

## **AMHERST COUNTY SERVICE AUTHORITY**

**P. O. BOX 100  
MADISON HEIGHTS, VA 24572-0100**

**PHONE (434) 845-1605  
FAX (434) 845-1613**

December 7, 2011

To: Amherst County Service Authority Board

Subject: Board Review And Adoption Of ACSA's Revised Facility Plan

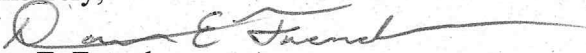
Dear Board Members:

A Facility Plan is a utility's long term (50 yr) plan for providing community water and wastewater services. Amherst County's 2007-2027 Comprehensive Plan charged ACSA with revising its Facility Plan (which was last adopted in the early 1990's). Due to many changes in the regulatory environment a number of studies and reports had to be undertaken before this could be done. With completion of that work, the draft revised Facility Plan is attached. It is now consistent with both the Comprehensive Plan and the Amherst County portion of the Regional Water Supply Plan (which was BOS adopted in Aug. 2011). (You may wish to pay special attention to the Executive Summary, on pages 1-10, and page 77 which summarizes the evaluation of the six criteria used to evaluate the four possible water plan alternatives).

This document provides a wealth of information. In addition to planning guidance to both the ACSA Board and staff, it is a valuable orientation tool for new Planning Commissioners and EDA Board members. Please read over its content and jot down any questions or ideas. If the Board will schedule a Facility Plan workshop in early 2012, there will be time for discussion, appropriate adjustments, and Board adoption prior to work on the five year update of the Comprehensive Plan.

Thank you for your time and attention to this matter.

Sincerely,

  
Dan E. French  
Director of Public Utilities

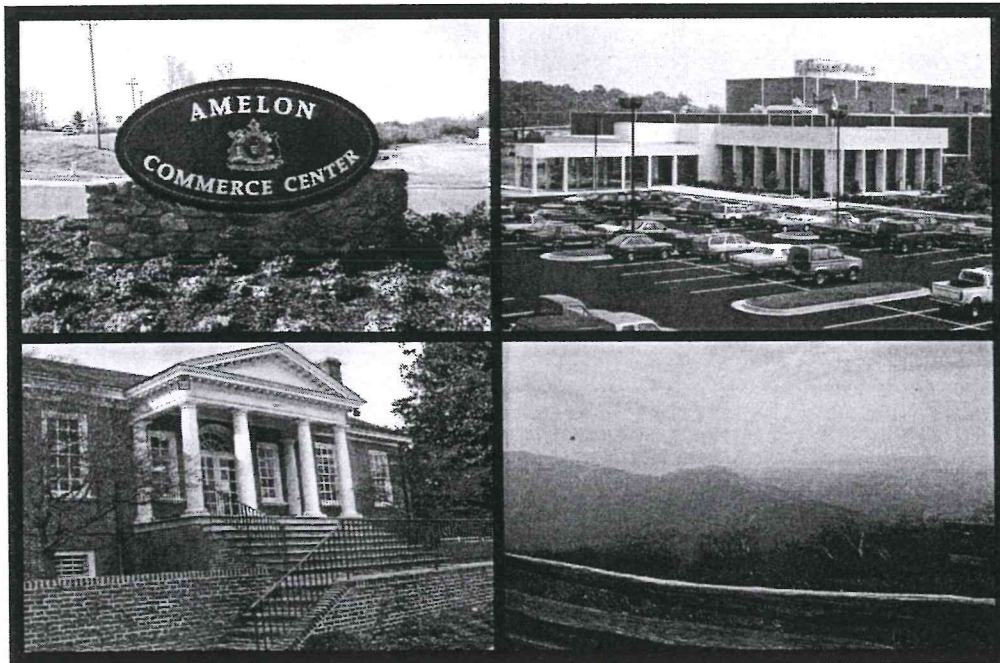
Attachments:

1. Amherst County 2007 Comprehensive Plan, pages 42-50 of the Community Facilities chapter, with public water and wastewater beginning on page 43.
2. Draft revised ACSA Facility Plan.



AMHERST COUNTY, VIRGINIA

# AMHERST COUNTY COMPREHENSIVE PLAN



2007-2027

## CHAPTER IV: COMMUNITY FACILITIES

### Introduction

This chapter presents a brief discussion of Amherst County community facilities and services. General community facility goals, objectives, and strategies are presented, followed by descriptive summaries of specific service areas and facilities. Goals, objectives and strategies are provided for the areas of parks and recreation, education, library, public safety, water and waste water facilities, emergency services, solid waste management and broadband technology

Several key community facility concepts are presented in this chapter. First, adequately funding community facilities is a key to providing effective services. Second, the location and timing of planned community facilities has a major impact on land use patterns and third, the private sector can contribute fair share funding towards the capital construction of community facilities thru the use of proffer legislation.

The goals, objectives and strategies, contained in this chapter are not laws. Planned community services and facilities are a function of the Board of Supervisors' and Amherst County School Board's annual decisions pertaining to capital and operating expenditures. County ordinances such as zoning and subdivision, and the building code are the legal mechanisms by which land development is controlled.

However, decisions made in general accordance with this comprehensive plan will hold great legal weight in Virginia. Making decisions that conform to a comprehensive plan demonstrates to the citizens of a community that elected and appointed officials have thought about the future of their community and are willing to plan for a future that is desired.

Finally, a comprehensive plan is not a static document. In addition to periodic five year reviews, a plan may be formally amended at any time to address unanticipated community conditions, or new or emerging community objectives.

### GENERAL COMMUNITY FACILITIES AND SERVICES GOALS OBJECTIVES AND STRATEGIES

#### Goal # 1

Develop (or maintain) the programs, facilities, and services necessary to satisfy the needs and demands of Amherst County residents, employees, and visitors.

#### Objective #1

Maintain high quality service and facility standards in Amherst County.

#### Strategies:

Incorporate the recommendations of various plans for specific areas of community facilities and services (e.g., Parks and Recreation, Public Education,

Emergency Services, Public Libraries, Law Enforcement/ Jails/Judicial Systems, Solid Waste, Waste and Wastewater Utilities, Broadband Internet Access/County Information Technology) into the five (5) year Capital Improvements Program.

Appropriate sufficient funding in the annual Capital Budget to finance the capital projects contained in the Capital Improvements Program.

Appropriate sufficient funding in the annual operating budget to finance the non-capital projects contained in the comprehensive plan that address community programs.

Under applicable provisions of the Code of Virginia, establish a cash proffer system to accept voluntary cash contributions from individuals who rezone property for new development in order to off-set the County's cost of providing capital improvements to serve the property.

### **Objective #2**

Use community facilities and services as a growth management tool.

#### **Strategies:**

Plan community facilities and services for designated growth areas to maximize efficiencies and cost-effectiveness.

Establish a boundary where public water and sewer will and will not be extended over the next twenty years. Require all major subdivision developments to use public water if they are developed within 2000 feet of existing water lines and within the designated growth boundary.

Create cost sharing strategies (such as proffers) to ensure that new commercial, industrial, and residential developments bear their "fair share" of the cost to provide community facilities and services needed by such development.

Accommodate future facility expansion demands through renovation of existing or the construction of new facilities that are capable of containing other County departments and agencies (i.e., multi-use buildings). Design these facilities to be efficient, and promote the pride of the community.

The remaining community facility goals, objectives, and strategies are presented within the specific community facility or service area of concern.

## **PUBLIC WATER AND WASTEWATER**

The Amherst County Service Authority (ACSA) is a public water and wastewater utility, governed by a Board made up of the same individuals who serve on the Amherst County Board of Supervisors. While ACSA has the legal authority to extend utilities throughout the county, services are concentrated in the medium density/commercial/industrial

portions of southern Amherst County. ACSA's centralized water distribution system consist of approximately 152 miles of lines, from the James River in the South to Union Hill Road, and interconnection with the Town of Amherst, in the north. Water lines also extend from Galts Mill in the east to the village center of Elon in the west. The authority's centralized wastewater collection system consists of approximately 35 miles of lines from the James River in the south, to South Coolwell Road in the north. Wastewater service is currently concentrated in the Williams Run drainage basin and this portion of the South Amherst Highway corridor.

Current water sources are Harris Creek and Graham Creek Reservoir, with the James River as an emergency back-up supply. When the Mill Creek Reservoir was constructed Amherst County invested additional local funds in expanding the project to include public water supply storage. This reservoir currently serves as an emergency back-up supply for the Town of Amherst, and as a designated future water supply for ACSA. The Authority's Henry L. Lanum, Jr. Water Filtration Plant and Graham Creek reservoir currently produces 1.6 MGD (million gallons daily) of treated water; the filtration plant has a design capacity of 2.0 MGD. This would enable service to eight thousand homes. There are currently 6,800 active and planned users on the water system, using approximately 200 gallons per day per household. ACSA is a regional partner in the Lynchburg Wastewater Treatment Facility. Current wastewater flows to the regional plant average 0.25 MGD, while ACSA owns 2.2 MGD of the treatment facility's capacity.

#### ACSA FACILITY PLAN:

ACSA developed its most recent Facility Plan in the early 1990's. This is a forty-year utilities planning document, projecting community water and wastewater needs, and how they should be met over that period. Following the analysis and evaluation of several alternative plan approaches to fulfilling these needs, the Authority Board found it appropriate to continue to provide utility service through only centralized water distribution and wastewater collection systems. Such centralized systems are generally the most reliable, more cost effective, and better community planning tools than isolated community wells, or prefabricated "package" treatment facilities.

Under this Facility Plan, ACSA owned capacity at the regional wastewater treatment plant is sufficient to meet the current demand projections of the forty-year planning period. As a result, the plan's wastewater emphasis is on collection system expansion. Such expansions would occur over several decades throughout the drainage basins on either side of the South Amherst Highway, south of South Coolwell Road.

Based on the information available in 1992, the Authority Board determined that the most appropriate public water supply plan alternative was to expand the Lanum Water Filtration Plant to the maximum safe yield of its water sources, or 4.0 MGD. The 4 MGD source would include an additional James River intake point, projected to be available in the 2017 to 2021 time period. That equates to service for at least sixteen thousand homes. Community water demand beyond that point would be met by construction of a

new water treatment facility on the Buffalo River. This facility could make use of three sources, the river, Mill Creek Reservoir and a future reservoir on the main channel of the Buffalo River.

Interconnection with Lynchburg was not considered viable at that time, due to a lack of capacity information, and fluctuation levels of regional cooperation. In recent years regional cooperation with the City of Lynchburg has improved. Additionally, the City's Department of Public Utilities has determined that they can deliver up to 6.0 MGD of water, through existing City infrastructure to the Amherst County side of the John Lynch Bridge.

However, City water pressure would be insufficient to distribute that water to the higher elevation of most of the ACSA distribution system. This is further complicated by water mains in the South Amherst Highway corridor that are too small to carry this volume of water. While these drawbacks can be overcome with a booster pump station and installation of a larger capacity waterline between the John Lynch Bridge and the ACSA's central water storage tank, near Dixie Airport Road, the cost is such that the Lanum Plant upgrade is still more economical. Initial estimates indicate that when the Lanum Plant reaches its ultimate 4.0 MGD safe yield capacity, utilization of Lynchburg water might well be more cost effective than a Buffalo River Treatment Plant. This alternative will be more closely examined with the next revision of the ACSA's Facility Plan.

If the Authority pursues the Lynchburg water source, the Mill Creek Reservoir would continue to serve as an emergency back-up supply for the Town of Amherst, and would become a back-up alternative plan source for ACSA.

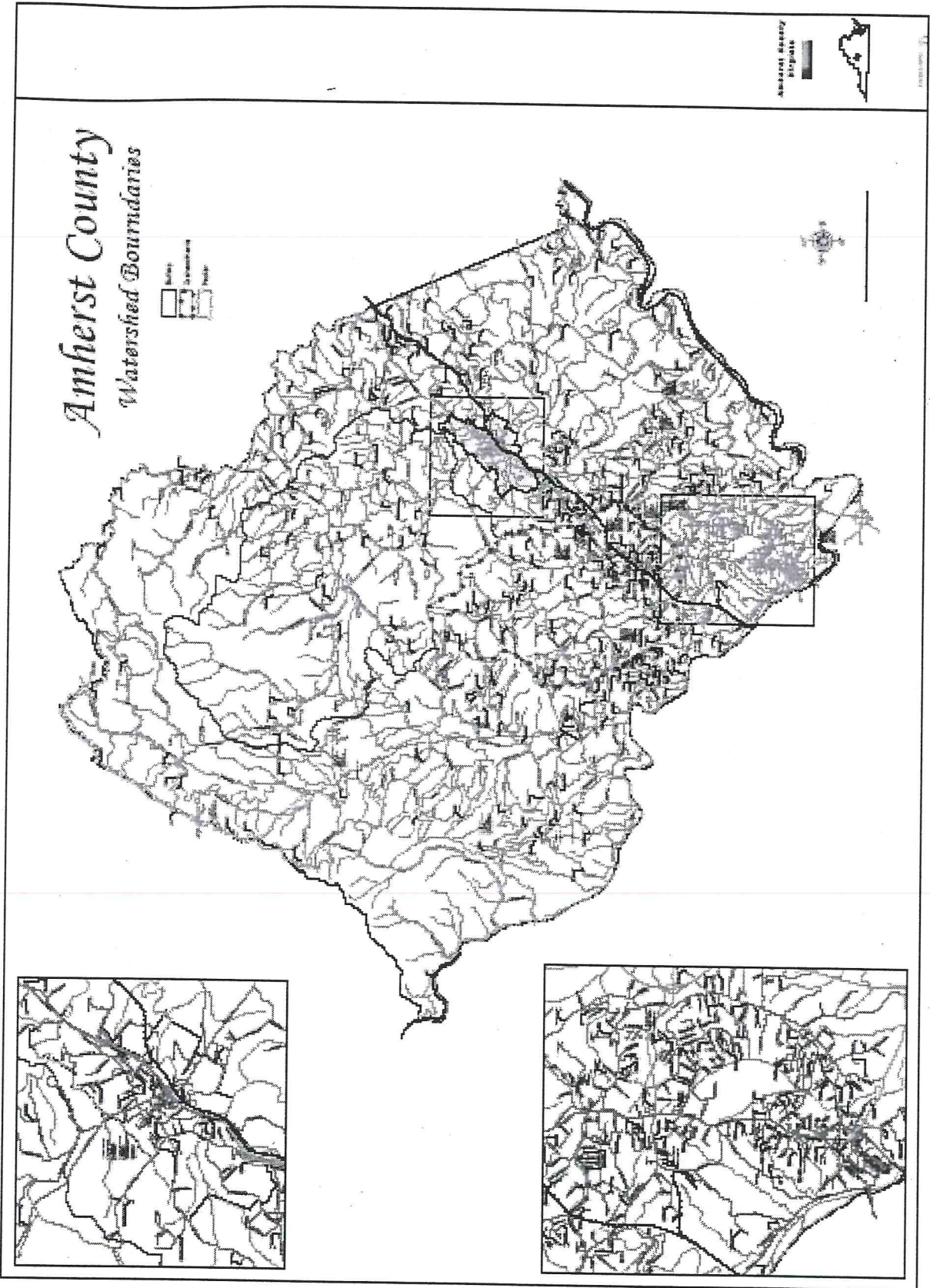
Extension of public water and wastewater service should be used as a growth management tool. As such, public wastewater service would only be extended into areas where more intensive development, with higher densities, are desired. This would include industrial, commercial, and selected medium density residential areas. Public water would be made available throughout industrial, commercial and medium density areas. In rare instances, public water service may be determined to be appropriate for very small portions of the rural low-density residential areas, when bordered by more intensive land uses.

Because the presence of public water and wastewater services stimulates higher densities and more intensive land uses, neither water nor wastewater service would be extended beyond the boundaries of the designated growth area.

### **Amherst County's Watershed Protection Program**

Amherst County, the Amherst County Service Authority (ACSA), the Town of Amherst, the Robert E. Lee Soil and Water Conservation District and local colleges work in partnership with the Virginia Department of Conservation and Recreation to preserve and enhance water quality within the watersheds of the county's public drinking water

sources. The program consists of enhanced land use controls, an ongoing program of watershed land use surveys by Soil and Water District personnel and college interns, and a best management practice (BMP) promotional program. The 75 percent BMP "cost share" funds available through the Department of Conservation and Recreation's Chesapeake Bay Initiative are leveraged with 25 percent local grants from ACSA, providing BMPs at no cost to the agricultural landowner. While this program could be further strengthened through adoption of additional land use controls consistent with the Chesapeake Bay Program, it has twice received national recognition from Region III of EPA.





**PUBLIC WATER AND WASTEWATER  
GOALS, OBJECTIVES AND STRATEGIES**

**Goal # 1**

Provide water and wastewater utilities to support the County's growth management, land use, environmental, and economic development goals and objectives.

**Objective #1**

Use the planned presence, or absence, of public water and wastewater services as a growth management tool.

**Strategies:**

Extend centralized public water service throughout the designated water service growth area, as opportunities arise.

Restrict the extension of public water service beyond the boundaries of the designated water service growth area.

Extend public wastewater service only into the designated water service growth area where more intensive growth is desired.

**Objective # 2**

Provide adequate and reliable water distribution and wastewater collection systems in geographic areas identified for growth.

**Strategies:**

Utilize existing and emerging technologies to better serve the customers of the utility system.

Revise the County's Water and Wastewater Facility Plan to be consistent with the growth management goals and objectives of the Comprehensive Plan.

Maintain water and wastewater revenues at levels to support the operation, maintenance, and capital improvement needs of the utility system.

Maintain utility system fees at levels to off-set the cost to provide water and wastewater service to new development.

Use availability fees to fund system capacity improvements and to fund debt service for long term infrastructure improvements.

Require 100 percent reserve drain fields and maintenance responsibilities of property owners in areas without public sewer.

**Objective # 3**

Participate with other local governments in regional water and wastewater utility planning and participate with those projects that meet future needs.

**Strategies:**

Develop mutually beneficial joint ventures with the Town of Amherst and the City of Lynchburg to interconnect existing and future water and wastewater utilities within the designated growth areas, and determined to be desirable and cost effective.

Insure that the County's Water and Wastewater Facility Plan is consistent with the growth management goals and objectives of the Comprehensive Plan.

Participate with the Region 2000 Local Government Council and other jurisdictions in the development of a regional water supply plan for Central Virginia.

Implement the County Water and Wastewater Facility Plan.

