

CHAPTER 7: UTILITIES



Source: Culpeper Star Exponent (Loud)

INTRODUCTION

A major function of local government is to provide utility services where necessary, feasible, and desirable. In Culpeper County, the government provides public water and sewer services in select areas, runs a solid waste transfer station with a satellite residential collection facility, and assists in the expansion of broadband to unserved and underserved areas. These important responsibilities require the County to plan ahead to ensure that the provided services are of high quality and reliability.

This chapter is intended to provide the following: an overview of the County's current utility systems; an analysis of current and future concerns and trends relevant to the provision of these services; and a list of the goals, objectives, and action items that will address these identified concerns. These statements will outline the County's aspirations regarding the provision of utility services for the next several years. Each of these generalized goals will include detailed objectives and accompanying action items that will provide the framework for how the County can work towards achieving them.



Source: Town of Culpeper Public Services

OVERVIEW

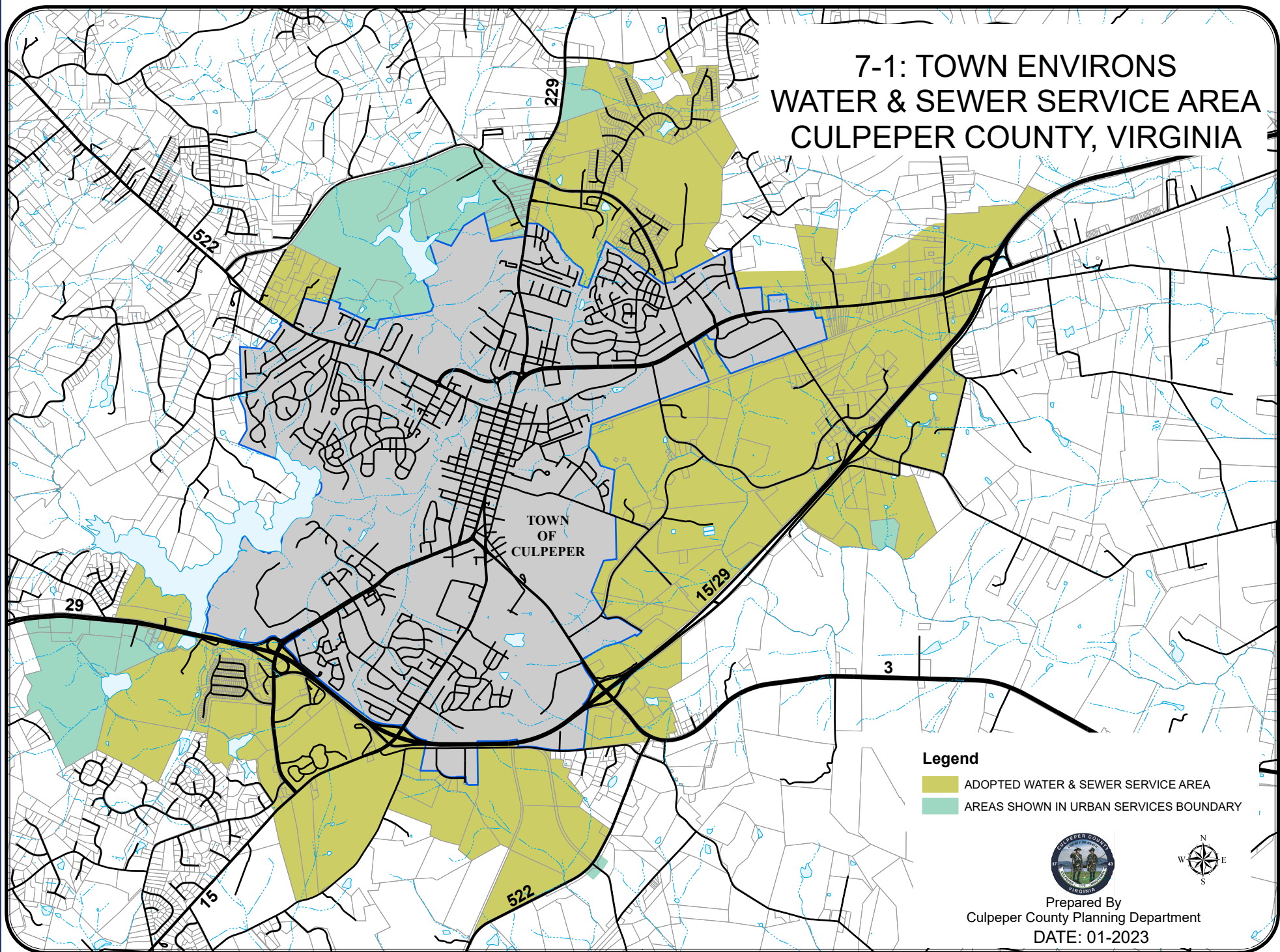
WATER AND SEWER SERVICES

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 and the areas 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. The sewer service area for Mitchells, is found on Map 7-2, the Brandy Station/Elkwood water and sewer service area is shown on Map 7-3, and the Clevenger's Corner water and sewer service area is shown on Map 7-4. The Master Water and Sewer Plan is created by the County's Department of Environmental Services and can be viewed on its web page on the official Culpeper County website.





Source: Culpeper Star Exponent (VA)

7-1: TOWN ENVIRONS WATER & SEWER SERVICE AREA CULPEPER COUNTY, VIRGINIA



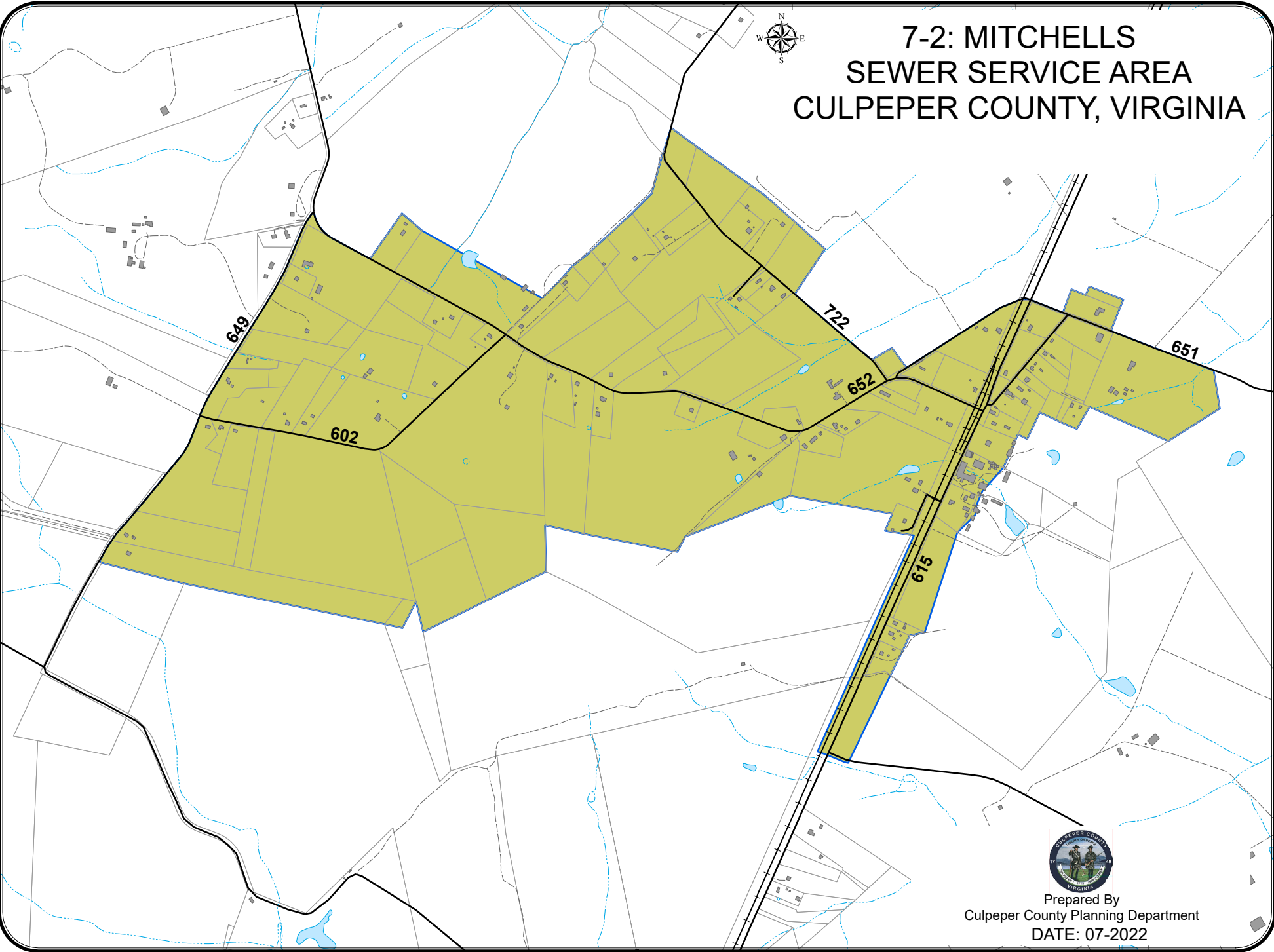
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-  ADOPTED WATER & SEWER SERVICE AREA
-  AREAS SHOWN IN URBAN SERVICES BOUNDARY



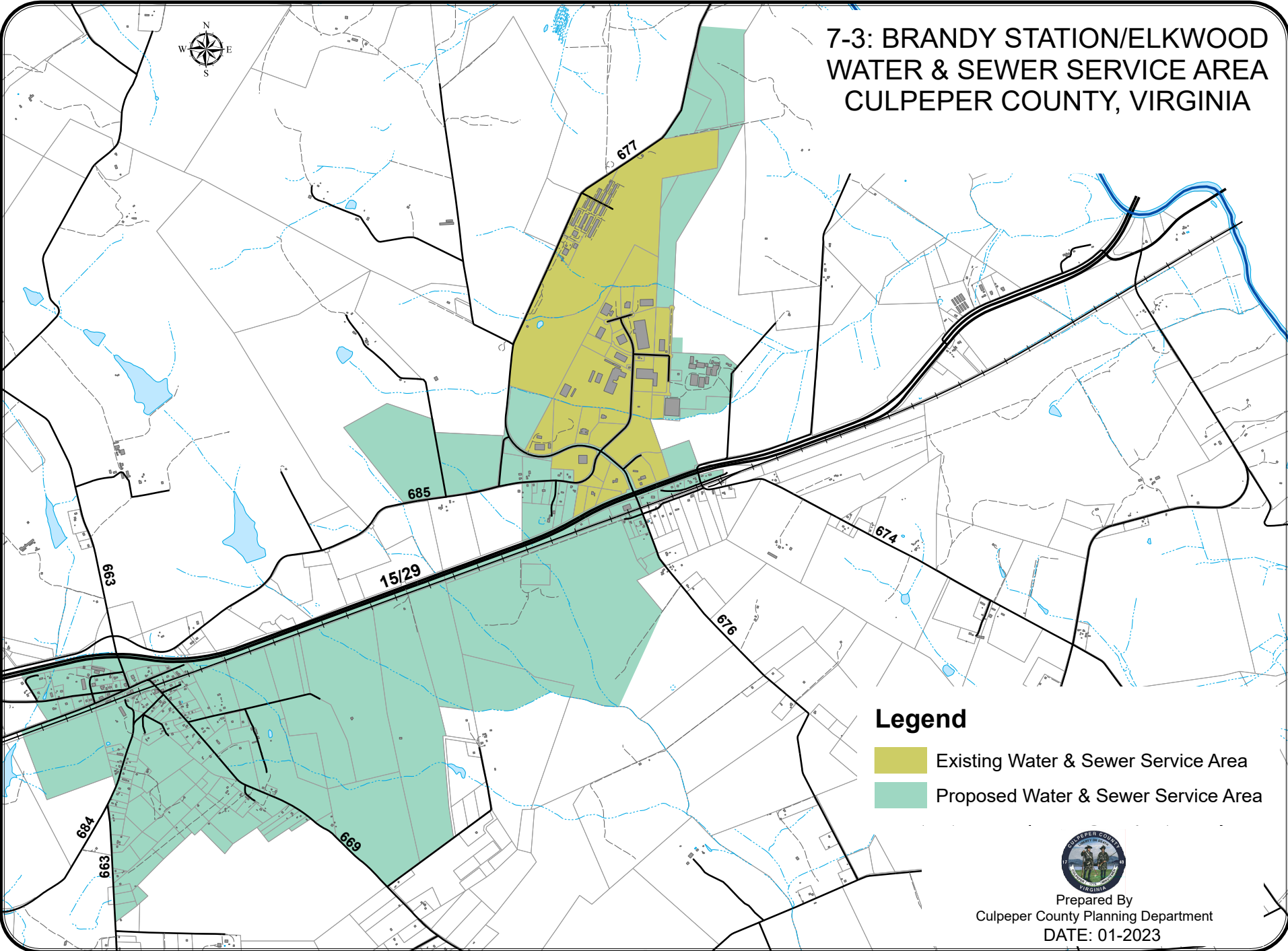
Prepared By
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7-2: MITCHELLS SEWER SERVICE AREA CULPEPER COUNTY, VIRGINIA



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7-3: BRANDY STATION/ELKWOOD WATER & SEWER SERVICE AREA CULPEPER COUNTY, VIRGINIA



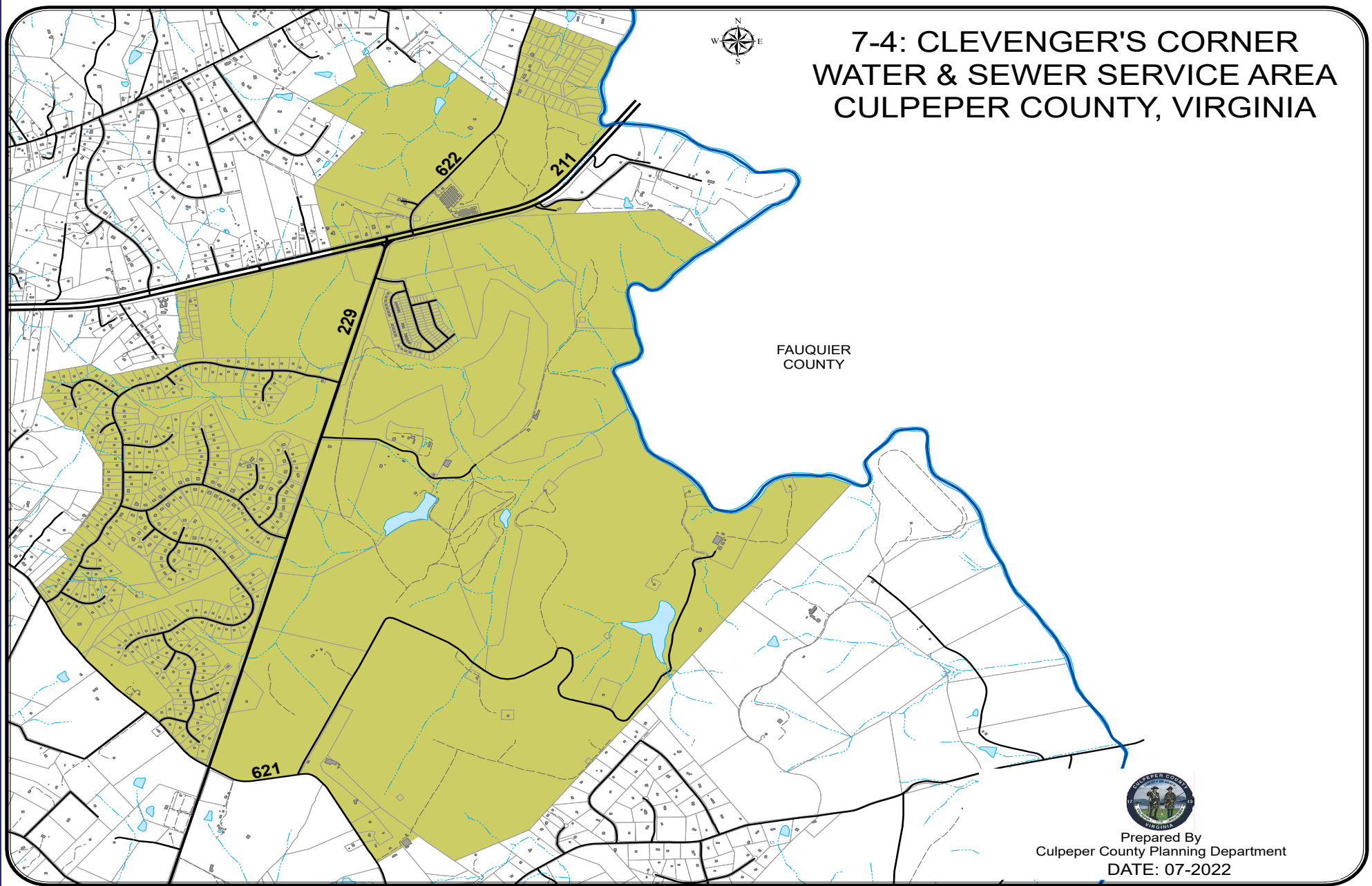
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- Existing Water & Sewer Service Area
- Proposed Water & Sewer Service Area



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DATE: 01-2023

7-4: CLEVINGER'S CORNER WATER & SEWER SERVICE AREA CULPEPER COUNTY, VIRGINIA



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Culpeper County Planning Department
DATE: 07-2022

SANITARY SEWER FACILITIES

There are a number of sewage treatment plants, of varying sizes, located within Culpeper County. Figure 7-1 lists those treatment plants that generally serve commercial/industrial sites or major residential developments, which are also shown on Map 7-5 on page 7-16. The majority of County residences and businesses rely on individual septic systems and, in a few cases, package treatment plants.

The largest sewage treatment plant in Culpeper County is owned and operated by the Town of Culpeper. It is located east of the Town limits and discharges into Mountain Run, a tributary of the Rappahannock River. With a 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. Service around the Town environs will continue to expand under an agreement reached between the Town and County in 2012.

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 Virginia Department of Environmental Quality (DEQ) regulates this activity.

Culpeper County 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 DEQ through its Virginia Pollution Discharge Elimination System (VPDES). The VPDES permit is written so the County can expand the wastewater plant up to 300,000 gallons per day (gpd) without requiring re-issuance of the permit. The former aeration package plant at the Airpark wastewater treatment plant, which was built in 1998 and had a capacity of 25,000 gpd, was replaced in 2022 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. Culpeper County 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 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, is a medium security prison complex with a separate juvenile detention facility (currently vacant). 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. 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 on-site improvements and service connections at their expense.

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

Figure 7-1



Source: Town of Culpeper Environmental Services

WATER FACILITIES

Most of the County depends on groundwater, and the vast majority of residents and businesses rely on individual wells for their water supply. There are approximately 50 community (residential) and non-community (business) public water systems of varying sizes within the County as shown in Figure 7-2.

Town of Culpeper

The Town of Culpeper is the largest public water supplier in Culpeper County. The Town's water is provided by Lake Culpeper and Mountain Run Lake. Raw water is withdrawn from Lake Culpeper through an 18-inch gravity line to the Culpeper water treatment plant located within the Town's corporate limits. The safe yield is 4.0 mgd. The Town of Culpeper developed a groundwater well system that provides 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 120 gallons per minute (gpm) and 114 gpm. 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 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 in 2022 was is 7,000 gpd.

Clevenger's Corner

The Clevenger's Corner Water Utility System includes six groundwater 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, and will serve the future Stonehaven development.

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.

Cherry Hill Water System

Culpeper County was 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 current well has a sustainable yield of 90 gpm, enough to support approximately 100 homes. Consideration will be given to adding a secondary backup well and to constructing 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, a ground storage tank (if necessary), and approximately 3 miles of water line. As of Spring 2022, the Cherry Hill Water System went out to bid and is planned to be operational in 2023.

ENTERPRISE FUNDS

The Airport, the Solid Waste Transfer Station, and all County-owned water/wastewater facilities operate as enterprise funds. As such, they are treated as entities which should generate revenue sufficient for operations without being subsidized by tax dollars. The Clevenger's Corner Utility System does not currently have enough connections to operate without subsidy. For a number of years, developer proffered funds covered any operating losses. Now that those funds have been exhausted, subsidy from the County is accounted for as a loan from the general fund.

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

Figure 7-2

SOLID WASTE

Culpeper County's Department of Environmental Service 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, and contracts with Republic Inc. (Republic) to assist with operation of 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.

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. 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 commingled 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 and are shown on Map 7-5 on page 7-16.

One of these lines 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 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 of Supervisors 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.

The Rappahannock Electric Cooperative Mountain Run Substation, adjacent to the Culpeper Public Works Department, is to be expanded in the future to accommodate future energy demands. The transmission line that is connected to the substation is expected to be upgraded as well.

ELECTRICAL GENERATION

As of the Spring of 2022, there is only one operating electrical generation facility located within Culpeper County, which is the Town of Culpeper Light and Power Facility off of Electric Avenue. This is a peak shaving plant for energy peaks and emergency operations (Town of Culpeper Light). Additionally, there is one utility-scale solar facility that was approved and is in the site planning process.

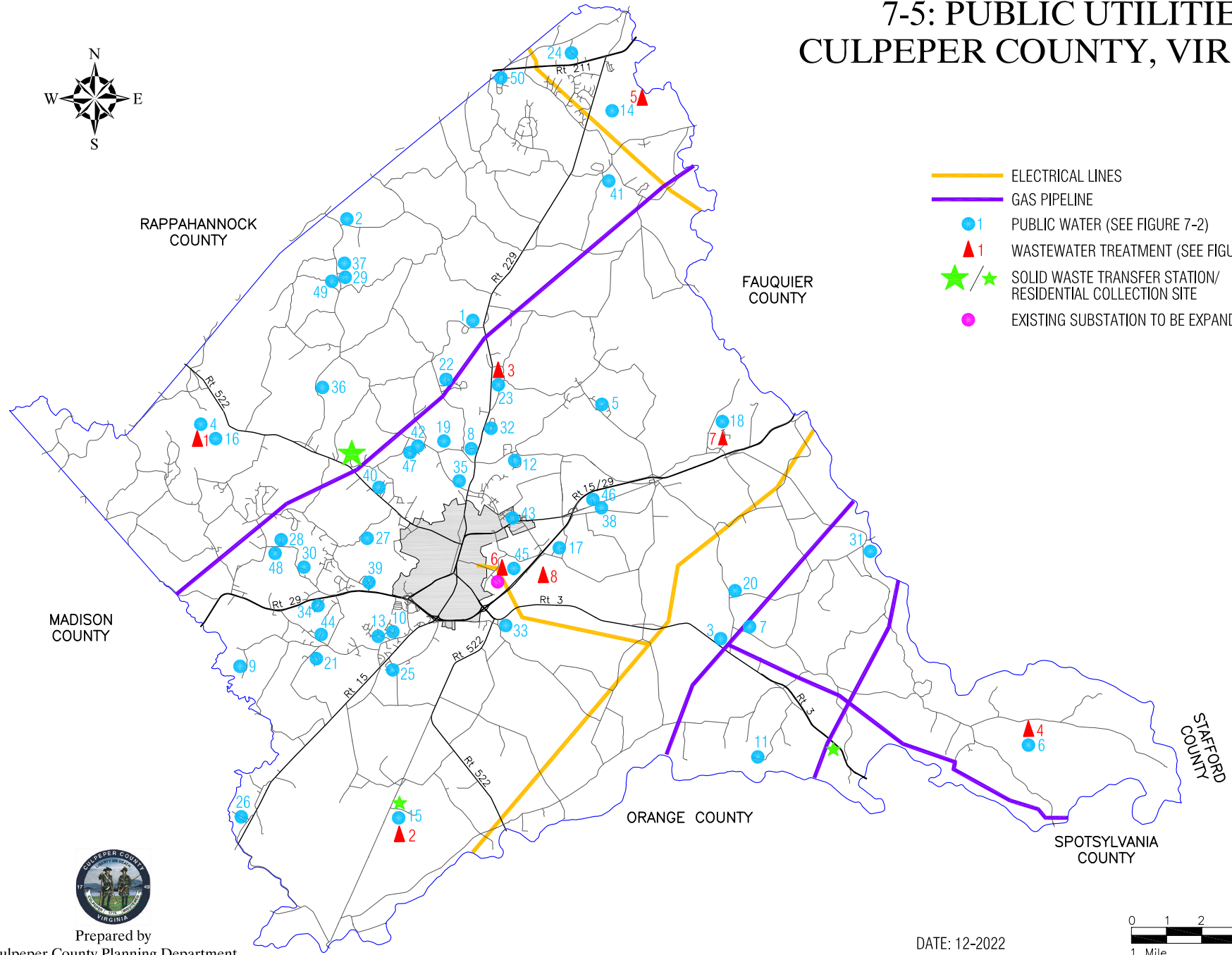
NATURAL GAS

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 20 miles of Amerigas transmission lines 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, as shown on Map 7-5.

7-5: PUBLIC UTILITIES CULPEPER COUNTY, VIRGINIA

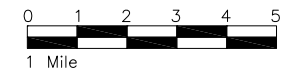


- ELECTRICAL LINES
- GAS PIPELINE
- 1 PUBLIC WATER (SEE FIGURE 7-2)
- ▲ 1 WASTEWATER TREATMENT (SEE FIGURE 7-1)
- ★/★ SOLID WASTE TRANSFER STATION/
RESIDENTIAL COLLECTION SITE
- EXISTING SUBSTATION TO BE EXPANDED



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Culpeper County Planning Department

DATE: 12-2022



BROADBAND

Broadband has become critical infrastructure for communities. Routine activities of both residents and businesses now often require Internet access. Schools continue to expand the use of Internet-enabled learning resources, and children in households with inadequate Internet service are at a severe disadvantage. In Culpeper County and the Town of Culpeper, the large number of people trying to use the Internet for educational activities and job-related work indicates that the Internet access in the area has become critical to community and economic development. The availability of affordable and adequate broadband has already begun to influence both business location decisions and home-buying decisions.

Culpeper County fully supports efforts to make broadband communications available county-wide. It is the County's goal to achieve universal fiber-to-home coverage throughout the County. The use of wireless broadband service can be unreliable and is becoming obsolete. For cellular service, and limited broadband service, co-location of equipment on existing structures is encouraged when possible and is preferable to the construction of new towers. There are four Culpeper County-owned emergency communications towers potentially available for co-location, and there are several private structures with co-location opportunities available. The Culpeper County Zoning Ordinance requires engineering studies for all proposed facilities to show propagation coverage area and suitability of the facilities for future co-location of multiple additional antennas. New tower applications are subject to a public hearing process.

COUNTY FIBER-TO-THE-HOME INITIATIVE

As shown on Map 7-6, Culpeper County has identified and developed plans to achieve universal coverage. Approximately 4,300 homes are to be served with fiber through a project in partnership with All Points Broadband. Areas which will not initially be served by All Points are areas in the territory of Comcast. Most homes in the Comcast areas are currently served, but any gaps remaining must be filled. Map 7-6 helps identify areas that need to be targeted for broadband expansion programs, with priority going to areas with no coverage at all.

As of the Spring of 2022, Culpeper County is initiating a project with All Points Broadband to expand the availability of fiber to County residents in unserved and underserved areas designated by the Federal Communications Commission. It is estimated that installation could begin as early as the spring of 2023. The project is being funded through the Commonwealth of Virginia's V Telecommunications Initiative (VATI) program combined with private funds and local funds which were derived from the American Rescue Plan Act (ARPA). (See Map 7-6)

In conjunction with the All Points project, Culpeper can achieve its goal of universal broadband coverage if it can secure connections to approximately 758 homes which are located throughout the County in areas which are in close proximity to existing Comcast lines. Comcast and the County are currently seeking additional VATI grant funds to facilitate serving all of those remaining unserved homes and businesses. (See Map 7-6)

7-6: WIRED BROADBAND SERVICE CULPEPER COUNTY, VIRGINIA



RAPPAHANNOCK
COUNTY

FAUQUIER
COUNTY

MADISON
COUNTY

ORANGE
COUNTY

SPOTSYLVANIA
COUNTY

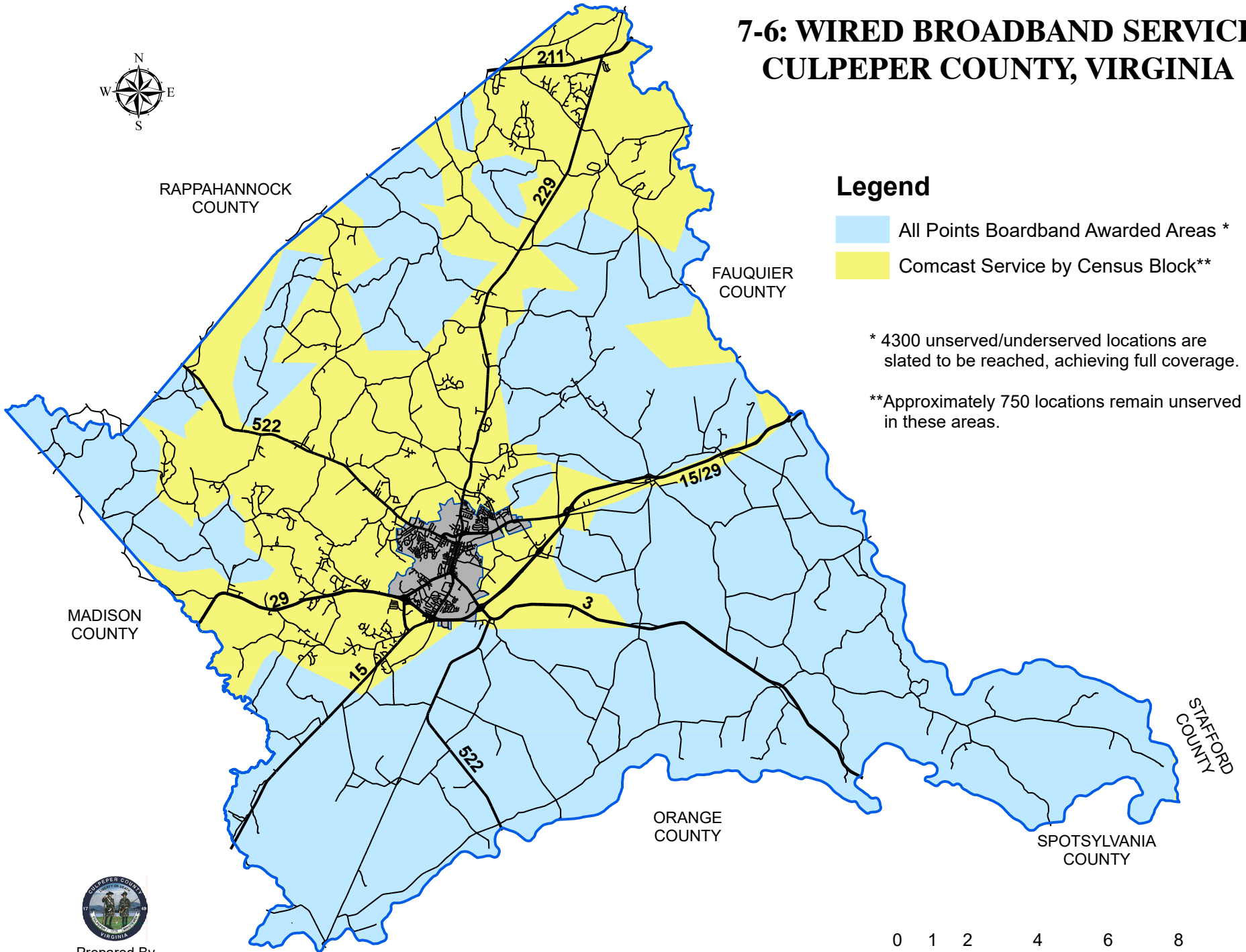
STAFFORD
COUNTY

Legend

- All Points Broadband Awarded Areas *
- Comcast Service by Census Block**

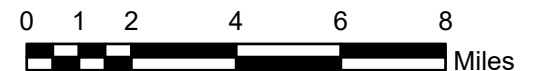
* 4300 unserved/underserved locations are slated to be reached, achieving full coverage.

**Approximately 750 locations remain unserved in these areas.



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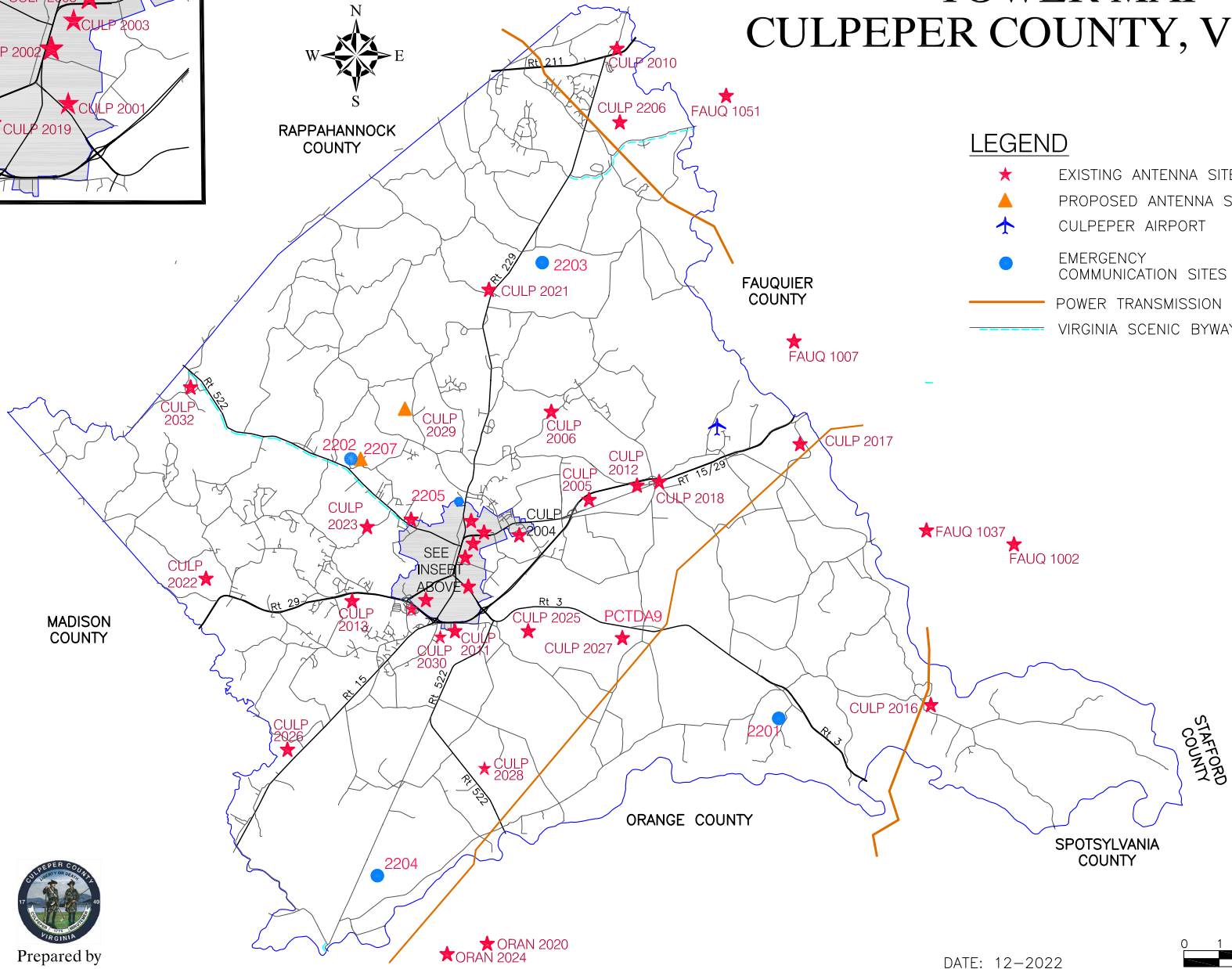
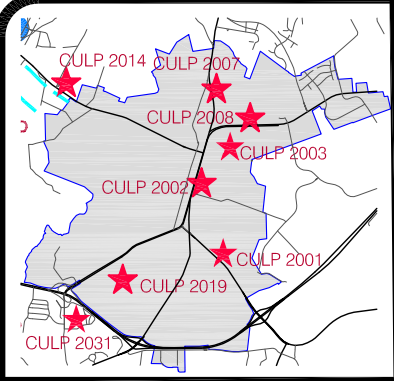
Existing Tower Site Summary

Figure 7-3 and Map 7-7 shows existing antenna sites throughout Culpeper County. Sites are identified by a Tower Number, Structure Owner or Carrier, physical address, 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.

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
Culp-2032	Community Wireless	11402 Twin Lakes Lane	4	Lattice SS
		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

Figure 7-3

7-7: TELECOMMUNICATIONS TOWER MAP CULPEPER COUNTY, VIRGINIA



LEGEND

- ★ EXISTING ANTENNA SITE
- ▲ PROPOSED ANTENNA SITE
- ✈ CULPEPER AIRPORT
- EMERGENCY COMMUNICATION SITES
- POWER TRANSMISSION LINE
- - - VIRGINIA SCENIC BYWAY



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CONSTRAINTS & CONCERNS

FUTURE GROWTH CREATING CAPACITY CONCERNS

The most pertinent concern regarding County utilities is the increase in the demand for services due to development. While some development, especially small residential projects, can be adequately served by private wells and septic systems, larger projects may necessitate a connection to new or existing public systems. As stated in Chapter 2 Land Use & Development, the County seeks to concentrate larger developments in areas that are identified as growth areas and already have the infrastructure in place or nearby that can service the area.

Additionally, consistent growth will put increased strain on the County's water resources, especially its groundwater. The County needs to ensure the long-term viability of its water resources for drinking water, agricultural use, and to maintain the stability of the local environment.

GOALS, PATHWAYS, & ACTION ITEMS

UTILITIES VISION

Ensure that the County continues to provide efficient utility services that are necessary and beneficial to the citizens of Culpeper County.

GOAL 1: Continue to provide water, sewer, and solid waste disposal services that are efficient, safe, and sustainable.

PATHWAY 1: Actively mitigate capacity concerns due to future growth.

ACTION ITEM: Provide sewer and water services to appropriate County areas to serve projected growth, specifically the Town of Culpeper environs, Clevenger's Corner, and the Elkwood/Brandy Station area.

ACTION ITEM: Proactively plan facility expansions based on population growth predictions, especially for water and sewer facilities serving identified Future Growth Areas, and for solid waste disposal.

ACTION ITEM: Ensure that new developments cover the cost of any utility expansions and capacity increases needed to serve them.

ACTION ITEM: Protect the long-term viability of the County's water resources through studies and conservation measures if needed.

Action Item: Operate publicly owned water/wastewater systems as enterprise funds, not to be subsidized by taxpayers throughout the County.

PATHWAY 2: Maintenance

ACTION ITEM: Continue to provide adequate and timely maintenance to County facilities.

PATHWAY 3: Ensure that County facilities employ satisfactory environmental standards and minimally impact rural areas.

ACTION ITEM: Identify areas of existing failing septic systems and related concerns, and provide solutions to sewage disposal issues.

ACTION ITEM: Identify areas where centralized sewerage systems are warranted and review opportunities and alternatives for sewage disposal.

ACTION ITEM: Utilize best practices in designing future facilities.

ACTION ITEM: Update facilities that no longer conform to modern standards and/or can be upgraded at an acceptable cost.

ACTION ITEM: Explore new and alternative designs that can exceed modern standards at relatively similar costs.

ACTION ITEM: 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.

ACTION ITEM: Encourage upgrading existing electrical lines over the creation of new transmission corridors.

ACTION ITEM: Explore the fiscal and environmental impacts of renewable energy generation on County property.

GOAL 2: Continue to expand broadband/Internet access throughout the County in order to achieve universal coverage.

PATHWAY 1: Continue to increase broadband coverage in the County.

ACTION ITEM: Complete existing contracts to expand broadband access within the County.

ACTION ITEM: Explore options for other areas that cannot currently be served.

ACTION ITEM: Lobby state and federal representatives, as well as relevant agencies, to utilize the new broadband data from Commonwealth Connection in current and future broadband expansion grants.

PATHWAY 2: Ensure that cellular communication facilities, such as towers, do not negatively impact the County's rural areas.

ACTION ITEM: Continue supporting co-location on services on existing towers.

ACTION ITEM: Ensure that telecommunication providers implement reasonably available technology that may reduce the number and/or height of towers.

ACTION ITEM: Encourage communication towers that implement techniques that blend into the surrounding environment.

Chapter Source Appendix & Resources

- Commonwealth Connection https://commonwealth-connection.com/#about_top
- County of Culpeper Capital Improvements Program Fiscal Years 2023-2027 <https://web.culpepercounty.gov/planning/page/fy-2023-2027-capital-improvements-program>
- Culpeper County Environmental Services <https://web.culpepercounty.gov/environmentalservices>
- Culpeper County Reservoir Study <https://web.culpepercounty.gov/environmentalservices/page/water-and-wastewater>
- FCC 911 and E911 Services <https://www.fcc.gov/general/9-1-1-and-e9-1-1-services>
- FirstNetAuthority <https://www.firstnet.gov/>
- Regional Water Supply Plan for Town of Culpeper, Virginia and County of Culpeper, Virginia <https://web.culpepercounty.gov/environmentalservices/page/water-and-wastewater>
- Town of Culpeper Environmental Services https://culpeperva.gov/government/public_services/environmental_services/wastewater_pollution_control_facility.php
- Town of Culpeper Light and Power https://www.culpeperva.gov/government/light_and_power/index.php
- Town of Culpeper Public Services https://www.culpeperva.gov/government/public_services/new_page.php
- Virginia IT Agency <https://www.vita.virginia.gov/>
- Virginia Office of Drinking Water <https://www.vdh.virginia.gov/drinking-water/>
- Water & Sewer Master Plan Update For Culpeper County, Virginia <https://web.culpepercounty.gov/environmentalservices/page/water-and-wastewater>