

7. PUBLIC SERVICES & UTILITIES

WATER AND SEWER SERVICES

The Culpeper County Master Water and Sewer Plan (hereby incorporated by reference) addresses future plans for water and sewer infrastructure. Individual sections of the Plan address the critical growth areas around the Town of Culpeper, identified as Town Environs; the village centers of Brandy Station/Elkwood, Clevenger’s Corner, and Mitchells, all of which have some existing services. The County’s currently adopted Water and Sewer Service area around the Town Environs is depicted on Map 7.1. Anticipated service areas for each village center can be found in Chapter 13 of this Plan. The service area for Mitchells is found on Map 7.2 and the Brandy Station/Elkwood service area is shown on Map 7.3.

SANITARY SEWER FACILITIES

There are numerous sewage treatment plants, of varying sizes, located within Culpeper County. The Table below lists those treatment plants that generally serve commercial or industrial sites or major residential developments (see Table 7.1 and Map 7.5). The majority of County residences and businesses rely on individual septic systems and, in a few cases package treatment plants.

Table 7.1

WASTEWATER TREATMENT PLANTS (WWTP)	
1) Town of Culpeper	5) Coffeewood Correctional Facility
2) County of Culpeper (Culpeper County Air Park)	6) Salvation Army (Camp Happyland)
3) Emerald Hill Elementary School	7) American Security Council
4) County of Culpeper (Clevenger’s Corner)	

The largest sewage treatment plant in Culpeper County is the Town of Culpeper’s located east of the Town limits that discharges into Mountain Run, a tributary of the Rappahannock River. With the recent upgrade, it has a capacity of 6.0 million gallons per day (mgd). This plant predominantly serves the Town of Culpeper, but provides treatment for a number of residences and businesses located beyond Town limits.

Digested sludge can be disposed of through land application on agricultural land. State Law allows the Town and other localities to spread such biosolids on agricultural land in the County.

The County of Culpeper owns and operates the Culpeper County Industrial Airpark Wastewater Treatment Plant, and the Clevenger’s Corner Wastewater Treatment Plant.

Industrial Airpark

The Culpeper County Industrial Airpark wastewater treatment plant has discharge authorization by Virginia Pollution Discharge Elimination System (VPDES). The existing hydraulic design capacity for the Culpeper County Industrial Airpark wastewater treatment plant is 25,000 gallons per day (gpd). However, the VPDES permit is written so the County can expand the wastewater plant up to 300,000 gpd without requiring re-issuance of the permit. The existing extended aeration package plant at the Airpark waste water treatment plant was built in 1998 and is being replaced in 2015 with a 100,000 gpd advanced wastewater treatment plant that formerly served the Greens Corner Area.

Emerald Hill Elementary

The Culpeper County School Board owns an extended aeration wastewater treatment plant at the Emerald Hill Elementary School, with a permitted design flow rate of 10,000 GPD. This plant is located on Route 229 approximately eight miles north of the town of Culpeper. The County of Culpeper operates the wastewater plant on behalf of the School Board. The facility serves the school with a population of approximately 700 students. The plant discharges into Muddy Run.

Clevenger's Corner

The Clevenger's Corner Wastewater Treatment Plant is located 13 miles north of the Culpeper Town Limits on Clevenger's Utility Road, just south of the intersection of Routes 211 and 229. The new plant has a design capacity of 900,000 GPD and will serve the existing South Wales subdivision and the Clevenger's Corner Service Area. It is a five stage Bardenpho treatment system designed to meet strict nitrogen and phosphorus limits as it discharges into the Rappahannock River, a tributary of the Chesapeake Bay.

Coffeewood- Mitchells Sewer Service Area

Coffeewood Correctional Facility, located in Mitchells, Virginia is a medium security prison complex with a separate juvenile detention facility. The Virginia Department of Corrections provides the County with 20,000 GPD of treatment capacity for off-site use. At this location the County used a Community Development Block Grant (CDBG) to assist with funding a small diameter force main grinder pump sewer system (See Map 7.2). The primary goal of the sewer system is to provide sewer service for low to moderate income (LMI) households and residences with failing septic systems. A secondary goal is to provide sewer service to other existing residential, commercial or institutional structures, at risk of failing septic systems due to poor soils in the area. Other residences and structures within the limited service area, which do not qualify as LMI households, will be allowed to connect to the system. The County intends to minimize public health problems associated with failing or failed septic systems in the limited service area. It does not act as a public utility providing sewer service to the general public. New construction is not eligible for sewer service. Non-LMI households, which elect to connect to the system, have to pay for onsite improvements and service connections at their expense.

WATER FACILITIES

Most of the County depends on groundwater to provide for its water needs. The vast majority of residents and businesses rely on individual wells for their water supply. There are approximately 51 community (residential) and non-community (business) public water systems of varying sizes within the County (Table 7.2).

Table 7.2

PUBLIC WATER SUPPLIES (COMMUNITY AND NON-COMMUNITY)	
1) Ashmore Acres	29) Hazel River
2) Bailey’s Trailer Park	30) Heritage Estates
3) Blue Ridge Growers	31) Inn at Kelly’s Ford
4) Boston Water and Sewer	32) Kavanaugh Meads
5) Brenridge Subdivision	33) Library of Congress Packard Campus
6) Camp Happyland	34) Merrimac South
7) Camp Red Arrow	35) Mountain View Trailer Park
8) Catalpa Subdivision	36) Norman Acres Subdivision
9) Cedar Mountain Campground	37) Northtown Village
10) Cedarbrooke Subdivision	38) Our Fathers House
11) Childhelp	39) Overlook Heights I & II
12) Churchill Subdivision	40) Pelham Manor
13) Clairmont Manor	41) Ponderosa Mobile Home Park
14) Clevenger’s Village	42) Randle Ridge
15) Coffeewood Correctional Center	43) RRCSB
16) Communications Corp of America	44) South Wales Golf Course
17) Culpeper Community Complex Waterworks	45) Springwood Subdivision
18) Culpeper Industrial Airpark	46) Town of Culpeper
19) Culpeper Mobile Home Park	47) VA State Police- 2 nd Division HQ
20) D-22 Waterworks	48) Westlakes Subdivision
21) Dove Hill Waterworks	49) Westover Estates
22) Dutch Hollow Subdivision	50) Westview Trailer Park
23) Emerald Hill Elementary School	51) Wildwood Forest
24) Erinbrook	
25) Fairview Acres	
26) Forest View Subdivision	
27) Gibson Mills Subdivision	
28) Glendale Subdivision	

Town of Culpeper

The Town of Culpeper is the largest public water supplier in the County of Culpeper. The Town's water is provided by Lake Pelham and Mountain Run Lake. Raw water is withdrawn from Lake Pelham through an 18-inch gravity line to the Culpeper water treatment plant located within the Town's corporate limits. The safe yield from both lakes combined is 4.0 million gallons per day (mgd). The Town of Culpeper is developing a groundwater well system that will be online in 2015 and can provide an additional 3.0 mgd of water capacity.

Industrial Airpark

The Culpeper County Industrial Airpark water system consists of two groundwater wells with yields of 120gpm and 114gpm, respectively. The wells are provided with over 50 feet of 6-inch diameter steel casings with total depths of 220 feet and 295 feet. The Virginia Waterworks Regulations require groundwater systems to be capable of supplying the daily water demands with the largest well out of service. By this definition, the rated capacity of the Airpark water system is 299,520 gallons per day (gpd).

The Culpeper County Industrial Airpark water storage system consists of a 300,000-gallon ground storage reservoir with a fire pump having a rated capacity of 2,000 gpm and 12-inch diameter mains. In addition, a 5,000-gallon hydro-pneumatic tank pressurizes the distribution system. The average daily water consumption over the last 12 months is 5,445 gpd.

Clevenger's Corner

The Clevenger's Corner Water Utility System includes four new groundwater wells and two existing wells, a 750,000 gallon elevated water storage tank, and a water treatment plant capable of treating 854,000 GPD. Also included is a water distribution system to serve the existing South Wales subdivision and the Clevenger's Corner Service Area. The water plant began operating in December 2010. It currently serves approximately 354 customers primarily in the South Wales subdivision.

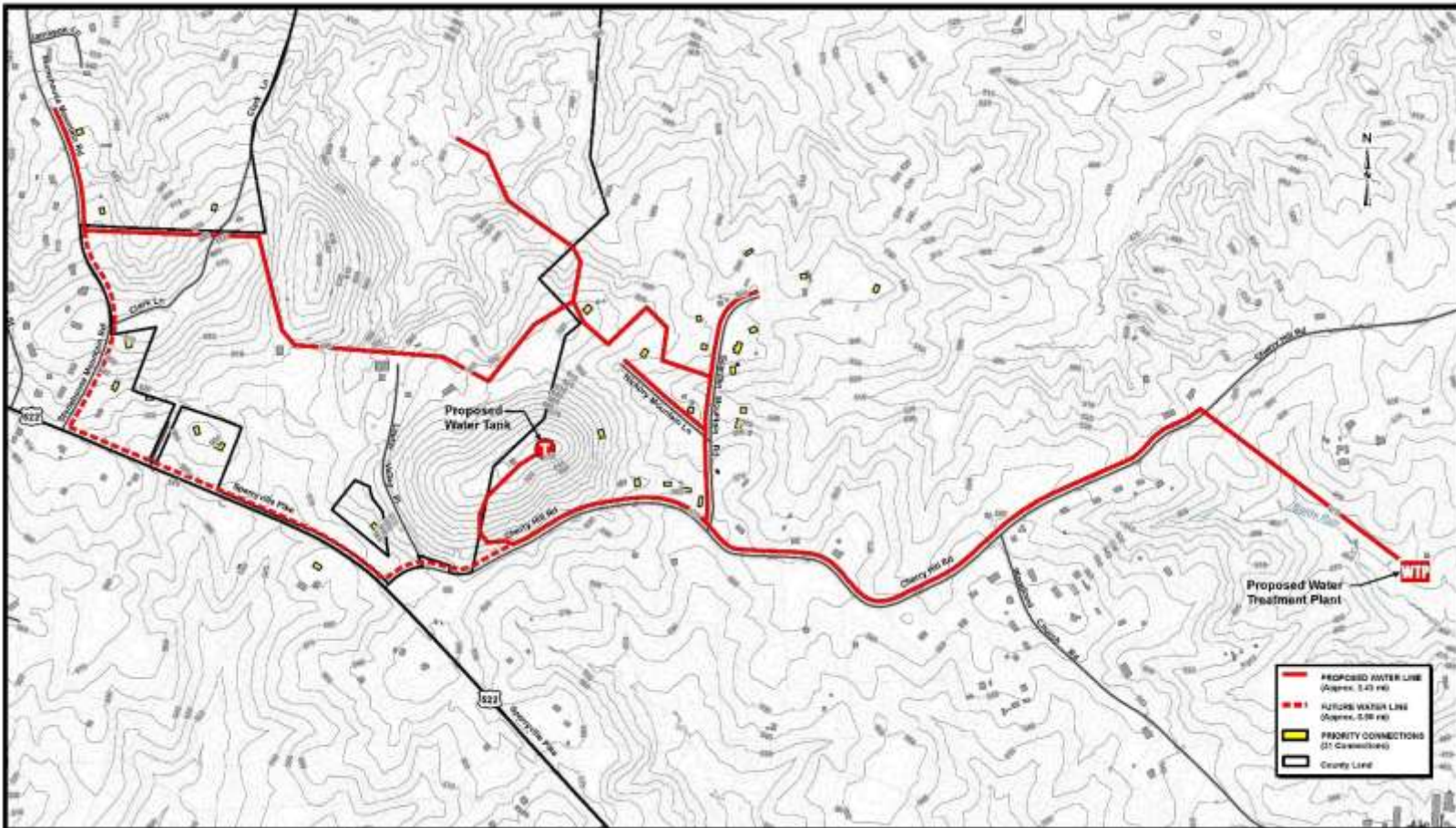
The water treatment plant uses aeration, filters, and chemical treatment to remove contaminants from the well water. Storage includes a raw water contact tank at the beginning of the treatment process and a finished water contact tank where the treated (chlorinated) water is held before being pumped to the elevated storage tank for distribution. Processed wastes such as filter backwash water, etc, are sent to the Clevenger's Corner wastewater treatment plant.

Both the Culpeper County Environmental Services and Town of Culpeper Environmental Services websites contain information regarding services currently offered and future development plans. **Quick Link:** [Culpeper County Environmental Services](#)

Quick Link: [Town of Culpeper Environmental Services](#)

CHERRY HILL WATER SYSTEM

The County of Culpeper awarded a contract in 2014 to develop a public water supply system to serve residences near the former County Landfill. The County drilled and pump-tested a public water supply well off Route 638 and is in the process of preparing a Preliminary Engineering Report as a basis for designing the water system. The Preliminary Engineering Report for the Cherry Hill Water system will be submitted to the Virginia Department of Health in 2015. The current well has a sustainable yield of 90 gallons per minute (gpm), enough to support approximately 100 homes. Consideration will be given to adding a secondary backup well and to construct the water treatment and distribution system over several years. The goal is to have two public water supply wells serving approximately one hundred homes in the vicinity of the former landfill. The system will include two well houses, centralized water treatment, if necessary, a ground storage tank and approximately 3 miles of water line.



FUTURE SURFACE WATER IMPOUNDMENTS

Culpeper County, exclusive of the incorporated Town of Culpeper, currently depends almost entirely on groundwater to meet its water needs. The County recognizes that while groundwater is expected to serve our needs even in the village center areas for the foreseeable future, it must plan for long-term water needs. The engineering firm of Wiley & Wilson was contracted to prepare a report entitled "Culpeper County Reservoir Study," which was completed in 2001. This report is hereby incorporated into the Culpeper County Comprehensive Plan by reference.

Thirteen sites were selected and evaluated regarding volume, dam height, location, and conflicts with historic areas and major utilities. The four most promising sites are presented in the report. Further study by the staff and by the Public Works Committee of the Board of Supervisors has led to the conclusion that the most feasible surface water impoundment site is along Muddy Run, just east of Route 229. This site is identified as Site #10 in the report (Map 7.4).

Care should be taken to limit development in the area in order to protect the ability to implement this reservoir should it be necessary in the future. All of the reservoirs identified in the Wiley & Wilson report should be considered when making land use decisions.

SOLID WASTE

Culpeper County's Department of Waste Management was created in 1991 and is responsible for the development and implementation of waste management programs. The County opened the Laurel Valley Landfill in 1978 (Permit No. 251) and closed it in November 1998. The closed landfill is located on a 330-acre site, where approximately 56 acres were used for landfill operations. The landfill is unlined. The County will continue to monitor the environmental effects of the unlined facility for the next thirty years.

The County received a permit from the Department of Environmental Quality to construct a new lined landfill (Permit No. 590), but chose to build a solid waste transfer station on the property instead. This solid waste transfer station is the only municipal solid waste disposal facility in the County. Culpeper County owns the facility, but Republic Inc. (Republic) operates the facility, which serves both Town and County residents. Republic transports and disposes the municipal solid waste at their Old Dominion Landfill in Henrico County. The County has the option to extend the contract with Republic Inc. until 2023.

Solid waste is collected by public (Town of Culpeper) and private haulers and disposed at the Culpeper County Solid Waste Transfer Station, located at Routes 522 and 638, approximately 2.3 miles northwest of the Town Limits (see Map 7.5). The Town provides regular collection services within the Town limits and a number of private companies serve County residents through individual arrangements. The bulk of solid waste in the County is collected by the individual residents and brought to the County Solid Waste Transfer Station or to the two residential convenience centers located at the Transfer Station entrance and Lignum. The County's Recycling Centers, where segregated recyclables are collected, are located at the Solid Waste Transfer Station and Lignum Residential Convenience Center.

A private Material Recovery Facility located on Business Route 29 accepts municipal solid waste from public companies under contract, but is not open to the general public. The facility recovers and processes recyclable material such as wood, paper, cardboard, plastic, concrete and metals from the waste stream and landfills the remaining waste material at commercial landfills around Virginia.

ELECTRICITY

Electricity is supplied by Virginia Electric Power and distributed throughout the County by the Town of Culpeper, Rappahannock Electric Cooperative and Dominion Virginia Power. Three primary high voltage transmission lines exist in Culpeper County (see Map 7.5).

One line crosses the northern part of the County. Another extends from the Rapidan River at Route 522 northeast to the Rappahannock River south of the 29 Bypass. The third line branches south of Stevensburg and extends west crossing Routes 3 and 29, terminating in the Town of Culpeper.

The development of future electrical transmission lines should be limited while meeting electrical demands of the County. Expansion within existing transmission line corridors must be the first option pursued. In any instance where new or expanded transmission lines are proposed, utility providers shall notify the County at least six (6) months prior to filing with the State Corporation Commission (SCC). Citizens shall be likewise notified in a manner that insures that proposals are clear and there is adequate time for review and comment. Following comment by the Board and citizens, all potential options considered shall be presented to the Board for additional review and comment prior to filing with the SCC. Article 8E-13-2 of Appendix A of the Culpeper County Code, pursuant to Section 15.2-4313 of the Code of Virginia, must be consulted and complied with whenever land acquisition by a public utility will have an impact upon any agricultural and forestal district properties.

NATURAL GAS

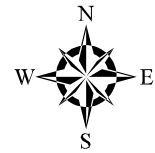
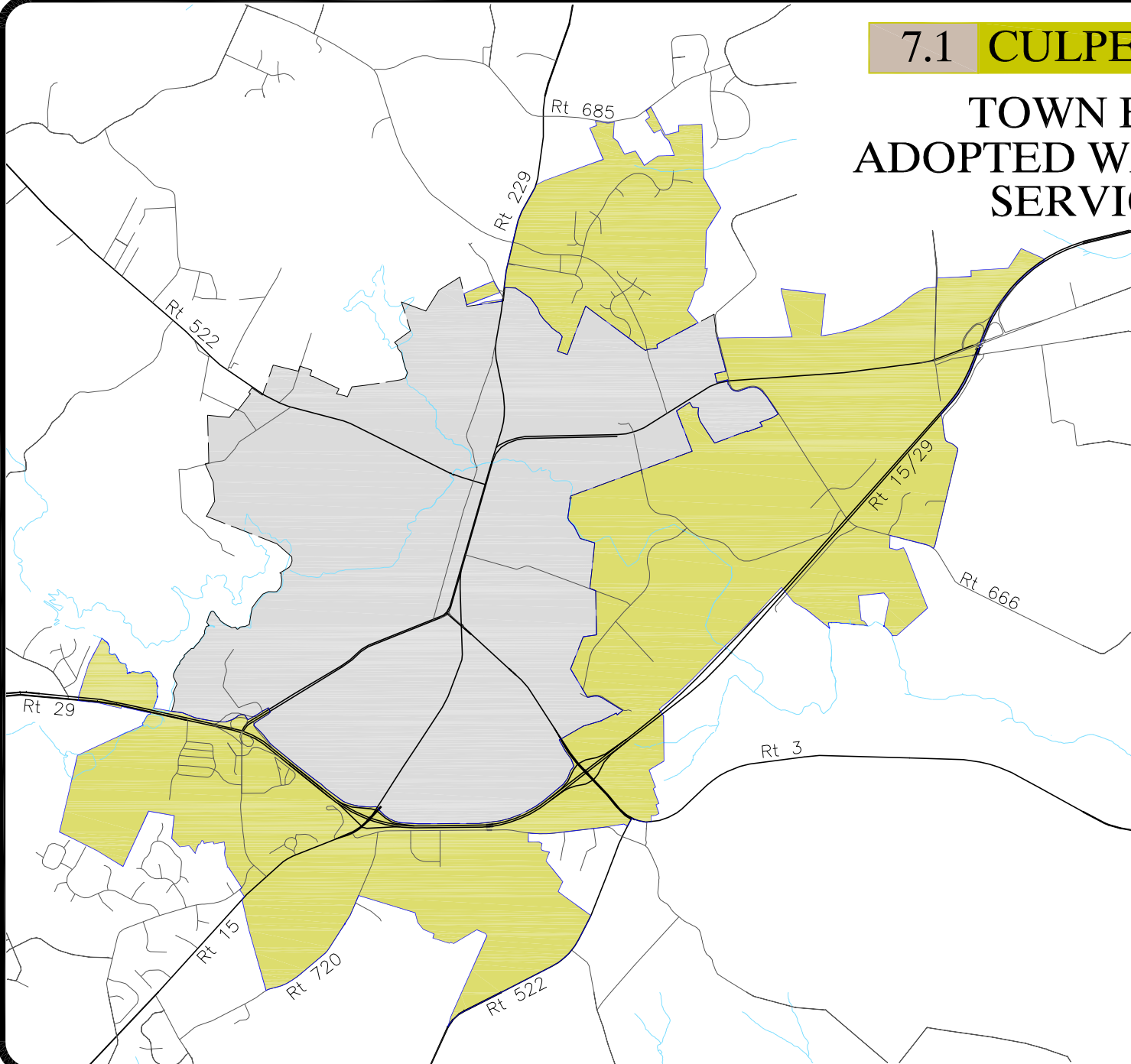
Natural gas is supplied by Amerigas and Columbia Gas. Amerigas has approximately 54 miles of pipelines and distribution lines within the Town and County. Columbia Gas has several miles of pipelines and distribution lines in the County. The pipelines are 20 inches in diameter with service lines generally between 1-2 inches in diameter.

Approximately twenty miles of Amerigas transmission line extend from Crooked Run North of Route 29, northeast across Route 522 at the intersection of Route 638, to Route 229 south of Route 633, to the Rappahannock River, south of Route 802. A third pipeline extends from the Amerigas pipeline at the intersection of Routes 3 and 699 and runs east along the north side of Route 3 and the Rapidan River to Ely's Ford.

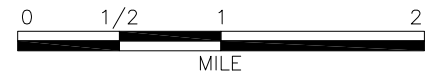
A third company, Transcontinental (Transco) Gas Corporation has approximately 9 miles of pipeline running through the County with no service available at this time. Located in the southeastern part of the County, the pipeline extends from the Rapidan River at Potato Run, northeast across Route 3, and the Rappahannock River north of Kelly's Ford. Three pipelines between 30-36 inches in diameter exist within a utility easement averaging 40 feet in width (Map 7.5).

7.1 CULPEPER COUNTY

TOWN ENVIRONS ADOPTED WATER & SEWER SERVICES AREA

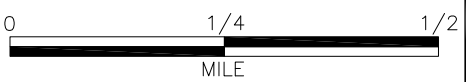
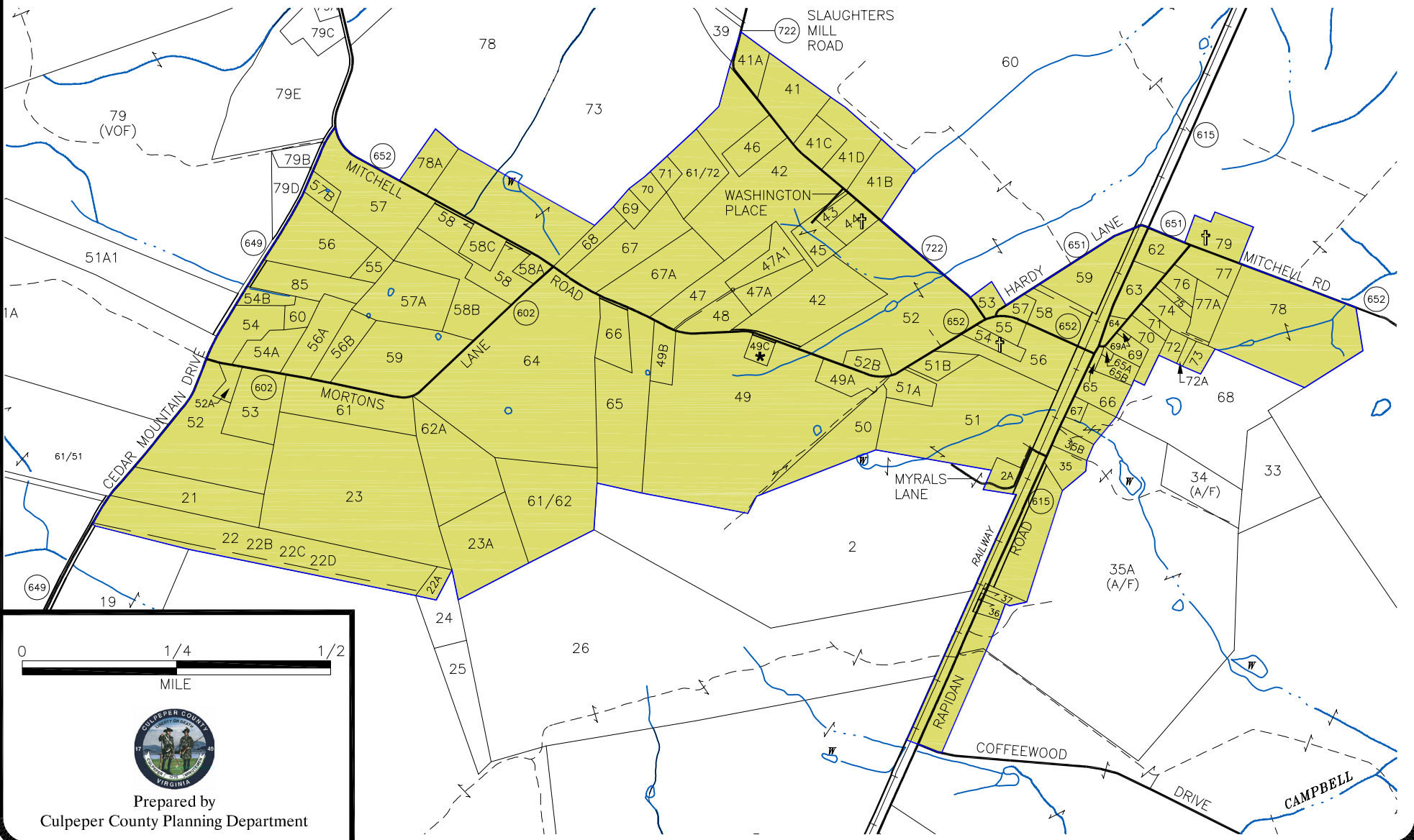


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7.2 CULPEPER COUNTY

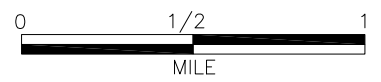
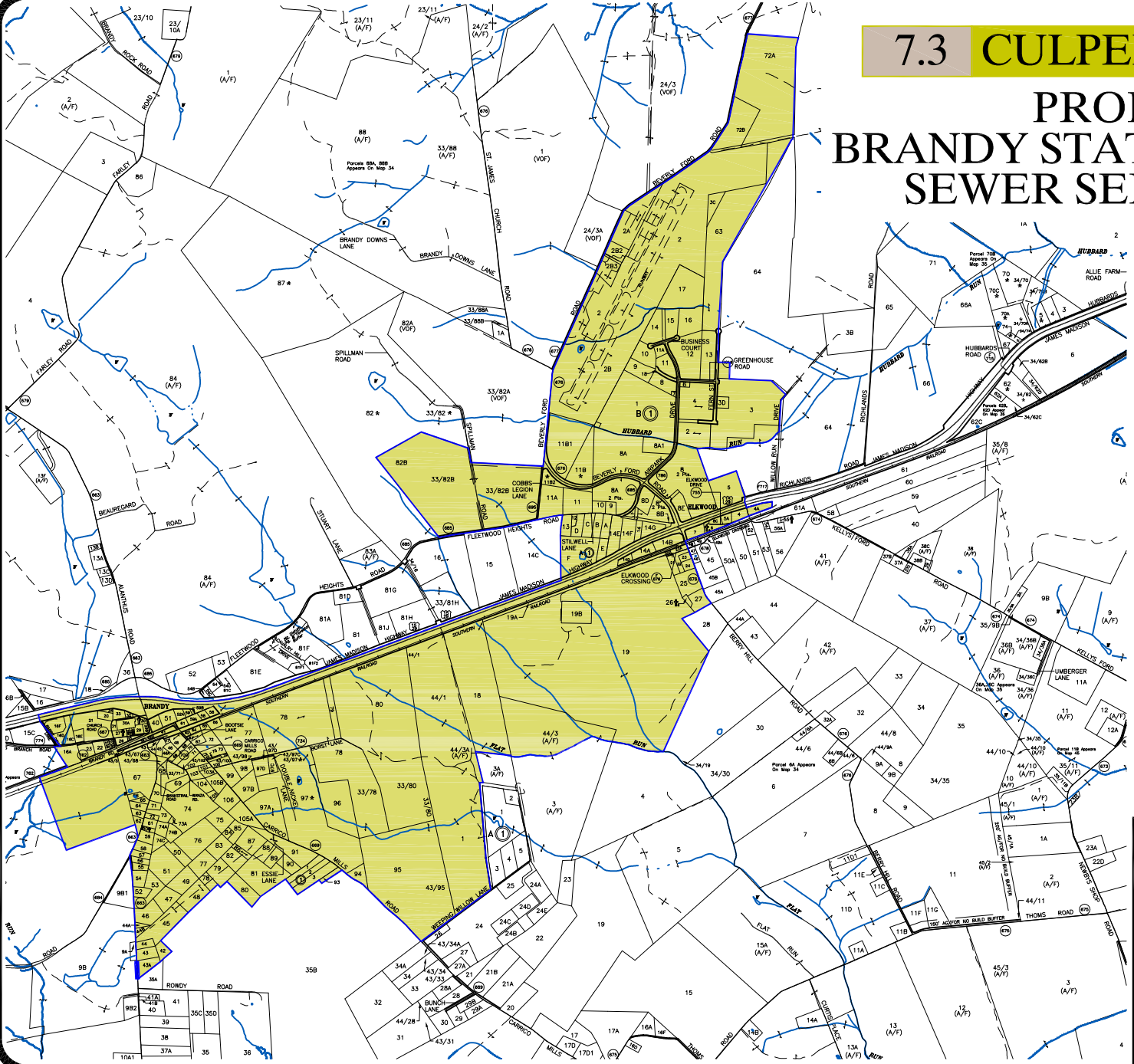
MITCHELLS SEWER SERVICE AREA



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7.3 CULPEPER COUNTY






PROPOSED BRANDY STATION/ELKWOOD SEWER SERVICE AREA

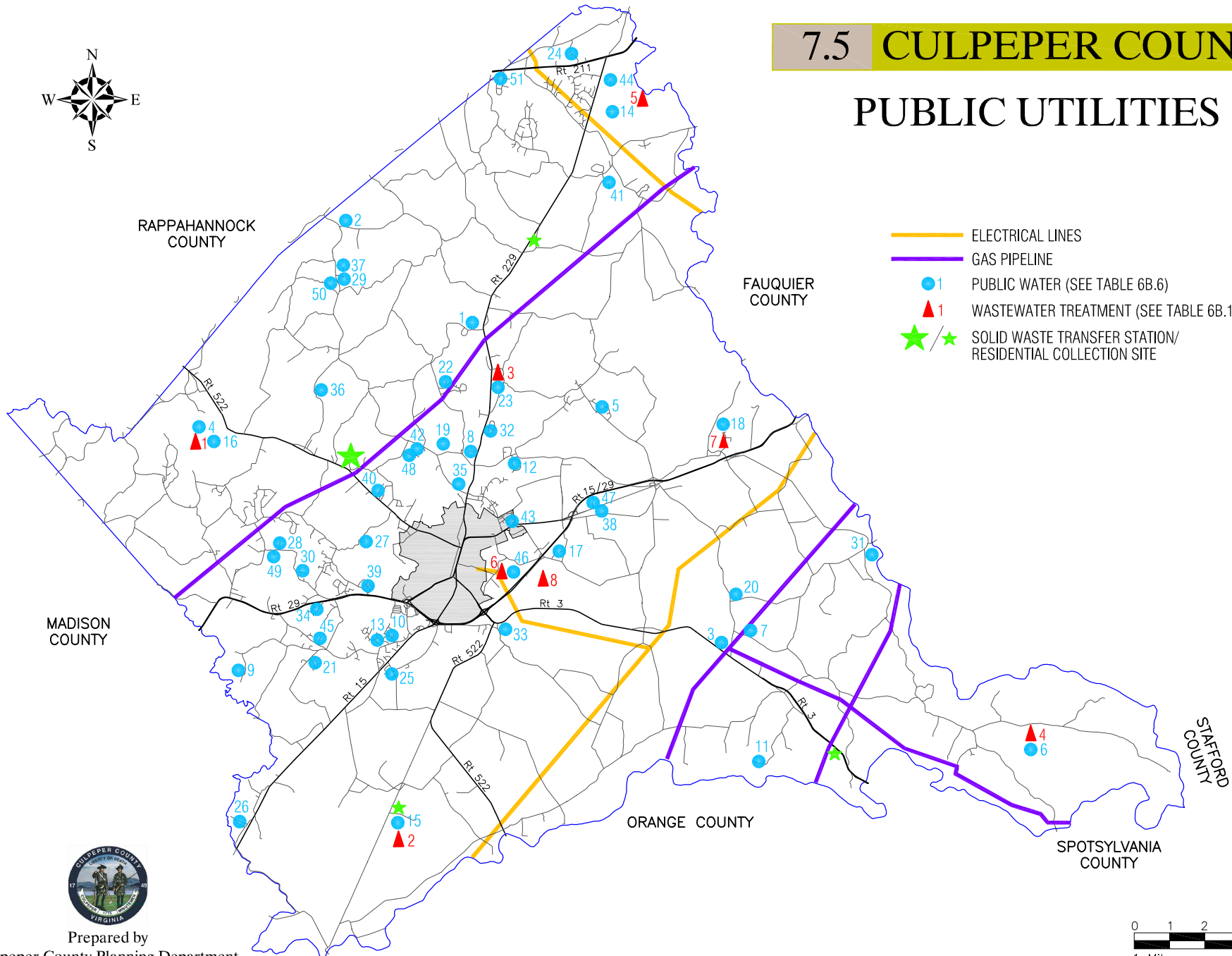


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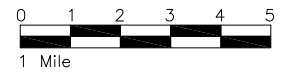
7.5 CULPEPER COUNTY

PUBLIC UTILITIES

-  ELECTRICAL LINES
-  GAS PIPELINE
-  PUBLIC WATER (SEE TABLE 6B.6)
-  WASTEWATER TREATMENT (SEE TABLE 6B.1)
-  SOLID WASTE TRANSFER STATION/
RESIDENTIAL COLLECTION SITE



Prepared by
Culpeper County Planning Department



WIRELESS TECHNOLOGY PLAN

INTRODUCTION

Wireless communication provides a valued service to Culpeper County residents. However, this technology must be implemented in a way that is sensitive to the physical and visual characteristics of the County. The goals, objectives and policies for a Wireless Communications Technology Plan are intended to provide a framework for evaluating telecommunications proposals under the County's development review process set forth in the Culpeper County Zoning Ordinance.

Culpeper County fully supports efforts to make broadband communications available county-wide. Co-location of equipment on existing structures is encouraged and is preferable to construction of new towers. There are five Culpeper County-owned emergency communications towers potentially available for co-location. In areas where structures currently do not exist, Permitted Commercial Tower Development Areas (PCTDAs) have been identified where tower development is desirable in order to provide county-wide service. Ten PCTDAs are identified in this plan (Map 7.6). Three of these contain existing towers and two have been approved for towers. New development in these areas must conform to County ordinances governing tower siting as well as federal and state regulations.

CO-LOCATION OPPORTUNITIES

Presently, numerous existing or approved structures capable of supporting antennas are in place throughout the County. Co-location opportunities exist on many of these sites.

Virginia Power

Virginia Power Company has several large power transmission corridors that cross the County in which power mounts could be added to serve as telecommunications facilities. These corridors offer many opportunities for co-location of transmission towers and communications antennas. Virginia Power has worked closely with the telecommunications industry in facilitating co-location of transmission towers and communication antennas, as well as, co-location within their right-of-way.

Public Sites

Governmental sites within the County that may be appropriate for siting commercial wireless communications facilities include selected fire stations, libraries, the former landfill, post offices, emergency communications sites, water tanks and other public facilities. These facilities are often large enough to allow sufficient separation from surrounding residential uses or are located adjacent to industrial land use. Even on these sites, steps must be taken to minimize impact on surrounding properties. These steps may include camouflaging such as attachments to the existing light poles or power mounts, tree-like structures, and the erection of silos where antennas are hidden on the top portion of the structure. The material which allows radio signals to penetrate through the structure is a Radio Frequency Transparent (RFT) fiberglass that can be molded into different textures and shapes.

Buildings

Antennas can be mounted on the roofs or sides of buildings. While most buildings in the County are less than 35' tall, there are some taller structures could be used for co-location opportunities provided that the antenna(s) are not visible from the road or are camouflaged with radio frequency transparent materials. Farm silos offer such opportunities.

Churches

Many churches in the County present the wireless provider with the potential for locating antennas inside existing steeples. Steeples may also be built to screen antennas arrays. The church community may welcome this type of proposal, because it could potentially generate additional revenue.

Private Land

Although the use of existing facilities is preferred to the construction of new ground-mounted facilities, opportunities exist for the development of freestanding camouflaged mounts on private land.

PERMITTED COMMERCIAL TOWER DEVELOPMENT AREAS (PCDTA)

As described in the previous section, a significant infrastructure of towers, water tanks, and other structures capable of supporting wireless communication equipment is in place throughout Culpeper and adjoining counties. Many of these structures are currently utilized to mount antennas, microwave dishes, paging whips and other ancillary equipment that comprise a wireless communications system network. Many different types of above ground structures, other than towers, possess the potential for mounting equipment. Some of the more common non-tower mounts are rooftops, water tanks, grain silos and church steeples.

Approximately 20 structures capable of supporting wireless communication equipment exist throughout the county and several miles beyond its border. Propagation studies were performed on each structure in order to determine coverage areas. This analysis revealed that adequate coverage is available through the utilization of existing structures over approximately one-third of the county. In the residual areas where coverage does not exist, Permitted Commercial Tower Development Areas (PCTDAs) are identified. PCTDAs are areas where tower development is needed to provide Countywide coverage.

Ten PCDTAs are identified in the county. Each PCTDA covers an area two-miles in diameter. The suggested tower height is 199'. At this height, each structure could support a maximum of five carriers. Mini/micro towers (normally limited to 80' AGL) may be developed outside the PCTDAs as long as their placement is camouflaged. These sites are typically developed to fill small "holes" in coverage or to provide additional capacity.

The purpose for identifying each PCTDA is to provide areas for tower development needed to fill large voids in coverage. The development of each area will afford carriers the opportunity to create networks throughout the entire county that will result in nearly 100 percent coverage. The PCTDAs were carefully selected to minimize the number of new structures, yet provide the opportunity for blanket coverage throughout the County. Each PCTDA provides opportunities to minimize visual impacts through natural

screening, avoids scenic byways, primary highways, air navigation facilities and historic areas, and provides the best locations, given the considerations above, for tower development in terms of topography, interference and coverage.

The ten PCTDAs are as follows. Map 7.6 depicts the sites of each PCTDA.

PCTDA 1 (True Blue) – This site is intended to provide coverage in the southern portion of the County for the Route 522 corridor. The highest ground elevation in this area is approximately 350’.

PCTDA 2 (Ag. Enterprise) – This site is intended to provide coverage along Route 29 corridor, and to a lesser extent, along the Route 15 corridor southwest of the Town of Culpeper. The ground elevation of the existing tower (2013) in this area is approximately 440’.

PCTDA 2A (Cedar Mountain) – This site is intended to provide coverage along the Route 15 corridor southeast of the Town to the Madison County line. The ground elevation of the existing tower (2026) in this area is 470’.

PCTDA 3 (Parish Mountain) – This site is intended to provide coverage for the western region of the County. The highest ground elevation in this area is approximately 815’ on Parish Mountain.

PCTDA 4 (Scott’s Mountain) – This site is intended to provide coverage for the northwestern region of the Route 522 corridor. The highest ground elevation in this area is approximately 890’ on Scott Mountain.

PCTDA 5 (Eggbornsville) – This site is intended to provide coverage for the northwestern region of the County. The highest ground elevation in this area is approximately 400’.

PCTDA 6 (Korea) – This site is intended to provide coverage for the northwestern region of the County. The highest ground elevation in this area is approximately 500’.

PCTDA 7 (Lakota) – This site is intended to provide coverage in the eastern region of the County. The highest ground elevation in this area is approximately 450’.

PCTDA 8 (Coles Hill) – This site is intended to provide coverage in the eastern portion of the County between Route 3 and the Rappahannock and Rapidan Rivers. The highest ground elevation in this area is approximately 250’.

PCTDA 9 (Stevensburg) – This site is intended to provide coverage along the Route 3 corridor. The highest ground elevation in this area is approximately 470’, near Hansbrough Ridge.

PROCESS FOR NEW CONSTRUCTION IN PCTDA

Ten Permitted Commercial Tower Development Areas (PCTDAs) are identified in the plan as areas suitable for future tower development. Proposals to construct a new tower in one of the PCTDAs are not exempt from the normal County Zoning review process. The purpose of this review is to ensure conformance with applicable ordinances and requirements. PCTDAs which have already been subject to tower construction are assumed to be complete. Subsequent carriers should seek collocation on the tower in the PCTDA.

CHANGING TECHNOLOGY

Wireless technology changes rapidly. The use of, and dependency on this technology is also growing rapidly. The study which identified co-location opportunities, coverage needs, and PCTDA locations is now over a decade old. Despite this fact, the recommendations for future tower locations are still valid and should serve as a general guide. All tower location requests should be fully evaluated based upon propagation maps and other information. Any tower which will further the goal of achieving County-wide coverage must be carefully considered, regardless of whether or not it is located within a PCTDA.

EXISTING TOWER SITE SUMMARY

Table 7.3 lists existing antenna sites throughout Culpeper County. Sites are identified by a Case Number, Structure Owner or Carrier, Latitude/Longitude Coordinates, AGL, GE, AMSL data, the amount of serviceable co-location positions (Slots) available, and Tower Type.

Only those structures where co-location is feasible are identified on the list. Structures that are not capable of supporting additional equipment are not included. Additionally, structures that may have available slots but are not available for commercial applications, such as military structures, are also excluded from this list.

TABLE 7.3 EXISTING STRUCTURES FOR COLOCATION

Tower#	OWNER	ADDRESS	SLOTS	TYPE
Culp- 2001	Telecom CNSLT	Germanna Highway	1	Lattice SS
Culp- 2002	Alltel	706 US Avenue	3	Monopole
Culp- 2003	Bell Atlantic Mobile Systems (BAMS)	412 East Piedmont Street	1	Lattice SS
Culp- 2004	Cellular One	15544 Braggs Corner Road	1	Lattice SS
Culp- 2005	State Police	15123 State Police Road	6	Guyed Lattice
Culp- 2006	BAMS	12282 Mt. Zion Church Road	1	Lattice SS
Culp- 2007	WCVA-FM 103.1	515 Radio Lane	2	Guyed Lattice
Culp-2008	Culpeper Water Tower	608 Overlock Street	1	Water Tower
Culp-2010	Sprint	1399 Old Bridge Road	2	Lattice SS
Culp-2011	Community Wireless	19067 Industrial Road	3	Monopole
Culp-2012	Community Wireless	19621 Church Road	3	Monopole
Culp-2013	Sprint	10222 James Monroe Highway	2	Monopole
Culp-2014	Culpeper Water Tower	15399 St. Jameson Road	1	Water Tower
Culp-2016	Culpeper Fire Tower	Eleys Ford Road	1	Lattice SS
Culp-2017	SBA	13360 Newbys Shop Road	3	Lattice SS
Culp-2018	Alltel	19513 Brandy Road	1	Monopole
Culp-2019	Culpeper Regional Hospital	501 Sunset Lane	1	Roof Guyed Tower
Culp-2021	Alltel	9075 Monumental Mills Road	1	Monopole
Culp-2022	Alltel	17345 Chris Crossing	1	Lattice SS
Culp-2023	AT&T Cable	16084 Gibson Mill Road	1	Guyed Tower
Culp-2025	FAA/Two-way Tower (2 Towers)	19247 The Mountain Road	1	Guyed & Lattice SS
Culp-2026	Community Wireless	8604 General Winder Road	6	Monopole
Culp-2027	National Communication Towers, LLC	18250 Germanna Highway	6	Monopole
Culp-2201	Culpeper County	21598 Jacobs Ford Road	3	Guyed Lattice
Culp-2202	Culpeper County	10419 Cherry Hill Road	4	Guyed Lattice
Culp-2203	Culpeper County	16682 Oak Shade Road	5	Guyed Lattice
Culp-2204	Culpeper County	11488 Rockforest Lane	5	Guyed Lattice
Culp-2205	Culpeper County	14022 Public Safety Court	Est. 2	Monopole
Culp-2206	Clevenger's Water Tower	18512 Clevengers Utility Road	3	Water Tower
Culp-2028	National Communication Towers, LLC	22799 Zachary Taylor Highway	6	Monopole
Culp-2030	Rappahannock Electric Cooperative	13252 Cedar Run Church Road	3	Lattice SS
Culp-2031	Milestone Communications	18327 Madison Road	6	Monopole
Approved tower sites which have not been constructed				
Culp-2207	Culpeper County	Cherry Hill Road	6	Monopole or Lattice
Culp-2029	Verizon Wireless	Alum Springs Road	2	Monopole

CULPEPER COUNTY COVERAGE MAPS

According to the Virginia Office of Telework Promotion and Broadband Assistance,

“Broadband networks are the first enabling technology since electricity to fundamentally impact society to such a great extent that it is now viewed in economic development circles as *critical infrastructure*. Access to broadband provides communities with the foundation necessary for economic growth and a sustainable quality of life. At present, too many communities – both urban and rural – are not afforded access to affordable, reliable broadband telecommunications, and hence are deprived of their ability to participate in enhanced social, education, occupation, healthcare, and economic development opportunities. It is critical that all Virginia communities have equal and affordable access to broadband telecommunications.”

Maps 7.7 and 7.8 show the estimated wired and wireless technology coverage areas within Culpeper County. The information was gathered through a statewide survey and utilizes U.S. Census tracts to show both wired and wireless options currently available. Census Tracts which include any coverage have been shown as fully covered, although that is not necessarily the reality. As such, there are areas within the County not reflected on Map 7.8 which lack coverage.

As demand for wireless service increases, additional broadband infrastructure will be needed to provide 100% coverage throughout the County. Wired technology coverage infrastructure throughout the County is currently limited to the more densely populated areas, approximately 70%. Additional wired service is encouraged throughout underserved areas within Culpeper County.

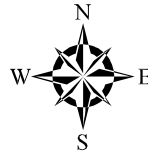
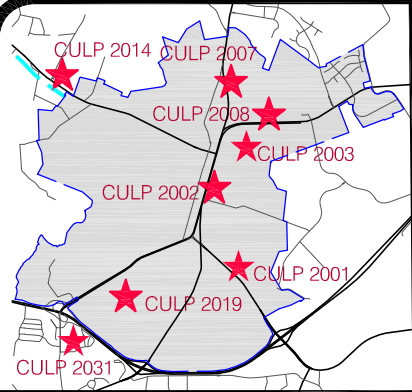
“Access to computers and the Internet has become a basic need for education in our society.” - Kent Conrad, former United States Senator, North Dakota

7.6 CULPEPER COUNTY

TELECOMMUNICATIONS TOWER PLAN

LEGEND

- ★ EXISTING ANTENNA SITE
- ▲ PROPOSED ANTENNA SITE
- ✈ CULPEPER AIRPORT
- EMERGENCY COMMUNICATION SITES
- PERMITTED COMMERCIAL TOWER DEVELOPMENT AREA
- POWER TRANSMISSION LINE
- - - VIRGINIA SCENIC BYWAY
- ★ FAUQ 1037
- ★ FAUQ 1002



RAPPAHANNOCK COUNTY

FAUQUIER COUNTY

MADISON COUNTY

ORANGE COUNTY

SPOTSYLVANIA COUNTY

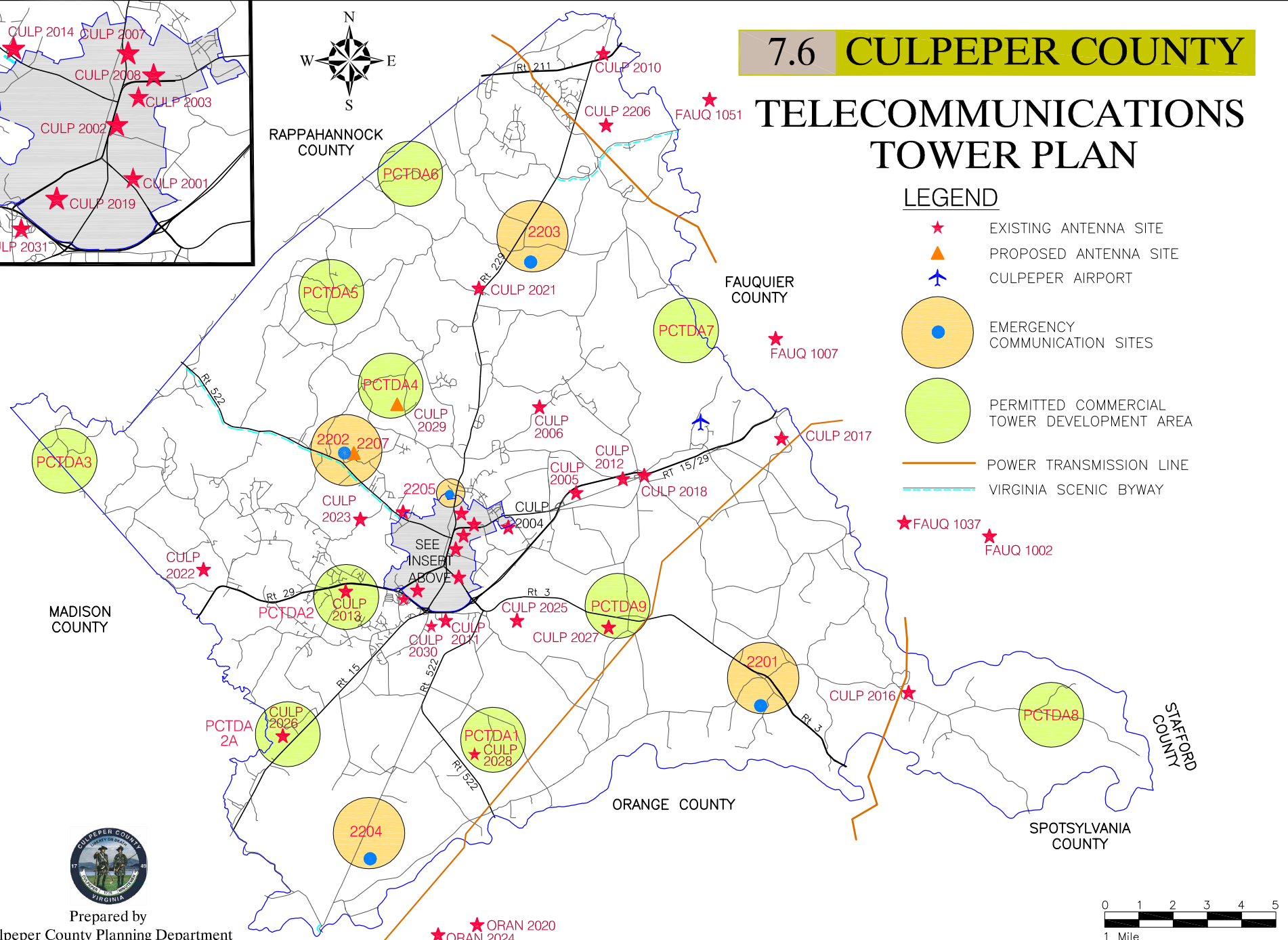
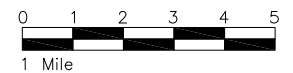
STAFFORD COUNTY

SEE INSERT ABOVE



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★ ORAN 2020
★ ORAN 2024



7.7 CULPEPER COUNTY




WIRED TECHNOLOGY COVERAGE

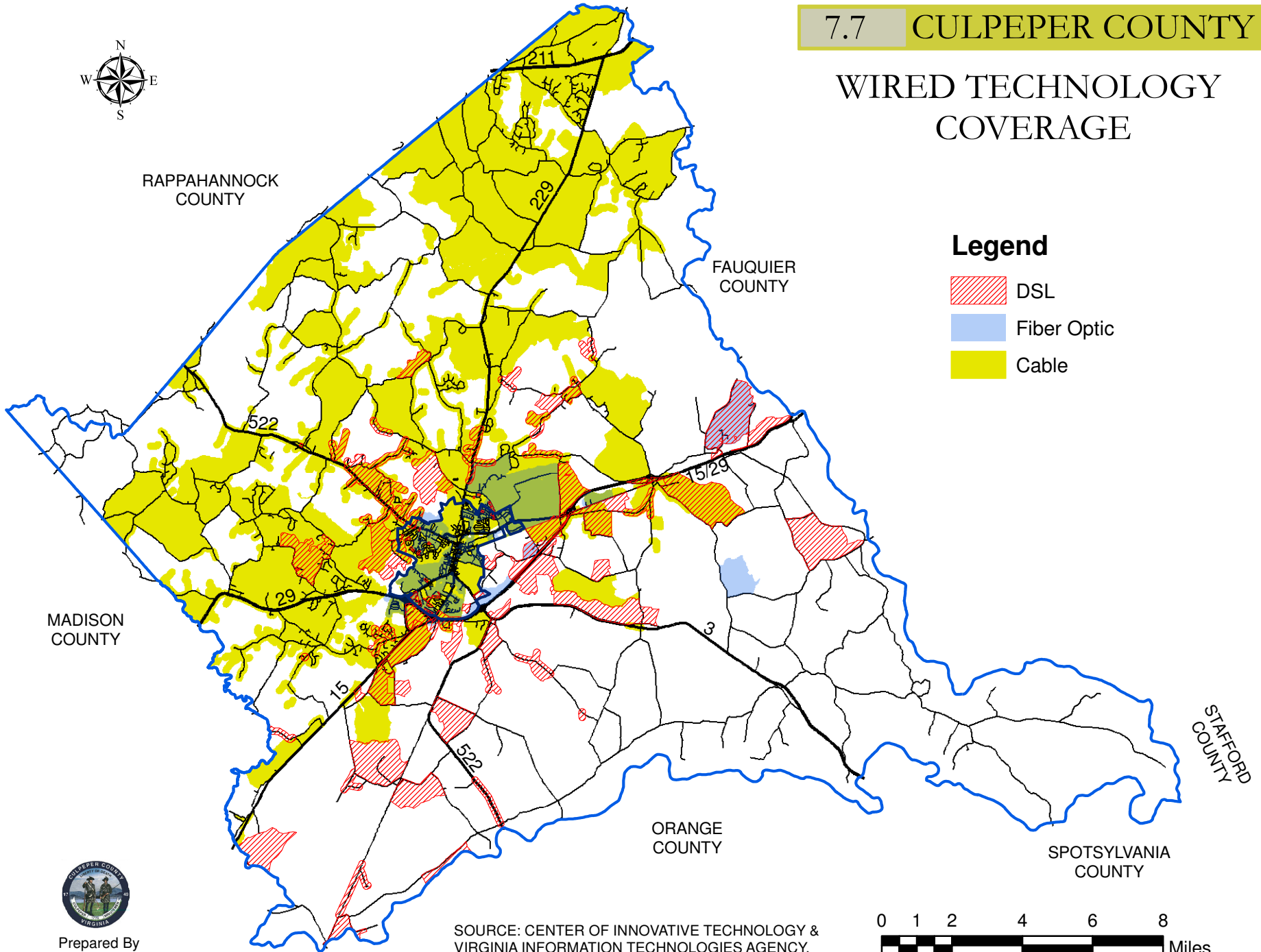


RAPPAHANNOCK COUNTY

FAUQUIER COUNTY

Legend

-  DSL
-  Fiber Optic
-  Cable



MADISON COUNTY

STAFFORD COUNTY

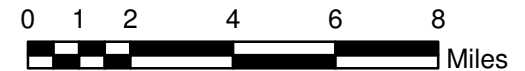
ORANGE COUNTY

SPOTSYLVANIA COUNTY



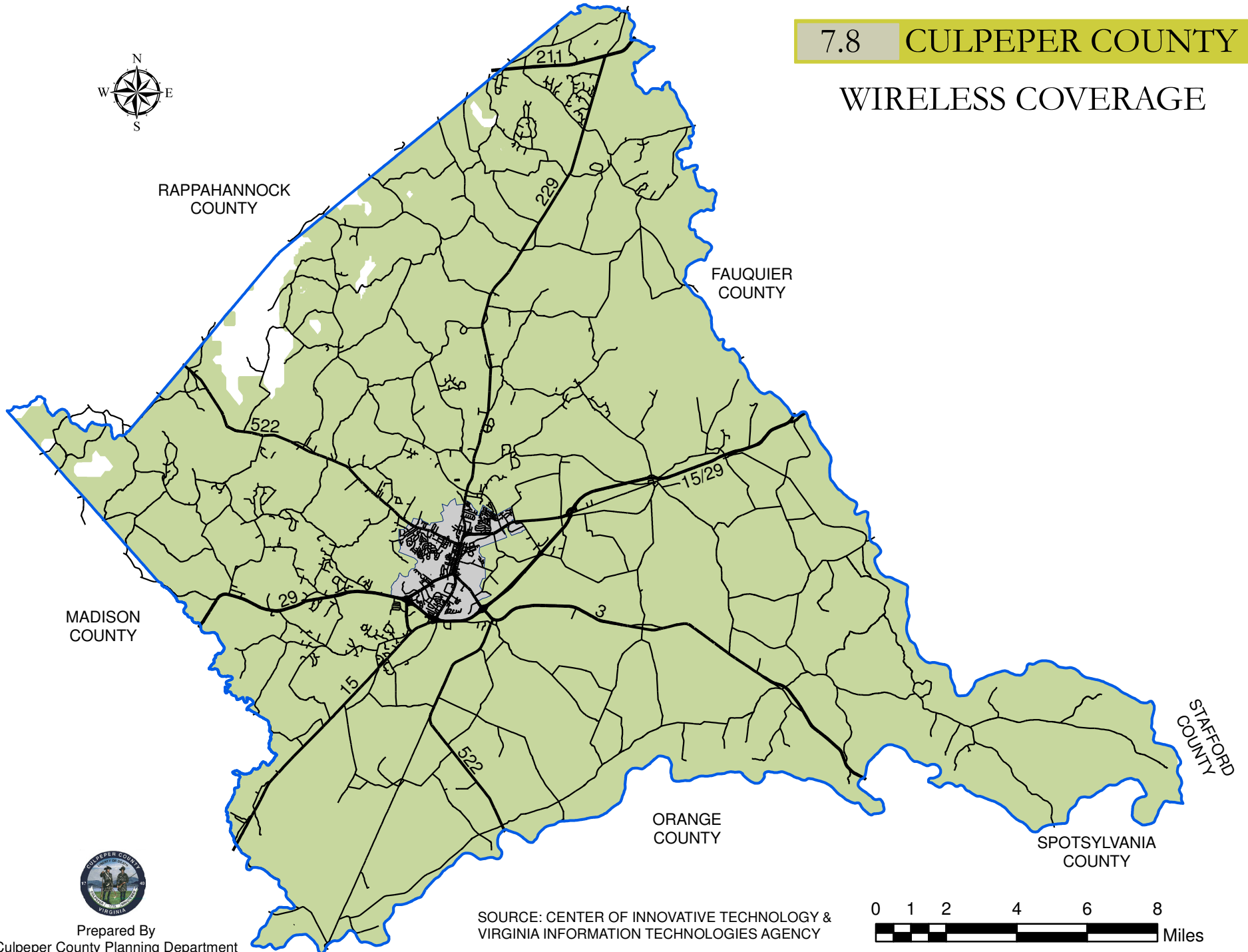
Prepared By
Culpeper County Planning Department

SOURCE: CENTER OF INNOVATIVE TECHNOLOGY &
VIRGINIA INFORMATION TECHNOLOGIES AGENCY.



7.8 CULPEPER COUNTY

WIRELESS COVERAGE



Prepared By
Culpeper County Planning Department

SOURCE: CENTER OF INNOVATIVE TECHNOLOGY &
VIRGINIA INFORMATION TECHNOLOGIES AGENCY

PUBLIC SERVICES & UTILITIES GOALS AND OBJECTIVES

Public Services- Utilities, Sanitary Sewer and Water Facilities

GOAL: MAINTAIN AND IMPLEMENT A LONG RANGE COUNTY-WIDE UTILITY PLAN FOR WATER AND SEWER THAT SUPPORTS AND COMPLEMENTS THE COUNTY'S LONG RANGE PLANS FOR COMMUNITY DEVELOPMENT.

OBJECTIVES:

1. Provide sewer and water services to appropriate County areas to serve projected growth. Areas to be considered are: the Town of Culpeper environs and the Village Centers of Clevenger's Corner and Elkwood/Brandy Station.
2. Identify areas where centralized sewerage systems are warranted and review opportunities and alternatives for sewage disposal. Identify areas of existing failing septic systems and related concerns, and provide solutions to sewage disposal issues.
3. Evaluate water sources, including groundwater, surface impoundments and streams, with respect to suitability for public water supply.
4. Maintain preliminary engineering studies which address distribution and/or collection systems for each of the village centers. Studies should include size and routing of lines, facility locations including pumping stations and/or gravity sewers as required, and cost estimates for the alternatives for each village center.

Solid Waste

GOALS: PROVIDE EFFICIENT MANAGEMENT OF SOLID WASTE AND PROTECT THE HEALTH, SAFETY, AND WELFARE OF THE CITIZENS OF CULPEPER COUNTY BY PLANNING FOR FUTURE SOLID WASTE MANAGEMENT.

OBJECTIVES:

1. Categorize incoming waste in order to make informed decisions on how to spend limited funds to meet local, regional, and State goals and maximize the impact of those funds.
2. Aggressively pursue State and Federal funding for solid waste related activities.
3. Establish and maintain recycling programs for all principal recyclable materials. Continue and increase participation in County, Town and privately sponsored recycling programs through better accessibility and increased public awareness.

4. Identify additional methods to dispose of solid waste. Maintain and expand the solid waste transfer station as necessary to accommodate an increasing population; and provide additional locations for citizens to dispose of solid waste.

CELLULAR WIRELESS AND INTERNET

GOALS: PROVIDE WIRELESS COMMUNICATION SERVICE TO COUNTY RESIDENTS AND BUSINESSES WHILE MINIMIZING NEGATIVE IMPACTS OF THE LOCATION AND APPEARANCE OF THESE FACILITIES.

OBJECTIVES:

1. Minimize the adverse visual impacts of wireless communications towers and related facilities through careful design, siting, landscape screening, and innovative camouflaging techniques.
2. Ensure that co-location opportunities are fully met before permitting new wireless communications towers.
3. Ensure that telecommunication providers implement reasonably available technology that may reduce the number and/ or height of towers.
4. Require engineering studies for all proposed facilities to show propagation coverage area and suitability of the facilities for co-location of multiple additional antennas.
5. Develop an administrative approval process for permitting infill towers equal to or less than 80 feet in height.
6. Expedite the permitting of wireless communication towers that have minimal visual impacts and meet all regulatory standards.
7. Encourage future providers to propose a plan for their “build out” coverage grid for the entire County.
8. Explore strategies which will assist in achieving the goal of having broadband service available for every citizen of Culpeper County.

ONLINE RESOURCES

[Culpeper County Environmental Services](#)

[Culpeper County Master Water and Sewer Plan](#)

[Culpeper County Reservoir Study](#)

[Town of Culpeper Environmental Services](#)

[Town of Culpeper Public Works Department](#)

[Office of Drinking Water](#)

[Office of Telework Promotion and Broadband Assistance](#)