

6.5 Historic and Cultural Resources

6.5.1 *A Brief History of Stafford County*

Stafford County was established in 1664 and originally encompassed most of northern Virginia, including the areas which later became the Counties of Arlington, Fairfax and Prince William, and the City of Alexandria.

Stafford County's prehistory is documented with fossil remains of small sea creatures that can be found along the rivers and tributaries. Artifacts identified through archaeological study tell us that prehistoric man occupied Stafford County from the Paleo-Indian Period (ca. 10,000-8,000 B.C.) through the Archaic Period (ca. 8,000-500 B.C.), during which people lived in seasonal, nomadic groups, and the Woodland Period (ca. 500 B.C.- A.D.1600), which is characterized by the establishment of permanent settlements and an emphasis on agricultural practices.

In 1608, John Smith mapped the major rivers, tributaries, and Native American settlements of the Chesapeake Bay area, including substantial portions of Stafford County. Powhatan, chief of the Potowomeks, and his daughter Pocahontas, were associated with these settlements, which included the large village of Potowomek, located at what is now Marlborough Point.

Stafford County has strong connections to events that shaped our nation's history. Rich arable land and early colonial industries, such as iron manufacturing and quarrying of sandstone and granite, attracted important families, such as the Brents, Carters, Masons, Fitzhughs, Mercers, and Washingtons. During the Revolutionary War, James Hunter's Iron Works contributed significantly to earning our freedom from British rule by supplying weapons and implements to the Continental Army and Navy.

Falmouth, founded on the north side of the Rappahannock River, was a prominent port town throughout the 18th century and the first quarter of the 19th century. It was the terminus for goods, including tobacco and flour, transported east from Warrenton and shipped to England in exchange for a variety of products. Enslaved Africans were also shipped to Falmouth where slave auctions were held.



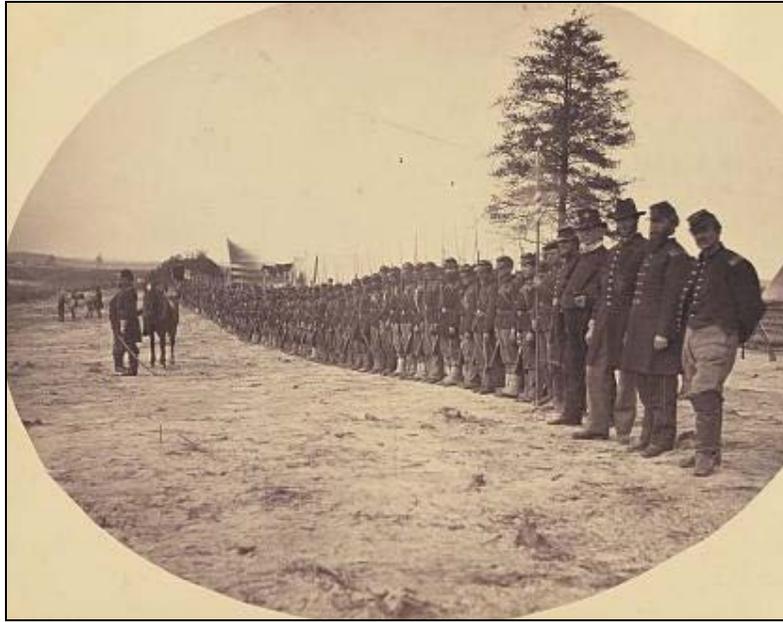


Like other port towns of the colonial period, Falmouth attracted Scottish entrepreneurs, such as Basil and Samuel Gordon. The Gordons established a thriving marketing industry. The town also supported a number of water mills that flourished mostly due to the transition from tobacco cultivation to grain.

Stafford County residents rallied to defend the country during the War of 1812 by establishing the 45th Virginia Militia Regiment, which defended both Stafford and Westmoreland Counties. British troops rampaged through areas of the County en route to Washington, D.C.

In the first half of the 19th century, Stafford County experienced the rise of the railroad. In 1834, the Richmond, Fredericksburg and Potomac Railroad opened its first segment, connecting Fredericksburg with Richmond. Then in 1842, the railway was extended north to Aquia Landing and eventually to Washington, D.C.

Situated halfway between the Union and Confederate capitals, Stafford County became a crossroads of military activity during the Civil War. The federal forces arrived en masse in the latter part of 1862. During the Fredericksburg and Chancellorsville campaigns, November 1862 through June 1863, Stafford County was occupied by more than 100,000 troops. The effect of the Federal Army's presence on the Stafford County landscape and economy was devastating. The army denuded the County of its trees and fences, agricultural fields were trampled and neglected, and foraging troops "liberated" food and other essentials from the civilian population. Four years of warfare left Stafford County barren and ravaged. The effects of the Civil War remained visible on the landscape into the 20th century.



After the Civil War, Stafford County struggled to regain its former economic stability. The agricultural practices of Stafford at this time were characterized by a transition from grain crops to dairying and market gardening. Large family farms were still present, but several were subdivided—many producing only enough to sustain the immediate family and their livestock. This period also saw the rise of the fishing industry in Stafford County.

From the early 20th century through the end of World War II, Stafford County witnessed growth with the construction of U.S. Highway 1, expansion of Marine Corps Base Quantico to the north, and establishment of Fort A. P. Hill to the south and Dahlgren Naval Base to the east. With the rapid expansion of the Washington, D. C. metropolitan area and the construction of the Federal Interstate Highway System (I-95) in the late 1960s, Stafford County witnessed the creation of many suburban residential communities and commercial developments.

Stafford's long agricultural heritage is now being offset by an increasing emphasis on commercial enterprise. Stafford is faced with issues of growth, conservation of natural and heritage resources, and maintaining a sense of community and place.

6.5.2 *Known Heritage Resources*

Stafford County's heritage resources are identified and evaluated through several mechanisms, including the National Register of Historic Places Program, the Virginia Landmarks Register Program, the Stafford County Historic Resource Overlay District designation, the National Historic Landmarks Program, and the Stafford County Cultural Resource Inventory designation.

The National Register of Historic Places, which is administered by the National Park Service, is the nation's official list of cultural resources worthy of preservation. Stafford County currently has 20 listings in the National Register of Historic Places, but several other properties have been determined eligible for this prestigious listing.

The Virginia Landmarks Register, administered by the Virginia Department of Historic Places, is the state’s official list of properties that are significant to Virginia’s history. There are currently 20 Stafford County resources listed in the Virginia Landmarks Register.



Aquia Episcopal Church, 1751-1755

Listed on the National Register and the Virginia Landmarks Register, and designated as a Stafford County Historic Resource Overlay District and a National Historic Landmark, Aquia Episcopal Church is one of Stafford County’s most significant historic properties.

The Stafford County Board of Supervisors designates historic places as Stafford County Historic Resource Overlay Districts by ordinance. Properties included within historic overlays must have public value and warrant conservation and preservation. There are now 22 Stafford County Historic Resource Overlay Districts.

The National Historic Landmark Program designates nationally significant historic places that possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, fewer than 2,600 historic places in the United States bear this distinction. While there are many important historic places in the United States, only a small number qualify for the National Historic Landmark Program. Three Stafford County sites—Belmont, Ferry Farm, and the Aquia Episcopal Church—have been designated as National Historic Landmarks.

6.5.3 Stafford County Cultural Resource Inventory

As a Certified Local Government, Stafford County is required to periodically update and maintain an inventory of known cultural

resources. The Department of Planning & Zoning maintains the Stafford County Cultural Resource Inventory. As of March 1, 2016, over 1,700 resources were included in the inventory. Resources include historic buildings, archaeological sites, and over 430 family and community cemeteries.

6.5.4 Significant Cultural Resources

The table below lists some of Stafford County’s most significant cultural resources. Most are currently listed in the National Register of Historic Places or Virginia Landmarks Register or designated as a National Historic Landmark or Stafford County Historic Resource Overlay District. Properties recorded with no distinction have been determined eligible for the National Register of Historic Places. As more intensive survey continues in the County, additional resources may be determined worthy of listing.

Table 6.20 Significant Heritage Resources (Stafford County, VA)

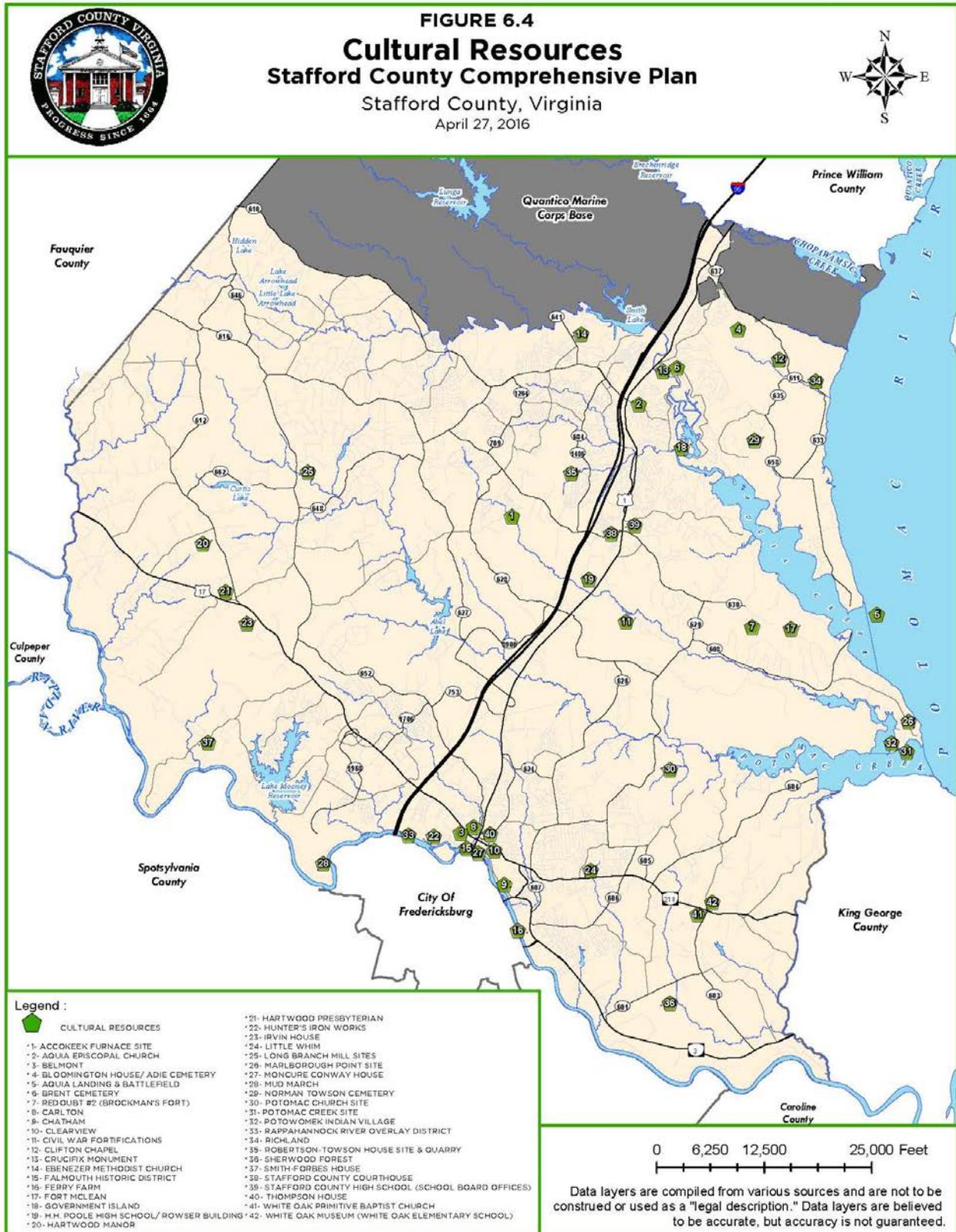
Property	Location	National Register	Virginia Landmark	Stafford County Historic Resource Overlay District	National Historic Landmark	Eligible for National Register but not Currently Listed
Accokeek Furnace Site	Address Restricted	X	X	X		
Aquia Episcopal Church	3938 Jefferson Davis Highway	X	X	X	X	
Belmont (Gari Melcher Home)	224 Washington Street	X	X	X	X	
Bloomington House Site & Adie Cemetery	Patowomack Park					X
Aquia Landing Aquia Landing Battlefield	Aquia Creek & Potomac River					X
Redoubt #2 (Brockman's Fort or Fort No Name)	15 Old Fort Road	X	X	X		
Brent Cemetery	Address Restricted			X		X
Carlton	501 Melchers Drive	X	X	X		
Chatham (within Fredericksburg-Spotsylvania National Military Park)	120 Chatham Lane	X	X			
Clearview	22 Strawberry Lane	X	X	X		
Civil War fortifications (4), encampments (2), corduroy road, 18 th -19 th century quarries (2), sandstone bridge abutments & roadbed (Old Potomac Church Road)	Rappahannock Regional Landfill					X
Clifton Chapel	60 Clifton Chapel Lane					X
Crucifix Monument	3140 Jefferson Davis Highway			X		X
Ebenezer Methodist Church	168 Onville Road			X		X
Falmouth Historic District	Hwy 1 & Hwy 17	X	X	X		
Ferry Farm	240 Kings Highway	X	X		X	
Fort McLean	End of Courthouse Road. 40-56B			X		X
Government Island	Aquia Creek & Austin Run	X	X	X		
Stafford Training School (Rowser Building)	1739 Jefferson Davis Highway	X	X			
Hartwood Manor	335 Hartwood Road			X		X
Hartwood Presbyterian Church	50 Hartwood Road	X	X	X		
Hunter's Iron Works	138 Blaisdell Lane	X	X			
Ingleside	219 Ingleside Drive			X		
Irvin House	1791 Warrenton Road					X
Little Whim	375 White Oak Road			X		X
Long Branch Mill Sites	Long Branch down to Poplar Rd, West Stafford					X
Marlborough Point Site (Town of Marlborough Archaeological Site)	Marlborough Point	X	X	X		
Moncure Conway House	305 King Street	X	X	X		

Property	Location	National Register	Virginia Landmark	Stafford County Historic Resource Overlay District	National Historic Landmark	Eligible for National Register but not Currently Listed
Mud March, Union 5 th Corps Advancement along River Road, Battle of Chancellorsville	Stafford & Spotsylvania Counties		X			X
Norman-Towson Cemetery	Quarry Road					X
Potomac Church Site	1090 Brooke Road	X	X			
Potomac Creek Site (Potowomek Indian Village)	Address Restricted	X	X			
Rappahannock River Historic Overlay District	see historic overlay map			X		X
Richland	945 Widewater Road					X
Robertson-Towson House Site & Quarry	Austin Ridge Subdivision, adjacent to community pool					X
Sherwood Forest	971 Kings Highway 59-71D, 59-71.					X
Smith-Forbes House	58 Westebe Lane			X		X
Stafford County Courthouse	2119 Jefferson Davis Highway			X		
Stafford County High School (Stafford School Board Offices)	31 Stafford Avenue					X
Tennessee Camp		X	X			
Thompson House	122 Cambridge Street			X		X
Union Church and Cemetery	Carter Street	X	X	X		
White Oak Museum (White Oak Elementary School)	985 White Oak Road			X		X
White Oak Primitive Baptist Church	8 Caisson Road	X	X	X		

Source: Stafford County Department of Planning & Zoning * A State Owned Resource

6.5.5 Findings

- A large number of historic and cultural resources are located in Stafford County.
- The Cultural Resources Management Plan uses the land development process to identify and protect cultural resources.
- Procedures for identification and protection of historic and cultural resources are recommended but not mandatory; the County’s adoption of the Cemetery ordinance codifies these procedures for cemeteries. Adoption of a Historic Preservation Ordinance would further strengthen the protection of historic and cultural resources.



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6.6 Community Facilities

The ability to provide adequate services help to shape a community and make it a desirable place to live. These services include public safety, education and cultural amenities, and waste management. This section explores the services that are provided in Stafford County. Several maps in this section identify the location of community services in the County.

6.6.1 Public Schools

As Stafford County’s population has steadily increased, so too has its student enrollment figures. The average daily membership (ADM) for Stafford County Public Schools was 9,761 students in 1982, and has since climbed to 27,588 students for the 2015/2016 school year. As of March 31, 2016, the Stafford School District had 11,915 elementary school students, 6,508 middle school students and 9,165 high school students. Although the rate of school enrollment increase has slowed within the last several years, the School Board projects that enrollments will continue to increase through 2026 to 30,863 students.

Community Facilities

- Schools
- Law Enforcement
- Correctional Facilities
- Fire and Rescue
- Libraries
- Hospitals
- Waste Management

Currently the County operates 30 schools (17 elementary schools, 8 middle schools and 5 high schools). The table below provides basic data on each school and a map identifies their location in the County.

Table 6.21 Stafford County Public Schools

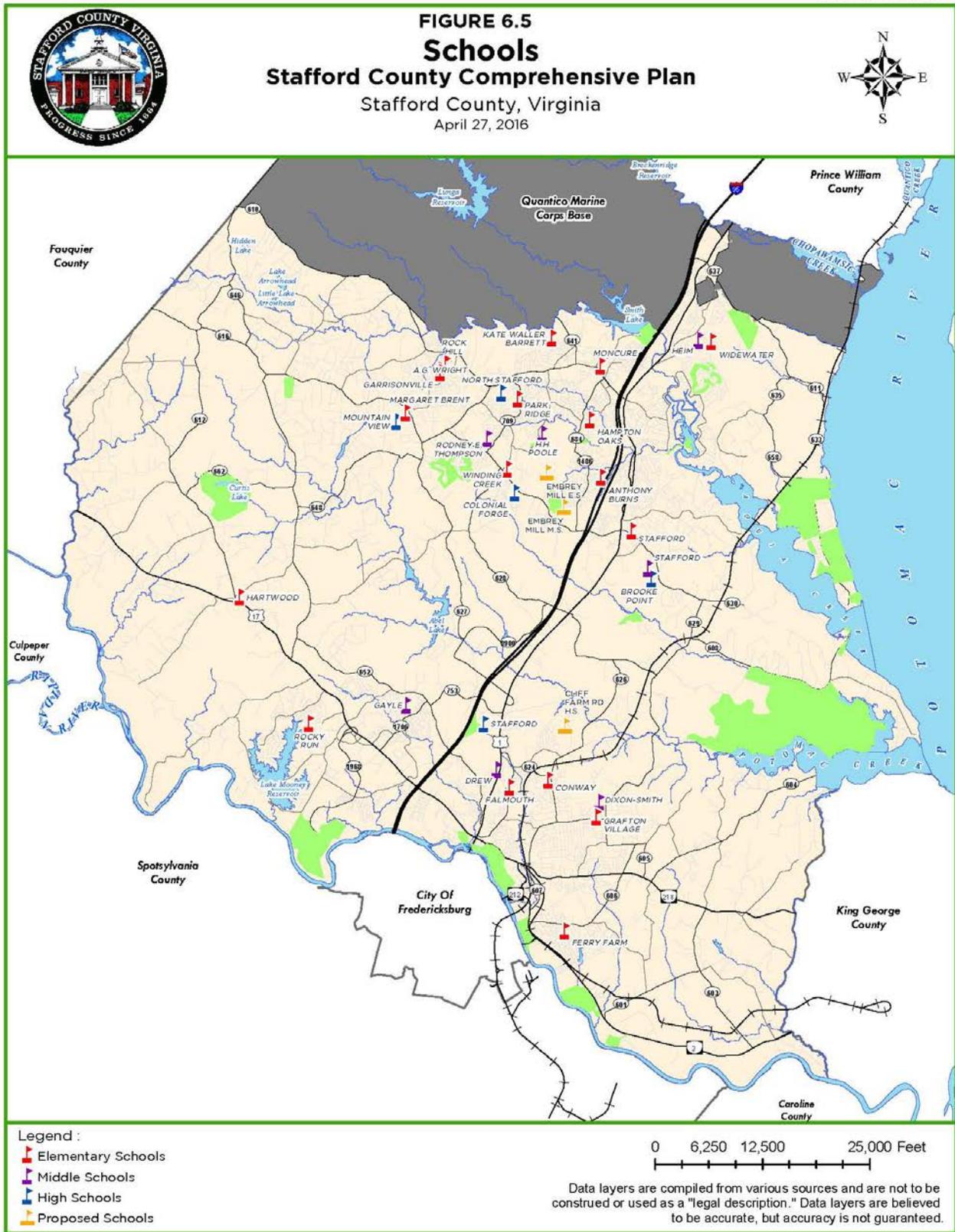
School	Location	Average Daily Membership 2015-2016	Design Capacity	Construction Date
Elementary Schools (K-Grade 5)				
Kate Waller Barrett	150 Duffey Dr.	763	950	2002
Margaret Brent	2125 Mountain View Rd.	878	950	2004
Anthony Burns	60 Gallery Rd.	768	950	2006
Conway	105 Primmer House Rd.	776	950	2006
Falmouth	1000 Forbes St.	543	794	Renovation/addition 2013
Ferry Farm	20 Pendleton Rd.	614	732	1957; Additions - 1963, 1989, 1992
Garrisonville	100 Wood Dr.	564	768	1981; Addition-1999
Grafton Village	501 Deacon Rd.	598	754	1967; Additions - 1977, 1996; renovation/addition 2014
Hampton Oaks	107 Northampton Blvd.	742	950	1992; Addition - 1996
Hartwood	14 Shackelford's Well Rd.	539	649	1963; Additions - 1966, 1989, 1993
Anne E. Moncure	75 Moncure Ln.	729	754	1966; Additions - 1973, 1997

School	Location	Average Daily Membership 2015-2016	Design Capacity	Construction Date
Park Ridge	2000 Parkway Blvd.	744	843	1990; Addition - 1994
Rock Hill	50 Wood Dr.	556	843	1989; Addition - 1994
Rocky Run	95 Reservoir Rd.	848	950	2000
Stafford	1349 Courthouse Rd.	727	794	Renovation/ addition 2012
Widewater	101 Den Rich Rd.	753	843	1988; Addition - 1995
Winding Creek	475 Winding Creek Rd.	773	925	1997
Middle Schools (Grades 6-8)				
Dixon-Smith	503 Deacon Road	780	1,100	2006
Edward E. Drew	501 Cambridge St.	559	800	1951; Additions - 1957,1990 and 1998
T. Benton Gayle	100 Panther Drive	883	1,100	2002
Shirley C. Heim	320 Telegraph Road	843	1,100	2008
H. H. Poole	800 Eustace Rd.	800	1,100	1995; Addition - 1998
Stafford Middle	101 Spartan Dr.	779	1,100	1991
Rodney E. Thompson	75 Walpole St.	957	1,100	2000
A. G. Wright	100 Wood Dr.	907	920	1981; Addition - 1999
High Schools (Grades 9-12)				
Brooke Point	1700 Courthouse Rd.	1,787	2,125	1993; addition 2016
Colonial Forge	550 Courthouse Rd.	2,058	2,125	1999; addition 2016
Mountain View	2135 Mountain View Rd.	1,687	1,930*	2005; addition 2017
North Stafford	839 Garrisonville Rd.	1,697	2,050	1981; Addition - 2003
Stafford	33 Stafford Indian Ln.	1,936	2,150	1975; AIMIE Bldg - 1981; rebuilt 2015

*2,150 in 2017

Source: Stafford County Public Schools as of March 2016;

Produced: 5/3/2016



In order to appropriately serve its growing student population, Stafford County has made a significant investment in public school facilities. Between 1986 and 2010, the County has constructed 10 elementary schools, five middle schools and three high schools, and added multiple classroom additions to elementary and middle schools. Between 2001 and 2016, the County completed major renovations and additions to three elementary schools (Falmouth, Stafford and Grafton Village) and two high schools (Brooke Pointe and Colonial Forge) and replaced one high school (Stafford).

The Stafford County Public Schools Capital Improvement Program (CIP) for fiscal years 2017 - 2026 includes rebuild of Moncure Elementary School that would add student capacity, addition to Mountain View High School (adds capacity), rebuild of Ferry Farm Elementary School, renovation/addition at Hartwood Elementary School and Drew Middle School (adds capacity), as well as construction of elementary school #18 and high school #6.

Adult Education

Germanna Community College offers degree and certification programs. Facilities in Stafford County are located in leased space of the Aquia Park Commerce Center and Taylor-Bott Industrial Park. The County is working with Germanna to secure land for a permanent campus.

6.6.2 Law Enforcement

The Stafford County Sheriff's Office provides countywide law enforcement services. Supplemental services are also provided to the Counties of Spotsylvania, Prince William, Fauquier, and King George and the City of Fredericksburg with whom the County has mutual aid agreements. The Sheriff's Office has a total of 262 employees that includes sworn officers, animal control personnel, civilian personnel, and emergency communication center personnel.

During 2015 the Sheriff's Office Emergency Communications Center (ECC) received 284,608 calls of which 67,951 (24%) were law enforcement calls for service. In addition, the ECC processed an additional 71,367 Computer Aided Dispatch law enforcement activities. Law Enforcement Calls for Service in 2015 remained flat in relationship to 2014 (increase of .12%).

The Sheriff's Office headquarters are in the Ford T. Humphrey Public Safety Building located on Courthouse Road adjacent to the County Administration Complex. The Sheriff's Office occupies about 40,000 sq. ft of the public safety building, housing the Sheriff's Office, Field Operations, Emergency Communications, Administrative Services, Professional Standards, Criminal Investigations and Emergency Management Services. In addition, a large garage building houses specialized equipment for rapid deployment when needed. The public safety complex is expected to meet the facility needs of the Sheriff's Office for approximately the next 20 years. The Sheriff also operates an Animal Shelter on Eskimo Hill Road where the shelter staff and Animal Control Officers are located. The Animal Shelter has completed its life cycle and is scheduled for replacement in Fiscal Year 2017. Furthermore, the Sheriff's Office operates a law enforcement weapons firing range on Eskimo Hill Road at the Regional Landfill. That facility has plans to have additional training assets constructed in the near future. When the additions to the facility are complete the life cycle of the facility should be extended for the next 15 years.

6.6.3 *Correctional Facilities*

The Rappahannock Regional Jail, located at 1745 Jefferson Davis Highway, serves the adult corrections needs of the Counties of Stafford, Spotsylvania, and King George, and the City of Fredericksburg. A new 264,000 square foot, state-of-the-art corrections facility was opened in June 2000 which has a 662-bed capacity that can expand to 1,200.

The Rappahannock Juvenile Detention Center is an 80-bed, 59,000-square-foot facility located at 275 Wyche Road that opened in December 2000. The facility provides pre-dispositional and post-dispositional juvenile detention housing.

The Stafford Correctional Unit #21 located on Eskimo Hill Road is operated by the Commonwealth of Virginia and houses male inmates.

6.6.4 *Fire and Rescue*

The Fire and Rescue Department serves the entire County and is headquartered at the Public Safety Building on Courthouse Road. The Department was established in 2005 as an “all hazards” agency that provides fire, rescue, basic and advanced life support emergency medical service, ambulance transportation and environmental hazard (Haz-Mat) response and mitigation. Other responsibilities of the Department include emergency management, explosive ordnance disposal, building plan review and fire code enforcement, fire and environmental crime investigation, and public education and preparedness. Mutual aid agreements exist with the Counties of Fauquier, King George, Prince William, Spotsylvania, the City of Fredericksburg, as well as the Marine Corps Base Quantico. In 2015, fire and rescue personnel responded to 16,873 emergency response calls; an increase of 33% from 2010 when the Department responded to 12,693 emergency calls.

The Fire and Rescue Department has a workforce of 120 career firefighter/EMTs and firefighter/paramedics and 200 volunteers that operate from 15 fire and rescue stations, which are currently organized into two battalions. Battalion 1 serves the southern portion of the County and Battalion 2 serves north Stafford. Seven stations are combined fire and rescue facilities; the remaining eight are stand alone fire or rescue stations. New facilities are designed and built as combination stations. Fire and Rescue Station 2, the newest station near the Courthouse, serves as a replacement station combining Fire 2 and Rescue 1 under one roof. The table that follows lists the stations and their locations.

Table 6.22 Fire and Rescue Stations (Stafford County, VA)

Station	Location
Fire-Rescue Co. 1 – Falmouth	250 Butler Rd.
Fire-Rescue Co. 3 – Widewater	749 Widewater Rd.
Fire-Rescue Co. 5 – Brooke	222 Andrew Chapel Rd.
Fire-Rescue Co. 6 – Hartwood	67 Hartwood Church Rd.
Fire-Rescue 9 – Aquia Harbour	1001 Washington Dr.
Fire-Rescue Co. 10 – Potomac Hills	729 Widewater Rd.
Fire-Rescue Co. 12 - Berea	Sebring Way
Fire-Rescue Co.14 - Garrisonville	Shelton Shop Road
Fire Co. 2 – Stafford	305 Jason Mooney Drive
Fire Co. 4 – Mountain View	924 Kellogg Mill Rd.
Fire Co. 7 – White Oak	12 Newton Rd.
Fire Co. 8 – Rock Hill	2133 Garrisonville Rd.
Rescue 1 – Stafford	305 Jason Mooney Drive
Rescue 4 – Mountain View	1268 Mountain View Rd.
Rescue 7 – White Oak	535 White Oak Rd.
Rescue 8 – Rock Hill	1565 Garrisonville Rd.

Source: Stafford County Fire and Rescue Department

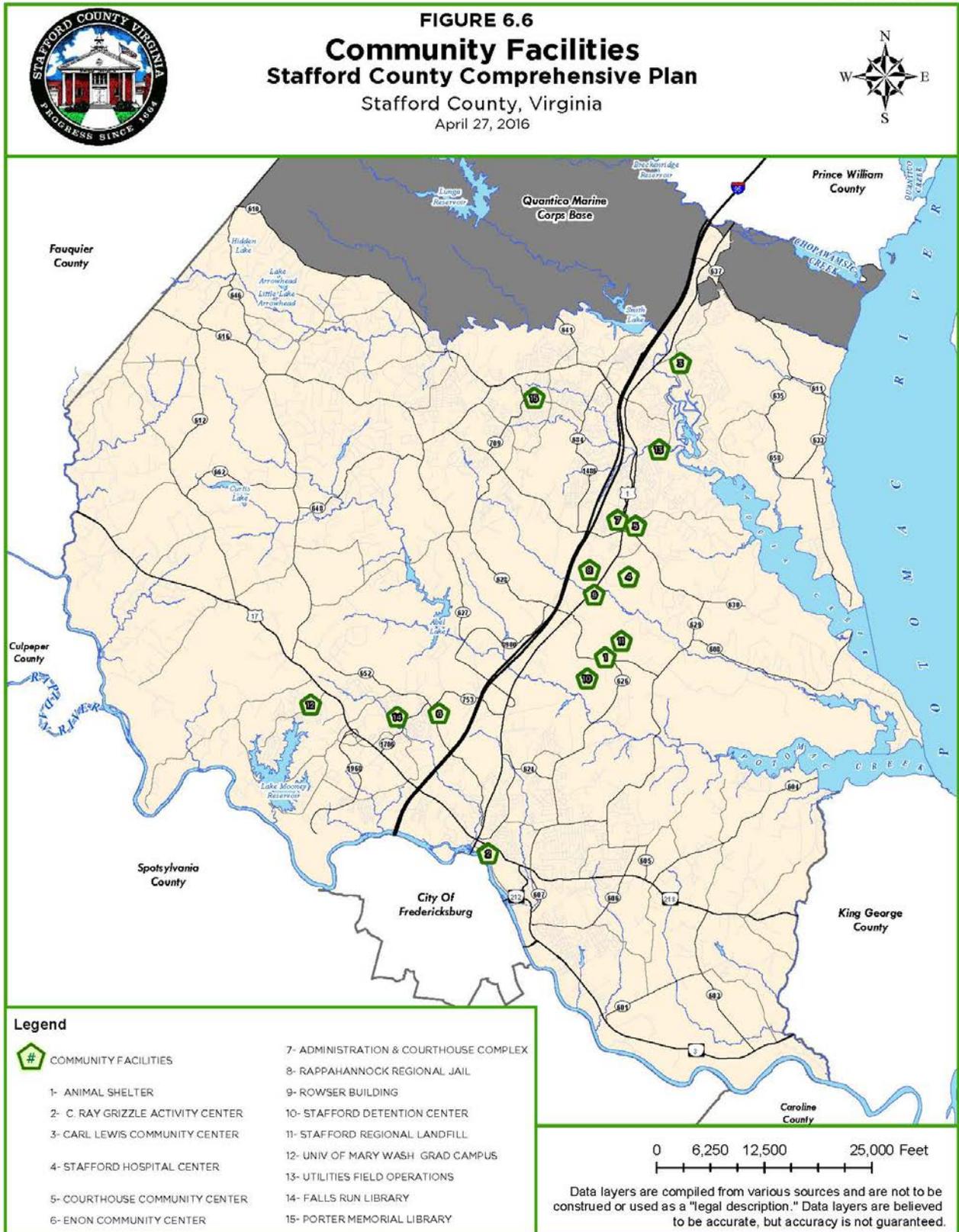
The Capital Improvements Program for fiscal years 2016 - 2023 identifies the need to upgrade station 14 to a permanent facility, construct a new station near the Airport, as well as construction of a Fire and Rescue Training Center.

6.6.5 Hospitals

Stafford Hospital Center, the first hospital in Stafford County, opened in 2009 on a 70-acre site on the southeast side of U.S. 1 and Courthouse Road. The hospital is designed to hold up to 100 beds. The site presently includes one medical office building. The facility is operated by MediCorp, the parent company of Mary Washington Hospital.

The next closest facilities are Mary Washington Hospital about 9 miles from central Stafford in the City of Fredericksburg and Potomac Hospital about 16 miles from central Stafford in Woodbridge, VA.

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6.6.6 *Libraries*

The John Musante Porter and the England Run Branches of the Central Rappahannock Regional Library system are the only Libraries within the County. The Porter Branch is located at Parkway Boulevard in the Garrisonville area and the England Run Branch is located on Lyons Boulevard in the Falmouth area. The Central Rappahannock Regional Library system consists of eight different branches in the City of Fredericksburg and in Spotsylvania, Stafford, and Westmoreland counties.

The Porter Branch of the Central Rappahannock Regional Library is housed in a 23,000 square foot building that was constructed in 1992. It has an 80 seat theater which can be partitioned into smaller meeting rooms. The England Run Branch opened in 2010 and is a 30,000 square feet building with meeting rooms that can accommodate up to 180 seats. Both branches provide free access to computers and wifi communications.

6.6.7 *Solid Waste*

The Rappahannock Regional Solid Waste Management Board operates the landfill in Stafford County. Residents may deposit household garbage at minimal charge. Commercial refuse haulers serving residents have to pay to use the landfill. The landfill accepts newspaper, aluminum cans, glass, plastic, cardboard, steel can, oil and office paper for recycling. The landfill is located on 700 acres of land. The County is currently working to open a new cell for depositing refuse. There is an estimated 40-year life of the facility.

6.6.8 *Virginia Cooperative Extension*

Using a combination of paid and volunteer staff, the Virginia Cooperative Extension (VCE) provides research-based information to County residents in the fields of agriculture/horticulture, 4-H youth development, food, nutrition and health, and family and consumer sciences. Educational programs in Agriculture and Natural Resources programs help to sustain the profitability of agriculture and forestry production, while protecting and enhancing the quality of land and water resources. The Food, Nutrition and Health Program and the Smart Choices Nutrition Education Program improve the quality of life of residents by encouraging appropriate and safe food choices and improving health literacy. Through the 4-H program, youth aged 5-19 receive hands-on learning experiences and develop leadership skills.

6.6.9 *Rappahannock Area Community Services*

The Rappahannock Area Community Services Board (RACSB) is a regional government agency that provides comprehensive services to individuals with mental health, mental retardation and substance abuse problems in Planning District 16 (including Stafford and Spotsylvania Counties). Established in 1970, the agency is managed by a board of 15-volunteer members who are appointed by member jurisdiction's local governing bodies. Two RACSB service sites are located in Stafford County: the Stafford Clinic and the Leeland Road Group Home.

6.6.10 Findings

- Significant investment has been made in the construction and maintenance of educational facilities to accommodate Stafford County's growing school population and additional facilities and improvements are planned.
- The Public Safety Building that houses the Sheriff's Office and Fire and Rescue Department should meet these agencies' needs over the next 20 to 25 year period.
- The Rappahannock Regional Landfill has areas to expand for the future.
- Stafford County's Fire and Rescue Department is staffed by 116 career officers and approximately 300 volunteers.
- A 100-bed hospital opened in 2009 near the Courthouse.
- The John Musante Porter Library and England Run Library, serves Stafford County.

6.7 Infrastructure

Adequate access to water, sewage disposal and electric and gas utilities is generally considered essential to the health and well being of residents. This section presents a discussion of infrastructure facilities that are available in Stafford County. A map is included to identify infrastructure locations in the County.

6.7.1 *Water and Sewer*

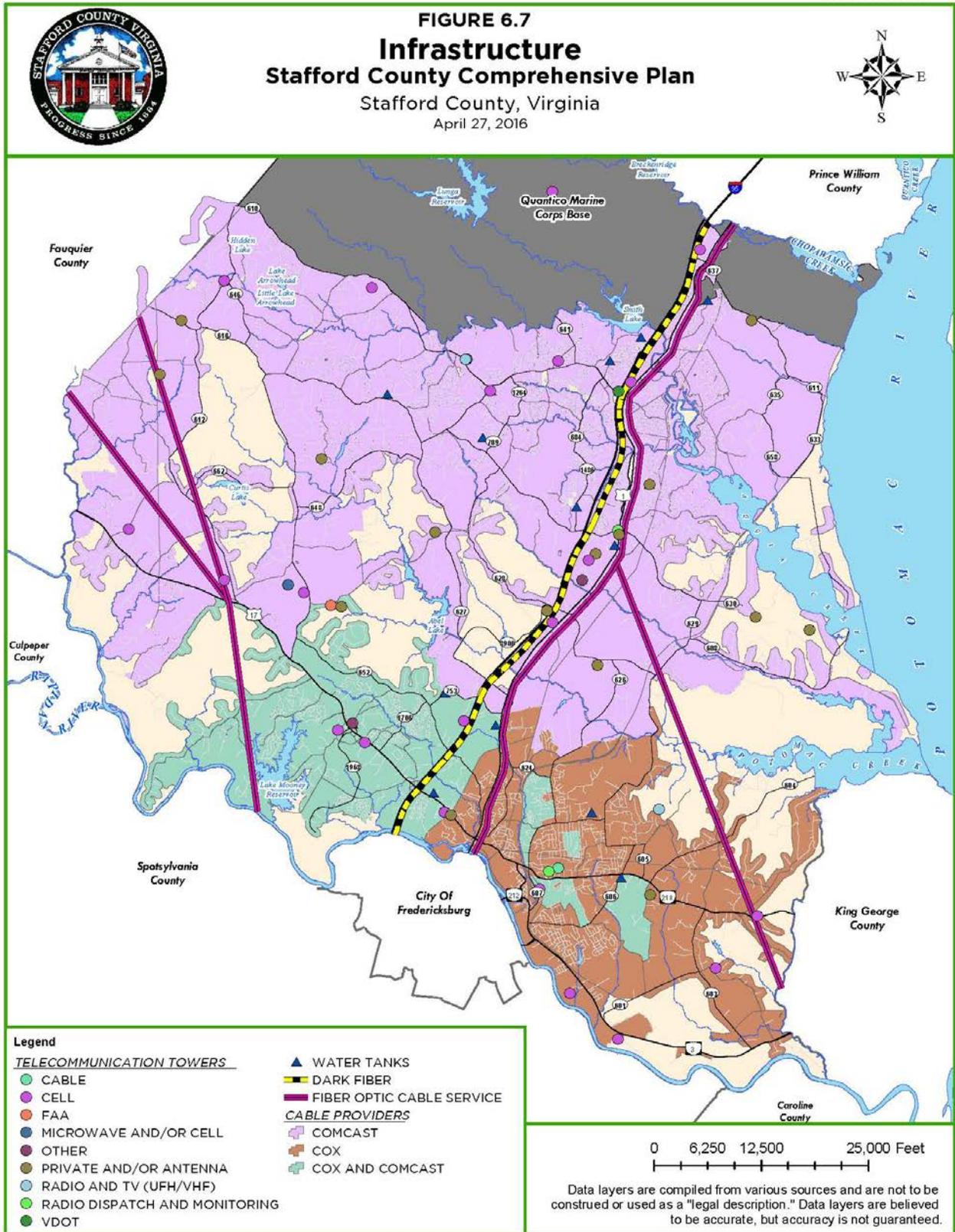
The Stafford County Department of Utilities (DOU), under the direction of the County Board of Supervisors, has provided public water and sewer services to many Stafford County residents for over two decades. During that time, the service area population and demand for services have more than quadrupled and continues to grow. The public utility customer base is currently increasing at an annual rate of 5%. The DOU provides services to over 25,000 residential customers and more than 700 non-residential customers. It operates as an enterprise fund that is separate from the County's General Fund and is funded solely by the revenues received from its customers.

Infrastructure

- Water and Sewer
- Stormwater Management
- Natural Gas
- Electric
- Telecommunications & Cable

Not all residents have access to public water and sewer services. The County only provides public water and sewer to the Urban Services Area (USA), which is the portion of the County that has been designated for residential, commercial and industrial development. The designation of USAs, which limit the location of sewer line expansion, serves to limit residential densities in rural areas. Outside the USAs, approximately 10,000 dwellings use private wells and septic tanks to meet their water and sewage disposal needs.

Public drinking water is obtained from three surface water reservoirs (Abel Lake, Smith Lake, and Lake Mooney). Lake Mooney is located in south Stafford. Abel Lake Reservoir is located in central Stafford and Smith Lake Reservoir is located in North Stafford. The combined safe yield of these reservoirs is about 20 million gallons a day (mgd) (7.77 from Smith Lake and 12 from Lake Mooney). The County's annual average daily demand is 9.4 mgd and the peak 90-day average is 13.2 mgd.



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Water treatment occurs at the Smith Lake Water Treatment Facility and the Lake Mooney Water Treatment Facility. The Smith Lake facility supplies water to the northern region of Stafford, while Lake Mooney supplies the southern region. Abel Lake is used as a raw water source with water being pumped to the Lake Mooney water treatment facility. The maximum daily capacity for the two facilities is 24 mgd (12 each). After treatment, the water from both facilities meets or exceeds Virginia Department of Health and the Federal Safe Drinking Water Act Amendments of 1986 standards. The DOU system also stores approximately 17.2 million gallons of water in two ground storage tanks, two standpipes and 11 elevated tanks. The system also includes five primary pumping stations, and six standby pumping stations.

Sewage treatment is provided at Little Falls Run Wastewater Treatment Facility and Aquia Wastewater Treatment Facility. They have permitted capacities of 8 mgd and 10.5 mgd, respectively. The Little Falls facility is located in the southeast part of the County and the Aquia facility is in the north. The wastewater collection and transmission system consists of approximately 443 miles of gravity sewers, 90 pump stations, 58 miles of associated sewer force mains and 13 miles of low pressure mains.

With these resources, the County anticipates being able to meet the needs of its residents in the USA to the year 2050.

6.7.2 Stormwater Management

Stormwater Management is a mechanism for controlling water from rain or snowmelt that flows over the land surface and is not absorbed into the ground and urban and industrial stormwater that is discharged through conveyances, such as separate storm sewers, ditches, channels or other conveyances. The purpose of stormwater management is the mitigation of the adverse effects that land use changes and increased impervious land cover have on flooding and the aquatic environment. Adverse effects include downstream erosion, water quality degradation, and water channel flooding.

Stafford County's Stormwater Management Ordinance (Chapter 21.5 of the County Code) establishes minimum stormwater management requirements. All land development projects must comply with the requirements of this ordinance. Both the Stormwater Management Ordinance and the Zoning and Subdivision Ordinances encourage the use of Best Management Practices (BMP). BMP is an innovative stormwater management approach whose goal is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate and detain runoff close to its source.

Stafford County's stormwater infrastructure consists of more than 650 stormwater management facilities that fall into in the following general categories: ponds; miscellaneous; manufactured/underground; and infiltration trenches. Roughly 60% of the stormwater BMPs being used in the County are a type of pond. Overall, about 40% of the County's BMPs were classified as being in "Good" condition, 30% in "Fair" condition, and 15% in "Poor" condition. The condition of 15% of the BMPs was unknown because they could not be located or accessed.¹ Most facilities are under private or community association ownership. The County requires Maintenance Agreements to be recorded in the County's land records.

¹ U.S. Army Corps of Engineers, Baltimore District. Stafford County, Virginia Stormwater Infrastructure and Watershed Management Study, July 2005.

6.7.3 *Natural Gas*

Residents, businesses and industries in Stafford County are provided natural gas service by Columbia Gas of Virginia, a member of the Columbia Energy Group Company. Columbia Gas of Virginia is the third largest distributor of natural gas in the State. A major natural gas pipeline bisects the County.

6.7.4 *Electric*

Four companies provide electric power in Stafford County: Dominion Virginia Power; Rappahannock Electric Cooperative; Northern Virginia Electric Cooperative, and Northern Neck Electrical Cooperative.

Major high voltage power lines bisect the County, generally from north to south; one through the eastern half of the County and one through the west. Other undeveloped easements exist as well. Figure 6.8 identifies the location of major power and gas transmission lines.

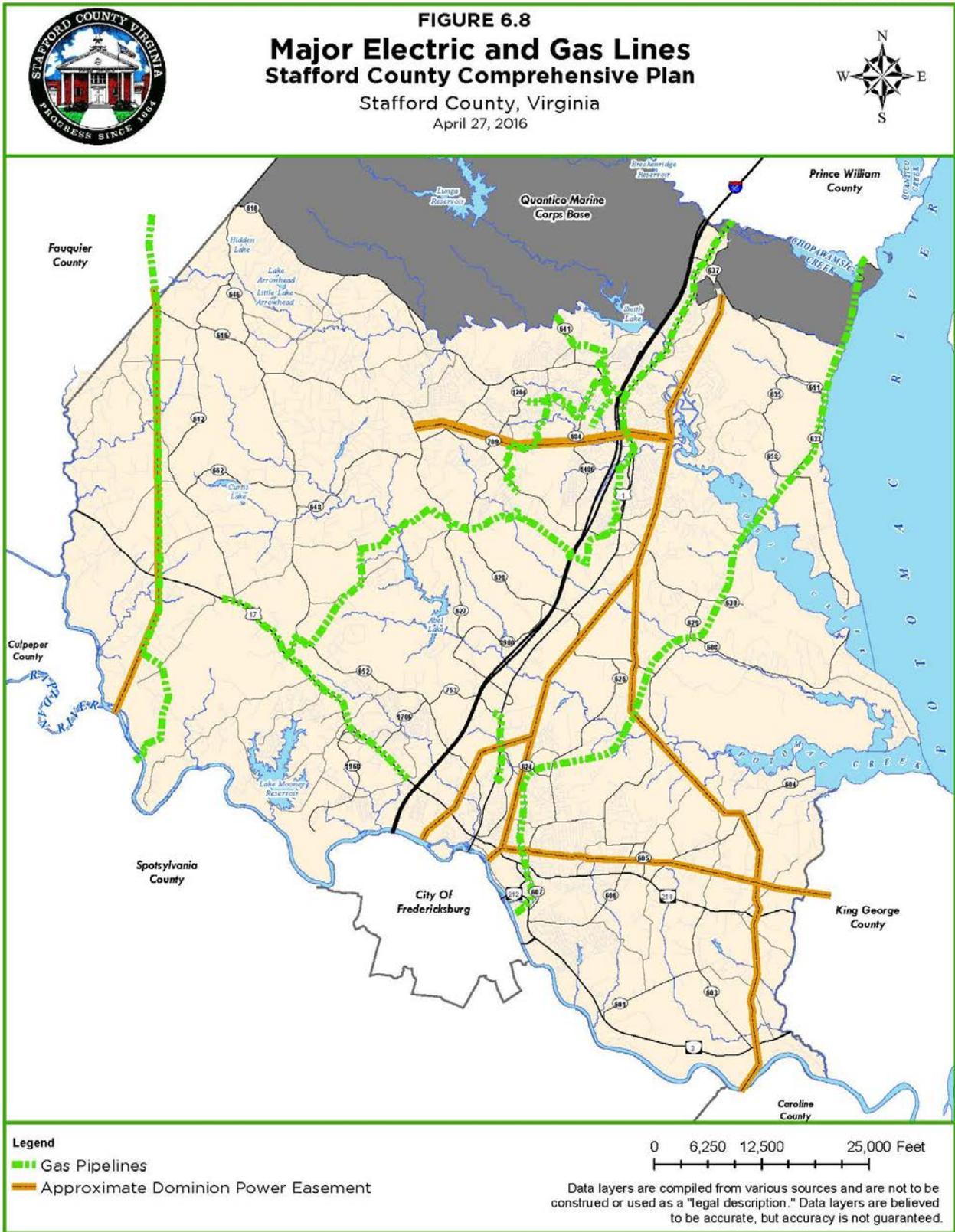
6.7.5 *Telecommunications*

Residents and businesses in Stafford County have access to an array of telecommunications services including high-speed Internet access, cable and wireless services. Several major national and international phone carriers provide local and long distance service. Unfortunately, access to these services is not universal. Certain areas of the County have limited access to the various technologies.

To accommodate the needs of the telecommunications industry while protecting the public safety and welfare of its residents and the character and aesthetics of the community, Stafford County adopted a Telecommunications Plan Element of the Comprehensive Plan which encourages the co-location of new telecommunications facilities on existing structures. This reduces the need for the construction of new towers. When this is not possible, the preferred locations for new towers are within Virginia Department of Transportation rights-of-way near interchanges along I-95, within the existing right-of-way for overhead power lines, within the railroad right-of-way adjacent to industrial or agricultural districts, or on industrial, commercial and public lands that are suitably buffered from residential areas.

6.7.6 *Findings*

- Water treatment facilities are projected to meet the needs of Stafford County residents until 2050.
- 650 stormwater management facilities control surface runoff throughout the County.
- Utilities and an array of telecommunications services are available in Stafford County but certain areas of the County still have limited access to these services.



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