training Center	\$100,000	2012
Build bathroom at Training Center	\$8,000	2013
Install new lighting on perimeter at Training Center	\$4,000	2013
Construct new station for Shoal Creek or Central*	\$675,000	2013
Build new Fire Station 10 in Sardis/Liberty Hill	\$600,000	2014
Assess building mini-stations to assist in covering larger response areas		2016

**\*Potential Alternative Option:** When the offices currently located in the County Administrative Services building move to a new facility at the County Government Complex, the Fire Planning Team respectfully suggests that the County Commission allow the fire department to utilize the old Administrative Services Offices and meeting rooms. The Fire Department could utilize this space for the Chief's office, training offices, and classrooms. A bunk area could also be assigned to plan for the future additions of full-time firefighters. Adding a metal building next to the building would be helpful to house the full-time staff's engine and possibly also an aerial truck. With the addition of Stations #9 (Mt. Olivet) and #10 (Sardis/Liberty Hill), Fire Station #1 (Central) could be moved into the vacated Administrative Building, allowing the current Central Station in downtown Hartwell to be utilized by the County for other purposes.

<b>Personnel Needs (in order of priority)</b>	<b>Estimated Cost</b>	<b>Suggested Timeline</b>
Begin drive to solicit members for Station 9 in Mt. Olivet		2011
Train all firefighters on extrication equipment	\$500	2011
Begin drive to solicit members for Station 10 in Sardis/Liberty Hill		2013
Add 4 full-time firefighters at Station 1 (Central) and schedule them to work a 24/48 hour schedule	\$212,000	2015

## **ISO RATING & COUNTY-WIDE FIRE-RELATED NEEDS**

### **ISO Rating Process**

The Insurance Services Organization (ISO) utilizes a Fire Suppression Rating Schedule (FSRS) to assess and calculate a numerical Public Protection Classification (PPC) rating of a city or county's fire suppression and protection system. Points are credited and weighted based on an evaluation of aspects of three key areas: fire alarms, fire department, and water supply. Table 6 outlines how the ISO ratings are calculated.

The ISO has assigned a 6/9 countywide Public Protection Classification (PPC) rating to Hart County, outside the City of Hartwell. As noted, Hart County has an agreement with the City of Lavonia to provide fire service to businesses in Gateway Industrial Park. This has resulted in a lowered ISO rating of 4 for Gateway.