

MONTGOMERY COUNTY COMPREHENSIVE WATER SUPPLY AND SEWERAGE SYSTEMS PLAN
County Council Approved 2018 - 2027 Plan: October 2018

CHAPTER 1: OBJECTIVES AND POLICIES

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MONTGOMERY COUNTY COMPREHENSIVE WATER SUPPLY AND SEWERAGE SYSTEMS PLAN 1

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I.: INTRODUCTION

As in any community, the residents of Montgomery County, and the businesses and institutions that serve and support them, require an adequate, reliable, and safe means of fresh water supply and wastewater disposal. The sustainability of the community's human and natural environment relies on satisfying this need on a daily basis. In Maryland, the planning and coordination for this vital service is delegated from the State to and addressed by each County through the *Ten-Year Comprehensive Water Supply and Sewerage Systems Plan*. The delegation of planning from the State to the County requires that all growth and land use tools are consistent with the County's General Plan policies, goals, and objectives, and any adopted Sector Plan, functional plan or other sub areas plan.

I.A.: Plan Goals and Objectives

The overall goal of the *Comprehensive Water Supply and Sewerage Systems Plan* ("the Water and Sewer Plan," "the Plan," or "CWSP") is to ensure that the existing and future water supply and sewerage system needs of Montgomery County are satisfied in a manner consistent with the following specific objectives:

- Satisfy the county's water supply and wastewater disposal needs in a cost-effective manner that protects the health, safety, and welfare of residents, businesses, and institutions; and that protects or improves the quality of the environmental resources of the county, the state, and the Chesapeake Bay region.
- Establish and implement water and sewer service policies that serve to support the goals and objectives of the County's *General Plan*, "*On Wedges and Corridors*," and of its related local area sector and master plans. These policies emphasize the use of community systems along urban and suburban development corridors; the use of individual, on-site systems throughout lower-density, rural wedges; and consistency with the provision of other public services and facilities.
- Provide policy makers and implementing agencies with sufficient guidance and flexibility to address specific, exceptional water and sewer service issues, as needed. This recognizes that neither a master plan's service recommendations nor the Water and Plan's general service policies can anticipate every situation or circumstance involved in addressing water and sewer service needs in the county.
- Support the State of Maryland Smart Growth initiatives that direct State funding for public services and infrastructure to identified growth areas and promote the use of onsite water supply and wastewater disposal systems to limit development density in the Agricultural Reserve and lower-density wedge areas.
- Address needs and solutions, including recommendations for capital projects, of the complete water supply and sewerage systems, from the point of withdrawal of the raw water supply to the point of final disposal or reuse of wastewater effluent, including the treatment or disposal of water and wastewater treatment by-products such as water filtration solids and biosolids (sewage sludge).
- Identify specific public health problems related to water supply and wastewater disposal throughout the county and recommend appropriate solutions, including community water and/or sewerage systems and capital projects if required. However, the cost and potential impacts of the extension of new community systems, especially in environmentally-sensitive, low-density areas, requires that the County maintain an emphasis on the repair or replacement of existing onsite systems with standard onsite conventional or alternative technologies.
- Address the variable soil and groundwater conditions within the county and attempt to protect or enhance groundwater resources where practical.

These objectives are accomplished in this Plan with the support and cooperation of the Washington Suburban Sanitary Commission (WSSC), the Maryland - National Capital Park and Planning Commission (M-NCPPC), municipal governments within Montgomery County, and various County agencies. The County also seeks the support and concurrence of Prince George's County in regard to bi-county issues.

I.B.: Purpose

The general purpose of Chapter 1 of the Comprehensive Water Supply and Sewerage Systems Plan is to set forth the laws, regulations, and policies upon which the Plan is based. This chapter includes the general, or county-wide, legal and policy issues pertinent to Montgomery County. Other legal and policy issues that are only relevant to a particular topic, such as regional water supply planning or biosolids management, are addressed in the chapter of the Plan related to that topic.

Chapter 1 presents the legal requirements for preparation of this Plan and the responsibilities of the government agencies involved in preparing this Plan and in managing the County's water supply and sewerage facilities. The remaining sections of this chapter present and discuss the policies and procedures for the provision of water supply and sewerage service, and the policies for water and sewerage systems facilities.

I.C.: Legal Requirements

Each County in Maryland is required by State law to have a comprehensive plan that deals with water supply and sewerage system needs for at least a ten-year period into the future. The specific legal requirement is embodied in Environment Article, Subtitle 5, "County Water and Sewerage Plans," Sections 9-501 through 9-521, of the Annotated Code of Maryland and the Code of Maryland Regulations, Title 26, "Environment", Subtitle 3, Chapter 1, "Planning Water Supply and Sewerage Systems" (COMAR 26.03.01.01 - .08). The Comprehensive Water Supply and Sewerage Systems Plan fulfills this legal requirement.

The Annotated Code establishes the authority for the Water and Sewer Plan and delegates that authority to the counties. The Annotated Code also establishes the procedures by which the counties prepare, adopt, and amend their water and sewer plans. Sections 9-515 through 9-518 provide policies specific to Montgomery and Prince George's Counties which supersede other related sections of the Code. Montgomery County is required to comprehensively review and update this plan triennially (once every three years.) COMAR 26.03.01.01, *et seq.*, specifies the requirements for format and minimum contents for each county's plan. In addition to the specific legal requirements for this document, this Plan addresses numerous Federal, State, and local laws and regulations that apply to the water supply, sewerage, and rural sanitation needs of the County. Many of these additional laws and regulations are discussed in the chapters of this Plan where they are most relevant.

I.D.: Government Responsibilities for Water and Sewer Service

The responsibilities of planning for the availability of and providing water and sewerage service in Montgomery County are multi-jurisdictional and depend on the cooperative efforts of County, bi-county, municipal, State, and regional agencies and authorities. This is especially true with regard to the use of the Potomac River, a shared raw water source for several jurisdictions, and the Blue Plains Wastewater Treatment Plant (WWTP), a regional sewage treatment facility located in the District of Columbia. These governmental agencies, and their primary responsibilities, are described in the following sections. Figure 1-F1 depicts the interrelationships of the public and the government agencies primarily involved in preparing this Plan and in managing the water supply and sewerage systems serving Montgomery County.

I.D.1.: Montgomery County Government

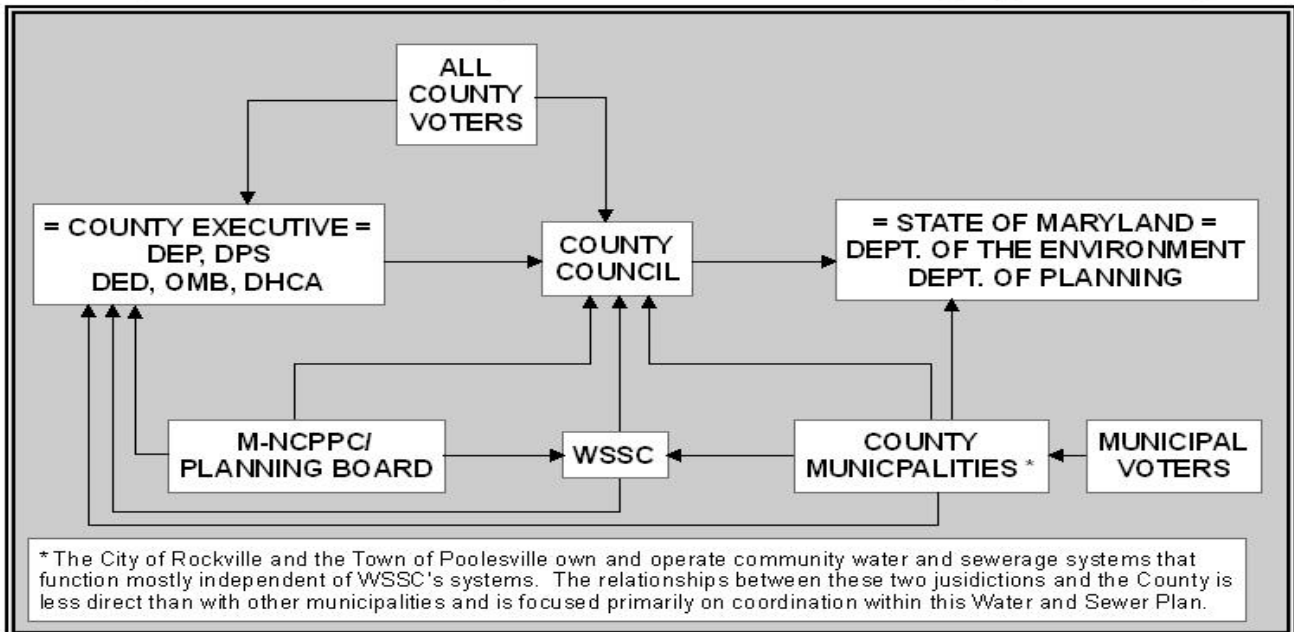
Under State law, Montgomery County has planning authority for the availability and adequacy of water and sewerage service and for land use in the county. The County government also maintains the county's land use planning and zoning authority. The County coordinates the planning and development of water supply and sewerage facilities with County goals for land use, staging, adequate facilities, capital improvements, and environmental protection. The objective is to develop this *Ten-Year Comprehensive Water Supply and Sewerage Systems Plan* (CWSP) such that the water supply and sewerage systems are consistent with County land use planning. The CWSP incorporates all or part of subsidiary plans of the municipalities, sanitary districts, privately-owned facilities, and local, State, and federal agencies which have existing, planned, or programmed development within the county. The County reviews and adopts the Water and Sewer Plan on a triennial basis, and also reviews and acts on proposed plan amendments at intervals between mandated, triennial updates.

I.D.1.a.: County Council

The Montgomery County Council consists of nine elected Council members, four elected at large and five elected from council manic districts. The Council establishes a set of broad objectives and policies (including

master plans, staging plans, and fiscal policy) to be followed in preparing the Recommended Water and Sewer Plan. After receiving the triennial submission of the recommended plan from the County Executive and allowing a period for comments by public agencies and interested parties, the Council holds a public hearing on the Executive's recommended Plan. Following work sessions, the Council amends and formally adopts the Plan. The Council also receives one or more transmittals of amendments to the plan from the Executive each year. Following a public hearing, the Council acts on the proposed amendments and incorporates them, as appropriate, into the Plan. The Council similarly reviews and approves both the annual WSSC Capital Improvements Program (CIP) for water supply and sewerage projects and the annual WSSC operating budget.

Figure 1-F1: Government Responsibilities for Water and Sewerage System Planning



I.D.1.b.: County Executive

State law requires that County Executive prepare a comprehensive update of the *Comprehensive Water Supply and Sewerage Systems Plan* for consideration by the County Council every three years. The Executive also prepares and submits recommended Plan amendments to the Council. These amendments can include text amendments and water/sewer category map amendments which are usually in the form of individual requests for water and sewerage service area category changes (see Section V. Procedures for Adopting and Amending the Water and Sewer Plan). The Executive transmits proposed amendments to the Plan for the Council's consideration and action one or more times each year. The Executive also transmits recommendations to the Council on the proposed annual operating budget and capital improvements program (CIP) budget submitted annually by WSSC. The CIP budget addresses WSSC's major water supply and sewerage systems projects.

Within the Executive Branch of the County government, the Executive's responsibilities are delegated to the following agencies:

I.D.1.b.i.: Department of Environmental Protection (DEP)

The Department's mission is to enhance the quality of life in our community by protecting and improving Montgomery County's air, water, and land in a sustainable way while fostering smart growth, a thriving economy and healthy communities. The Department maintains the primary functions of developing and administering the Water and Sewer Plan.

- **DEP Water and Sewer Plan Administration** - Within DEP, the Water and Wastewater Policy Group (WWPG), under the Director's Office, addresses the County's responsibilities for the management and coordination of policy development and planning of water supply and wastewater disposal systems.

DEP staff develop updates and amendments to the Plan, and reviews and prepares recommendations on Plan amendments proposed such as individual category change requests. DEP develops and maintains the geographic information systems (GIS) water and sewer category layers that result in the maps of the County's water and sewer service area categories. DEP issues interim update maps as necessary, based on approved Plan amendments. The County Council has delegated the authority to the Director of DEP to act under limited circumstances on Plan amendments. The policies addressing this administrative delegation authority are provided in Section V.D.2. DEP staff conduct public hearings and meetings related to these proposed plan amendments.

DEP staff coordinate the review of WSSC's annual operating budget and capital improvement program (CIP) budget with the other county agencies such as the Office of Management and Budget. In administering the plan, staff are involved in a variety of programs including water quality protection, watershed management, water and sewerage capital facilities planning, development plan review, record plat approval, public health problem relief, master plan development, and related issues. DEP provides technical, policy, and research support not only to the Executive, but also to local government agencies such as the WSSC, the Maryland - National Capital Park and Planning Commission, and the County Council, and to regional agencies such as the District of Columbia Water and Sewer Authority, the Metropolitan Washington Council of Governments, and the Interstate Commission on the Potomac River Basin.

- **DEP Related Water Quality and Resource Programs** - Water resources protection programs serve to support drinking water source protection throughout much of the county. Most county watersheds contribute to public water supply provided by the Potomac River and the Patuxent River. DEP carries out a variety of programs to protect the county's water resources, including strategic watershed planning, water quality monitoring, watershed restoration, storm water facility maintenance, inspection and enforcement, and illicit discharge inspection and enforcement. A more comprehensive discussion of these programs is included in Chapter 2, Section II.E.

I.D.1.b.ii.: Department of Permitting Services (DPS)

Montgomery County's Department of Permitting Services (DPS) regulates new land development and building construction activities which affect storm flows, stormwater infiltration, stream base flows, and water quality. This includes sediment and erosion control and stormwater permitting, and associated plan review, inspection, and enforcement functions. DPS also issues well and septic system permits, street and storm drain permits, and administers the County's floodplain protection laws.

Within DPS, the Well and Septic Section has the responsibility delegated from the State to regulate and permit individual water supply and sewerage systems, usually wells and septic systems. The Well and Septic Section develops regulations addressing siting, testing, and permitting for these systems, currently Executive Regulation 28-93AM, "On-Site Water Systems and On-Site Sewage Disposal Systems in Montgomery County". DPS coordinates with DEP concerning cases involving public health problems caused by failing individual, on-site systems where a resolution of the problem involves the provision of community water and/or sewer service.

DPS staff administer a program which grants exemptions from WSSC systems development charges (SDC) for biotechnology, elder housing, and community revitalization projects (see Section IV.A.1.b.).

I.D.1.b.iii.: Montgomery County Office of Agriculture

Recent emphasis on development and preservation issues—including water and sewer service—in the county's Agricultural Reserve has resulted in a greater level of coordination between DEP and the Office of Agriculture. The Office of Agriculture staff provide valuable information on State and local agricultural preservation programs and on individual agricultural properties seeking Water and Sewer Plan changes to support proposed development.

I.D.1.b.iv.: Department of Housing and Community Affairs (DHCA)

This Department administers grant and loan funding programs, generally from State and Federal funds, which provide financial assistance to property owners and communities seeking to repair, upgrade, or modify their water and sewer systems.

I.D.1.b.v.: Office of Management and Budget (OMB)

This Office oversees the operating and capital program budgets for County agencies, including the WSSC, with a primary emphasis on fiscal accountability and responsibility. OMB staff coordinate closely with DEP, WSSC, and County Council staff on their review of WSSC's budget submissions.

I.D.2.: Municipalities

State law requires that the County incorporate the subsidiary water and sewer plans of the municipalities into the County's Plan. The municipalities provide the Executive with information needed for the preparation of the recommended Plan and participate in reviewing the recommended Plan and any amendments, as appropriate. Community water and sewer service for most municipalities in the county is provided by the WSSC. The City of Rockville and the Town of Poolesville are responsible for the operation of their own water supply and sewerage systems; some limited areas within the WSSD are served by these systems. Accordingly, the planning, design, and operation of their sanitary systems is largely independent of WSSC and the County. However, because of its dependence on WSSC sewer mains for the transmission of sewage flows to the Blue Plains Wastewater Treatment Plant, Rockville does coordinate with WSSC and the County on sewer service issues.

The following municipalities are also responsible for their own planning and/or zoning authority:

Table 1-T1: Municipal Planning and Zoning Authority and Water/Sewer Systems				
Municipality ^A	Land Use Planning Authority	Zoning Authority	Water Service Provided by	Sewer Service Provided by
City of Gaithersburg	City	City	WSSC	WSSC
City of Rockville	City	City	City & WSSC	City & WSSC
City of Takoma Park	City	M-NCPPC	WSSC	WSSC
Town of Barnesville	Town	M-NCPPC	Onsite systems	Onsite systems
Town of Brookeville	Town	Town	WSSC	WSSC
Town of Kensington	M-NCPPC	Town	WSSC	WSSC
Town of Laytonsville	Town	Town	WSSC & Onsite systems	Onsite systems
Town of Poolesville	Town	Town	Town	Town
Town of Washington Grove	Town	Town	WSSC	WSSC

^A See Figure 1-F2 for the locations of these communities.

City of Rockville: Article X of the City of Rockville's Charter designates the Mayor and Council as the Water and Sewer Board for Rockville, which grants broad authority and empowers the Board to construct, operate and maintain a water system and water plant and a sanitary sewerage system and a sewage treatment plant. This authority for the operation of the water and sewerage systems includes the following: employ and designate officials; purchase all supplies and materials; provide a suitable number of fire hydrants to protect City property from fire; title to all property, plants and systems; issue and sale of bonds; raise sufficient annual revenue by ordinance; pass and enforce ordinances to protect public health and to protect the water and sewerage systems; require connections of all houses, buildings and other structures to water and sewer mains within the present or future corporate limits of the City; make a reasonable charge for connection to the City's water or sewer mains; may disallow construction or maintenance of private water supply or sewerage; may extend water and sewerage systems beyond the City limits; grant the right of entry to employees in pursuit of official duties to access water or sewer installations; prohibit pollution of the City water supply system; enter into contracts with any party, Federal, State or other governmental body; and levy and collect special assessment taxes upon property for special benefits.

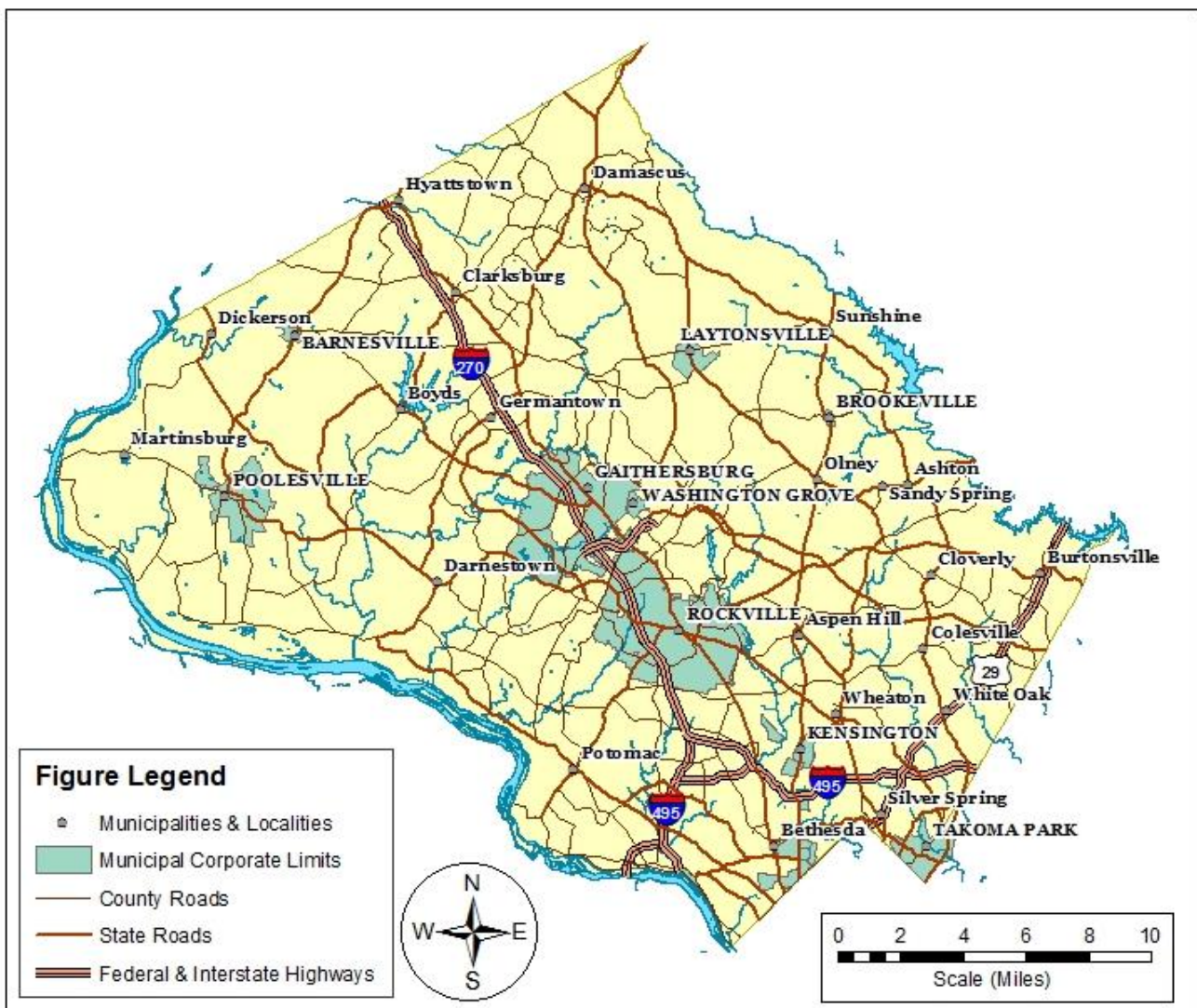
The City of Rockville provides water and sewer service to approximately 70% of the city, or approximately 13,000 accounts. The City treats raw water from the Potomac River and delivers the potable water to its customers through its water distribution system. The City collects wastewater from its customers through its

collection system and delivers it to the Blue Plains Waste Water Treatment Plant through WSSC and DC Water collection systems. Other properties in the city, located within the WSSD are served by WSSC. Rockville City Code (Section 24-1b) requires properties to annex into the City’s corporate boundaries to receive water and sewer service. Rockville’s Mayor and Council ensure premium levels of service for their citizens (both residential and non-residential), including water and sewer service. Accordingly, this premium service is reserved for Rockville residents.

Town of Laytonsville: The majority of properties in Laytonsville are approved for community water service. Although it is within the WSSD, the town is outside of the planned community sewer service envelope.

Town of Barnesville: Barnesville is located within the WSSD, but outside the limits of the planned community water and/or sewer service envelopes.

Figure 1-F2: Montgomery County Municipalities and Localities



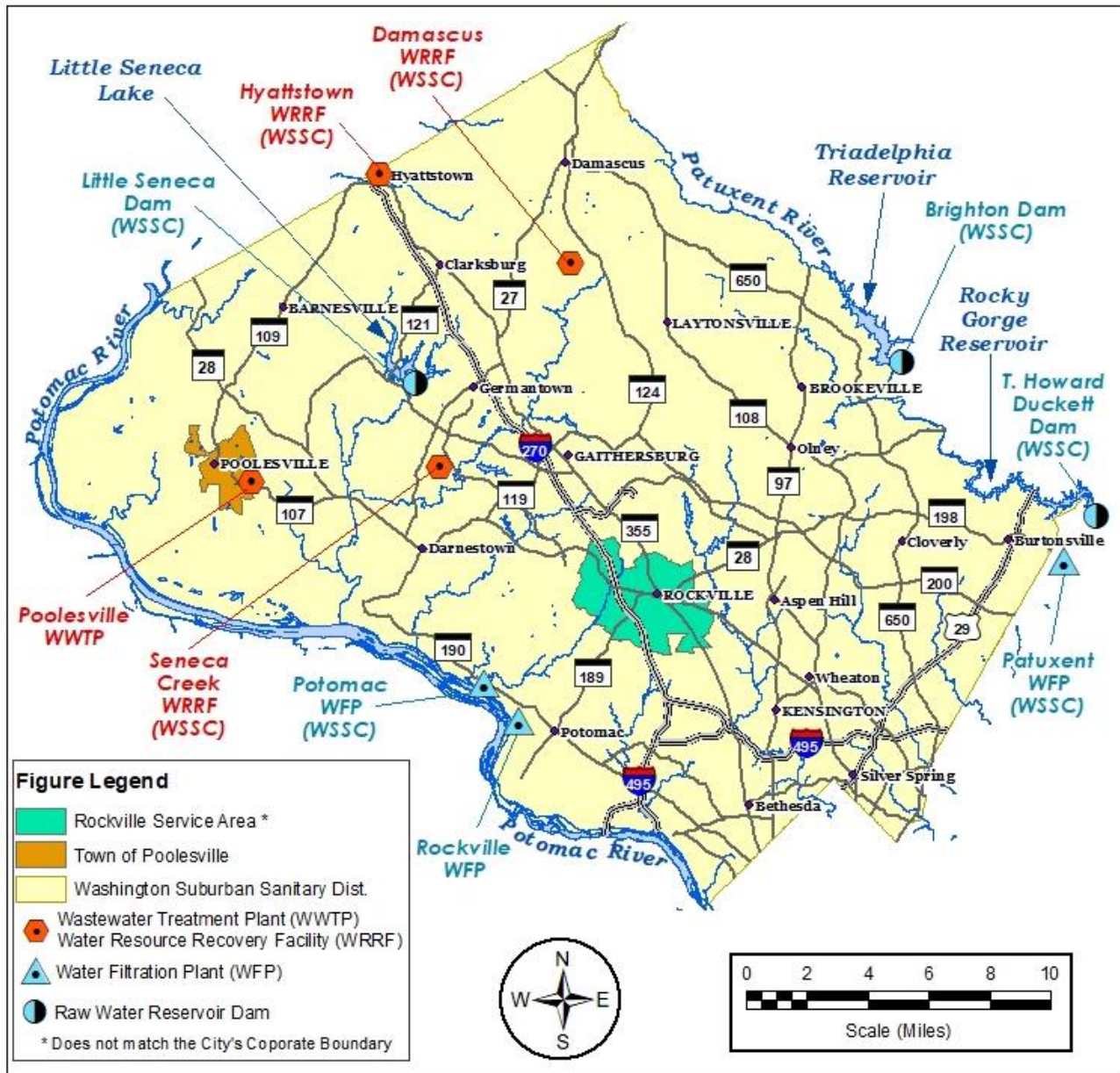
I.D.3.: Bi-county Agencies

The State of Maryland has chartered two bi-county agencies to serve Montgomery and Prince George’s Counties: the Washington Suburban Sanitary Commission and the Maryland - National Capital Park and Planning Commission.

I.D.3.a.: Washington Suburban Sanitary Commission (WSSC)

Established in 1918 under State legislation, WSSC provides community (public) water and sewerage systems throughout most of Montgomery and Prince George’s Counties. The State’s charter specifies the area served by the WSSC, the Washington Suburban Sanitary District (WSSD), shown in Figure 1-F3. Montgomery and Prince George’s Counties each appoint three of the six commissioners who head the WSSC, subject to confirmation by the respective county councils. The commissioners serve staggered, four-year terms. The WSSC General Manager, the chief executive for all WSSC operations, as well as the Internal Audit Manager and the Board Secretary, report directly to the Commissioners.

Figure 1-F3: Washington Suburban Sanitary District (WSSD) in Montgomery County



WSSC is responsible for the design, construction, operation, and maintenance of the community water supply and sewerage systems within the WSSD. The agency constructs and maintains water mains, pumping stations, and water storage facilities to deliver treated drinking water from the Potomac and Patuxent filtration plants to connected households and businesses. WSSC also constructs and maintains sanitary sewer lines, pumping

stations, and force mains to collect and transport wastewater to its wastewater treatment facilities and to trunk sewers connecting to the regional Blue Plains wastewater treatment facility.

The Commission operates and maintains approximately 5,600 miles of water mains and 5,400 miles of sewer mains throughout the WSSD. WSSC will face a significant challenge during the tenure of this Plan in the form of rehabilitating aging water and sewer mains within its systems, many reaching and exceeding their expected useful life. WSSC issues plumbing permits for water and sewer service throughout the WSSD, both within its own community service areas and for areas within the WSSD using individual, on-site systems (wells and septic systems).

WSSC owns and operates water supply reservoirs on the Patuxent River and on Little Seneca Creek. The Triadelphia and Rocky Gorge Reservoirs on the Patuxent River supply raw water to WSSC's Patuxent Water Filtration Plant. WSSC uses the Little Seneca Lake Reservoir, located within Black Hill Regional Park in Germantown, to supplement flows in the Potomac River to the Potomac Water Filtration Plant during droughts. The agency has permits to operate and maintain water intakes and filtration plants, to withdraw and treat water from the Potomac River and the Patuxent River reservoir system for public water supply purposes. WSSC conducts extensive water quality analyses for the community water supply within the WSSD and provides water quality to its customers through federally-mandated, annual Consumer Confidence Reports. These reports may also be obtained through the WSSC Public Communications Office or on WSSC's website at www.wsscwater.com.

WSSC operates and maintains three wastewater treatment plants in the county, which WSSC recently renamed as water resource recovery facilities (WRRF):

- The Seneca WRRF on Great Seneca Creek near Germantown.
- The Damascus WRRF on Magruder Branch near Damascus
- The Hyattstown WRRF on Little Bennett Creek in Hyattstown.

These point source discharges are controlled through NPDES permits issued by MDE. WSSC conducts in-plant process monitoring of water filtration and wastewater treatment processes and maintains a water quality laboratory to support these operations. WSSC also conducts some raw water supply monitoring at its water sources and in-stream monitoring immediately upstream and downstream of its wastewater discharge points.

WSSC provides data and guidance to the Executive pertaining to capacity of the water supply and sewerage systems and to engineering and fiscal aspects of system expansion. WSSC's functions also include reviewing and commenting on the Recommended Comprehensive Water Supply and Sewerage Systems Plan and on proposed amendments, including water and sewer service area category changes.

WSSC submits an annual operating budget and a Six-Year Capital Improvements Program (CIP) budget annually to the County for interagency review and for modification and adoption by the County Council. WSSC prepares and submits the CIP for major community water and sewerage projects to the County as part of its responsibility to plan and finance the water supply and sewerage system. WSSC and the Executive work together in the preparation of relevant portions of the WSSC's proposed CIP and related facility plans. The County incorporates the adopted WSSC annual CIP and subsequent amendments as updates to the Water and Sewer Plan, which serve to substantially fulfill the fiscal planning requirements of state law and regulations. WSSC implements the approved County CIP for major water and sewerage facilities by designing, constructing, operating, and maintaining water systems and acquiring facility sites and rights-of-way. The two County Councils annually review and adopt the WSSC CIP and operating budgets. In the event that the two County Councils cannot agree on the capital and operating budgets, the Commission's recommended budgets are adopted by default.

WSSC is responsible for identifying potential environmental impacts from construction of proposed water and sewer lines and related infrastructure. Cooperating with other agencies through the Development Services Process, WSSC works to avoid and minimize environmental impacts of sewer line, water line, and other facility construction and maintenance activities to streams, floodplain, wetlands, parklands, and woodland buffers.

I.D.3.b.: Maryland - National Capital Park and Planning Commission (M-NCPPC)

State legislation created M-NCPPC in 1927 to protect open space and control development in Montgomery and Prince George's Counties. In 1939, the Maryland District Act provided planning and zoning authority to M-NCPPC. The agency is also responsible for park land acquisition and development and maintenance of the county's park system. M-NCPPC is governed by ten commissioners, five each appointed by Montgomery and Prince George's Counties. The five members of the commission for each County also serve as a separate Planning Board to facilitate, review, and administer the matters affecting their respective counties. The Montgomery County Planning Board advises and assists the County Council in zoning, and master plan and related development issues. The Planning Board prepares master plans for Executive review and County Council consideration and approval. In support of the triennial update of the CWSP, M-NCPPC provides demographic information and population projections.

In carrying out its basic land use planning mission, M-NCPPC develops the County's *General Plan*, master and sector plans and functional master plans. Once approved by the County Council and adopted by the Planning Board, local area master plans, sector plans, and functional master plans amend the *General Plan*. Master plans are required to incorporate the seven Visions of the Maryland Economic Growth, Resource Protection, and Planning Act of 1992. M-NCPPC also conducts natural resource inventories necessary to support the development of land use plans. In executing its development review responsibilities, M-NCPPC evaluates proposed subdivisions and site plans for impacts on forests, specimen trees, slopes, wetlands, streams, wildlife, fisheries, and other natural features.

M-NCPPC coordinated the preparation and adoption of the 2010 *County-wide Water Resources Functional Master Plan (WRFMP)* as required by the Water Resources Element (WRE) of Maryland HB 1141, enacted in May 2006. This legislation required the County to amend the *General Plan*, considering existing and planned growth, to address the adequacy of the County's water supply capacity, wastewater treatment capacity, storm water quality and quantity management resources, and the water quality of its streams. The WRFMP serves as a guide for the County's *Ten-Year Comprehensive Water Supply and Sewerage Systems Plan*, other functional master plans, area master plans, and sector master plans. For more information on the WRFMP, see Chapter 2, Section III.A.2.

M-NCPPC provides guidance on and interpretation of land use, development, park and natural resources, and community planning issues to the County government. As required by State law (Annotated Code Sections 9-506(a)(1)(ii), 9-506(a)(2) and 9-516), this includes review and comment on the Recommended *Comprehensive Water Supply and Sewerage Systems Plan* and proposed amendments, including water and sewer service area category changes.

M-NCPPC is responsible for protecting, preserving, and managing natural resources in County parks, including streams, fish, wetlands, forests, and wildlife. Within the park system this is accomplished through a wide variety of ongoing programs including: 1) resource inventory functions; 2) reforestation; 3) wildlife and fisheries management; 4) aquatic and wetland habitat enhancement; 5) environmental and engineering review of construction plans; 6) direct performance or participation in design and construction, and construction management of proposed stormwater management facilities located on parkland, including stormwater retrofit and stream restoration projects; 7) maintenance of these facilities; and 8) water quality monitoring activities within park areas as necessary to support these specific functions.

I.D.4.: State of Maryland

The State of Maryland has delegated the responsibility to plan for the adequate provision of water and sewer service to Montgomery County. The following State agencies oversee that responsibility and other related planning and water quality programs:

I.D.4.a.: Maryland Department of the Environment (MDE)

Under State Law, the Maryland Department of the Environment (MDE) is responsible for the State's review and approval of this Water and Sewer Plan. MDE adopts and administers regulations that each county must follow in the preparation of its comprehensive plan, and acts to approve, approve with modifications, or disapprove the Plan or any Plan amendment submitted by the County. As part of this process, MDE seeks guidance from the

Maryland Dept. of Planning for consistency with local and State planning use goals, policies and objectives. MDE also:

- Coordinates State grant and loan programs for major water and sewer infrastructure improvements,
- Regulates the discharge of treated wastewater into State waters, through its permit issuing and monitoring programs.
- Regulates new development using septic systems through the State's septic growth tiers law (Senate Bill 236), which places limits on the number of septic systems allowed within new rural subdivisions. For more information on the County's Growth Tiers, see Section II.E.1.

I.D.4.b.: Maryland Department of Planning (MDP)

The State's Land Use Article provides the authority to local governments to enact laws and codes to implement the State's 12 Planning Visions (see <http://planning.maryland.gov/OurWork/planningvisions.shtml>) across each entity's jurisdictional oversight. Such laws and codes must be consistent with the land use goals and policies of the State. Pursuant to Section 9-507 (b)(2) of the Environmental article, MDP is required to review and comment on the County's Ten-Year Comprehensive Water Supply and Sewerage Systems Plan and any amendments thereto, for consistency with all State land use planning visions, policies and actions. Noted inconsistencies are provided to MDE for consideration prior to any plan or amendment approval, or revised permit is granted to proceed.

I.D.5.: Regional Agencies

Montgomery County's community water and sewer needs also involve agencies and jurisdictions outside the State of Maryland. The County and WSSC coordinate with the following agencies on the use of regional resources. These governmental agencies, and their primary responsibilities, are described as follows:

I.D.5.a.: District of Columbia Water and Sewer Authority (DC Water)

DC Water owns and operates, among the District of Columbia's water and sewerage facilities, the Blue Plains Wastewater Treatment Plant (WWTP) where the majority of Montgomery County's wastewater is treated. An independent authority of the District government, DC Water was created and began operating in 1996 under and pursuant to an act of the Council of the District entitled "Water and Sewer Authority and Department of Public Works Reorganization Act of 1996". DC Water's authorizing legislation provides, in part, for the total separation and control of funds from the District Government. The agency is governed by an eleven-member (Principal Members) Board of Directors with each member having an appointed alternate. The 11-member Board of Directors includes six representatives from the District of Columbia, two from Prince George's County, one from Fairfax County, and two from Montgomery County,

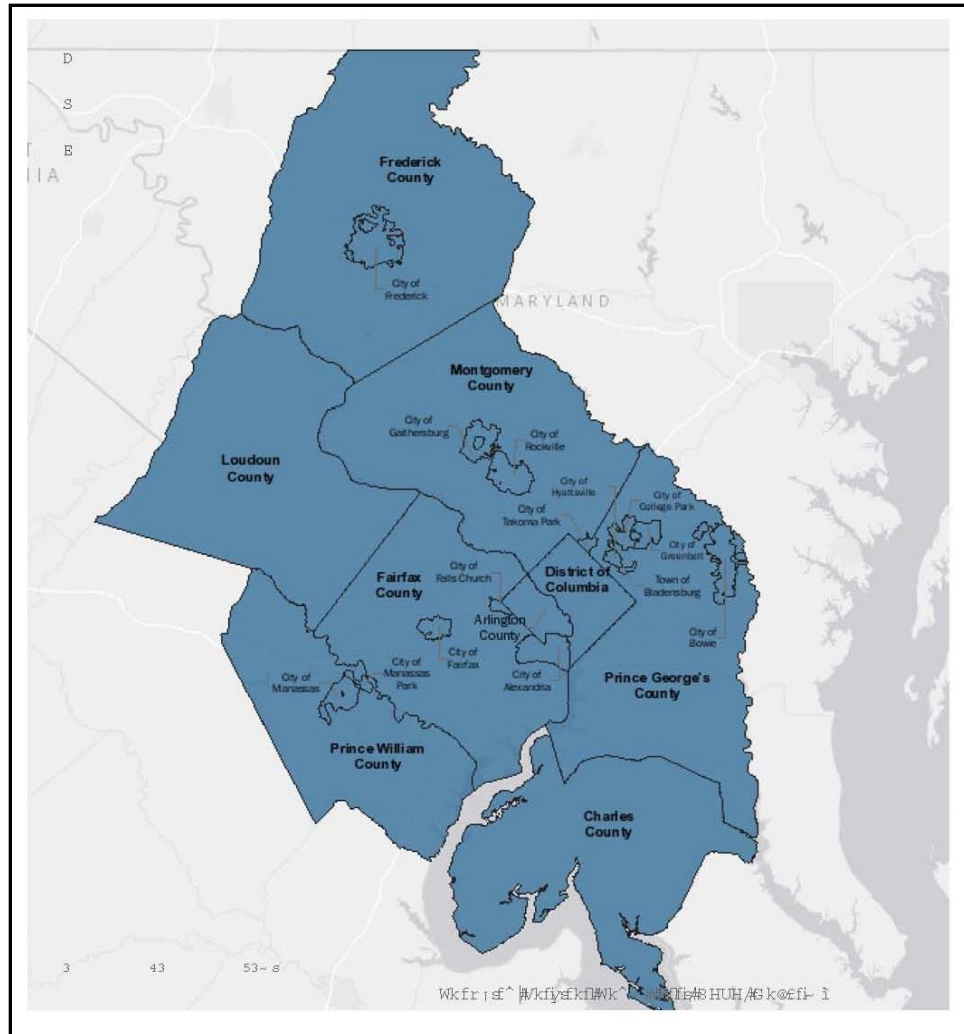
The sewage treatment capacity for Montgomery County and Prince George's County is allocated to WSSC in the 2012 Intermunicipal Agreement (IMA). The 2012 IMA is an agreement signed by the governing authorities of each of the member jurisdictions and their water and sewerage agencies. Accordingly, it is signed by the Mayor of Washington D.C., the County Council President and County Executive for Montgomery County, the County Council Chair and County Executive of Prince Georges County, the Chairman of the Board of DC Water and the Chair and Vice Chair of the WSSC. The IMA is the definitive regional agreement that sets out the Key Principles, Governance, Permit and Treatment Responsibilities, Financial Responsibilities, Flow and Load Allocations, Management and Administrative elements for the long-term regional utilization of the shared use of the conveyance and treatment systems for these jurisdictions utilizing the Washington D.C. sewerage system. The agreement This agreement remains in force until June 30, 2111 unless amended, replaced or terminated.

I.D.5.b.: Metropolitan Washington Council of Governments (COG)

The Metropolitan Washington area includes numerous municipal, county, and state governments in Washington, D.C., Maryland, and Virginia (See Figure 1-F4.). COG is the regional organization consisting of the Washington area's 22 major local governments and their governing officials. Founded in 1957, COG provides a forum for coordinated action on issues of regional concern, including water supply and watershed protection. This includes updating the region's water emergency response plan, assisting the water utilities and local elected governments in communicating concerns to regulatory agencies, and educating the region through conferences and publications on regional drinking water issues, such as water conservation. COG staff also coordinates and

maintains regional databases on Potomac River water quality, water treatment plants, and wastewater plant discharges. COG's Environmental and Public Works Directors Committee advises the COG Board on regional policy issues associated with drinking water, water quality, and wastewater treatment.

Figure 1-F4: COG Member Jurisdictions
 (Source: Metropolitan Washington Council of Governments)



COG membership jurisdictions include:

Washington, District of Columbia

<i>In Maryland:</i>	Town of Bladensburg City of Bowie City of Gaithersburg Prince George's County	City of College Park City of Greenbelt City of Rockville Montgomery County	City of Takoma Park Frederick County City of Frederick Charles County
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<i>In Virginia:</i>	City of Alexandria Fairfax County Loudoun County	Arlington County City of Falls Church Prince William County	City of Fairfax City of Manassas City of Manassas Park
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I.D.5.c.: Interstate Commission on the Potomac River Basin (ICPRB)

ICPRB was created by interstate compact and approved by Congress in 1940. Withdrawals from the Potomac River provide the majority of the county's water supply. Among its responsibilities, ICPRB helps control and prevent pollution of the waters within the Potomac drainage area; cooperates with, supports, and coordinates activities of public and non-public entities concerned with water and associated land resources in the Potomac River basin; promotes public understanding of these issues and activities, and the need for enhancement of the basin's resources; conducts drought operations management support for Potomac River water resources allocation for the Washington Metropolitan Area; and conducts short- and long-term water supply planning analyses. In carrying out its work, ICPRB works directly with WSSC, Fairfax County (Virginia) Water Authority, and the Washington Aqueduct Division of the U.S. Army Corps of Engineers.

In particular, the ICPRB Section for Cooperative Water Supply Operations on the Potomac (CO-OP) conducts drought operations management support for Potomac River water resources allocation for the Washington Metropolitan Area. In carrying out its work, CO-OP works directly with WSSC, the Fairfax County (Virginia) Water Authority, and the Washington Aqueduct Division of the Corps of Engineers. The CO-OP Section conducts a monthly Water Supply Outlook analyses which is provided to WSSC, to other water suppliers, and to other interested entities; conducts annual real-time drought operations exercises; produces water demand forecasts and resource adequacy assessments for 20-year planning horizons; maintains 24-hour water resource emergency coordination; and operates releases from the region's water supply reservoirs during drought conditions.

I.E.: Plan Structure and Content

The structure and minimum content of this *Comprehensive Water Supply and Sewerage Systems Plan* is specified by the State laws and regulations referenced in Section I.C. of this chapter. The following briefly describes the structure of the Plan and the contents of each chapter:

- **Chapter 1: Objectives and Policies** - This chapter provides the legal requirements for the Plan; the County's overall objectives for water and sewer service; the policies addressing the provision of water and sewer service from community, multiuse and individual systems; and the procedures and organizational roles through which the County and State adopt, amend, and administer this Plan.
- **Chapter 2: General Background** - This chapter provides background information on Montgomery County's natural and man-made environment relevant to the provision of water and sewer service by both community and individual systems.
- **Chapter 3: Water Supply Systems** - This chapter provides information on the County's existing water supply systems and on planning efforts to ensure that the County's mid- and long-term water supply needs are and will be satisfied in a manner consistent with public policy and the plan's objectives. Regional planning issues, as they relate to the county, are also addressed.
- **Chapter 4: Sewerage Systems** - This chapter provides information on the County's existing sewerage systems and on planning efforts to ensure that the County's mid- and long-term sewerage needs are and will be satisfied in a manner consistent with public policy and the plan's objectives. Regional planning issues, as they relate to the county, are also addressed.
- **Appendices** - The appendices provide technical or reference information to supplement the Plan's four chapters. DEP updates portions of this information more frequently than the Plan's three-year comprehensive amendment cycle. Using an appendix for this information provides a more convenient method to accomplish these updates. DEP shall also post these updates on the Waterworks webpage of its website (see the preceding webpage address).
- **Water and Sewer Service Area Category Maps** - These maps identify the water and sewer service area categories designated in this Plan for all properties within Montgomery County. Printed copies of category maps, for any specific area of the county, may be obtained from DEP. Category change actions approved between comprehensive updates of the Plan may also be viewed at the DEP Waterworks webpage (www.montgomerycountymd.gov/waterworks). This webpage also provides a link to the County's online webmap viewer which includes water and sewer category designations for county properties.

The plan text is available through the DEP "County Water and Sewer Plan" webpage at <https://www.montgomerycountymd.gov/water/supply/county-water-plan.html>.

II.: POLICIES FOR THE PROVISION OF WATER AND SEWERAGE SERVICE

The water and sewer service policies addressed in this section of the Plan provide the basis for establishing what areas of the county will use community systems service versus individual systems service. The Plan uses water and sewer service area categories both to designate areas eligible for either community or individual service and to provide a staging element for the provision of community service. These policies provide guidance not only in evaluating individual and general service area change amendments, but also in the preparation of and water/sewer service recommendations for development in the County's land use master plans.

II.A.: County Water and Sewer Systems

The following provides a brief introduction to the types of water supply and sewerage systems used in Montgomery County. More-detailed information on these systems is available in later parts of this chapter and in Chapters 3 and 4.

Water supply systems consist of a source of water (whether groundwater or surface water), treatment and storage facilities, and a distribution system that provides potable water to a users' homes or businesses.

Sewerage systems collect, treat and dispose of sewage or industrial wastes of a liquid nature. Sewage effluent is disposed of either to the ground (above or below ground) or to a receiving surface water, such a stream or river.

Community water and sewerage systems serve two or more individual properties; the utility—either public or private—both owns and operates the system. The community water and sewerage systems serving the county are owned and operated by the Washington Suburban Sanitary Commission (WSSC), the City of Rockville, and the Town of Poolesville. Community systems in the county are sometimes referred to as "public" or "city" water and sewerage systems.

Individual Systems serve a single user on the user's property; they are owned and operated by the individual user. The user may be a private individual, a business, or a public or private institution. The most common individual water supply systems in the county are groundwater wells. The most common individual sewerage system in the county is a septic system. Individual well and septic systems are often referred to as "private" or "onsite" systems.

Multiuse Systems are individual on-site systems that have a water supply or wastewater disposal design flow of 1,500 or more gallons per day (gpd). As with individual systems, multiuse systems are owned and operated by an individual, a business, or a public or private institution, and most serve a single structure on a single property. More information is available in Section III.C.5. Capacity limitations imposed by this Plan on multiuse sewerage systems in the county's agricultural (AR) Zone are addressed later in this chapter at Section III.C.5.c.

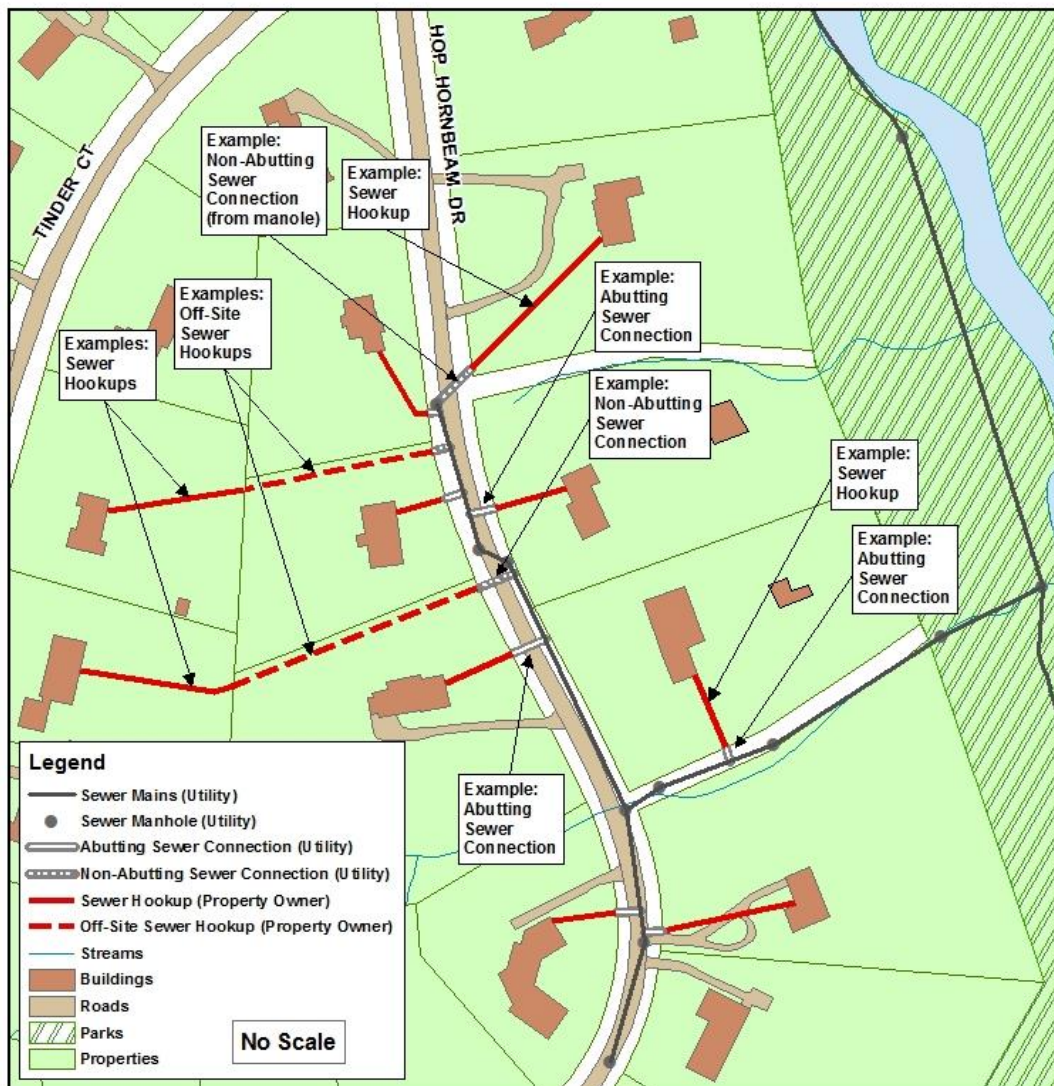
Service connections and hookups are two parts of the same pipe that ties a structure to water or sewer service mains. The **service connection** runs from the local water or sewer main to the customer's property line and is installed, owned and maintained by WSSC. The **service hookup** runs from the property line to the structure being served and is installed, owned and maintained by the property owner. Some policies in this Plan restrict the provision of community water and/or sewer service to a single service hookup only. In these cases, the term hookup functions as shorthand for and includes both the service connection and hookup together (see Figure 1-F5).

Note that a single service connection/hookup may serve more than one structure on a property. This can occur on properties where ancillary buildings (guest house, pool house, workshop, etc.) are allowed under the County's Zoning Ordinance. However, this applies only to more than one building on a *single* property.

Abutting service connections comprise the vast majority of water and sewer service connections in the county. These connections, installed at a 90-degree angle to the service main, intersect the customer's property line. Some abutting sewer connections are provided from sewer manholes, allowing them to be constructed perpendicular to the manhole but at an angle of other than 90 degrees to a sewer main. WSSC's Development Services Code (see the link below) provides examples detailing under what conditions these sewer connections are considered abutting.

Non-abutting connections provide water and/or sewer service to properties that do not directly abut a water or sewer main. In some cases, the non-abutting connection runs further than usual through the public or WSSC right-of-way to reach the customer’s on-site service hookup. In other cases, the non-abutting connection provides service access to the customer’s hookup that crosses another, intervening property by way of a private easement in order to reach the customer’s property. Some non-abutting sewer connections are provided from sewer manholes, allowing them to be constructed perpendicular to the manhole at an angle of other than 90 degrees to the sewer main. Additional details concerning the use of abutting and non-abutting service connections are provided in WSSC’s Development Services Code (<https://www.wsscwater.com/business--construction/developmentconstruction-services.html>). The use of abutting and non-abutting service connections in the context of the Plan’s special service policies is explained further in Section II.G.3.

Figure 1-F5: Sample House Connections and Hookups
 (Source: DEP-WWPG)



Community Service Envelopes and Service Areas

Planned Community Water/Sewer Service Envelopes: Those areas intended for community service under the County’s Water and Sewer Plan’s general service policies and local area master plans recommendations. Generally, this includes properties currently approved for such service and designated as categories W-1, S-1 or S-1, S-3. Areas planned for future community service (W-4, W-5, and S-4, S-5) are included in the planned

service envelopes. Some properties that have not been considered under the service area category change process, and still designated as categories W-6 and/or S-6, may also be included in the planned service envelope.

Existing Community Water/Sewer Service Areas – Those properties approved for and with access to community water/sewer service, designated as categories W-1 and/or S-1.

Planned Service Envelopes vs. Existing Service Areas – A category W-1 and/or S-1 does not always identify properties included in the planned community service envelopes. Properties located outside the planned service envelopes are typically approved for community service using one of the special service policies in the County's Comprehensive Water and Sewerage Plan (abutting mains, private institutional facilities, onsite system failures, etc.). As such, these properties, although designated as categories 1 or 3, are exceptions to the Plan's general service policies and do not become part of the planned service envelopes.

The Plan's Glossary (Appendix A) provides additional information on these and other terms.

II.B.: County Council Authority and Responsibilities

The County Council relies primarily on the water and sewer service policies adopted in this Plan in evaluating and acting on Plan amendments. However, the scope of the Council's responsibilities goes beyond this Plan and includes issues such as the county-wide economic growth, public health and safety, transportation infrastructure, and public education. The Council has the authority and responsibility to consider such issues where they may affect its actions with respect to this Plan. Given this, the Council may reach conclusions regarding this Plan or its amendments which do not necessarily follow the policies provided in the following sections. In such cases, the Council's amendment resolution will provide an explanation of the issues involved and rationale for actions that vary from these adopted policies. Such an action by the Council will require review by and confirmation from the Maryland Department of the Environment.

II.C.: Water and Sewer Service Area Categories

In order to provide for the orderly extension of community water and sewer service, State regulations (COMAR 26.03.01.04) have established category designations for water and sewer service areas. The water and sewer service area categories designated in this plan serve two functions:

- They identify those areas of the county approved or planned for community water and/or sewer service and those areas intended for service by individual systems; and
- They identify a mechanism for staging community service for those areas planned for community service, consisting of the application of the service categories W-1 through W- 5 and S-1 through S-5 described above to the properties within the county.

In addition, some areas of the county are noted for special service conditions or restrictions, including those specific properties where the County has approved the use of multi-use systems. Service area categories are shown on the water and sewer service area category maps which are a part of this plan.

II.C.1.: Numbered Service Area Category Definitions

The County has modified the State's category definitions to more accurately reflect its planning process. All areas of the County are classified by this plan into one of the categories, with the exception of rights-of-way for public roads, railroads, gas and electrical transmission lines which are not assigned a category. Although defined together here, the County does not always assign matching water and sewer categories, such as W-3 and S-3, to a single property. A property can be designated as categories W-1 and S-6, or as W-4 and S-5, etc.

The County's water and sewer service area categories are as follows:

Table 1-T2: Water and Sewer Service Area Categories	
Category Definition and General Description	
W-1 S-1	Properties approved for and generally with existing access to community (public) service. This will include some properties which have not yet connected to existing community service. ^c <u>State definition:</u> Areas served by community systems which are either existing or under construction.
W-2 S-2	<i>Categories W-2 and S-2 are not identified in the Montgomery County Plan. Properties that would be designated as categories W-2 and S-2 are included with those designated as categories W-3 and S-3. (State definition: Areas served by extensions of existing community and multi-use systems which are in the final planning stages.)</i>
W-3 S-3	Properties planned and approved for community (public) service, but without existing access to public service mains. This category generally identifies properties that will need new water and/or sewer main extensions for the provision of community service. <u>State definition:</u> Areas where improvements to or construction of new community systems will be given immediate priority and service will generally be provided within two years or as development and requests for community service are planned and scheduled.
W-4 S-4	Properties planned for future public service, but which need to use private, on-site systems (wells and septic systems) in the interim. This includes areas generally requiring the approval of CIP projects or the release of master plan staging elements before service can be provided. <u>State definition:</u> Areas where improvements to or construction of new community systems will be programmed for the three- through six-year period.
W-5 S-5	Properties planned for future public service, but which need to use private, on-site systems (wells and septic systems) on a long-term basis. This category is frequently used to identify areas where land use plans recommend future service staged beyond the scope of the six-year CIP planning period. <u>State definition:</u> Areas where improvements to or construction of new community systems are planned for the seven- through ten-year period.
W-6 S-6	Properties that will use private, on-site systems (wells and septic systems), where community (public) service is not planned. Category 6 includes areas that are planned or staged for community service beyond the scope of the Plan’s ten-year planning period, and areas that are not expected for community service on the basis of adopted plans. ^c Some areas designated as categories W-6 and/or S-6 also include properties located within the intended community water and sewer envelopes, but for which owners have not yet requested and had approved map amendments for categories 1 or 3. <u>State definition:</u> Areas where there is no planned community service either within the ten-year scope of this plan or beyond that time period. This includes all areas not designated as categories 1 through 5. •

The service area category definitions established by the State placed multiuse systems on a par with the category staging for community systems (i.e., for W-1 and S-1: “Areas served by community or multiuse systems which are either existing or under construction.”) The County has found it impractical to establish and use a category staging sequence for multiuse systems. Designating categories W-1 and S-1 for sites with approved multiuse systems in rural areas, where most multiuse systems are established, led to confusion about the extent of community systems service. This Plan assigns categories for properties using multiuse systems under the standards provided above; properties approved for multiuse systems are specifically noted as such in the service area category database.

II.C.2.: Service Area Special Conditions and Restrictions

In specific cases, special conditions or restrictions are included with the service area category for a property affecting the provision of water and/or sewer service. For example, these conditions can specify the type of development suitable for community water and sewer service, specify the number of water or sewer hookups allowed, advise that existing community service is the result of prior water and sewer policies no longer in effect, or explain why community service is provided to a site outside the community water and/or sewer envelope.

The following special service conditions are examples of those used on the water and sewer service area category maps:

- *Conditional Approval:* A conditional water/sewer category change approval is pending final action (see action document for details). For example: Maintain S-6, with advancement to S-3 conditioned on

Planning Board approval of a cluster option development plan. This is not to be confused with a “conditional use” under the revised zoning code, formerly referred to as a special exception.

- *Single Hookup-Health*: Community service is restricted to one water hook up only for relief of a public health problem.
- *Single Hookup-Abutting*: Community service is restricted to one water/sewer hookup only under the abutting mains policy.
- *PIF*: Community service is provided for use only by a private institutional facility (PIF) only; see action document.
- *Public Facility*: Community service is provided only for use by a public facility.
- *Cluster*: Community service is limited to properties established under an approved cluster option only (RE-1, RE-2C, RC Zones).

New conditions are sometimes created to address specific situations or new policies in this plan. The condition description applied to a particular site may be general in nature and it is advisable to research specific conditions or restrictions with the Department of Environmental Protection. A comprehensive listing of mapped water and sewer category conditions and restrictions, along with explanations for each, is found in Appendix A.

II.D.: Water and Sewer Service Development Policies by Service Area Designation

The following policies govern the provision of water and sewer service under each of the County’s service area categories. Throughout this section, development policies use the following specifically-defined terms with respect to community water and sewerage service:

- **Community Service is Inadequate** - An existing community water supply or sewerage system may be considered **inadequate** by DEP when service is prohibited by an Order of MDE, WSSC, or Montgomery County, due to inadequate conveyance or treatment capacity. Individual systems are then allowed subject to the General Conditions for Interim Individual Systems (see Section III.C.3.).
- **Community Service is Not Available** - An existing community water supply or sewerage system may be considered **not available** by DEP when, upon application for service to a utility, the utility makes a determination that it is not feasible for economic or engineering reasons to provide community service at that time. Such cases may include, but are not limited to, projects with excessive deficit charges, projects where intervening mains are to be constructed by other developers or individuals, or projects where pumped sewer service is not feasible due to excessive grades or site elevations.

An existing community water supply or sewerage system may also be considered **not available** when DEP makes a determination that it is a severe economic hardship for an individual house or other structure to be connected to the community system. This policy shall only be applicable to single residential hookups or to individual structures that are the equivalent of single residential hookups.

Interim individual systems (wells and/or septic systems) approved under the preceding conditions shall be subject to the General Conditions for Interim Individual Systems (see Section III.C.3.).

This Plan previously required the installation of dry community systems for subdivisions initially developing on interim permit wells and septic systems. The County’s experience with dry community systems reveals that most, if not all dry systems lack any plans for connections to existing community systems. This Plan requires that all subdivisions within approved community service areas (categories 1 and 3) utilize community service, no interim permit individual service is allowed.

II.D.1.: Categories W-1 and S-1

Areas designated as categories W-1 and/or S-1 are intended to develop using community water supply and sewerage systems. As a general rule, **no new individual, on-site systems will be permitted** where an adequate community water or sewerage system is available. For a single, existing property, if an existing community water or sewerage system is **inadequate** or is **not available** as defined previously, then an individual water or sewerage system may be used for an interim period. Such individual systems shall be subject to the conditions established in this Plan as the General Conditions for Interim Individual Systems (see

Section III.C.3.). This plan requires that all subdivisions within category 1 approved community service areas utilize community service, no interim permit individual service is allowed.

II.D.2.: Categories W-2 and S-2

Categories W-2 and S-2 are not used in this Plan (see Table 1-T2).

II.D.3.: Categories W-3 and S-3

Areas designated as categories W-3 and/or S-3 are intended to develop using community water supply and sewerage systems. However, for a single, existing property, interim individual water supply and sewerage systems may be permitted to be installed in the W-3 and S-3 service areas consistent with the General Conditions for Interim Individual Systems (Section III.C.3). This plan requires that all subdivisions within category 3 approved community service areas utilize community service, no interim permit individual service is allowed.

II.D.4.: Categories W-4 and S-4

Areas designated as categories W-4 and/or S-4 are intended to eventually develop using community systems. WSSC may begin programming required water and sewer infrastructure, including capital projects as needed. However, areas designated as category 4 are not yet approved for the actual provision of community service. Given this, individual water supply and sewerage systems may be permitted to be installed in categories W-4 and S-4 consistent with the General Conditions for Interim Individual Systems (Section III.C.3.). Any subdivision initially developed on interim individual systems is under no obligation to construct dry community systems. DEP may recommend water and/or sewer map amendments to designate subdivisions developing on individual systems as categories W-6 and/or S-6.

II.D.5.: Categories W-5 and S-5

Areas designated as categories W-5 and/or S-5 are intended to eventually develop using community systems. WSSC may begin planning required water and sewer infrastructure, including capital projects as needed. However, these areas are not yet approved for the actual provision of community service. Given this, individual water supply or sewerage systems, not of an interim nature, shall be permitted to be installed in any portion of the County designated as categories W-5 or S-5, consistent with COMAR 26.03.01, 26.03.05, and 26.04.02 - .04, and County Executive Regulations 28-93AM, "On-Site Water Systems and On-Site Sewage Disposal Systems in Montgomery County". Individual systems may be installed within these areas on an indefinite basis without firm obligation to connect to a community system, when and if it becomes available.

Within areas designated as categories W-5 and S-5, the construction of dry community systems shall *not* be required for subdivisions or individual properties which develop using individual on-site systems. DEP may recommend water and/or sewer map amendments to designate subdivisions developing on individual systems as categories W-6 and/or S-6.

II.D.6.: Categories W-6 and S-6

Properties designated as categories W-6 and/or S-6 are intended to develop using individual water supply and sewerage systems; community service is not permitted. Individual systems, not of an interim nature, shall be permitted to be installed in any portion of the County so designated, consistent with COMAR 26.03.01, 26.03.05, and 26.04.02 - .04, and County Executive Regulations 28-93AM, "On-Site Water Systems and On-Site Sewage Disposal Systems in Montgomery County". Individual systems are installed on properties within these areas on a permanent basis with no expectation that they will receive service from community systems.

II.E.: Water and Sewer Service Planning in the Development Review Process

The provision of water and sewer service for new development is an integral part of the County's evaluation of development proposals. DEP's primary involvement in the County's development review process includes the following:

II.E.1.: Development Plan Review

The M-NCPPC Development Applications & Regulatory Coordination Division manages the County's Development Review Committee (DRC), an interagency group which meets regularly to review and evaluate proposed development plans. DEP is the lead agency in the DRC with regard to water and sewer service

planning issues. DEP staff report to the DRC on the consistency of the water and sewer service components of development proposals with respect to the County's Water and Sewer Plan. In order for a development proposal to proceed to the Planning Board for consideration, DEP staff need to confirm for M-NCPPC the consistency of the development plan with the policies and service area designations in the Water and Sewer Plan. DPS and WSSC staff also participate in this process with a focus on on-site and community water and sewerage systems design, respectively. At the request of the County Council, the DRC also reviews and comments on concept plans for private institutional facilities seeking service area category changes in areas located outside the planned community service envelopes.

Note that certain service policies in this Plan limit or restrict the provision of community service to:

- The use of specific cluster development options (RE-1, RE-2C, and RNC Zones, for example).
- The use of TDR development options (RE-1 and RE-2 Zones, for example).
- The development of specific uses, such as for private institutional facilities (PIFs).
- A single water or sewer hookup only for a property and may further restrict the subdivision of such properties from more than one building lot where using community service.

The Maryland General Assembly approved the Sustainable Growth & Agricultural Preservation Act of 2012 (Senate Bill 236) during the 2012 General Assembly session. SB 236 requires local jurisdictions to establish and adopt growth tiers to control the number of new subdivisions dependent on the use of onsite septic systems. The purpose of the bill is to protect agriculture, control growth in rural areas, promote growth in areas that have infrastructure in place for it, and reduce nitrogen from septic systems, a primary pollutant of the Chesapeake Bay. The County Council amended the County's subdivision regulations to comply with the new law. Planning Department staff have prepared a Growth Tiers Map a Subdivision Regulation Amendment to incorporate the Map. The Growth Tiers Map shows the location of the four Tiers in the County.

- Tier I: Areas currently served by sewer
- Tier II: Future Growth Areas planned for sewer
- Tier III: Large Lot Development and "Rural Villages" on septic systems
- Tier IV: Preservation and Conservation Areas. No Major subdivisions (five or more lots) on septic systems except by exemption. Montgomery County has received certification from the Maryland Department of Planning (MDP) to allow major subdivisions on septic systems. The County's Agricultural Reserve will continue to protect agriculture and limit development in the County's rural areas through Transfer of Development Rights and very low-density residential development.

Additional information concerning Growth Tiers and the County's Growth Tiers Map is available at M-NCPPC's website: http://www.montgomeryplanning.org/gis/interactive/septic_tiers.shtm. Growth Tiers information is also available from MDP at: <http://planning.maryland.gov/OurWork/SB236Implementation.shtml>.

II.E.2.: Record Plat Review and Approval Process

Record plats legally establish subdivided properties in the County's land records. DEP staff review record plats prior to recordation to ensure that the type of water and sewer service intended to serve the development proposed by the plat is consistent with policies and service area designations in this Plan. DEP staff previously calculated a sewage treatment commitment for each plat that depends on community sewer service. MDE and WSSC have modified the system for tracking and ensuring adequate available treatment capacity for wastewater treatment plants. WSSC no longer needs DEP to calculate future treatment capacity data on a plat-by-plat basis.

II.F.: General Policies for Water and Sewer Service

With few exceptions, all improved properties in Montgomery County require drinking-water supply and wastewater disposal. These services are provided either by community systems, owned and operated by public utilities (WSSC, Rockville, or Poolesville) or by individual, on-site systems privately-owned and operated by the property owner and regulated by the State and the County.

The following policies provide general, county-wide guidance for the provision of both community water and sewer service and individual, private water and sewer systems. Implementation of these policies occurs in part

through the designation of water and sewer service area categories in this Plan (see Section II.C.). The County Council receives from the County Executive recommendations for service area categories based on the policies included in this Plan addressing water and sewer service, land use, staging, and infrastructure.

This Plan recognizes that some rural and low-density areas of the county have moderate-density residential, employment, or industrial zoning. These areas are planned to remain outside of community service envelopes and will be served by individual, onsite water and sewer systems. Property owners and developers will need to recognize that the use of onsite systems may not allow these properties to achieve the maximum development density theoretically allowed under these zones.

Under specific and limited circumstances, case-by-case exceptions to these general service policies can be considered where community service is logical, economical, environmentally acceptable, and does not risk extending service to non-eligible properties. The special service policies included in Section II.G. identify the conditions under which these exceptions can be considered, including public health problems, public facilities, properties abutting existing mains, etc.

Where service area map amendments are consistent with the following general service policies, DEP may act to approve category change requests through the administrative delegation process, Section V.D.2.

II.F.1.: Consistency with Comprehensive Planning Policy

This Plan provides for the systematic extension of community water and/or sewer service in concert with other public facilities to accommodate growth in areas along the higher-density development corridors as defined in the General Plan and in local area master plans that amend the General Plan. Individual, on-site facilities will provide water and/or sewer service in the General Plan's wedges (outside the corridors) intended for lower-density residential and agricultural development. Guidance for the type, amount, location and sequence of growth is contained in the comprehensive planning policies of the County as considered and adopted by the County Council.

This Plan intends that water and sewer service decisions should follow and implement the land use and development guidance established in the County's General Plan and local area master and sector plans. A variety of factors influence policy decisions concerning the density or type of development for a particular area: overall land use guidance; transportation and school capacity; environmental protection; local and county-wide housing and commercial demand; compatibility with existing development; and suitability for individual, on-site systems. The proximity of water and/or sewer mains to an area of the county, also one of these factors, should not serve as the primary driver of these water and or sewer service policy decisions.

Community water and sewerage systems provide service in areas of moderate- to high-density residential development, and to commercial, mixed use, and industrial development. The density of this development does not allow the space on individual lots needed for the use of individual, onsite wells and septic systems. The vast majority of developed properties in rural and low-density areas are served by onsite water supply and wastewater disposal systems, wells and septic systems. In support of the County General Plan and Master Plans, the presumption is that all of these areas will continue to be served using onsite systems consistent with this Plan's service policies.

II.F.1.a.: General Plan and Local Area Master Plan Coordination

The County's comprehensive planning policies are expressed in detail in the General Plan, "On Wedges and Corridors," and in the various master and sector plans which constitute amendments to the General Plan. Functional master plans, such as the Water and Sewer Plan, support and implement these comprehensive planning policies. The Water and Sewer Plan should also consider other adopted or proposed policies of various agencies affecting land use, including guidelines for the administration of the Adequate Public Facilities Ordinance. DEP staff participate in the master plan development and approval process, to address water and sewer service issues.

Master Plan recommendations for use of community and individual water supply and sewerage systems serve to support the master plans' land use and zoning recommendations. These recommendations are made with an understanding of the County's water and sewer service policies, as adopted in this Plan. Currently, master

plans typically incorporate a statement that allows for the provision of water and sewer service within the master plan area in a manner consistent with the service policies included in the Water and Sewer Plan. This statement is intended to address *both* the general and special service policies in the Water and Sewer Plan. Where master plans make water and/or sewer service recommendations that are not in agreement with the policies of this Plan, an explanation and justification of those recommendations is provided in the master plan and subsequently identified in future Water and Sewer Plan updates (see Section II.G.1.).

Periodically, the County will update or amend a local area master or sector plan; a process that can result in changes in recommended land use, development densities, and water and sewer service for a part or parts of that master plan area. While these issues are under consideration by the Planning Board and the County Council, the Council typically defers decision on related water and sewer service issues in this Plan pending completion of the new master plan. Additional information about coordination between master plan updates and the Water and Sewer Plan amendment processes is located at Section V.E.3.

II.F.1.b.: Consistency with the Countywide Water Resources Functional Master Plan

The Water Resources Element (WRE) of State HB 1141 requires the County to incorporate into its *General Plan: On Wedges and Corridors* water resources-related issues with regard to land use planning and projected growth. The intent of this legislation is to help the County identify methods and strategies needed to address how expected growth, as described in the General Plan, will affect and be affected by local water-related limiting factors such as water supply, wastewater disposal, stormwater management, non-point source pollution management, and water quality of receiving streams. The County may need to phase growth, change growth plans, or change methods to address water resource-based limitations, to avoid building moratoria, public health hazards, and adverse environmental impacts.

To fulfill the requirements under this law, the County developed a Water Resources Functional Master Plan (WRFMP), which the County Council approved in July 2010. As the County continues to grow, the WRFMP will provide the land use policy and planning framework to support compliance with water quality standards, Total Maximum Daily Loads (TMDLs) and Anti-Degradation regulations. This functional plan amends the General Plan and serves as a guide for the Water and Sewer Plan, other functional master plans, and area and sector master plans. In the course of developing this plan, M-NCPPC and DEP assessed the County's Water and Sewer Plan in light of the State's WRE requirements and related guidance. Portions of the Water and Sewer Plan that satisfy the WRE requirements were incorporated by reference in the WRFMP. Where the Water and Sewer Plan addresses programmatic, policy, or planning gaps, these will also be identified and addressed in the WRFMP.

II.F.1.c.: Extraordinary Service Recommendations

On occasion, the County Executive or representatives of another agency may make specific water and/or sewer service recommendations involving this Plan that are inconsistent with the County's comprehensive planning policies, or with other policies provided in this Plan. Such a recommendation is considered as an extraordinary service recommendation. Extraordinary service recommendations, when provided, will be accompanied by explanations showing what factors have changed significantly since the adoption of the original policies, and/or what elements of the comprehensive planning policies should be amended to more appropriately reflect current conditions or concerns. The explanation will identify what specific considerations are relevant to the individual recommendations, including as appropriate: economic and fiscal concerns; population estimates; planning; zoning and subdivision requirements; federal, state, regional, county, and municipal planning efforts; residential commercial and industrial needs; availability and adequacy of public facilities; energy conservation; water and sewage treatment capacity; engineering constraints; environmental protection; and the alleviation of public health problems.

II.F.2.: Service Policies for Residential Development

The decision to provide community water and sewer systems service, or to use individual, on-site systems, for residential development most often relies on development densities recommended by local area master plans and established by the County's Zoning Code.

Service policies for residential uses in areas zoned for rural and agricultural development are addressed as part of subsequent sections (see Sections II.F.3.b. and II.F.6.).

II.F.2.a.: Moderate- to High-Density Residential Development

Areas zoned for moderate to high-density residential development (zoned R-60, R-200, TMD, etc.) will generally be served by community water and sewer systems. Moderate to high-density residential development (1 dwelling unit per one-half-acre or higher densities), with smaller-sized lots, cannot provide the area required for on-site wells and septic systems and are more efficiently served by community water and sewerage systems. Development options such as cluster or transferable development rights (TDRs) serve to further reduce lot sizes and/or increase lot densities, which reinforces the need for community systems. This Plan strongly discourages the provision of community water service without community sewer service to areas zoned for moderate-density residential development, such as for the R-200 Zone. In the rare cases where such service is approved, the development plan must provide adequate protection for ground and surface waters as discussed in Section II.F.9.b.

II.F.2.b.: Low-Density Residential Estate Development

The RE-1 Zone (residential estate one-acre), RE-2 Zone (residential estate two-acre), and RE-2C Zone (rural estate two-acre cluster) provide for low-density residential development. These zones are presumed to use individual, on-site systems. Land zoned for residential estate development is often located in areas that function as the transition between areas planned for higher-density residential development and areas planned for rural or agricultural development. The presumed use of individual, onsite systems, especially septic systems, supports master plan goals for these areas. In addition to providing buffers for rural development and agricultural areas, they serve to protect high-quality streams, including those used for public water supply. The distances between residences in low density areas results proportionate increases in the cost of extending community service to each lot, making the use of individual systems more cost effective.

The RE-1 Zone (residential estate one-acre), RE-2 Zone (residential estate two-acre), and RE-2C Zone (rural estate two-acre cluster) provide for low-density residential development. These zones are most often intended to use individual, on-site systems. Land zoned for residential estate development is often located in areas that function as the transition between areas planned for higher-density residential development and areas planned for rural or agricultural development. The distances between residences in low density areas results in the cost of extending community service to each lot proportionately increases, making the use of individual systems more cost effective.

Service policies in the residential estates zones tend to be complex, due in part to available development options. Rural estate development can occur under one of three options: the standard method, the cluster method, and the transferable development right (TDR) method. The RE-1 and RE-2C Zones provide for both standard and cluster development options; the RE-2 Zone provides for only the standard development option.

Standard Development

Development projects using the standard method will generally use individual, onsite septic systems for sewer service. Either community water service or individual, onsite wells may be used. At the lower development densities of the residential estate zones, lot sizes generally equal or exceed 1 acre. However, the use of individual, onsite systems does not necessarily guarantee a developer's ability to achieve minimum lot sizes, and accordingly, the maximum lot yield allowed under each zone. A particular site's suitability for septic systems will tend to control actual lot yields and resulting development density.

Cluster Development

The cluster development method provides potential environmental benefits over the standard method such as reduced water quality impacts due to less impervious area than for a standard development plan and use of dedicated open space for the preservation of sensitive environmental features. Under the cluster method option, lot sizes are smaller than under the standard method. The minimum lot size for RE-1 clustered lots is 15,000 sq. ft. and 25,000 sq. ft. for RE-2C clustered lots. Due to these smaller lot sizes, development occurring under this option will generally need to use community water and sewer systems to allow for cluster plans that accomplish desired environmental goals. Sewer service area category designations under these circumstances will carry a notation limiting community sewer service for cluster development only. Local area master plans will usually provide guidance about where and under what conditions development may use the cluster method.

TDR Development

Only those properties within an overlay zone for transferable development right (TDR) receiving areas may use this development option. In these receiving areas, a developer may increase the number of residential units built on a particular site by purchasing TDRs from owners of property zoned Agricultural Reserve (AR), formerly Rural Density Transfer (RDT). This program, originated by Montgomery County in the early 1980s, seeks to:

- Protect and sustain the county's rural and agricultural communities.
- Provide an opportunity for compensation to rural property owners for reduced development density and lot yields.
- Direct development density from rural areas to higher-density areas with the appropriate infrastructure (roads, transit, schools, etc.).

Given the development densities proposed, properties zoned as TDR receiving areas require the provision of community water and sewer service. Often, the base zoning of these sites (R-60, R-200, etc.) establishes their eligibility for community service without the additional development density provided by the use of the TDR option. However, in cases where the base zoning of the property is **not** suitable for the provision of community service (typically the RE-1 and RE-2 zones), the provision of community service requires Planning Board approval of a preliminary subdivision plan that uses the TDR-development option. DEP may act to approve service area changes in these cases through the administrative delegation process, Section V.D.2.a.

Properties Ineligible for Cluster or TDR Development

Residential estate-zoned areas where cluster or TDR development has occurred often include a mix of both large and small properties. Smaller properties can lack the acreage needed to allow them to subdivide. Community service extensions provided to serve cluster and TDR development, or to serve nearby higher-density development, may be in close proximity to these smaller properties. Where the provision of community service is found to be logical, economical, and environmentally acceptable, the County may consider the provision of community service for these smaller properties that lack subdivision potential, but without the cluster or TDR development options usually required for community service.

II.F.3.: Rural Residential Development

Under the County's Zoning Code, low-density rural residential development is addressed by three zoning designations: Rural Neighborhood Cluster (RNC), Rural Cluster (RC), and Rural (R).

II.F.3.a.: Rural Neighborhood Cluster (RNC) Zone

Properties zoned RNC have two alternative development options: standard cluster and optional cluster. The choice between these options affects whether a project uses community or individual water and sewer service. The local area master plan will provide direction on the use of these cluster options.

Standard Cluster Method

The standard cluster method of development results in lower density neighborhoods on large lots. Development under the standard cluster method is presumed to use individual onsite systems, as established for the RNC Zone in the zoning ordinance. Service from the community water system may be considered if the project satisfies the requirements for community water service for large-lot development (see Section II.F.2.b.).

The standard cluster method of development results in lower density neighborhoods on large lots. Development under the standard cluster method is generally intended to use individual onsite systems. Service from the community water system may be considered if the project satisfies the requirements for community water service for large-lot development (see Section II.F.2.b.).

Optional Cluster Method

Development under the optional cluster method provides for the use of smaller lots and more open space preservation than under the standard cluster method. As a result, the Zoning Ordinance calls for the use of community water and sewer service to support development under the optional cluster method. Under the optional method, community water and sewer is provided to the areas of the site with clustered lots. In certain cases, community service is also available to larger conservancy lots, where the provision of community service

is deemed appropriate due to close proximity to clustered lots. DEP and M-NCPPC staff evaluate community service for conservancy lots as part of the subdivision review process.

Areas receiving community service will be shown as categories 1 or 3, as appropriate; all other areas of the RNC-zoned site will be shown in the Plan as category 6: intended for individual systems. The Plan's service area category maps will show this demarcation between community service and individual service areas on these sites following the inclusion of the recorded lots in the County's GIS property database.

II.F.3.b.: Rural (R) and Rural Cluster (RC) Zones

Areas zoned for rural development, the five-acre Rural (R) and Rural Cluster (RC) Zones are intended for service by individual, onsite water and sewer systems. The size of lots in these zones, in addition to the distance between lots and the distance from existing community service, generally dictates the use of individual wells and septic systems.

Community water service can be considered for sites within the RC zone, as specified by the Community Water Service without Community Sewer policy to support cluster-option development (see preceding Section II.F.2.b.). Final approval for water category changes will typically require the Planning Board's approval of a preliminary plan using the cluster development option. Water service area category designations under these circumstances will carry a notation restricting community water service for cluster development only. This policy does not apply to the Rural Zone.

Areas zoned for rural cluster development often include smaller properties that lack sufficient acreage for a new subdivision. These properties can also be considered for community water service on a case-by-case basis where such service is logical, economical and environmentally acceptable. The community water service option for the RC Zone does not extend to community sewer service.

II.F.4.: Service Policies for Mixed Commercial/Residential Development

Projects located in areas zoned for mixed residential and commercial development (CRN, CRT, and CR Zones) are often found at or in close proximity to higher-density residential areas or commercial centers. As such, they are intended for high- to moderate-development densities and will require the use of community water and sewer service to implement the uses proposed for these areas.

II.F.5.: Service Policies for Employment and Industrial Development

Most areas zoned for employment or industrial development are intended to develop at a density that will require the use of community water and sewer service, rather than individual, onsite systems. However, some commercial and industrial zones are located in rural communities beyond the limits of the community water and/or sewer service envelopes. These areas are presumed to use individual, onsite water supply and wastewater systems. Designations for the provision of community service or the use of individual onsite systems will be generally consistent with the type of service used for adjacent or nearby residential development, as guided by master plan development recommendations.

Most areas zoned for employment or industrial development are intended to develop at a density that will require the use of community water and sewer service, rather than individual, onsite systems. However, some commercial and industrial zones are located in rural communities beyond the limits of the community water and/or sewer service envelopes. Designations for the provision of community service or the use of individual onsite systems will be generally consistent with the type of service used for adjacent or nearby residential development.

II.F.6.: Service Policies for Agricultural Development

Areas zoned for agricultural development, the twenty-five-acre agricultural or AR Zone (formerly Rural Density Transfer), are intended for service by individual, onsite water supply and wastewater treatment systems. This includes residential properties within these zones. The size of lots in these zones, the distances between lots, and the density and scale of development, makes these areas suitable for the use of individual, onsite wells and septic systems. For development within the AR Zone, this Plan limits the size of individual on-site septic systems (see Section II.C.5.c.).

II.F.7.: Service Policies for Land Uses Without Specific Zoning Classifications

There are two primary land use types that do not have specific zones established in the County's Zoning Ordinance: institutional uses and parklands or park facilities. Many of these uses, due to their underlying zoning, are located within the planned community water and sewer service envelopes. The Plan's special service policies, which follow (Section II.G.), address situations where community service is proposed where these uses are located or propose to locate outside the established community service envelopes.

II.F.8.: Service Policies for Incorporated Municipalities

As discussed previously, State law directs that the County include in this Plan the water and sewer service planning prepared by local municipalities. Municipalities often use a zoning code that differs from the County's. The following provides a summary of municipal water and sewer service policies for the County's incorporated jurisdictions:

- **Barnesville:** The Town of Barnesville is located outside the County's planned community water and sewer service envelopes. All properties in the town use individual, on-site wells and septic systems.
- **Brookeville:** The Town of Brookeville is located at the northern edge of the County's planned community water and sewer service envelopes along the Georgia Avenue corridor. The Town intends that all improved properties within its limits will be served by WSSC community water and sewer systems.
- **Laytonsville:** Water service for the Town of Laytonsville is currently provided by a combination of on-site wells and community water systems. At the Town's request, the County has included the majority of the community within the planned community water service envelope. Wastewater disposal is handled by septic systems. Community sewer service is neither approved nor planned for Laytonsville.
- **Poolesville:** The Town of Poolesville's planned community water and sewer service envelopes include the majority of properties in the town, with the exception of some areas zoned for rural development at the western end of the community. The provision of community service is directed by the Town's master plan which allocates new service based in part on the adequacy of the Town's community water supply system and capacity of the wastewater collection and treatment system. The County coordinates each new service request with the Town to ensure compliance with the Town's planning efforts. The Town owns and maintains its own community water and sewer systems, independent from those owned by WSSC.
- **Rockville:** The City of Rockville plans that all properties within the city will be served by community water and sewer service. The City provides water and sewer service to approximately 70% of the city, or approximately 13,000 accounts. Other properties in the city, located within the WSSD are served by WSSC. The City code requires that properties that seek water and sewer service from Rockville must annex into the City. These properties must be within the maximum expansion limits (MEL) as defined by the Municipal Growth Element of Rockville's Comprehensive Master Plan, which was adopted by the Mayor and Council on December 13, 2010. (See Figure 1-F6.)

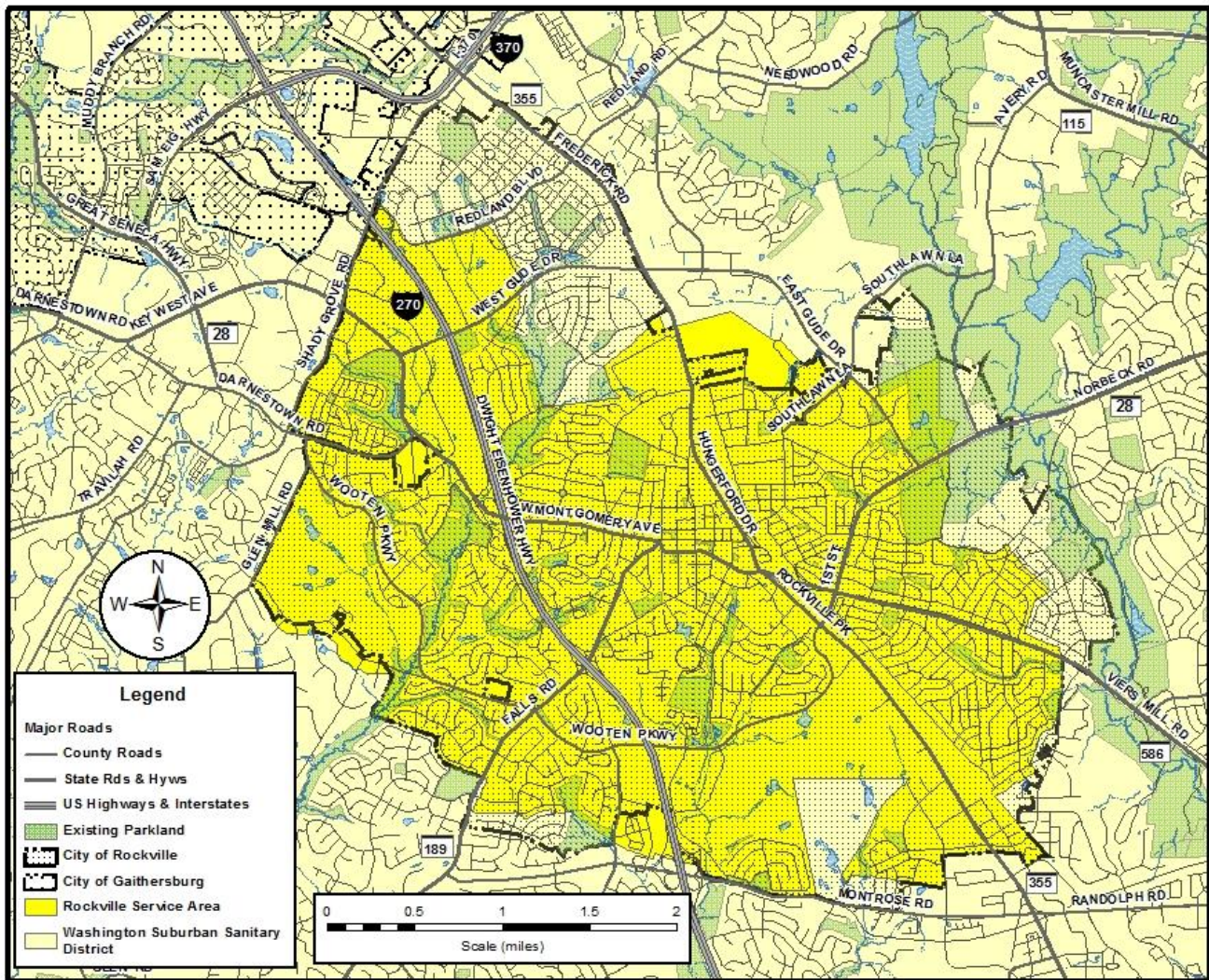
<p>Water and Sewer Plan Recommendation: Community Service for Non-Annexed Properties in Rockville's Service Area</p> <p>Some properties located within the City's MEL, but outside the City's corporate limits, depend on wells and septic systems. Also located outside of the WSSD, they are ineligible for community service from WSSC. These properties are found in both industrial and suburban neighborhoods. The City's requirement for annexation to receive community water and sewer service ensures that properties and public infrastructure meet current City standards as part of the annexation process. It can be cost prohibitive for individual properties to meet infrastructure standards; accordingly, the City and County need to initiate discussion on service for these properties to find mutually agreeable solution for extending community service.</p>
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The following municipalities are located within the County's community water and sewer service envelopes and are served by WSSC. All improved properties are either served by or approved for community service. As a result, these communities do not prepare separate water and sewer plans; instead they rely on the County's

planning efforts in coordination with WSSC. A relatively few older properties in these communities may still use wells and/or septic systems.

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> ▪ Town of Chevy Chase ▪ Village of Chevy Chase Section 3 ▪ Village of Chevy Chase Section 5 ▪ Town of Chevy Chase View ▪ Chevy Chase Village ▪ Village of North Chevy Chase | <ul style="list-style-type: none"> ▪ Village of Drummond ▪ Village of Friendship Heights ▪ City of Gaithersburg ▪ Town of Garrett Park ▪ Town of Glen Echo ▪ Town of Kensington | <ul style="list-style-type: none"> ▪ Village of Martin’s Additions ▪ Town of Somerset ▪ Town of Oakmont ▪ City of Takoma Park ▪ Town of Washington Grove |
|--|---|---|

Figure 1-F6: Rockville City Limits and Municipal Water and Sewer Service Area
 (Source: DEP-WWPG)



II.F.9.: Coordinating the Provision of Community Water and Sewer Service

This Plan generally focuses more attention on policies and issues addressing community water and sewer service than it does on individual, on-site systems. While individual systems primarily affect only the project site involved within a new development, the provision of community water and/or sewer service requires broader-based planning and coordination. Water and sewer main construction may cause offsite disruptions, require easements for new main construction, and potentially affect other property owners. Larger facilities for water and wastewater transmission and treatment may be affected by decisions to provide community service to a

particular part of the county. The following subsections address overarching policies for the provision of community water and sewer service.

II.F.9.a.: Providing Community Water and Sewer Service in Concert

This Plan intends that community water service will be provided wherever community sewerage service is provided. Exceptions to this policy may occur where specific limitations of the community water system make it unreasonable to provide such service, or where community sewer service has been provided to address specific policy concerns such as public health problems or where properties abut sewer mains (see Section II.G.).

II.F.9.b.: Providing Community Water Service Without Community Sewer

In the mid-1980s, DEP conducted a study, "The Feasibility of Extending Public Water Service to Large Lot Development". The study concluded that community water service does not provide the same impetus for development density and lot yields as community sewer service. The study advocated the provision of community water service in areas zoned for lower-density development. In these areas, septic system suitability would still control development yields, maintaining the intent of master plan development recommendations. Community water service provides the advantages of a potable water source less prone to problems from drought and groundwater contamination, improved availability of fire protection, and with the potential for improved septic system siting that result from eliminating setback constraints associated with water wells.

Where the provision of community water service to large lot areas promotes the land-use and development envisioned by the master plan and meets other economic and environmental standards, the approval of service and/or timing of service is appropriately handled by the adoption of water category changes as part of this Plan. Requests for water service to large lot areas may be considered for administrative approval under the "Consistent with Existing Plans" policy (Section V.D.2.a.) in cases where the Planning Board concurs that the extension of service is consistent with the land-use and development policies of the master plan.

The following policies provide the conditions that allow for the provision of community water service without community sewer service:

- **Zoning:** The provision of community water service without community sewer service is intended for areas zoned for lower-density, "large lot" residential and rural development, and should be generally limited to those areas zoned RE-1, RE-2, RE-2C, Rural Neighborhood Cluster (RNC) standard option, and Rural Cluster (RC) cluster option.
- **Master Plan Intent:** The provision of community water service must conform to the land use policies of the applicable master plan. The policy of providing community water service to large lot areas was first adopted in the Water and Sewer Plan in 1990. Some master plans still in use, such as the *Preservation of Agriculture and Rural Open Space Master Plan (1980)*, were approved prior to the introduction of this policy. These older master plans do not specifically account for this policy in their water service recommendations. The decision to extend or restrict water service should focus on conformance with master plan land-use and development recommendations, rather than on generalized water service areas identified in these older master plans.
- **Water Resources Protection:** Development with community water service and septic systems must be consistent with the protection of surface and ground waters. To assure this goal, DEP may require hydrogeologic studies of proposed development projects to assess potential impacts to ground and surface water quality from the use of individual sewerage systems. In order to address concerns about the clustering of septic systems in areas where zoning permits lot sizes of less than 40,000 square feet, DEP may, through the development review process, recommend minimum or average minimum lot sizes of 40,000 square feet for new development using community water service and individual sewerage systems.
- **Water Main Extensions:** Water main extensions planned and constructed under the provisions of this policy should follow a pattern that supports an orderly and logical expansion of the community water system and water service envelope. "Leap-frogging," or extending service through significant areas of land ineligible for community water service should be avoided.

II.F.10.: Community Service and Capital Projects Dependency

The provision of community service to an area or to a particular site may require capital water and/or sewer projects not included in the current capital program or otherwise identified and endorsed by this Plan. In considering individual water/sewer service area change requests, DEP will generally address such cases using one of the following alternatives:

- Dependency on WSSC-Financed and Constructed Capital Projects - Map amendments may be initially approved for categories W-4/S-4 or W-5/S-5, with conditional approval for categories W-3/S-3. Final advancement to categories W-3/S-3 by the Director of DEP (see Section V.E.2.) will depend on inclusion of the capital projects in the Water and Sewer Plan, either through WSSC's approved capital program, by a Council-approved Plan text amendment which identifies and adopts the required projects, or by other Council-approved actions.
- Dependency on Developer-Financed and Constructed Capital Projects - Map amendments may be granted for categories W-3/S-3 in cases where WSSC has advised that the required capital projects will be addressed by a dependency through the water and/or sewer systems extension permit (SEP) process. The approval of categories W-3/S-3 allows the development project to proceed through M-NCPPC subdivision plan review and approval and on to WSSC for approval. WSSC requires the water/sewer authorization to depend on the approval and/or construction of the required capital projects, which cannot proceed until the County Council has approved the appropriate funding through the WSSC CIP.

II.G. Special Policies for Water and Sewer Service

The Plan's general service policies address water and/or sewer service issues for the majority of development recommendations found in local area master plans. However, a master plan's general recommendations and this Plan's general service policies cannot anticipate every possible service situation. Many of the following special service policies were developed from specific cases where the County Council, in addressing an exceptional situation, found sufficient cause to establish its action as a precedent for other similar situations that follow. The Council adopted these policies in order to provide consistent policy guidance, rather than relying on case-by-case interpretations.

While the preceding general service policies have broad application across the county, the following special service policies usually apply only in very specific circumstances. They are nevertheless valid service policies adopted by the County Council, acting as the State's delegated authority for the Water and Sewer Plan.

II.G.1. Master Plan Recommended Exceptions

The previous discussions of the Water and Sewer Plan's service policies have noted that in order to implement specific development and land use strategies, master plans may make recommendations for water and/or sewer service that vary from this Plan's general policies. Where a master plan makes such a recommendation, it must also include an appropriate justification for the recommended departure from the general service policies. DEP coordinates closely with M-NCPPC with regard to the water and sewer service recommendations developed in local area master plans. Exceptions to the general service policies are recommended in the following master plan areas:

- Burtonsville Crossroads Neighborhood Plan (2012)
- Cloverly Master Plan (1997)
- Damascus Master Plan (2006)
- Fairland Master Plan (1997)
- Olney Master Plan (2005)
- Potomac Subregion Master Plan (2002): This master plan had recommended substantial and unique restrictions on community sewer service in the RE-1-zoned area referred to as Glen Hills. Following the County's study of septic system and community sewer use in this area, the Council acted in March 2016 under Resolution No. 18-423 to restore sewer service policies for Glen Hills to those typical for similarly-zoned communities in the master plan area.

- Upper Rock Creek Watershed Master Plan (2004)

Refer to Appendix C for details about the exceptional service policy recommendations included in each of the preceding master plans.

II.G.2.: Community Service to Relieve Onsite System Concerns

Public health concerns can result from failures of individual, onsite water supply or wastewater disposal systems, including the failure of those systems. Onsite systems usually—but not exclusively—serve properties located outside the planned community service envelopes, where development is intended for service using wells and septic systems. This is consistent with the planning for and designation of lower-density residential, rural, and agricultural areas.

As a result, most properties using individual, onsite systems are often in areas where relief of failures using community service is neither logical nor economical. In these cases, first consideration for mitigation of a failure will focus on onsite relief measures. A feasible onsite remedy must satisfy onsite systems permitting requirements, as verified by DPS. However, some failures do occur in areas within or near areas served by community systems. Issues involving concerns with and failures of individual water supply and sewerage systems are addressed in more detail in Section III.C.4.a.

II.G.2.a.: Single Property Onsite Systems Concerns

In the majority of onsite systems failures reported to DPS, relief is provided by an onsite repair or replacement. However, community water and/or sewer service may be provided to an improved property to resolve an onsite systems failure, upon documentation of that failure by the Director of DPS or a designee. If a water or sewer main extension is required or if the availability of service is unclear, DEP, in coordination with WSSC, will evaluate whether the provision of community service is feasible. In cases where DEP determines that the provision of community service is not feasible, DEP will report this back to the DPS Well and Septic Section. DPS then determines the best possible onsite solution for the onsite systems failure. Note that the State of Maryland, typically through MDE, may also direct the use of community service to relieve an onsite system failure.

Unless a case requires consideration by the County Council, *DEP may direct WSSC to begin and expedite the process to provide community service regardless of the existing service area category.* The utility does not need to wait for the County to grant a service area change approval to plan, design, and implement community service. DEP will follow up this action with the needed category change through the administrative delegation process. The inability of an unimproved property to allow for a permitted septic system does not provide justification to allow the provision of community service to that property alone under this policy.

In cases addressed by this policy, community service will generally be limited to a single water and/or sewer hookup for existing properties. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

Within the planned community service envelopes, where DPS determines that an existing onsite system failure occurs, the property involved may already have a category 1 or 3 service area designation. This allows WSSC to proceed with expediting the provision of community service. However, where a property lacks an appropriate category designation for community service, DEP may direct WSSC to proceed with the provision of service, as explained previously. Because the provision of community service is for a property located within an area already planned for community service, DEP may act to approve related service area changes through the administrative delegation process, under the “Consistent with Existing Plans” policy, Section V.D.2.a.

Outside the planned community service envelopes, first consideration for relief of an existing onsite systems failure will focus on onsite mitigation measures. However, some cases occur where DPS determines that onsite measures cannot relieve the failure. In cases involving documented failures, with no reasonable onsite relief measure and with readily available community service, DEP may act to approve related service area changes through the administrative delegation process, under the “Community Service for Public Health Problems”

policy, Section V.D.2.a. Readily available community service is that which allows for community service for a property using either a directly abutting or a WSSC-approved non-abutting service connection, not a main extension. Otherwise, onsite system failures found outside the planned community service envelopes and related service area category changes will be addressed by the County Council. Depending on the circumstances affecting such cases, the County Executive may transmit appropriate recommendations to the Council outside the usual semi-annual cycle of Plan amendments.

In areas planned to use onsite water and/or sewer systems, the County's decisions to provide community water and/or sewer service and approval for related service area changes are not intended to change existing development patterns originally based on the suitability of onsite systems use. To this end, properties outside the planned service envelopes cannot be subdivided into more than one lot where approved for public water and/or sewer service under this policy.

II.G.2.b.: Area-Wide Onsite Systems Concerns

In some situations, the number and/or the pattern of onsite systems failure cases could indicate broader-scale concerns rather than just an isolated, individual case. A function of this Plan is to survey and identify, as necessary, areas where future, long-term use on individual, onsite systems may be constrained, and to recommend solutions for those concerns. All special community service areas recommended for action under this policy require consideration and approval by the County Council. Upon the approval of a special community service area, the Council may also approve category changes for community water and/or sewer service for that special service area under this policy.

The County's designation of a special community service area will allow property owners within these communities to take advantage of WSSC's expedited service process and main construction subsidies. Individual properties within an existing or pending special service area that are documented by DPS as having onsite systems failures may still be addressed using the procedures outlined in Section II.G.2.a., above.

In addition to onsite systems survey requests from individual property owners (see outside the planned service envelopes in the following section), DPS may also identify and recommend to DEP potential onsite systems survey areas.

In areas planned to use onsite water and/or sewer systems, the County's establishment of special community service areas and approval for related service area category changes is not intended to change existing development patterns originally established on the suitability of onsite systems use. To this end, properties outside the planned service envelopes cannot be subdivided into more than one lot where approved for community water and/or sewer service under this policy. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

II.G.2.c: Establishing Onsite Systems Survey Areas

Within planned community service envelopes, the need for onsite system surveys for properties is limited as the area involved is already intended for community service. Surveys are sometimes conducted to establish an area eligible for public health subsidies from WSSC to help cover the cost of the extension of a water/sewer main and to expedite the planning and construction of needed main extensions.

Outside planned community service envelopes, onsite systems surveys are typically initiated by an individual property owner, or a group of owners, who identify an area of concern for DEP to investigate. At least one property owner requesting a survey must demonstrate that the existing onsite system has failed, as verified by DPS. DPS must also find that the onsite system failure cannot reasonably be resolved by an onsite repair or permitted replacement of that system. This determination may require an onsite system inspection by DPS and a qualified contractor. A previous inspection may also satisfy this requirement, if acceptable to DPS.

In cases involving septic systems, DPS must determine that the onsite system failure cannot be addressed reasonably by using a conventional replacement system (deep trench, shallow trench, or sand mound), by innovative and alternative onsite replacement systems, or by new technologies as they are approved for use by

the State and County (e.g. graywater systems and waterless toilets). Note that in the case of septic systems, reasonable relief methods do not include the use of a holding tank.

The inability of an unimproved property to allow for a permitted well or septic system does not provide a property owner with justification to request an onsite system health survey. DEP may include unimproved properties within a survey area as appropriate, except where an unimproved property is at the outside limit of a draft survey area.

Once DEP accepts qualified properties for an onsite systems survey, staff will evaluate conditions of other properties in the immediate vicinity for inclusion in the survey area. For establishing a survey area, DEP considers factors such as similar zoning, lot size, and onsite system type and age; logical community service areas and main extension alignments; and physical conditions (such as streams, soils, slopes, and topography). Based on this evaluation, DEP will formally designate a draft survey area.

Once DEP establishes a draft survey area, staff will notify all property owners prior to the beginning of the survey process. At this point, any owner may choose to formally withdraw their property from inclusion in the survey. An owner's withdrawal of a property requires a written and signed notification from the owner to DEP. Once withdrawn from a survey, the subject property will not be recommended for inclusion in either any special service area or related service area category change. However, DEP may use and present the results of the research gained for withdrawn properties as part of the overall survey evaluation. DEP may also consider an owner's request to withdraw a property after a survey commences on a case-by-case-basis.

II.G.2.d: Conducting Onsite Systems Surveys to Address Area-Wide Health Problems

The survey begins with DEP's final determination of the survey area. All participating property owners (*i.e.* those who have not withdrawn their properties from the survey) will be required to provide access to their properties for purposes of a DEP/DPS site visit. DEP and DPS staff will contact owners in advance of a scheduled site visit. DEP and DPS may also request that owners provide any available documentation of onsite systems inspections or maintenance. Staff will not pursue a site visit from those owners who choose to withdraw from the survey. DEP cannot require the owners of properties that DEP has added to a survey area to conduct septic system inspections by DPS.

DEP will hold a public meeting for the property owners and other interested individuals and public interest groups, prior to finalizing its survey findings. Following coordination with other agencies, as needed, DEP will present its findings and recommendations in a report for consideration by the County Executive. This report will include DEP's recommendations for special community service areas and related category changes, as appropriate. The Executive will transmit any survey findings to the County Council for consideration.

The anticipated time frame for an onsite system survey starts with DEP's final designation of a well or septic system survey area and concludes with MDE's decisions concerning the County Council's action regarding the survey results and recommendations. This process is generally expected to take no more than one year, depending on agency workload, including work on other onsite system surveys. An exception to this schedule is for surveys in the Glen Hills Study Area where research conducted for the Glen Hills Area Sanitary Study already provides some background information concerning existing conditions. For those areas of Glen Hills that qualify as "higher priority areas" (see Appendix C, pg. C-4), the schedule for transmittal of an Executive recommendation to the Council is three (3) months after DEP's designation of the survey area.

Standard procedures for onsite system surveys are available on DEP's website at [Private Well and Septic Systems | Department of Environmental Protection, Montgomery County, MD](#).

II.G.3.: Community Service for Properties Abutting Community System Mains

Under specific and limited circumstances, community water and or sewer service may be provided to properties that abut an existing or approved water and/or sewer main. Except in cases where this policy specifically requires the County Council's consideration and action, DEP may grant approval for abutting service hookups through the administrative delegation process, under the "Community Service for Properties Abutting Community System Mains" policy, Section V.D.2.a.

II.G.3.a.: General Requirements

The provision of community service under this policy requires that the property, or a structure on the property, must have been established prior to the extension of the abutting water or sewer main. Residential, institutional, and commercial uses qualify as existing structures; barns, garages, or other types of outbuildings do not qualify. Satisfaction of this requirement qualifies the property for a single public service hookup. Neither the construction of a building on an unimproved property, nor the addition to or replacement of an existing structure, invalidates the application of this policy. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

Technical Feasibility of Service Connections

The provision of community service under this policy also requires that service from the abutting main must be technically feasible. Major water and sewer transmission mains and sewer force mains cannot support individual service connections and hookups, and therefore do not qualify abutting properties for community service under this policy. Service from low-pressure, small-diameter sewer mains may also be restricted, depending on the type or number of users proposed. WSSC's current pump/pressure system policies do not permit both residential and non-residential (commercial/institutional) uses to connect to the same low-pressure main, requiring instead separate, dedicated mains for each separate non-residential use.

Planned Community Service Mains

The implementation of this policy applies to both existing and planned service mains. Where a category change approval is based on new mains planned and approved by WSSC, actual service depends on the construction of that main by the applicant for that main. The owner of a property with a restricted abutting mains approval based on construction of a new main cannot independently initiate the construction of all or part of that new main.

Non-Abutting Service Connections

A non-abutting water or sewer connection may allow for the provision of community service under this policy. A non-abutting connection is typically located within either a public road right-of-way or a WSSC main easement. The associated service hookup must be located on *only* the customer's property receiving community service. The use of an offsite service hookup in an easement crossing another intervening property is not allowed. Non-abutting service connections require specific approval from WSSC.

Policies for the use of non-abutting service connections differ between this Plan's policies and WSSC's. In this Plan, the preceding policy concerning non-abutting service connections will determine whether a property qualifies for community service under this abutting mains policy. Most often, such a property is located outside the planned community service envelope and is considered for community service only because it satisfies this special service policy. WSSC's policy for non-abutting service connections addresses cases involving access to a community system main where the County has already approved the property for community service. Typically, the property is within the planned community service envelope. In summary:

- The Water and Sewer Plan's policy concerning non-abutting service connections affects decisions about which properties may receive community service.
- WSSC's non-abutting connection policy affect decisions about the best way to serve a property once the Plan has established that property for community service.

Abutting Mains Policy Exclusions

This policy will not apply in the following circumstances:

- *Private Institutional Facilities* - The application of this policy does **not** include the provision of community service for private institutional facilities (PIFs) located outside planned community service envelopes. These cases must be addressed separately through the PIF policy (see Section II.G.4.).

- *Limited Access Service Mains* - This policy cannot be applied in cases where the County Council has expressly restricted access to the abutting main as specified under the Limited Access Water and Sewer Mains policy (see Section III.A.1.).

II.G.3.b.: Single Hookups for Only One Property

A single water and/or sewer hookup only is allowed for an individual property or for a structure that satisfies the policy requirements under Section 3.a. preceding. The application of the policy is most often for a single property in the same geographic configuration that existed at the time an abutting main was approved or constructed. However, the policy does allow for exceptions, as follows:

Allowed Property Changes

A change in the property configuration due to the following circumstances does not invalidate this allowed single hookup:

- Dedication of land for a public use such as a road right-of-way or park land.
- An exchange of land between a *qualifying* property and an adjacent property, qualifying or not, provided the overall number of qualifying lots—and therefore the allowed number of hookups—remains the same. Under this provision, *at least one* property must have qualified for a single hookup under this policy *before* the lot line adjustment occurred. A lot line adjustment to acquire frontage along a main does not justify an abutting mains approval.
- The inclusion of additional contiguous, commonly-owned properties, if those properties are combined through subdivision with the qualifying property into a single property. Only one single water and/or sewer hookup for the entirety of the combined properties will be approved in such cases, so that the provision of community service does not promote the further subdivision of additional lots. Final approval of a category change will require the Planning Board's approval of the subdivision plan or plat assembling the properties.

Remainders of Qualifying Properties

The allowed single hookup may also be assigned to an existing property that is the remainder of a property that would have originally qualified for a single hookup under Section II.G.3.a. above. For approval of single service hookups, these properties must satisfy both of the following conditions:

- The residual property proposed for community service abuts the existing or approved main; and
- The allowed service hookup has not been used elsewhere on the property that originally qualified for the single service hookup. Community service provided elsewhere on the original property where consistent with both Water and Sewer Plan general service policies and with master plan recommendations shall not be considered to have used this one allowed hookup.

DEP may grant approval for this single hookup under the administrative delegation process included in this chapter, as noted previously in Section II.G.3., provided that either:

- All of the residual properties involved are still under common ownership, or
- None of the other residual properties from the original abutting property could qualify under this policy for the allowed hookup because they do not abut the subject water or sewer main.

However, DEP shall refer to the County Council any cases where two or more residual properties that could qualify for the single service hookup are under different ownership. DEP will attempt to notify the owners of those qualifying properties of the pending category change request amendment and of the Council's hearing for that amendment.

Single Community Service Hookups in Proposed Subdivisions

Some properties that qualify for a single community service hookup under this policy will also be proposed for new subdivisions. In these cases, this policy may allow for a new lot using community service in addition to those lots approved using individual, onsite systems. Qualifying projects will need to satisfy the following conditions:

- The original property had to satisfy the general policy requirements for a single community service hookup under Section II.G.3.a, preceding.
- The property in the subdivision receiving the single community service hookup must receive service by either a direct connection or non-abutting connection to the water or sewer main. The conditions for the use of a non-abutting connection apply as explained in Section II.G.3.a., preceding.
- Final approval of a category change under this condition will require the Planning Board's approval of a preliminary plan that specifies the lot receiving the allowed community water and/or sewer hookup.

Properties located within the Piney Branch Restricted Sewer Access Area and the Glen Hills Study Area do not qualify for this provision of the abutting mains policy with regard to sewer hookups. The policy is not intended to promote the creation of additional subdivision lots in these areas. A single sewer hookup may be provided in a subdivision to one qualifying lot that could be served by an individual septic system.

II.G.3.c.: Multiple Sewer Hookups

In order to protect and preserve sensitive environmental features on the site (e.g. stands of trees/forest, wetlands, etc.) that would be potentially harmed by the installation of septic systems, while also limiting the effects of sewer-supported development, community sewer service may be provided to a property abutting an existing sewer main provided all the following conditions are satisfied:

- The site would qualify for a single sewer hookup under section 3.a. above;
- The site contains sensitive environmental features that DEP, in consultation with M-NCPPC, determines would be preserved to a greater extent by the provision of community sewer service rather than the construction of septic systems;
- The number of sewer hookups allowed shall not exceed the number of lots which could have been approved for septic systems, based on a review of the site conditions (soils, groundwater conditions, local history, etc.) by DEP in consultation with DPS and M-NCPPC, and assuming that at least one sewer hookup is allowed;
- That all the proposed sewer hookups can be provided from the abutting mains: no on-site main extensions are required, no off-site main extensions or hookups (special connections) are required, and no rights-of-way from other properties are required.

This policy cannot be applied in cases where the County Council has expressly restricted access to the abutting main as specified under the Limited Access Water and Sewer Mains policy (see Section III.A.2.). The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

II.G.3.d.: DEP Advance Approval of Single Abutting Hookups in Categories 4, 5, and 6

DEP may direct WSSC to provide an allowed single water and/or sewer hookup for a residential use on a property not currently designated for community service (categories 4, 5, or 6) upon confirmation of the following:

- DEP staff confirmation that the property qualifies for service under this policy, and does not require consideration and action by the County Council for approval; and
- DEP receipt of a valid category change request application for the property.

Only in such cases may DEP approve service for a residential use from an abutting main in advance of granting the actual service area category approval. Commercial and institutional uses must first receive the required service area change.

II.G.4.: Community Service for Private Institutional Facilities

This Plan defines private institutional facilities (PIFs) as buildings constructed for an organization that qualifies for a federal tax exemption under the provisions of Section 501 of Title 26 of the United States Code (Internal Revenue Service).

Private institutions, needing space to locate and grow, sometimes look to less-expensive land zoned for lower-density development. This land is often located outside of the community water and/or sewer service envelopes. The County Council adopted a special service policy addressing PIF uses with three primary goals in mind:

- To continue to support, where the provision of community service is reasonable, the county's private institutional facilities, which the Council recognizes as having an important role in their communities and for their residents;
- To provide more objective and consistent criteria in evaluating PIF cases; and
- To limit the potential impact of water and sewer main extensions constructed outside the community service envelopes for the sole purpose of supporting PIF uses.

II.G.4.a: PIF Sites Within the Planned Community Service Envelopes

For private institutional facilities located within the planned water and/or sewer community service envelopes, service area category changes may be approved by DEP through the administrative delegation process (Section V.D.2.a.: Consistent with Existing Plans). For a specific site, the planned water and sewer service envelopes may differ due to the general service policies (Section II.F.) included in this Plan.

II.G.4.b.: PIF Sites Outside the Planned Community Service Envelopes

The County Council will address category change requests seeking the provision of community water and/or sewer service to such facilities located outside of the planned community service envelopes on a case-by-case basis by the policies provided in the following sections. Under this circumstance, category change requests for PIF uses have specific application requirements. Refer to Section II.G.4.e. for relevant information.

These application requirements include the submission of a conceptual development plan for the proposed PIF use. The County Council has come to place greater emphasis on the review of a concept plan for projects seeking the approval of community water and/or sewer service under the PIF policy. PIF-based category change cases often propose more intense development of a site than would be expected on a property zoned for lower-density development. As a result, one of the Council's more significant concerns is the amount of impervious area proposed by the concept plan. Typically, the Council's approval of a category change for a PIF use is based on an understanding that the PIF user's final development plan will be consistent with the concept plan considered by and acceptable to the Council, especially with regard to impervious area.

The use of community service outside the planned community service envelopes can imply inconsistency with the general recommendations of local area master plans. However, many master plans are silent on the specific issue of community service related to exceptional service policies in this Plan, such as the PIF policy. The County Council typically interprets these situations as suitable for the application of this policy.

Some circumstances will result in properties that are specifically excluded from the application of this policy; see Section II.G.4.c., below.

In cases where the County Council supports a requested category change for a PIF use, the Council will typically choose to condition a category change approval on either:

- The Planning Board's approval of a preliminary subdivision plan that the Board finds to be in conformance with local area master plan recommendations; or
- The Planning Board's approval of a preliminary subdivision plan which conforms substantially with the concept plan reviewed by the County Council.

Please refer to Section V.E.2. for additional information concerning conditionally approved Water and Sewer Plan amendments, including the five- to -ten-year sunset provisions for final approval actions.

Sites Abutting Existing Water and/or Sewer Mains

For cases where existing or approved water or sewer mains abut or will abut a property, the Council may consider the approval of service area category amendments for sites with an existing PIF use and for sites proposed for a new or relocating PIF use, excluding those zoned AR (see Section II.G.4.c).

Sites Requiring New Water and/or Sewer Main Extensions

For sites where the provision of community service for a PIF use requires the construction of new water and/or sewer mains, the Council shall apply the following criteria:

- For existing PIF uses, service area category amendments may be approved for sites only where required water and/or sewer main extensions do not threaten to open undeveloped land to development contrary to the intent of the relevant local area master plan.
- For new or relocating PIF uses, service area category amendments may be approved for sites where required new water and/or sewer main extensions will not make community service available to additional properties that are otherwise not eligible for community service under the general policies of this plan.

WSSC policies require that where low-pressure systems provide sewer service to a non-residential use, that system must be dedicated to only one user and cannot provide service to intervening properties. This policy will therefore allow a dedicated, low-pressure sewer main extension for a PIF use to abut properties ineligible for community sewer service.

Care must be taken to ensure that any associated gravity outfall from a low-pressure sewer system otherwise satisfies these requirements.

New WSSC wastewater pumping facilities are not allowed where their only purpose is to serve PIF uses. (See Section II.G.4.c., following.)

Consistent with the Limited Access Water and Sewer Mains policy (see Section III.A.1), water and sewer main extensions outside the acknowledged community service envelopes, where required, shall be designated "Limited Access". Where community sewer service for a PIF use will be provided by low-pressure mains, those mains shall be dedicated only to that PIF use and generally not eligible for additional service connections. This is consistent with WSSC's policy of requiring that non-residential pump/pressure sewer system users have systems dedicated to only that use. The County and WSSC may make limited exceptions to this requirement to allow for the relief of failed septic systems, where such service is technically feasible.

PIF uses may receive service from limited access water or sewer mains where the Council has specifically approved access to those mains. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

Under its Systems Extension Permit (SEP) process, WSSC requires that all commercial and institutional service applicants construct and pay for the community systems main extensions and related facilities needed to serve their projects.

II.G.4.c.: PIF Policy Exclusions

The following circumstances restrict the application of the PIF policy in cases where community service is sought.

PIF Uses Affected by Specific Master Plan Service Policy Recommendations

This policy cannot be used to justify the provision of community service where a local area master plan specifically recommends against the use of community service for PIF uses, or for any use in general.

PIF Uses on Sites Zoned Agricultural Reserve (AR)

To help preserve the integrity of the land-use plan for the County's agricultural reserve, neither community water nor sewer service shall be used to support existing or proposed PIF uses within the Agricultural Reserve (AR)

Zone. This prohibition shall apply to all PIF cases regardless of whether public service requires either new main extensions or only service connections to an existing, abutting main.

The only exception allowed to this prohibition is to allow for community service to relieve health problems caused by the failure of on-site systems, as documented by the Department of Permitting Services (DPS). In the case of a public health problem, DEP and DPS staff will need to concur that the provision of community service is a more reasonable alternative to a replacement of the failed on-site system, either by ~~standard~~ conventional or alternative technologies. WSSC and DEP staff will need to concur that the provision of community service is technically feasible.

Note that this Plan, with the preceding agricultural preservation goals in mind, also places limitations on the size of individual, on-site septic systems used within the AR Zone (see Section II.G.4.c).

PIF Uses in Existing Residential Structures

The Council may deny service area category amendments for PIF uses located outside the acknowledged water and/or sewer envelopes where main extensions are required for private institutional facilities seeking community service for existing residential structures. This could result in the extension of community water and/or sewer service for structures which would not otherwise be eligible for such service, and which could return to residential use.

PIF Uses Requiring New WSSC Pumping Facilities

In cases where more than one PIF use proposes to locate on a site requiring a pump and low-pressure main extension, WSSC requires that each institutional facility have a separate pump and pressure main system. The County and WSSC will not support the provision of community sewer service for a PIF use where that service will require a WSSC-owned and operated wastewater pumping station that does not also support community sewer service for other non-PIF uses consistent with the service policies of this Plan.

II.G.4.d.: Further PIF Policy Considerations

The PIF policy has accomplished its intended goals in many cases, although the practical application of the policy in other cases remains controversial. These more controversial cases have raised additional policy questions about the criteria for to evaluate PIF category change requests. Among these are the following:

- Limitations on the length of water and /or sewer main extensions needed to serve PIF uses.
- Additional prohibitions on community service for PIFs in other zones besides the AR Zone.
- Limitations on the amount of allowed impervious surfaces for PIF sites, whether universal or based on zoning criteria, and subsequent enforcement of approved PIF impervious surface limitations.
- Concerns about the effect of PIF uses on nearby communities with regard to compatibility, noise, traffic, etc.

II.G.4.e.: PIF Policy Application Requirements

Applicants seeking category change approvals under the PIF policy need to provide the following information in addition to the category change application form:

- Name of and contact information for the proposed institutional use, if that institution is not already the owner of the property.
- Statement of the institution's non-profit, federal tax-exempt status from the U.S. Internal Revenue Service.
- A concept plan for the site of the proposed institutional use ~~showing~~ that has been considered by the M-NCPPC Development Review Committee (DRC) under that agency's concept plan review process. The concept plan needs to include:
 - Proposed activities, seating capacity, and auxiliary uses (day care, private school, etc.).

- Proposed building footprints, parking and driveway areas, and other paved surfaces in sufficient detail to estimate impervious surface area.
- Concepts for water and/or sewer main extensions, as needed.

The category change application needs to include a copy of the concept plan and a copy of the comments for the plan provided by the DRC agencies.

II.G.4.f.: County Council Reconsideration of PIF Concept Plan Changes

The discussion of the review of PIF policy cases (Section II.G.4.b) explains the Council's consideration of a concept development plan for the proposed PIF use, which in part is the basis for a category change approval action. However, if the PIF user makes significant changes (prior to service being provided to the approved PIF use) to the development plan from the plan considered at the time of the Council's action, the County will require reconsideration of the original approval action by the County Council. The M-NCPPC Planning Department will evaluate the revised concept plan with respect to the original plan and report its findings to DEP and the Council concerning significant changes that would warrant the Council's reconsideration.

The discussion of the review of PIF policy cases (Section II.G.4.b) explains the Council's consideration of a concept development plan for the proposed PIF use, which in part is the basis for a category change approval action. However, if the PIF user makes significant changes (prior to service being provided to the approved PIF use) to the development plan from the plan considered at the time of the Council's action, DEP will require reconsideration of the original approval action by the County Council. DEP will determine when a concept plan warrants the Council's reconsideration.

II.G.5.: Community Service for Public Facilities

Public facilities are defined as government-owned buildings or facilities; this includes facilities for municipal, county, state, state-chartered, and federal government agencies. Service area changes needed for community water and sewer service to serve those public facilities sited within the planned community service envelopes through the administrative delegation process (Section V.D.2.a: Consistent with Existing Plans). For locations outside the planned community service envelopes, DEP may act to approve service area changes for existing and proposed public facilities through the administrative delegation process, Section V.D.2.a: Public Facilities. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

II.G.6.: Community Service for Properties Affected by Public Improvements

Community water and/or sewer service may be approved for a property where public infrastructure improvements such as road construction will directly remove, damage, or otherwise adversely affect that property's individual, on-site well or septic system. DEP shall coordinate the review of these requests, as appropriate, with the County's Department of Public Works and Transportation (DPWT). DEP may act to approve service area changes for these properties through the administrative delegation process, Section V.D.2.a: Public Facilities. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

II.G.7.: Community Service for Community Development Projects

Community water and sewer may be provided in support of community development projects which have previously been approved following a public hearing. Such projects may include officially designated renewal and redevelopment areas, neighborhood and community improvement programs, projects approved for productivity housing, rural village programs, historic preservation projects, and housing subsidized by Federal, State or local government, upon the recommendation of the Director of the County Department of Housing and Community Affairs. DEP may act to approve service area changes in these cases through the administrative delegation process, Section V.D.2.a: Community Development. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

II.G.8.: Community Water Service for Child Lots

Community water service may be provided to support the subdivision of lots for the children of the owners of qualifying properties. Montgomery County's zoning and subdivision regulations make special provisions for the creation of these lots which are generally located in the more rural areas of the county, primarily in the Rural Cluster (RC), Rural and Agricultural Reserve (AR) Zones. The size of the lots to be considered for service under this policy is intended to be in the range of those included in the water service for large lot provisions in Section II.F.9.b: between 1 and 5 acres. The provision of community water service must be in compliance with existing agricultural easements applying to the property.

Approval of a service area change to allow community water service must be dependent on Planning Board approval of a preliminary plan for the proposed child lot. In areas zoned AR, where child lot cases are handled as minor subdivisions without the preparation of a preliminary plan; service area changes will depend on an M-NCPPC notice to DEP that the subdivision plat is ready for Planning Board approval.

Water service in these cases is generally intended to be provided from abutting water mains, although water main extensions can be considered where those extensions are consistent with the requirements for large lot development, as previously cited. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

II.G.9.: Community Service for Properties Affected by Onsite Systems Regulations Changes

Community water and/or sewer service, restricted to a single water and/or sewer hookup, may be provided to a parcel or a recorded lot that meets both of the following conditions:

- The applicant must demonstrate that the lot was recorded by plat on the basis of successful sewage percolation or water supply tests at that time, but due to change in regulation, the lot can no longer satisfy State and County regulations for individual, on-site systems; and
- Community service can be provided in a cost-effective and environmentally-acceptable manner.

Prior to 1963, septic testing was not required in order to establish a recorded building lot using septic service in Montgomery County. The absence of successful test results because testing was not required does not satisfy the requirement under this policy. This circumstance cannot be used to justify the provision of community sewer service under this policy.

DEP may act to approve service area changes for properties satisfying the preceding criteria through the administrative delegation process, Section V.D.2.a: Individual Systems Regulations Changes. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

II.G.10.: Reverse Category Changes

The County may approve "reverse" service area changes from categories 1, 3, or 4 to categories 5 or 6 in cases where development established using individual, on-site systems will be unlikely to need or have access to community service within the lifetime of the Plan. Although DEP staff shall be primarily responsible for identifying areas eligible for reverse changes, individual property owners may also seek reverse category changes. DEP may act on reverse service area category changes through the administrative delegation process (Section V.D.2.a: Consistent with Existing Plans). DEP may also act through the administrative process (Section V.D.2.c) to update service area category 1 areas to category 3, to better identify those properties without immediate access to community service.

This Plan recommends against changes from water and sewerage service area categories 1, 3, or 4 to categories 5 or 6 strictly for the following purposes: ~~of~~

- Avoiding the assessment of front-foot benefit charges (see Section IV.A.2.b.).
- Avoiding a DEP or DPS requirement to connect to community water and/or sewer mains, and abandon existing on-site systems, where those mains are available to provide service.

The County Council will address applications for reverse category changes for the preceding purposes.

II.G.11. Special and Restricted Community Service Areas

In addition to the preceding policies, the County may also designate specific areas for or restrict specific areas from community water and/or sewer service in order to achieve specific development goals, to promote environmental protection, or to address other specific concerns. The approved special and restricted community service areas are identified and discussed briefly in the following text. More detailed information and mapping for each affected area is provided in Appendix C.

The most recent change to a restricted sewer service policy occurred in March 2016. At that time, the County Council modified sewer service policies for the Glen Hills area near Rockville. The previous service policy allowed new community sewer service only for documented septic system failures. The Council's action maintained the consideration of community sewer service for properties with septic system failures. However, the updated policy now allows for consideration of community sewer service for properties that abut an existing or approved sewer main and for surveyed areas where groups of properties whose owners have raised concerns about septic system viability.

II.G.11.a. Oaks Landfill Special Water Service Area

By an agreement between the County and property owners in the vicinity of the Oaks Sanitary landfill, community water service is approved and provided in the area surrounding the landfill site, located between Mt. Zion and Laytonsville. Much of the special water service area is zoned AR for agricultural development, where community water service would not usually be allowed.

II.G.11.b. Piney Branch Restricted Sewer Service Area

This restricted sewer service area was established in 1991 to minimize the potential effects of sewer-dependent development in the Rural Estate-zoned areas in the lower Piney Branch Watershed. The policy was reexamined and updated in the context of interrelated land use, zoning, and sewer service recommendations in the 2002 Potomac Subregion Master Plan.

In order to be eligible for community sewer service, properties within the Piney Branch watershed must satisfy at least one of six conditions related to issues such as sewer service staging, trunk sewer easements, and septic system problems. These conditions are detailed in Appendix C, Section II.L. All other properties within the Piney Branch watershed are restricted from community sewer service, whether from the Piney Branch sewerage system or from other adjacent sewerage systems.

II.G.11.c. Riverwood Drive Sewer Restricted Service Area

This restricted sewer service policy affects properties south of River Road (MD 190) between Falls Road (MD 189) and generally Sandy Landing Road. This area may not receive community sewer service from the sewer main located along Riverwood Road, located northwest of the restricted service area.

II.G.11.d.: Jonesville and Jerusalem Special Sewer Service Area

The County approved the provision of community sewer service to these two neighborhoods in the vicinity of the Town of Poolesville in the mid-1980s to relieve public health problems associated with failing septic systems. The County also found it difficult to replace and upgrade the neighborhoods' substandard housing stock because of relatively small lots and inadequate septic suitability of the ground. The special service area is restricted to the areas zoned RMH-200.

Under an agreement between WSSC and the Town of Poolesville, wastewater flows from this service area are conveyed to and treated at the town's wastewater treatment plant. DEP's analysis in 2002 showed that flows from Jonesville and Jerusalem were nearing WSSC's maximum allocation at the plant. Therefore, community sewer service will not support multiple-lot subdivision of existing properties. WSSC shall provide new community sewer service in the Jonesville/Jerusalem service area only under circumstances which, as of October 2001, satisfy one of the following conditions:

- A single permitted sewer connection previously approved by the WSSC (this condition may allow for more than one connection for an existing property);

- A single sewer connection for an existing house or its replacement; or
- A single sewer connection for an existing, vacant property.

Onsite system permit testing has shown that there are few properties in the service area where the ground is suited for new septic systems. This restricted sewer access policy does not prohibit the approval of development plans using septic systems or a mix of community service and septic systems. The existing sewerage system in the service area will be considered “inadequate” for properties that do not satisfy the preceding restrictions. Given the existing S-1 sewer category here, DPS will require acknowledgement from DEP for the installation of septic systems within this restricted sewer service area.

II.G.11.e.: Hyattstown Special Sewer Service Area

The County approved the provision of community sewer service to the Hyattstown area in 1994, as part of the Clarksburg Master Plan update. Sewer service was needed to relieve chronic, ongoing septic problems in the community, some of which had required condemnation of specific properties. The community is served by WSSC’s Hyattstown Wastewater Treatment Plant near the intersection of Frederick Road (Rte. 355) and Old Hundred Road (Rte. 109). The provision of community sewer service in this area is restricted to the Hyattstown Historic District-and to the Hyatt Center commercial site, located adjacent to the historic district, partially within Frederick County. Community water service is not available to this community which continues to rely on individual wells.

II.G.11.f.: Laytonsville Restricted Water Service Area

The County approved the provision of community water service to the Town of Laytonsville in response to the Town’s request for service that cited groundwater contamination problems and septic system replacement difficulties. In considering this request, the County Council expressed concerns about the potential annexation and development demand created by community water service with regard to properties zoned for agricultural use adjacent to the town. As a result, the Council acted to permanently restrict the provision of community water service from any properties within the county adjacent to or near the town-zoned RDT (now zoned AR) should they be annexed and rezoned by the Town. The Town’s planning for community water service has generally excluded properties zoned for agricultural use or natural resource protection (AG Zone).

II.G.12.: Community Service Errors

On occasion, WSSC has mistakenly connected community service to properties designated as service area categories 4, 5, or 6; actions inconsistent with the policies in this Plan. Most often these situations involve cases where existing mains abut and can provide service to the subject property without the need for new main extensions. The County has no intent to revoke or suspend service to properties actually receiving community service provided in error. In cases where such errors are discovered prior to the release of service however, DEP may, depending on the circumstances involved, direct WSSC to suspend the connection and/or plumbing permitting process prior to the actual provision of service. The provision of community service in error shall not be used either as justification for the connection of intervening or nearby lots and parcels or for the creation of additional building lots on a site already receiving community service if they would not otherwise be entitled to connect to community systems.

III.: GENERAL POLICIES FOR WATER SUPPLY AND SEWERAGE SYSTEMS FACILITIES

The preceding policy sections of Chapter 1 generally address the conditions under which the County determines by what means a particular area of the county, or a specific property, receives water supply and wastewater disposal service. The following sections address policies with regard to the community or individual water supply and sewerage systems which provide that service.

III.A.: Washington Suburban Sanitary Commission Community Systems

As defined by the State, community systems are owned and operated by a State-designated public entity such as a municipality or county government. In the case of the Washington Suburban Sanitary District (WSSD) that encompasses most of Montgomery County (see figure 1-F3), that public entity is the State-chartered Washington Suburban Sanitary Commission (WSSC). Within the WSSD where new community service water

and/or sewerage systems are needed to support either planned or existing development, WSSC is the agency responsible for the approval, permitting, construction (in certain cases), operation, and maintenance of those systems. Details about the financial processes used by WSSC for this purpose are presented in Section IV.

A community water supply system provides potable water to residential, institutional and commercial customers. The system generally consists of:

- A raw water source (either a surface water intake or groundwater wells) that feeds into a facility for water treatment that creates potable water.
- A system of pumping facilities, major water transmission mains, and storage facilities that move potable water from the treatment facility throughout the sanitary district.
- A system of local distribution mains with connections to provide service customers' homes and businesses.

A community sewerage system collects, treats, and safely disposes of sewage or industrial wastes of a liquid nature from residential, institutional and commercial customers. The system generally consists of:

- A system of local collection mains, with connections that accept wastewater from customers' homes and businesses, that feed into subsequently larger systems of mains. Most of these mains operate by gravity; some use individual pumps feeding into pressure sewers.
- A system of major sewer trunk transmission mains and wastewater pumping stations and force main systems (as needed) to move collected wastewater through the sanitary district to a treatment facility.
- A wastewater treatment facility designed to meet State and Federal environmental standards, with an effluent discharge either to the ground or to a receiving surface water, such a stream or river.

The following information and policies are generally related to the provision of community water and sewer service by WSSC. Policies specific to the community systems owned and operated by the City of Rockville and the Town of Poolesville are addressed in the sections of Chapters 3 and 4 relevant to those communities. With some exceptions, properties within these two municipalities are not part of the WSSD.

III.A.1.: Limited Access Water and Sewer Mains

In order to implement the goals and requirements of this Plan, water and sewer mains may need to traverse areas of the county not usually eligible for community water and/or sewer service. Those mains are referred to in this Plan and in Plan amendments as **limited access** mains. The properties which these limited access mains traverse or abut shall not be eligible for community service except where they would qualify for community service under the specific provisions of the community water and sewer service policies (Section II.G.). The proximity of existing water and/or sewer mains to a particular property is therefore neither the sole nor primary factor considered in determining eligibility for the provision of community water and/or sewer service under the general community service policies in this Plan.

A single water or sewer main may be considered as a limited access main along only part of its length. Only that part of the main located within or adjacent to properties outside the community service envelope is considered as limited access. Where the same main traverses areas located within the community service envelope, it does not carry the limited access designation. Conditions that affect the provision of community service such as master plan recommendations, zoning, and community service policies may change over time. These changes have the potential to affect the limited access status of a particular main.

The County Council may also specifically designate water and sewer mains as limited access by an amendment to this Plan. These limited access mains traverse areas of the county normally eligible for community service under the general policies of this plan, but where such service is limited or restricted by an action of the Council. The Plan amendment will specify under what conditions community service may be provided from, or extended from, the limited access main. The County Council has identified all or part of the following water and sewer mains as limited access mains:

- Piney Branch Trunk Sewer and Tributary Mains (see Section II.G.11.b.)
- Riverwood Drive Sewer Extension (see Section II.G.11.c.)

- Jonesville and Jerusalem Area Sewer Mains (see Section II.G.11.d.)
- Laytonsville Water Main Extension (see Section II.G.11.f.)

III.A.2.: Capital Projects

The provision of community service to an area or to a particular site may require capital water and/or sewer projects not included in the current capital program or otherwise identified and endorsed by this Plan. WSSC capital water and sewerage projects include:

- Water mains 16 or more inches in diameter
- Water treatment, storage, and pumping facilities
- Gravity sewer mains 15 or more inches in diameter and sewer force mains 4 or more inches in diameter
- Sewage treatment, pumping, and storage facilities.

Developers building capital-sized mains—of no more than 2,000 feet in length—under the System Expansion Permit (SEP) process (see Section IV.A.2.) have the option of whether or not to include the project in the WSSC capital improvements program (CIP). System Development Charge (SDC) credits are available for any project that is characterized as CIP, based on main size.

Capital improvement water and sewerage programs for the City of Rockville and Town of Poolesville include the types of projects described previously for WSSC. These municipalities typically include local water and sewer main extension and repair projects in their CIPs as well.

In the past, new development staging recommended in master plans was coordinated with the scheduling of needed capital projects in WSSC's CIP. The 1994 Clarksburg Master Plan is the most recent example. Currently, this coordination applies more on a case-by-case basis to redevelopment and infill projects where upgrades to existing facilities account for increased transmission capacity needs. DEP coordinates the inclusion of those required capital projects in the WSSC annual CIP consistent with the goals and policies of this Water and Sewer Plan.

III.A.3.: Dry Community Systems

This Plan previously required that developers install dry community water supply and sewerage systems for projects where the County intends to provide community service, but where community systems are not currently adequate or available (Section II.D). As explained in the referenced section, the County has found that the program does not achieve the intended goal of eventually connecting properties provided with dry systems to the overall community system network. Some projects from the 1970s and 1980s using dry mains have never been connected to WSSC's community systems. This requires WSSC's evaluation an unused dry system to determine the need for rehabilitation or replacement of dormant mains. New subdivisions planning to use community systems need to provide those systems without the use of interim permit individual systems. Dry systems included the lateral mains in the streets of the subdivision only, and for each house or structure to be serviced, the house connection and the hookup.

III.A.4.: Environmental Considerations for Community Systems Construction

Consistent with the objectives of this Plan and to the greatest extent reasonable, the planning and construction of community water supply and sewerage systems must be accomplished with the goal of protecting and mitigating potential damage to the environmental resources of the County. Community water and sewerage systems construction have the potential to disturb, damage or fragment streams and stream valleys, wetlands, steeply-sloped areas, parks and woodlands, and historical and archeological sites. Wherever possible and reasonable, such disturbances should be avoided or mitigated by the use of alternate mains alignments, extra-depth or extra-shallow mains, contour mains, low-pressure/grinder pump sewerage systems, and other appropriate measures. Stream and wetlands crossings, intrusion into stream and wetland buffers, and alignments through forested areas should be avoided wherever possible and minimized where unavoidable. State laws restrict construction across and adjacent to streams within State-designated Use III and IV watersheds from seasons of the year which are critical for maintaining water quality and specific aquatic species. In addition to the State's classification system, DEP researches, develops and publishes the *County-Wide Stream Protection Strategy* (CSPS). The CSPS provides information on the health of and water quality in

the county's watersheds, identifying those particularly fragile watersheds where development and main construction are likely to have more severe effects.

The need for new community systems to support development, and the potential effect of those systems on environmental resources, factors into land use planning decisions, particularly with regard to community sewerage systems. This may result in land use recommendations for lower-density development in environmentally sensitive areas that do not require community systems. Environmental concerns related to community sewerage systems may also be mitigated by the use of central or on-site pumping systems that avoid sewer main construction along sensitive stream valleys or other environmentally sensitive areas. The use of central pumping systems is generally accepted throughout the WSSD on a limited basis, where conditions *require* their use. Central pumping facilities place increased operation and maintenance costs onto WSSC and can divert Systems Development Charge funding from general system improvements to developer dependent projects. WSSC policies allow for the use of onsite pumping (typically, grinder pumps) and low-pressure sewerage systems in limited circumstances and again, only where needed. However, the use of individual pumping systems increases the cost of providing community sewer service for each structure served, increases electrical costs and requires long-term maintenance for individual users. The County and WSSC have recognized that additional community service costs, including those for central and onsite pumping facilities, can be justified for purposes of environmental resource protection. Depending on the size of a project, WSSC may conduct a facility plan in cooperation with the County and M-NCPPC to examine community systems alternatives with respect to environmental concerns.

III.A.5.: Facility Planning

WSSC performs a comprehensive study, called a facility plan, for each major water and/or sewer project to balance the technical components of engineering and economic factors with environmental issues and public concerns about the design and construction of the project. The study process identifies alternative approaches and their impacts, obtains technical information about alternatives, and determines measures to minimize or mitigate community and environmental impacts. A facility plan determines ways to meet system demands with sufficient lead time in order to avoid a reduced level of service to customers, and to gather and incorporate public input into the technical work. All facility plans have three basic common elements or phases, which include:

- Project initiation and organization
- Development of a draft facility plan
- Review, approvals, and implementation

Prior to project initiation and organization, WSSC obtains, through the Capital Improvements Program (CIP) process, funding approval from the Counties for any facility planning project requiring a significant expenditure or perceived as potentially controversial.

Alternately, WSSC requires developers who will construct capital facilities as part of their projects to initiate and finance the facility plan process. Since the institution of WSSC's System Extension Permit (SEP) procedures for developer-financed and built infrastructure (see Section IV.A.2.a), this process has become a more common way to handle the addition of new capital projects.

The planning process may vary depending on the nature of the project, its purpose within the community system, its impact to the environment and to the community, regulatory requirements, required level of service, risk mitigation, and costs. In some cases, projects may require less planning, for example if they have little, if any impact to the community such as improvements to existing facilities within WSSC property. In other cases, projects may require new facilities that require easement and/or land acquisition or may serve an entirely new service area and will require extensive planning efforts. Other projects may not require easement or land acquisition but may significantly affect the community and also require extensive planning efforts. In some instances, the planning process may not be initiated by a business case (see Section III.A.5.a, below), but instead may be the result of some of the following examples: proposed land use and zoning changes, a proposed expansion of the designated growth areas within the County; a request for additional or new capacity allocations to wholesale customers, and other long-term planning issues.

III.A.5.a: Asset Management Program in Facility Planning

Beginning in 2007, WSSC embarked on the development of a comprehensive Asset Management Program (AMP). WSSC continues to develop the program and anticipates full implementation in 2018. The program is a working program that will undergo a continuous improvement process. The program is intended to help achieve one of WSSC's strategic priorities: to plan, renew and sustain its infrastructure to meet customer expectations through innovative, cost effective technology and asset management practices. The two goals of the asset management program are to identify infrastructure needs for a period of time 30 years into the future; and to establish and institutionalize an asset management process within WSSC. The purpose of these goals is to meet the required level of service in the most cost-effective manner, at an acceptable risk, through the management of assets for present and future customers.

AMP plans are developed at the enterprise, network, and system levels for each category and sub category of assets. The enterprise level incorporates systems under four networks:

- Water, including water treatment; pump stations and specialty valves; transmission and distribution; and dams and reservoirs systems
- Wastewater, including wastewater pumping stations, collection, treatment, and storage systems.
- Communications, including Supervisory Control and Data Acquisition (SCADA), telephone, security, radio, antenna, microwave, and data systems.
- Support Services, including systems associated with land and buildings

Asset Management Plans are developed for each facility within the preceding sub-system categories. Every asset management plan:

- Presents a concise summary on the state of the WSSC infrastructure assets.
- Provides recommendations for prioritizing investments to sustain the infrastructure and meet WSSC's strategic objectives.
- Contains asset registry information which is managed through use of Decision Support System modelling software. Decision Support Tools are then used in conjunction with life expectancies, life cycle costs, level of service, business risk exposure and other factors to develop strategies to maintain and replace the assets in a sustainable manner.

III.A.5.b.: Interagency Coordination

An important and essential part of the facility planning process involves WSSC's coordination with Montgomery County agencies, primarily through DEP. The County actively participates in the WSSC facility planning process to ensure that the WSSC capital program meets the County's need to provide community service consistent with Water and Sewer Plan policies, land use planning goals, and environmental protection.

WSSC produces a preliminary scope of work, conducts the consultant selection process; and, once selected, oversees the consultant's work. WSSC organizes a planning team and works with the team to achieve consensus of the draft Facility Plan. The planning team consists of a WSSC project team, the interagency Policy Review Group (PRG), and the technical consultant.

The WSSC project team typically consists of WSSC staff who provide technical and/or functional support to the project. The PRG consists of staff from WSSC, County Council, County Executive, M-NCPPC, and technical personnel. The PRG meets to identify and provide guidance on areas of concern, as well as public policy issues affecting the decision-making process. The County Council staff helps maintain communication with Council members. The County Executive, represented by DEP, helps to ensure the project's consistency with the County's adopted policies contained in the Water and Sewer Plan and coordinates implementation of other development and infrastructure. DEP's role also is to coordinate issues that arise with other County departments as needed. M-NCPPC provides demographic, land use, environmental planning, park property impact assessment, and zoning data. These ensure that WSSC projects use consistent and updated development projections, appropriate park impact cost factors, and adopted land use documents. A Memorandum of Understanding between WSSC and M-NCPPC establishes the procedures and requirements

for the review and approval of WSSC projects that may have potential impacts to parklands managed by M-NCPPC in Montgomery and Prince George's Counties.

M-NCPPC also reviews projects through the Mandatory Review process, as part of a public forum, as required by State law. Although the Planning Board's decisions for projects are non-binding, the Board frequently provides recommendations that improve the compatibility of these projects with both the natural and human environment. These recommendations also provide the Board's formal position for the Council on these projects. The project consultant gathers data to address technical issues defined in the scope of work and develops alternatives. Alternatives must meet specified public health standards and regulatory requirements, and take into account environmental, engineering, and economic considerations, together with community impacts. WSSC's coordination with local, state, and federal agencies, and its public outreach program, are part of the development of a draft facility plan.

III.A.5.c.: Public Outreach Program

WSSC includes community outreach efforts throughout the facility planning process, with the goals of providing public information, encouraging community understanding, acquiring confidence and support from elected officials and the community in its planning process, and recommending alternatives. In its outreach program, WSSC uses meetings (citizen advisory committees), publications (brochures and newsletters), formal notices (newspaper display ads), and visual aids (static displays, slide shows, and videos). The Citizens Advisory Committee (CAC) is a group of interested involved citizens who provide advice from the community's point of view and concerns on a project. The CAC reviews and provides input on screening criteria, project alternatives, community outreach materials, and the draft Facility Plan. Members of the CAC include homeowners' and civic associations, environmental groups, and interested citizens whose participation is solicited by WSSC early in the facility planning process. Public officials, including DEP staff, often participate along with WSSC staff in this program.

The public outreach process also includes the opportunity for public comment as part of the mandatory referral of WSSC facility plans to Planning Board as described in the preceding subsection. In this process, the Board holds an independent public hearing on the project, and provides official, non-binding comments to WSSC, which incorporate specific land use and policy concerns along with appropriate community concerns presented as testimony.

As addressed in the following subsection, the County Council's annual consideration of WSSC's capital budget provides citizens and community groups a forum for speaking directly to elected officials about both specific projects and the budget in general. In addition to the Council's public hearing, all Council deliberations in committee and as a body are open to the public.

The public outreach program is intended to improve WSSC's responsiveness and sensitivity to community concerns, seeking community support for addressing public health and growth management needs. WSSC pursues community support with the understanding that, due to competing goals, community involvement in the planning process does not always result in complete community acceptance of a proposed project. An effective planning process often includes compromises needed to achieve overall project goals.

III.A.5.d.: Development of the Capital Improvements Program

The AMP is the driving force in the development of the Capital Improvement Program (CIP). The planning and development of new assets is developed from the program through the Project Needs Validation Process. This process begins with the identification of a "need," which may originate due to new development demands, capacity constraints, expected life and performance, health and safety concerns, regulatory requirements, and other considerations. The need is evaluated by the Project Needs Validation Committee which decides if the information provided is sufficient to validate the need.

If a validated need has more than one alternative solution, then the project moves forward to undergo a business case. The business case begins with the development of all possible and feasible alternatives to address the project need, including the "do nothing" and "status quo" alternatives for a baseline comparison. The alternatives then undergo a preliminary screening to evaluate local, State and Federal permitting and regulatory constraints, community impacts, accessibility and constructability, cost, and input from M-NCPPC and

Montgomery County DEP. A screening process narrows the list of candidate alternatives for a subsequent analysis that evaluates life cycle costs, risk reduction analysis, and a sensitivity analysis.

The optimum solution is then selected for recommendation and presented to the Project Needs Validation Committee for approval and placement into the proposed subsequent capital budget. A project team reviews and approves the work effort in the business case. The team includes AMP project managers, System Asset Strategy managers, Planning Group staff, Budget staff, and external stakeholders. These stakeholders include officials from local and County Government agencies, customers, residents, business owners, and community interest groups. Comments will be solicited and factored into the development of the business case.

If there are no alternatives, the project is reviewed for Engineering Support Program (ESP) or CIP funding availability. Due to exigencies of certain projects, exclusion on the business case process may be warranted.

The planning process for any new facility some cases may continue after the business case is completed. Thorough and complete planning work is necessary in order to eliminate any uncertainties in the scope of the project before it is handed off to the project delivery team for execution.

III.A.5.e.: Implementation Through the Capital Improvements Program

The implementation of a facility plan is initiated by the full funding of the project in the WSSC CIP. Each facility plan receives a WSSC staff recommendation which staff transmit to the WSSC General Manager at the conclusion of the facility planning process. The General Manager either endorses or modifies the staff recommendation and submits the project to the WSSC Commissioners. The Commissioners in turn transmit the WSSC decision on the project to the Counties for inclusion in the CIP and the *Comprehensive Water Supply and Sewerage System Plan*.

DEP prepares any necessary amendments to the Water and Sewer Plan and includes any relevant comments on the CIP Project. The County Executive reviews and if necessary modifies DEP's recommendations, then transmits the CIP amendments to the County Council. The Council conducts a public hearing on the project recommendations as part of the Water and Sewer Plan and/or the CIP adoption processes. The Montgomery County Planning Board may also review or comment on the facility plan as part of the Council's public hearing process or as part of a designated mandatory referral process.

A project's adoption in the WSSC CIP by the two County Councils completes the facility plan adoption process. The annual approval of the WSSC CIP budget by both Montgomery and Prince George's Counties serves to amend the water and sewer facilities chapters of this Water and Sewer Plan. The CIP provides a proposed design and construction schedule for projects WSSC expects to implement within the six-year planning period of the CIP. The adopted CIP schedule also identifies the necessary funding sources for the project.

III.A.5.f: Advance Acquisition of WSSC Sites and Buffer Plantings

WSSC should proceed with planning the location of future facilities at the earliest opportunity following County approval of capital projects, including public outreach and community involvement from the impacted area. These facilities include sites for treatment plants, pump stations, storage tanks and rights-of-way for water and sewer lines. Advance acquisition of necessary sites is encouraged, through the CIP process, in areas that development potential and/or siting are identified as significant to appropriate facility planning. When WSSC acquires sites which need buffering by landscaping from either present or future development, WSSC will develop a landscaping plan, including a public outreach effort to encourage the involvement of the impacted community.

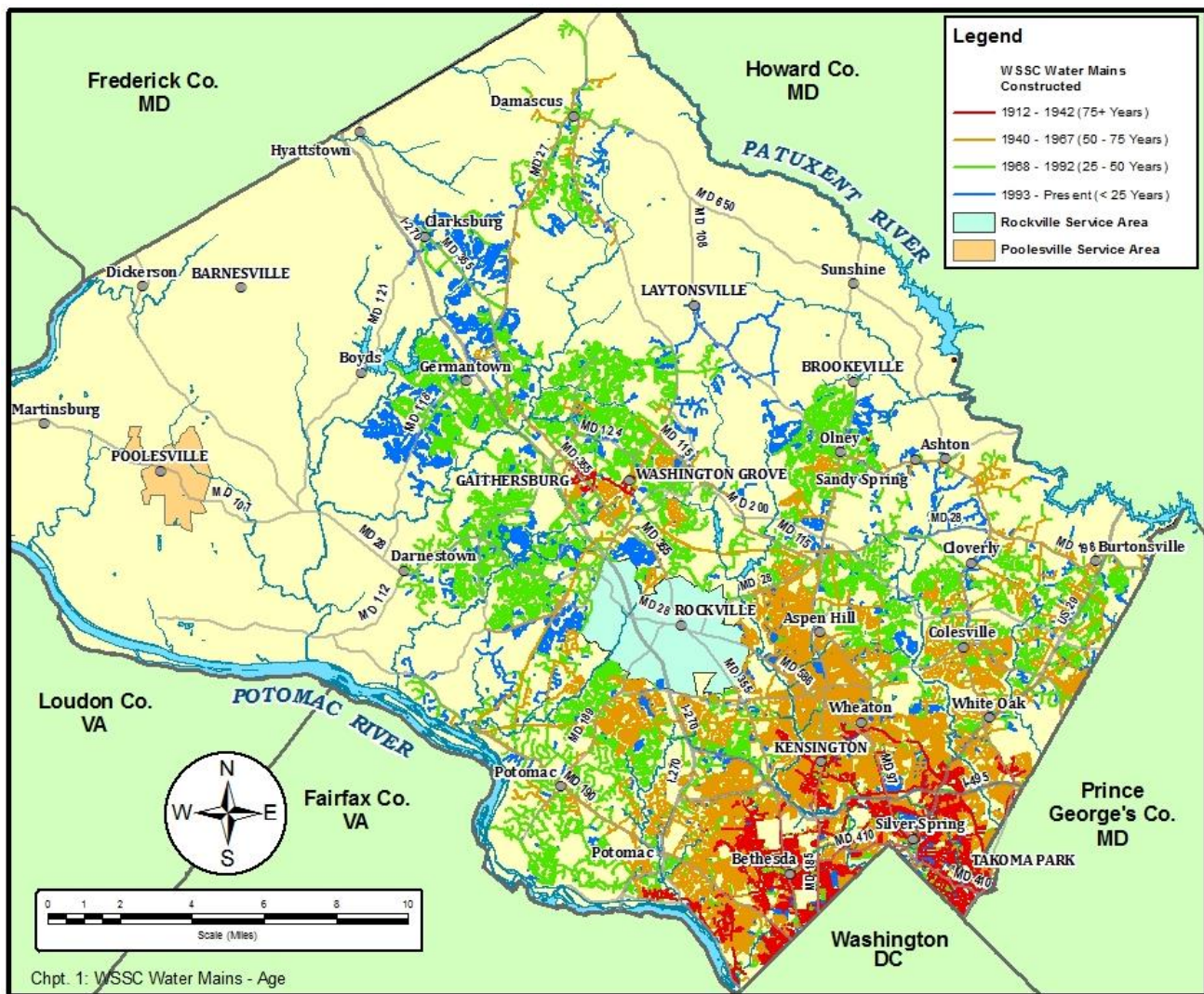
III.A.5.g.: Repair, Replacement and Rehabilitation of Aging Community Systems

WSSC has recognized that the age of its community system's existing mains plays greater role in pipe breaks and failures with each passing year. (See Figure 1-F7, below.) For community water systems, WSSC reports that by 2025, an estimated 50 percent of the entire water distribution system will reach or exceed its estimated useful life. There are approximately 2,000 miles of cast iron pipe in the distribution system (pipes less than 16 inches in size), of which, over 85 percent will exceed their estimated useful life by 2025. As an initial step to minimize inconvenience to customers, to reduce water losses, and to mitigate potential environmental complications, WSSC has made preparations to quickly address water main breaks and leaks when they occur.

In 2005, the U.S. Environmental Protection Agency (EPA) and WSSC entered into an agreement on a consent decree concerning sanitary sewer overflows (SSOs) throughout the WSSC sewerage system. Under the decree, WSSC will make repairs and improvements to the collection and transmission systems to minimize, and to eliminate wherever possible, future overflows. WSSC has developed an initial 12-year action plan to address these infrastructure concerns. WSSC has extended this original plan through the court to extend the rehabilitation schedule required to implement the required projects.

WSSC has long-maintained a water main lining and replacement program. However, the problem of aging infrastructure needed a more strategic, long-term approach to possible solutions. In response, WSSC has implemented an infrastructure investment plan that provides a roadmap to refurbishing and replacing the Commission's systems over time, prepared in cooperation with officials from Montgomery and Prince George's Counties.

Figure 1-F7: Construction Year of WSSC Water Mains
 (Source: DEP-WWPG)



III.B.: Rockville Community Systems

Rockville's Water Resources Element (WRE), which was adopted by the Mayor and Council in December, 2010, supplements the water resource provisions of the Comprehensive Master Plan. The WRE assesses the adequacy of existing drinking water and wastewater infrastructure capacity to accommodate projected growth

through 2040, and identifies infrastructure concerns, including diminished capacity due to aging, that may restrict predicted population and economic growth. The WRE ensures that comprehensive land use plans and future growth consider both the opportunities and limitations presented by a community's water resources. The WRE is incorporated into the City's Comprehensive Master Plan.

The 2010 WRE concluded that the City has adequate water supply and sewerage treatment facilities to meet projected demand to 2040. The WRE recommended the following actions for the water system: investigate and repair the 24-inch transmission main from the Water Plant to the distribution system; replace and/or rehabilitate aging water mains in poor condition; resolve water age concerns of the three storage tanks; ensure potable water meets or exceeds the Safe Drinking Water Federal and State laws; upgrade and expand the Water Plant, as well as activating the Glen Mill Pump Station, to produce up to 14 million gallons per day (MGD) (updated planning projections are 12 MGD); and encourage per capita reduction in water use. The WRE recommended the following actions for the sanitary sewer system: complete mapping of the entire system; continue annual camera inspection and rehabilitation, repair and/or replacement of the aging mains in poor condition; improve the accuracy of estimating the extraneous flow (infiltration and inflow) into the sewer systems; continue implementing the fats, oils and grease (FOG) abatement program; maintain access to sanitary sewer system infrastructure; and develop city-wide hydraulic models, for each of the three sanitary sewer basins, to predict wastewater flow and ensure adequate transmission capacity.

Rockville City Code (Section 24-24a) requires the City to make a determination for all development, except for one single-family dwelling, that there is adequate water and sewer capacity and system integrity before a development is approved. This determination is made through Rockville's Water and Sewer Authorization (WSA) process, which is mandated by the Adequate Public Facilities Ordinance (Section 25-20-01). Applicants seeking to develop in Rockville must submit a WSA application outlining the proposed water and sewer system demands. If the public systems do not have sufficient capacity or if the systems do not meet system integrity standards, the developer is required to mitigate the deficiencies. Mitigating system deficiencies include extending public water and/or sewer mains to provide service to properties that are not proximate to existing public water and/or sewer mains. The required water and/or sewer mitigation must be approved and permitted before the development building permits are issued. Additionally, the water and/or sewer mitigation must be constructed and accepted for public service before the development occupancy permits are issued.

Rockville City Code (Section 24-73) requires the property owner to hire a master plumber to locate and clear sewer stoppages in sewer connections. If the stoppage is in the service connection (between the public sewer main and right-of-way line), the City will install a clean out. If the service connection is damaged the City will repair or replace it. The property owner is responsible for maintaining and repairing the service hookup (connection between the house and the right-of-way line). If a water leak is identified on a water connection, the City will determine if the leak is the water service connection (between the public water main and right-of-way line) or at the meter and will repair the leak. Otherwise, the property owner will be notified and must hire a master plumber to repair the leak.

Properties with an existing connection to Rockville's water and/or sewer systems must replace the existing service connection when the property is being redeveloped, unless the applicant demonstrates that the condition and material of the existing service connection meets current standards.

In addition to the overall City of Rockville and WSSC sewer flow agreements, DPW coordinates APFO/APFS review of water and sewer service with WSSC for private development projects in the City that are either within or near the boundary of the WSSD. This coordination provides for early identification of system improvements that will be needed to sustain long range planning goals of both WSSC and the City of Rockville.

III.C.: Individual Systems

Individual water supply and sewerage systems are owned and operated by the user, whether for a private residence, or for a commercial or institutional use. Individual systems are also sometimes referred to as "private" or "on-site" water and sewerage systems. The majority of individual systems in the county are groundwater wells and septic disposal systems. The user of the individual system holds the responsibility for its appropriate use and maintenance, and for repair or replacement should the system fail. The following sections

provide an introduction to the various types of individual, on-site systems and address specific associated policy considerations. Much of the policy discussion concerning individual on-site systems and under what conditions they are appropriate to support development is included in prior sections of this chapter.

The Department of Permitting Services (DPS) permits and regulates individual water supply and sewerage systems through its Land Development Division, Well and Septic Section, under Executive Regulation 28-93AM, "On-Site Water Systems and On-Site Sewage Disposal Systems in Montgomery County.". Individual systems regulations consider new development as both new structures and expansion or replacement of existing structures.

III.C.1. Individual Water Supply Systems

An individual water supply system provides potable water to a single residential, institutional or commercial user, usually from a well located on the user's property. The system generally consists of a groundwater well with a submersible pump that connects directly to the user's home or business. The well is drilled down through rock to a depth substantially below the level of the water table. This allows the well shaft to store water for periods of higher water demand. As the pump removes water from the well shaft, groundwater flows in replacing what has been used, although not necessarily at the same rate as it was withdrawn. The user may also require on-site water treatment and an above ground storage/pressure tank.

Most areas of the county do not require testing before drilling a new well. Permits from the County and State are required prior to drilling. A certificate of potability is required before a well is permitted to provide water for human consumption. Current standards for new development require that a user identify three well locations for each building lot, the initial well site and two reserve well sites for future use in the event of a well failure.

III.C.2. Individual Sewerage Systems

An individual sewerage system collects, treats, and safely disposes of sewage from a residential, an institutional or a commercial user, usually through an in-ground septic system located on the user's property. The first part of the system consists of a septic tank (connected directly to the user's building) where solids separate from liquid effluent and settle to the bottom of the tank. Proper septic system maintenance advises that an owner arrange for pumping solids from the tank at least once every two to five years. Liquid effluent from the tank flows into an underground drainfield, a network of trenches that distribute the effluent across a broad area below the ground surface. Aerobic bacteria in the soil below the drainfield provide the final step in the treatment process as the effluent percolates down from the drainfield. The treated effluent then flows into the water-saturated soil, also referred to as the water table.

Permitting for a new septic system requires two tests, the water table test and the percolation test. The water table test determines the depth from the surface of the ground to the water table, the soil saturated with groundwater. This is needed to insure adequate depth between the bottom of the septic system trench and the water table for aerobic bacterial treatment of effluent in the soil. Once septic effluent enters the water table, treatment by aerobic bacteria essentially stops. The percolation test determines the rate that septic effluent travels downward through the soil. If the percolation rate is too slow, effluent will back up in the system, leading to discharge to the surface of the yard or a backup into the building. If the rate is too fast (not typically a problem with soils in Montgomery County), effluent will not stay in the soil long enough for adequate treatment.

The majority of individual sewerage systems currently installed in the county for new development are deep-trench septic systems. Deep-trench systems are one of three types of "conventional" individual sewerage systems allowed for new development under current regulations. The others are shallow-trench septic systems (or shallow tile systems) and sand mound systems. In this context, new development refers to new or replacement buildings and to buildings with substantial additions. Innovative alternative (I/A) septic systems may be permitted only in order to replace failed systems. I/A systems may include elements such as more advanced first-stage treatment, aerobic treatment and/or pressure dosing systems that distribute effluent over several areas of the property on a scheduled, rotating basis. Additional discussion of individual septic systems and their characteristics is included in Chapter 4, Section V.

To address nitrogen contributions to the Chesapeake Bay from septic systems, the State had previously implemented a program that uses best available technology (BAT) for nitrogen removal all new and replacement

septic systems. BAT systems are installed in the septic tank and typically use an aeration process, needing electricity to run. The State requires homeowners with BAT systems to have a contract with a maintenance company to help ensure proper operation of the system.

In November 2016, the State revised the BAT program to require universal BAT system installation only in Bays Critical Areas. No Critical Areas exist in in Montgomery County. Outside of Critical Areas, BAT systems will still be required for:

- All multiuse septic systems with a design capacity of 5,000 or more gallons per day.
- Any septic system as required by a local government in order to protect public health or the waters of the State.

State requirements for maintenance contracts and system warranties remain in effect for all BAT systems.

Acknowledging that individual systems have a finite lifetime, State and County regulations promote the sustainability of these water supply and sewerage systems by requiring the establishment of permitted areas for reserve or backup systems for a property to use when an existing system fails. As discussed previously, the policies included in this Plan intend that privately-owned, onsite facilities will provide water supply and wastewater disposal service for properties in the rural, “green wedge” areas of the County.

III.C.3.: Individual Systems with Interim Permits

Not all properties intended and approved for community water and sewer service have access to community service mains. The extension of new community service mains has become increasingly expensive, especially for individual property owners. When a property owner needs to install a new or replacement individual system under this condition, DPS issues the permit for the on-site system as an “interim” permit. Interim permit individual systems provide water and/or sewer service in areas where existing community systems are not adequate, not available, or not programmed to be provided within two years to six years (water and/or sewer categories 1 through 4). The following “General Conditions for Interim Permit Individual Systems” shall apply in these cases:

General Conditions for Interim Individual Systems

- Interim permit systems shall be determined by the County's DPS to be adequate, safe, and in compliance with State and local regulations, including COMAR 26.03.01, 26.03.05, and 26.04.02 - .04, and County Executive Regulation 28-93AM, “On-Site Water Systems and On-Site Sewage Disposal Systems in Montgomery County”;
- Interim Permits for individual on-site systems shall bear a notice regarding the interim nature of the permit and stating that connection to a community system shall be made within one year after such system becomes available, and that the construction of such interim systems shall in no way impede or restrict the extension of community sewerage and water systems or create a public health hazard or nuisance in the process; and
- Provisions shall be made to locate the individual systems so as to permit a future connection to the community system in the most economical and convenient manner.
- Construction of dry community water and/or sewerage systems where interim permit individual systems are installed is no longer a requirement of this Plan. Please refer to Section III.A.3. for relevant information concerning dry community systems.

III.C.4.: Individual Water and Sewerage Systems Problems

Although designed to work for decades, individual systems will need regular maintenance, occasional repair, and eventual replacement. Ignoring needed maintenance and repairs will likely shorten the expected life of an individual system.

III.C.4.a.: Individual Systems Failures

When an individual, onsite system fails to function properly, the owner of that individual system has the responsibility for having it repaired or replaced. In some situations, the property owner becomes aware of a problem very quickly, such as when sewage backs up into the house. In other situations, a problem, such as a

septic system installed partly within the water table, may go unnoticed for a longer period of time. A failure does not always require a system replacement to resolve; in some cases, other mitigation actions are sufficient to resolve a problem:

- A repair, such as replacing a broken pipe or a broken baffle in a septic tank.
- Improved maintenance, such as more-frequent pumping of the septic tank.
- User changes, such as better awareness of what can and cannot be put into the septic system and of clothes washing and bathing scheduling.

The repair and replacement of individual, onsite systems need to occur in accordance with County and State regulations, as administered by DPS.

When an individual, onsite system fails to function properly, the owner of that individual system has the responsibility for having it repaired or replaced. In some situations, the property owner becomes aware of a problem very quickly, such as when sewage backs up into the house. In other situations, a problem, such as a septic system installed partly within the water table, may go unnoticed for a longer period of time. A failure does not always require a system replacement to resolve; in some cases, a repair (such as replacing a broken pipe) is sufficient. The repair and replacement of individual systems needs to occur in accordance with County and State regulations, as administered by DPS.

III.C.4.b.: Aging Individual Systems

As housing stock and their individual, onsite systems age, the County makes every reasonable effort to transition these houses to new onsite systems to continue the use of onsite system service. This is consistent with master plan service recommendations and this Plan's service policies. This may place limitations on expansions and other property improvements. However, some areas may face a potential problem in sustaining specific homes and businesses and perhaps entire neighborhoods that currently use these systems. Some of these neighborhoods, built in the 1950s and 1960s, were created using standards that allowed the use of individual systems:

- For lots that are now too small to support both wells and septic systems under current regulations.
- On soils inappropriate for septic systems under today's testing standards because of high water tables and shallow fractured rock.
- With sanitary system technologies that no longer satisfy current regulations, such as hand-dug wells, septic seepage pits and lagoons, and septic overflow pipes.

Wells installed prior to the County's current standards may have been hand-dug, may lack a protective liner (casing), or may be too shallow for adequate flows. Older wells sometimes lack an adequate separation (or setback) from buildings and septic systems.

Older on-site sewerage systems use several varieties of underground discharge structures such as seepage lagoons, dry wells, and seepage pits no longer allowed under current regulations. Some older septic systems include overflow pipes that prevented overloaded, failing systems from backing sewage up into buildings. This can allow for untreated sewage discharges through the overflow pipe either onto the ground surface or into drainages features such as ponds or roadside swales. When discovered, overflow pipes need to be removed; and this may result in an eventual failure of the septic system. State Individual Systems and Public Health Problems and County regulatory changes since the 1960s include requiring the identification of septic system reserve areas for future drainfields; septic system testing to avoid poor soils, shallow or fractured rock; and establishing adequate groundwater well setbacks from septic systems, structures, and water resources (streams, wetlands, etc.)

DPS may allow outdated wells and septic systems to serve existing structures provided they continue to function adequately. However, DPS has the option to require a replacement well and/or septic system that satisfies current regulations in cases where:

- An existing well or septic system that suffers a failure or where such a failure is imminent.

- Property improvements (expansion or replacement of an existing structure, new swimming pool, etc.) are proposed that could constrain the location of existing or future onsite systems.
- Subdivision of an existing property served by individual, on-site systems will change property lines and affect allowed setbacks.

III.C.4.c: Individual Systems and Public Health Problems

Existing public health problems (as defined in this Plan) can result from the failure of existing individual, onsite systems. In addition, potential public health problems can occur where the County determines that onsite systems may not be capable of providing adequate water supply or wastewater disposal service in the future. Onsite system failures may result in problems that can affect public and environmental health due to contact with inadequately treated sewage or contaminated drinking water, or due to an inadequate drinking water supply. Existing onsite well failures typically result from ~~and~~ an inadequate water yield or groundwater contamination. Existing onsite septic system failures are typically characterized by inadequately treated sewage on the surface of a yard or backing up into a building. Additional information on these subjects is provided in the Glossary in Appendix A, page A-3.

Typically, properties served by individual systems are located in low-density development areas where access to community systems is not considered logical or economical. In many cases of individual system failures reported to DPS, relief is provided by an onsite repair or replacement, rather than by community service. However, in some cases where individual systems have failed, owners may not be able to accomplish a repair or replacement consistent with current regulations, as determined by DPS. Changes to individual systems regulations over the past decades have resulted in improved standards for human and environmental health. However, these regulatory changes can have the potential to hinder efforts to replace existing individual systems with new systems that satisfy current standards. Section II.G.2. of this chapter discusses the conditions where community service can be used to relieve public health problems resulting from individual systems failures.

III.C.4.d.: Rural Sanitation Planning Program

The County has seen a shifting emphasis in community planning from major new development expansion to infill and redevelopment of existing neighborhoods. Accordingly, a similar approach—changing emphasis from major expansion of the community service envelopes towards more neighborhood-based efforts—will be required to address the sustained use of individual systems in the Water and Sewer Plan. This will be important in areas where potential sanitation problems from aging individual systems have the potential to affect older neighborhoods and to affect rural neighborhoods where water supply and wastewater disposal service is presumed to use individual, onsite systems, rather than community water and sewerage systems. Onsite wells and septic systems all need routine maintenance to promote sustainability.

The County has seen a shifting emphasis in community planning from major new development expansion to infill and redevelopment of existing neighborhoods. Accordingly, a similar approach—changing emphasis from major expansion of the community service envelopes towards more neighborhood-based efforts—will be required to address the sustained use of individual systems in the Water and Sewer Plan.

At present, the County has no proactive programs in place to promote the long-term sustainability of individual onsite wells and septic systems. There are minimal opportunities for public education, and there are no regular maintenance reminders, inspections, or testing. In Montgomery County, once a well or septic system is installed and operating, there will very likely be no further contact between the owner and the County government regarding that system until it fails. The Plan will need to start placing an increased emphasis on addressing the needs of older communities that may find their future options limited using individual, on-site systems.

Improving the way in which the County government addresses rural sanitation issues and public health problem cases resulting from the failure of wells and septic systems will require approaches from several fronts. The combined efforts of several agencies will be needed, including DEP, DPS, M-NCPPC, WSSC, and MDE. While DPS maintains the responsibility for permitting and regulating individual systems in the County, that agency is not charged with performing systematic, long-range planning for rural sanitation systems management. Other than the designation of areas intended for service from individual systems and addressing public health cases,

recent versions of the Water and Sewer Plan have had little to say about rural sanitation planning. This Plan update is taking the first steps towards addressing that oversight.

Water and Sewer Plan Recommendation: Individual Onsite Systems Management
<p>The County first needs to work on the development of a functioning onsite systems database that will inventory and maintain ongoing records of the existing wells and septic systems throughout the county.</p> <p>Once a functional database exists, the need for additional aspects of a long-term management program can be evaluated.</p> <ul style="list-style-type: none">• An education and outreach program to onsite system owners, particularly concerning system use and maintenance, with distribution either handled directly or through service providers. This would be a logical next step in a management program.• Proactive, periodic on-site systems maintenance and inspection programs coordinated with the preceding public outreach and education on individual systems maintenance. <p>An onsite systems management program will be important in areas where 1) potential sanitation problems from aging individual, onsite systems have the potential to affect older neighborhoods, 2) and where rural neighborhoods are located outside the effective reach of community water and sewerage systems.</p> <p>Addressing the concerns of neighborhoods that rely on individual onsite systems may require new and innovative solutions beyond just the potential provision of community water and/or sewer service. These may include, but are not limited to:</p> <ul style="list-style-type: none">• Alternative community distribution, collection and treatment systems;• Shared water and/or sewerage systems owned by local communities and operated by authorized agencies or utilities (see Section III.D.);• Alternative financing for relief systems (community or otherwise), including but not limited to special assessment subdistricts, grants or loans from government resources, or utility subsidies;• Programs to assist lower-income individuals and communities in financing required relief systems.

At the request of the County Council, the County’s Office of Legislative Oversight (OLO) recently looked into the use of onsite systems management programs throughout the country. OLO’s investigation has resulted in a report to the Council titled, “[Life-Cycle Regulation for On-Site Wastewater Treatment Systems](#)” (OLO Memorandum Report 2017-5). The OLO report presents background about individual onsite systems; addresses five management models developed by the U.S. Environmental Protection Agency; presents four case studies on management systems from Florida, North Carolina, Ohio, and Virginia; and provides OLO staff observations based on the information gathered.

III.C.5.: General Policies for Multiuse Water Supply and Sewerage Systems

Most individual systems in the county serve residential uses; a typical four-bedroom house needs a septic system with a design capacity of 600 gallons per day (gpd). However, some individual systems in the county have substantially larger design capacities. This Plan identifies “multiuse systems” as individual, on-site systems having a design capacity that equals or exceeds 1,500 gpd. Multiuse systems are generally provided for commercial or institutional uses in areas ~~not~~ intended to use individual systems, not community water and sewer service.

The term “multiuse”, as established by State regulations, does not refer to an onsite system with more than one user. (That type of onsite system would more likely be classified by the State as a “shared system”, as

discussed in Section III.D.) Multiuse systems are owned and operated by one user. For the purposes of this Plan, multiuse systems include the following:

- A single water supply and/or sewerage system serving a single property;
- A single water supply and/or sewerage system serving two or more commonly-owned, contiguous properties with a common function (religious institution, nursing home, etc.);
- More than one water supply and/or sewerage system serving a single property with a cumulative design capacity of 1,500 or more gpd.

Most multiuse water supply systems use groundwater wells. Most multiuse sewerage systems are septic systems with large design capacities. Other types of multiuse sewerage systems are discussed in Chapter 4. Refer to Appendix B for the inventory and characteristics of the County's multiuse water supply and sewerage systems.

III.C.5.a.: Multiuse System Flow Requirements

Multiuse water and sewerage systems are defined by the systems' design capacity. The design capacity of a multiuse water supply system is the maximum water flow the system is designed to deliver to the user in one day. The design capacity of a multiuse sewerage system is the maximum waste flow that the system is designed to collect and either treat or store in one day. Septic tanks—the first stage in the sewage treatment system—are designed to hold twice the design capacity, or two days' worth of flow. The design capacity is sometimes referred to as the "peak capacity" of the system.

The County's adopted multiuse system minimum design flow requirement of 1,500 gallons per day (gpd), is more stringent than the State's requirement of 5,000 gpd. This lower flow threshold was adopted in order to give the County better information on the location of individual, on-site systems with capacities in excess of those required for strictly residential uses. This will help the County identify areas where several multiuse systems together may create cumulative impacts on ground and surface waters which would be difficult to evaluate on a case-by-case basis. The identification of these systems in the plan also allows for a more comprehensive review of proposals for multiuse systems in areas where the provision of community service is not anticipated.

In some cases, DPS may allow users to reduce the size of their septic drainfields by a technique referred to as "flow averaging." This technique is used for facilities that have a substantially more intensive use on one or two days in a week, such as a place of worship. Flows from peak use days are stored and released at a slower, daily rate throughout the rest of the week. The County will still classify qualifying systems as a multiuse sewerage system based on the design flow, not the lower daily discharge flow.

III.C.5.b.: Approval and Regulation of Multiuse Systems

All multiuse systems in the County must be approved as formal map and text amendments to this Plan. Multiuse systems will be identified in Appendix B of the Plan text, and on the water and sewer category and systems maps. The provision of such systems will be consistent with the protection of surface and ground waters and shall require the concurrence of the DPS. In order to ensure this protection, DEP may, upon consultation with the DPS, require hydrogeologic studies of the potential effects of the proposed systems on ground and surface water resources.

III.C.5.c.: Policy Constraints on Multiuse Sewerage Systems Capacities

The characteristics of the land on which they sit (permeability, water table depth, etc.) typically constrain the approval and use of individual septic systems. The County has established additional limitations on individual wastewater systems use in the Agricultural Reserve (AR) Zone. These limitations exist to encourage land uses that protect the environment and character of the low-density, rural nature of the County's agricultural lands, as envisioned by the Agricultural and Rural Open Space Master Plan (1980).

Design Capacity Restrictions - The maximum design capacity for new multiuse sewerage systems serving properties in the AR Zone must not exceed the lesser of the following capacity limits:

- No more than 4,800 gallons per day (gpd); or

- The equivalent design capacity from the potential residential development of the site under the current zoning requirement standards. The equivalent residential design capacity calculation will be based on the design capacity for a four-bedroom single-family house: 600 gallons per day (gpd), or 150 gpd per bedroom. Examples:
 - A property in the AR Zone that could accommodate 4 homes, or dwelling units (d.u.), under the zoning standards, with 4 TDRs retained, would be allowed to pursue permitting of a multiuse sewerage system with a maximum design capacity of up to 2,400 gpd (6 d.u. x 600 gpd/d.u. = 2,400 gpd).
 - A property in the AR Zone that could accommodate 12 homes, with 12 TDRs retained, would be allowed to pursue permitting of a multiuse sewerage system with a maximum design capacity of up to 4,800 gpd. A design capacity of 7,200 gpd (12 d.u. x 600 gpd/d.u. = 7,200 gpd) exceeds the overall maximum design flow limit of 4,800 gpd.

Exemptions from Design Capacity Restrictions - The following systems and uses are exempt from the design capacity limits for individual, multiuse systems in the AR Zone established previously under this section.

- Small On-site Systems – On-site sewerage systems with a design capacity of less than 1,500 gpd, which do not qualify as multiuse sewerage systems under this Plan;
- Agricultural Uses – Permitted agricultural uses – either by right or by special exception;
- Public Facilities – Publicly-owned and/or operated uses;
- Approved Systems – Existing multiuse sewerage systems and systems not yet built but which are approved and permitted by the Department of Permitting Services prior to February 14, 2006; and
- Existing System Expansion – The expansion of existing on-site sewerage systems, provided each of the following criteria are met:
 - The ownership of the property has not changed since February 14, 2006;
 - The property acreage has not been increased since February 14, 2006; and
 - The use of the property has not changed since February 14, 2006, as determined by the Department of Environmental Protection and the Department of Permitting Services. Documentation for this purpose may include permits, consent agreements, or covenants related to the establishment of the subject individual septic system.

The preceding design capacity restrictions are not intended to obstruct the replacement or repair of existing multiuse sewerage systems in the AR Zone. This Plan favors the on-site repair and replacement of multiuse systems in the AR Zone over the extension of public water and sewer service, provided that the on-site system adequately protects public health and environmental quality.

III.C.6. Non-Potable Onsite Water Supply Systems

Non-potable well water systems provide a water supply for irrigation, watering farm animals, and other activities not related to human consumption. These wells can be established in areas of the county designated as categories W-5 and W-6 with the appropriate permits from DPS and MDE. Requests for non-potable wells in areas served or intended to be served by community water supply systems (categories W-1 through W-4) are addressed by DEP on a case-by-case basis through its review and sign-off on State Water Appropriation and Use Permit applications.

III.C.7.: State and County Responsibilities

The State of Maryland, through MDE, has delegated much of the permitting and oversight responsibilities for individual water supply and sewerage systems to Montgomery County, to DPS, specifically through the Well and Septic Section. However, the State’s permit approval is still required for multiuse systems with a capacity of 5,000 or more gpd. In cases where an MDE-issued State Water Appropriation and Use Permit is required to establish a well or wastewater disposal system, DEP is responsible for the County’s approval of applications for those permits.

III.D.: Shared Water and Sewerage Systems

A shared system serves two or more independently-owned properties with a water supply system (water source, treatment, transmission to users) and/or sewerage system (collection from users, treatment, discharge). The components of shared systems are owned collectively by those served by the system (such as a community or homeowners association). The system is operated and maintained by a public or quasi-public agency as approved by the State and County. The concept involves shared systems that include small rural residential neighborhoods or two or more rural commercial and/or institutional uses. Montgomery County currently has no shared systems nor a mechanism to establish them at this time.

IV.: WATER AND SEWERAGE SYSTEMS FINANCING

The following sections provide a summary of financing methods for the three community water supply and sewerage systems serving Montgomery County: the WSSD, the City of Rockville, and the Town of Poolesville.

IV.A.: Washington Suburban Sanitary District

The planning, design, land acquisition, and construction of water supply and sewerage system infrastructure is financed by two separate programs in the WSSD: the Major Systems and General Construction Programs.

IV.A.1.: Major Facilities Program

The WSSC major facilities program includes projects adopted in the WSSC CIP: water and sewage treatment plants, pumping stations, storage facilities, and program size mains. Program size mains are water mains 16 inches in diameter and larger and sewer mains 15 inches in diameter and larger. WSSC finances these projects through water supply and sewage disposal bonds, developer contributions, systems development charges (SDC), grant funds, and other less significant sources. Bonds to construct program-size facilities (not attributed to growth) are amortized through revenues generated primarily by basic water and sewer user charges. Rate-supported debt is used to fund capital projects providing general system and environmental regulation-related improvements. Capital projects which support only new system growth are constructed through the System Extension Permit (SEP) process with either SDC funds or solely financed under Memoranda of Understanding (MOU) with developers, so that current water and sewer user rates do not support new growth. This also applies to capital projects which only in part support new growth. During construction of major facilities, WSSC provides credit against SDC fees (in the amount of 50 percent of the estimated total construction fees) to the developer financing capital projects. Once the developer completes construction and WSSC performs a final audit, WSSC initiates quarterly reimbursements based on available SDC funds in the geographic area served by the facility.

In certain cases, WSSC may authorize a developer to not only construct, but to also maintain and operate, elements of the community system. Most often, these are private, on-site, central wastewater pumping stations serving commercial development. WSSC may also authorize the construction of private interim wastewater pumping stations to serve residential development pending the construction of permanent, WSSC-owned and -operated facilities. WSSC shall coordinate the approval of these private facilities with DEP prior to their authorization, especially where those facilities could appear, or have appeared, as projects in the WSSC CIP.

IV.A.1.a.: Water Consumption and Sewer Usage Charges

These charges are both based on metered water consumption, with the rate charged per 1,000 gallons determined by the customer's Average Daily Consumption (ADC) during the billing period. Under the conservation-oriented rate schedule, customers registering an ADC in the lower range of the schedule pay less per 1,000 gallons of total consumption than customers registering higher levels of ADC. WSSC's quarterly bills also include an account maintenance fee, based on the size of the service meter, covering the basic cost of maintaining a customer account.

WSSC uses revenue from these sources to maintain and operate the water supply and sewerage systems and to pay the principal and interest on:

- Water Supply Bonds which are issued to finance the planning, design, and construction of capital facilities: dams and reservoirs, filtration plants, water pumping stations, water storage facilities, and large supply pipelines (from water source to filtration plant and from plant to local distribution lines); and
- Sewage Disposal Bonds, which are issued to finance the planning, design, and construction of capital facilities: trunk lines, sewage pumping stations and treatment facilities (including reimbursement of the District of Columbia Water and Sewer Authority for any construction/improvement of the regional system used by the WSSC).

WSSC reviews and establishes the water and sewer rates annually as part of its operating and capital budget process. The County Councils of both Prince George’s and Montgomery Counties then must review and approve these budgets.

IV.A.1.b.: Systems Development Charge

WSSC assess the Systems Development Charge (SDC) to new customers within the WSSD to pay for capital improvements of the water and sewerage system to accommodate growth. Starting in July 1998, the Maryland General Assembly approved an increase in the allowed SDC fees, changes to the SDC calculation, and changes to the criteria addressing who is required to pay the charge. WSSC exempts existing houses from the SDC requirement if both the house and the main providing service predate the establishment of the SDC in 1993.

Maryland has established a program to grant exemptions from the SDC for three types of development projects:

- biotechnology projects,
- elderly housing projects, and
- revitalization area projects.

Under this program, Montgomery County may authorize up to \$500,000 in SDC exemptions annually; the County has established that each individual development project considered is eligible for a maximum exemption of \$50,000 per year. The exemption program is administered by and additional information is available from the County’s Department of Permitting Services (see Appendix D).

Maryland has also established a program to grant exemptions from SDC for affordable housing projects. Customers requesting SDC exemptions for proposed construction of affordable housing units submit their requests to the County, which reviews their request to determine if the proposed building(s) meets the legislative criteria for a SDC exemption established in the Annotated Code of Maryland, Article 29. Once the County determines that the designated affordable housing units qualify for this waiver, the County mails a written request to WSSC requesting the waiver for the applicant. WSSC’s issuance of a waiver is solely based on the County’s assertion that the units meet the SDC exemption criteria.

IV.A.1.c.: State Funding

As part of the Chesapeake Bay Program, the State of Maryland previously provided limited funding for nutrient removal at existing wastewater treatment plants. Starting in 2004, the State assesses a fee on all wastewater system users with the intent of providing a funding source for programs to reduce the effects of wastewater disposal on the Chesapeake Bay. The Bay Restoration Fund collects a fee totaling \$60.00 annually from users served by wastewater treatment plants that; these fees are estimated to generate annual revenues of \$65.0 million for treatment plant improvements. The focus of the program will be on the 66 major facilities discharging in the Bay and its tributaries, although other facilities may also be addressed. The program also collects an annual fee of \$60.00 from households using septic systems. This part of the program will generate annual revenues estimated at \$12.6 million that will be used to upgrade septic systems—with its highest priority on failing systems in the Bay’s Critical Areas—and to provide cover crops. Funding for septic systems outside the Critical Areas (such as in Montgomery County) are a relatively low priority for the program.

Additional information on the funding of WSSC’s water and sewerage infrastructure is available from the WSSC Budget Group.

IV.A.2.: Local Service Extension Programs

These WSSC programs allow for the construction of smaller, non-CIP-sized water and sewer mains, primarily along streets adjacent to or abutting users' properties. Capital-sized water and sewer main extensions up to 2,000 feet in length are considered as "local service" extensions and may be funded using this method. Funds are provided primarily through developer contributions and to a lesser extent through general construction bonds. Developer financing of new water and sewer mains is required under the System Extension Permit (SEP) process. For water and sewer mains constructed by WSSC, the general construction bonds are financed by front foot benefit assessment charges and deficit payments

IV.A.2.a.: Developer-Built Projects

Legislation approved by the Maryland General Assembly in 1998 phased out the traditional front foot benefit assessment financing mechanism (see Section IV.a.2.b, following) for most service projects in the WSSD. Applicants now must design, finance, and construct all new main extensions serving residential subdivisions of two or more homes, any commercial use, and any institutional facilities. (Exceptions to this policy include service to individual homes or properties and to relieve health hazards.) The applicant then dedicates the completed mains to WSSC for operation and maintenance. WSSC refers to this ~~new~~ system for providing non-program mains as the System Extension Permit (SEP) process.

Developers typically recoup their costs for new mains by levying a private version of the front foot benefit assessment. Private water/sewer infrastructure assessments are not regulated by either WSSC or the County. As with many costs and fees associated with property ownership, there is a requirement for the disclosure of the water/sewer assessment at the time of sale of a new property.

IV.A.2.b.: WSSC-Built Projects

WSSC's service extension program allows individual property owners, seeking to provide community service to individual residential properties not proposed for new subdivision, to have needed mains financed, designed, and built by WSSC. Cases involving individual and community-wide County-designated health problems, resulting from individual systems failures, are also eligible to use this system. Under this system, extension costs are financed through General Construction Bonds issued by WSSC to construct these local water and sewer lines. Property owners pay back the principal and interest on these bonds to WSSC through front foot benefit assessments and project deficit charges.

With certain exceptions, the owners of all properties that receive service from a new main pay a front foot assessment. The assessment appears on the county property tax bill over for a period of years equal to the bond financing. WSSC evaluates and establishes front foot assessment rates annually. However, these rates have not kept up pace with rising extension costs; front foot assessments no longer pay for new extension projects. This financing gap is addressed through the payment of a deficit charge paid only by the project applicant or applicants. WSSC previously required payment of the deficit charge in full to initiate construction of a project. Applicants can now have the option to pay the deficit charge back over the life of the bond financing.

In cases involving County-designated public health problems, WSSC provides a \$15,000 per property health hazard subsidy to help offset extension costs. In WSSC's calculation of this subsidy, its value is offset by front foot benefit assessment revenue.

IV.A.2.c.: A New Concept – Extension Subdistrict Projects

The costs for new water and sewer main construction have risen to levels that make them unaffordable for the majority of individual property owners. The excessive cost of main extensions has detrimental effects the County's water and sewer planning efforts. The lack of affordable community service tends to force homeowners towards using individual, on-site systems in areas either where the County's water and sewer planning policies intend the use of community service or where community service would relieve public health problems. Given these conditions, WSSC can no longer fulfill its responsibility to provide community water and sewer service to areas designated for such service by the County as applied to individual properties.

Current Extension Cost Issues - Changes in WSSC's water and sewer main construction policies since 1999 have resulted in sharply escalating main extension costs where financed through the WSSC-built extension program. Prior to 1999, most development projects used the front foot assessment financing system. Larger

subdivision projects, where extensions were generally less expensive to construct per foot of main, tended to subsidize the smaller, more expensive extensions for individual homes. With the implementation of the SEP program, WSSC lost the major sources of front foot revenues. Without that subsidy, individual applicants using the WSSC-built extension program now bear all of the true cost of these service extensions.

In addition, under WSSC's current front foot assessment policies, owners of properties not designated for community service, or that continue to use functioning individual systems, do not pay an assessment charge until they start community service. WSSC must carry the cost of these missing front foot revenues in the interim.

WSSC has required applicants to pay off more project construction costs—such as the deficit charge—over time, accordingly applicants are finding that even relatively short service main extensions have become financially prohibitive. Front foot assessment rates have not kept pace with the loss of revenues from subdivision projects and with the escalation of extension costs. Front foot assessments no longer pay for new extension projects. Deficit charges, paid only by the project applicant to fill the financing gap, have risen substantially beyond the reach of most property owners.

WSSC's health hazard subsidy's value has not changed since WSSC instituted it the 1970s, making it worth less and less over time as compared to rising extension costs. Further, WSSC's current policies allow front foot assessment charges to offset the health hazard subsidy, which substantially reduces or eliminates the subsidy's practical usefulness.

The fact that no new WSSC-built projects have been initiated in at least five years (few in the past ten years) highlights these extension financing problems.

System Expansion Permit (SEP) projects can be used by both developers and individual property owners. For individual owners, however, the SEP program requirement that applicants provide their own engineering, project management and financing for projects can easily result in total costs in the hundreds of thousands of dollars. In some cases, extension costs have exceeded the assessed value of an individual property. The technical resources needed for these projects are also beyond the reach of most homeowners. This situation has resulted in the technical and financial infeasibility of water and sewer extensions for existing houses even when service is needed.

Subdistrict Projects Proposal - A working group of WSSC, Montgomery County, and Prince George's County staff began to examine the preceding issues in 2006 with the intent of finding a solution. The results of this effort raised many issues to the WSSC management, but it was felt that the issues were significant enough that a broader Bi-County–WSSC approach to possible solutions was needed. A new working group started in 2012 as the Unserved and Underserved Communities Subgroup, an offshoot of the WSSC Bi-County Infrastructure Financing Group. The subgroup examined problems with existing financing systems and concluded the following:

- That changes to the main extension financing system had left the WSSC-built main extension program broken and not workable in its current form.
- That WSSC and the Counties need to reexamine and update the WSSC health problem subsidy.
- That all properties potentially and directly benefitting from a new main extension need to pay their fair share of the cost of that main front foot benefit assessments need to be based on all benefitting property owners (abutting the new main) paying their proportional costs.
- That WSSC and/or the Counties will need to subsidize costs for new extensions to existing, individual properties to assist in making them affordable.
- That WSSC and the Counties need to develop a new financing system that will again allow for affordable main extensions.

The working group's initial report to WSSC and the Counties, "Water and Sewer Extension Needs for Existing Neighborhoods", recommended a financing alternative identified as "subdistrict projects." In brief, under this new concept, a County would identify a qualifying area within the planned community service envelope in need

of a new water and/or sewer main extension. The need for new service may occur due to health problems in the area or a recognized need for service on the part of property owners. Property owners in the candidate subdistrict would need to provide some level of agreement with establishing the subdistrict. On the recommendation of the County Executive, the County Council would decide to identify this area, as an extension subdistrict in the County's Water and Sewer Plan. If approved, WSSC would begin the process to design and build the needed main extensions.

To initiate this new concept, the Counties will need to develop a process in their Comprehensive Water and Sewer Plans for creating and financing subdistricts, including the following:

- Criteria by which to establish potential or candidate subdistricts, such as:
 - Location within the County's planned community service envelope.
 - Properties less than 2 acres in size.
 - Age of housing stock and of existing individual, on-site systems.
 - Presence of soils not identified as suited for approval of septic system permits.
 - History or presence of failed or failing individual, on-site systems.
 - Proximity to existing community service systems.
- Collection and evaluation of the criteria needed to propose a subdistrict.
- Community outreach, including notifications, meetings and decision processes. In order for a candidate area to qualify, a minimum percentage of property owners will need to concur with establishment of the extension subdistrict.
- Amendments to the Water and Sewer Plan formally establishing a subdistrict and accomplishing service area category changes, as needed.
- Subdistrict financing mechanisms, including the establishment of front foot benefit assessments and the contribution of public funding.
- Notification to initiate WSSC's process for designing and constructing the needed main extensions and service connections.

The inclusion of the following recommendation highlights the additional work required by WSSC and the Counties on the extension subdistricts process to determine its viability as a means to address the need for affordable community service extensions.

Water and Sewer Plan Recommendation: Extension Subdistricts
The extension of community water and sewer service must be a reasonably affordable and competitive alternative to individual, on-site systems for individual property owners located within those areas of the county intended by this Plan for community water and/or sewer service. The Unserved and Underserved Communities Subgroup has developed an "extension subdistrict" concept for this purpose. Establishment of the subdistrict proposal as a viable extension financing tool needs to move forward with discussions between the Counties and WSSC concerning public subsidies necessary to promote affordable extension costs for property owners.

IV.A.3: Service Connection Fees

These fees are paid with the property owner's application for a WSSC service connection installed between the water and/or sewer main and the customer's property line. WSSC uses a two-tiered connection fee system, based on whether a connection is installed either during or after water and sewer main construction. The differing fees reflect the fact that service connections are substantially cheaper to install while a new main is under construction. Adding connections to already built mains will involve new excavations, tapping the existing main, and possibly breaking and repairing street pavement. WSSC's charges for "improved" connections added onto completed mains are approximately three to four times the utility's fees for "non-improved" connections built onto a main during construction. WSSC sets these fees based on the average cost of such connections

throughout its service area. On-site water and sewer hookups, non-abutting (offsite) hookups, and any on-site booster, ejector, or grinder pump systems are financed solely by the property owner or developer.

To assist residential property owners with escalating service connection fees, WSSC offers a deferred payment option which allows residential customers to defer the cost of water and/or sewer service connections to their annual tax bill over a period of 23 years. For additional information and current connection fees, refer to the “Customer Service” pages on WSSC’s website at www.wsscwater.com.

WSSC does not regulate service connection charges on SEP projects for new customers. Further, developers are under no obligation to offer new service connections to owners of existing properties along the right-of-way of a new SEP-built main. This presents yet another disincentive for property owners using individual, on-site systems to convert over to community service when it becomes available. Potential new customers often cannot connect to a new SEP main until after it is completed and dedicated to WSSC. As a result, WSSC charges these connections at its more expensive “developed area” rates. This practice also raises concerns with regard to the Plan’s now-unenforced requirement that users of interim permit, individual systems connect to community service within one year of the time that community service becomes available.

IV.A.4.: Aging Infrastructure Costs

With growing concerns about aging water and sewer mains, WSSC has instituted an infrastructure investment fee to the agency’s quarterly bills. As of July 1, 2017, residential customers pay a \$12.00 per quarter charge, or \$48.00 annually. These funds, paid by all WSSC customers, will finance the Commission’s ongoing programs to repair and replace water and sewer mains that are reaching the end of their usefulness. WSSC evaluates priorities for these programs through its Asset Management Program. Please see Section III.A.7. for additional information.

IV.B.: City of Rockville

Rockville’s water and sewer systems are supported by enterprise funds (Water Fund and Sewer Fund). Rockville uses enterprise funds to account for operations financed and operated in a manner similar to private business enterprises where the cost of expenses, including both operations and capital are financed or recovered from the users of the services rather than general taxpayers. The Water and Sewer fund budgets are presented on the full accrual basis of accounting, with revenue being recognized when earned and expenses being recognized when they are incurred. It is Rockville’s policy to fund current operating expenditures with current year revenues, inclusive of debt service. A five-year projection of revenue and expenditures for the Water and Sewer Funds is prepared each fiscal year to provide strategic perspective to each annual budget process. Rockville establishes annual fees and rates for the Water and Sewer Funds at levels which fully cover the total direct and indirect operating costs and all capital outlay and debt service.

Revenue for the Water and Sewer Funds is comprised of usage charges, ready to serve charges, capital contribution charges, miscellaneous service charges, interest, and accumulated earnings. Usage charges are billed quarterly or monthly to customers based on the size of the meter and metered water consumption. The ready to serve charge is a fixed fee, based on the water meter size, and is billed quarterly or monthly. The ready to serve charge is increasing at a faster rate than the usage charge to support the fixed fee expenses of the infrastructure renewal programs.

Rockville City Code (Section 24-48) requires applicants to pay a capital contribution charge when making a new connection, or upsizing an existing water meter, to Rockville’s water or sanitary sewer systems. The amount of the charge is established by resolution of the Mayor and Council, and provides for a partial credit if the meter is being upsized. The capital contribution charge, which must be paid before the connection is made, is intended to recover the unit cost of capacity from new or enlarged connections to the water and/or sewer systems.

The City makes payments to WSSC for operating and capital expenditures at the Blue Plains WWTP, which in turn WSSC pays to DC Water. Operating expenses are initially billed based on estimated costs and flow rates. These expenses are periodically reconciled based on actual Blue Plains operating expenses and actual wastewater flow rates. Capital expenses are billed based on Rockville’s treatment capacity, which is 9.31 MGD.

The reserve policy for the Water and Sewer Funds provide for Rockville to maintain a cash reserve equal to six months of operating expenses for each fund. However, the Water and Sewer Funds are currently not compliant with this policy. Over nearly the last ten years Rockville’s significant investments to rehabilitate and replace Rockville’s aging water and sewer infrastructure; as well as the significant capital investments and process improvements at Blue Plains; have outpaced the revenue. Rockville uses a sophisticated rate model to assess revenue and expenditures over a ten-year period and to establish water and sewer usage rates, as well as the ready to serve charges. Rockville anticipates to be compliant with the reserve policy by the end of FY2021.

IV.C.: Town of Poolesville

The Town of Poolesville uses several methods to fund construction and operations of its water and sewerage systems. The funding mechanisms consist of combined water and sewer user fees, impact fees on new construction, and developer-funded water system extensions. The Town has adopted escalating variable water and sewer rate schedule costs, which increases with increased water usage, to cover operation and maintenance. The escalating variable water and sewer usage fees are based on metered water use and were established to promote water conservation. According to the Town of Poolesville, as of 2015, the combined water and sewer fee ranged from \$9.46 to \$12.85 per 1,000 gallons of water used during the quarterly billing period. When revenues do not cover the cost of the system, they are supplemented with revenues from the general tax fund. The Town does not levy front foot benefit assessments. Developers are responsible for building the local water and sewer service mains. Facility expansions are funded through impact fees on new construction.

IV.D.: Individual Systems Financing

Property owners and developers using individual, on-site systems, such as wells and septic systems, pay for the planning, testing, permitting, installation, and if needed, repair and replacement of those systems. The issue of replacing aging individual, on-site systems is discussed in more detail in Section III.C.4.b. Another aspect of this issue is the property owners’ ability to finance the cost of replacement systems. Currently, this is in general less costly than extending community service; however, the costs involved with drilling a new well or installing a new septic system are not inconsequential, running as much as \$20,000 for a standard, in-ground trench system. The need for sand mounds, pumping systems, or advanced treatment systems (aerobic pre-treatment, dosing, etc.) may add substantially to the cost of a replacement system.

Property owners do not always plan in advance for the costs involved in replacing an individual, on-site water and sewerage system. This is nurtured by a prevailing attitude that wells and septic systems offer “free” service to their owners, as opposed to the utility billing for community service. Also, someone who occupies a house using individual systems for only a few years may not have to consider this expense at all, handing it off instead to the next owner or the one after.

V.: PROCEDURES FOR ADOPTING AND AMENDING THE WATER AND SEWER PLAN

Under State law, the authority to adopt and amend the *Comprehensive Water Supply and Sewerage Systems Plan* resides with the Montgomery County Council. State law requires that the County Executive—working through the Department of Environmental Protection (DEP)—recommend, and the Council adopt, a comprehensive update of the Water and Sewer Plan at least once every three years.

The County also considers other amendments for specific parts of the Plan on a regular basis during the time between the comprehensive updates. These “interim” amendments usually involve:

- Requests from property owners to change water and sewer service area categories.
- Proposed service area category changes originated by the County to address area-wide category changes or category map corrections.
- Final category change approvals for changes first granted a conditional approval.
- Text amendments that update either technical issues or involve Council-related policy issues.

Comprehensive Plan updates and each of the interim amendment processes are discussed in the following sections.

V.A: County Election-Year Prohibition

This Plan prohibits the County Council, or any committee of the Council, from holding a public hearing for or from deliberating or acting on any comprehensive update to the *Comprehensive Water Supply and Sewerage Systems Plan* after October 31st of a year in which the Council is elected (2018, 2022, etc.) until the newly elected Council has taken office. A similar prohibition applies to the Council's consideration of interim Plan amendments (see Section V.D.1.). The administrative delegation process for interim amendments (see Section V.D.2.), conducted by DEP, is not affected by this provision, neither is an individual Council member's required review of amendments under the administrative delegation process.

V.B.: Triennial Water and Sewer Plan Comprehensive Update Process

The following provides an outline of the current process involved with preparing and adopting the triennial comprehensive update of the Water and Sewer Plan.

The initial draft, the Staff Draft Plan developed by DEP, incorporates all interim amendments approved since the last comprehensive update, revisions suggested by staff, and technical updates solicited from State, County, and municipal agencies. The comprehensive update provides an optimal opportunity to incorporate into the County's Plan the subsidiary plans of the municipalities. DEP circulates the Staff Draft Plan to the reviewing agencies for their comments.

DEP staff address and, as necessary, incorporates agency comments into the Staff Draft Plan. Upon the review and concurrence of the County Executive, it becomes the Executive Draft Plan, which is then transmitted to the County Council for its consideration. At this time, the draft Water and Sewer Plan comprehensive update becomes a matter of public record.

The County Council schedules a public hearing on the Executive Draft Plan, usually conducted by the Transportation, Infrastructure, Energy, and Environment (T&E) Committee. After the hearing record is closed, the T&E Committee holds work sessions to consider the draft plan, agency comments, and public testimony provided during the hearing process. The Plan with the T&E Committee's changes incorporated becomes the Final Draft Plan, which the County Council as a whole will consider for adoption.

The County Council holds work sessions on the T&E Committee's recommended Final Draft Plan, and may choose to make both minor and significant changes to the Plan. The Council then votes on the entire Plan at a subsequent action session. Once adopted, the draft becomes the Council's Approved Plan. The County Executive then has ten (10) working days to review the Council's action and, if necessary, to request reconsideration of all or part of the approved plan.

Following the Executive's review, copies of the Approved Plan are provided to the Maryland Department of the Environment (MDE) for State agency review, including the Department of Planning (MDP) and the Department of Natural Resources (DNR). Within 60 days of its receipt of the Council's Approved Plan, MDE must approve the Plan, disallow the Plan either in whole or in part, or declare a 45--day review extension. MDE may also require a second 45-day review extension that would require a notice from MDE to the County, the County's delegation to the General Assembly, and the Governor. If MDE has neither acted nor declared the need for a review extension by any of these three deadlines, the Plan is approved as adopted by the County Council by default. If MDE disallows any part of the Plan, the County has 180 days from the date of MDE's notification to formally challenge MDE's decision.

V.C.: Water and Sewer Plan Interim Amendment Processes

During the time in between comprehensive triennial updates, the County considers many requests for changes, or amendments, to the Plan as explained in the following sections.

V.C.1.: Property Owner-Initiated Category Change Requests

Individual requests from property owners for water and/or sewer service area category changes make up the majority of Plan amendments considered between comprehensive triennial updates. Most commonly, property owners file requests with DEP seeking approval of categories 1 or 3 to allow the provision of community service where it is not currently approved given the existing categories designated in the Plan. Other requests filed

have sought approval for multiuse, onsite systems (see Section III.C.5.) or for changes to existing service area restrictions (see Section II.C.2.)

Application Process for Individual Service Area Category Change Requests

Applications for service area category requests filed by the property owner may be submitted to the Department of Environmental Protection at any time of the year. Request applications and instructions are available by contacting DEP staff (see Appendix D) or the DEP category change requests webpage at www.montgomerycountymd.gov/waterworks. Interagency review of submitted applications generally occurs on a quarterly basis.

The application must include all information requested, including a clear, legible map showing the property or properties for which the category change is sought. A copy of the State's tax assessment map is helpful and available online. DEP staff will make every effort to promptly notify an applicant if additional information is needed for the review process. Additional information on submitting a category change request is provided with the application packet, including requirements for application fees (see the following subsection).

DEP has additional requirements for some category change cases involving service area category amendments for private institutional facilities (PIFs); refer to Section II.G.4.e. Applicants filing requests for these facilities will need to refer to instructions included in the category change request instructions packet.

New applications for requests that were previously denied or withdrawn may not be filed with DEP sooner than one year from the date of the action denying or the notification withdrawing the original request. Applicants may re-file requests for previously denied or withdrawn plan amendments, if DEP determines that relevant issues have changed since the previous denial. Additional information concerning this requirement is included with the category change application packet.

Category Change Application Fees

At the direction of the County Council (as part of the 2003 Plan update), DEP developed and coordinated a required change to Chapter 45 of the County Code to establish a fee schedule for owner-initiated category change requests (under Executive Regulation MCER 2-05). Applicants started paying fees with new requests filed at the beginning of FY 2006. The application fee schedule is included with each category change request instruction packet provided to potential applicants. These application fees are not intended to act as an enterprise fund, supporting the entire cost for the category change program. Certain requests are exempt from the application fee as detailed in the Executive Regulation and category change application instruction packet. DEP does not charge an application fee for properties that staff recommend for inclusion in County-initiated general water/sewer category map amendments (see Section V.C.2).

V.C.2.: County-Initiated Area-Wide Category Map Amendments

DEP initiates, develops and recommends area- wide and neighborhood-wide category change amendments, usually to implement service area category changes to allow for the provision community water and/or sewer service. These area-wide amendments are commonly referred to as general water/sewer map amendments.

Area-wide general map amendments typically address service area changes for an area on the scale from one or more blocks up to a small neighborhood. The County's long history of handling category change requests on a case-by-case (lot-by-lot, parcel-by-parcel) basis has resulted in many neighborhoods in piecemeal transition from categories 4, 5 or 6 to categories 1 or 3. These are usually areas intended and recommended for community service by the Plan's general service policies and in the related local area master plan. However, they still require a specific approval for category changes that will allow for the provision of community service.

When the County Council approves the designation of a public health problem area as part of the Plan, the recommendation to do so from the County Executive is typically accompanied by a general category map amendment. DEP prepares the map amendment for health problem areas designated as categories 4, 5, or 6. The map amendment proposes to change water and/or sewer service area categories for properties included in the designated health area to categories 1 and/or 3 as needed. This category change action allows any of these properties to proceed with the provision of community service, regardless of whether or not that property

has an active health problem. The purpose is to encourage the extension of community service into the designated health area before properties actually need the service to relieve a well or septic system failure.

Other general amendment cases involve a need to correct mapping or service errors and to update service area categories as determined by DEP. Mapping errors occur where the County has not correctly mapped approved service area changes. Service errors occur where either the sanitary utility (WSSC, Rockville, or Poolesville) has provided community service to properties not approved for community service in this Plan, or where multiuse systems exist that are not currently included in the Plan.

Interim Plan amendments may also include updates provided by municipalities to service area categories and/or the Plan text. The County includes these updates into the Plan as directed by State law to incorporate the subsidiary plans of the County's municipalities.

DEP's long-term goal is to use general category map amendments to the greatest extent possible reduce the number of individual map amendments (category change requests) filed by property owners and developers.

V.C.3: Interim Water and Sewer Category Map Updates

DEP is responsible for preparing interim updates of the plan's service area category maps. Improvements in mapping technology resulting from the use of the County's computer-based geographic information system (GIS), MC:MAPS, should now allow for the preparation of more up-to-date maps than the triennial updates required by the State. These interim updates are based on category change actions, map revisions and corrections, and informational updates approved since the last interim or triennial update. The interim update maps, which do not require approval by the Council, represent the County's official record for water and sewer service area categories pending the triennial updates approved by the County Council.

DEP plans to develop a regular schedule for interim updates for the service area category maps. Use of the GIS-based database by county agencies and its distribution to agencies such as WSSC and M-NCPPC will result in a significant step forward in helping to provide more up-to-date category information to the public and development industry.

V.C.4.: Interim Text Amendments

While the majority of changes to the Plan text occur as part of the triennial update process, interim updates do include text amendments from time to time. Text amendments of a policy nature are usually initiated by the County Council. At the direction of the Council, DEP staff develop these amendments in response to a policy issue that the Council wants to implement before the next triennial comprehensive Plan update. Examples of text amendments to the 2003 Plan include restrictions on community service for private institutional facilities (PIFs) and on multi-use system capacities, both addressing the Agricultural Reserve (AR Zone).

Interim text amendments may also include non-policy, informational updates to the Plan text such as updates to capital project listings, amendments that acknowledge or account for policy changes elsewhere in the Plan, and updates to WSSC sewage flow measurement data.

V.D: Scheduling for Interim Amendment Review and Consideration

Both incoming amendment requests and those developed by DEP proceed through an interagency review process that includes M-NCPPC, WSSC, and DPS. Other agencies contacted on an as-needed basis include, but are not limited to: Montgomery County Public Schools; Prince George's County; municipalities such as Rockville, Poolesville, or Gaithersburg; and the U.S. National Park Service. DEP's intent is to provide review packets to these agencies on a quarterly basis. Agency comments on and DEP's internal review of these cases are then used to determine an appropriate action path for each amendment.

Two primary pathways are used to consider and act on interim amendments: the County Council's legislative review process and DEP's administrative delegation review process. Scheduling for these processes is intended to follow the calendars provided in the following sections. However, plan amendments may also be considered outside the preceding usual schedule, upon the discretion and agreement of the County Council and DEP, for those cases involving exceptional circumstances such as severe hardships, public or quasi-public facilities, and other projects of critical public interest

V.D.1.: County Council Legislative Process

The Council's legislative review process begins with DEP staff developing recommendations for these amendments, which then proceed through a review process that typically includes the DEP Director, County Executive staff, and finally the County Executive. The County Executive transmits a group or packet of requested Plan amendments to the County Council for consideration and action. The Plan's intent is that DEP will initiate this process twice each year:

- In the spring for amendments received in the first half of the fiscal year collection period.
- In the fall for amendments received in the second half of the fiscal year collection period.

Following the receipt of the Executive's transmittal, the Council introduces the amendments and schedules a public hearing. State law requires that the County provide State and local agencies a notice of public hearings thirty days in advance of the hearing. The County is also required to post a public notice of the hearing that must appear once at least ten days in advance of the hearing date in a newspaper of general circulation in the county. In addition to these notices, DEP provides a notice of each hearing to the amendment applicants and to other interested parties. DEP also makes reasonable efforts to notify adjacent and confronting property owners and local public interest, homeowners, civic and environmental groups. Following the hearing, the Council holds a T&E Committee worksession on the amendments. The full Council then considers the committee recommendations, develops a final resolution of actions on the proposed amendments, and subsequently adopts a that resolution. The Executive has ten days following adoption of the resolution to comment on the Council's action before the action is final.

V.D.2.: DEP Administrative Delegation Process

The County Council has delegated the authority to act on Water and Sewer Plan amendments under limited circumstances to the Executive branch through the Director of DEP. DEP may act to approve or conditionally approve an amendment. This administrative authority is intended for amendments which are non-controversial with regard to Water and Sewer Plan issues and policies. As such, the authority is discretionary, and the Director of DEP may, at his or her discretion, defer action on any potential administrative amendment to the County Council.

Administrative public hearing actions are intended to follow a quarterly schedule, with amendments from each quarterly agency review packet proceeding through a separate administrative action. DEP staff initially develop recommendations for these amendments, where agency reviews (M-NCPPC, WSSC, DPS, etc.) are consistent with administrative approval. (Note that the Planning Board's concurrence with a proposed administrative action will override a dissenting recommendation by M-NCPPC staff).

The amendments are subject to a public hearing conducted by the DEP Director, or more commonly, by a designee from the Water and Wastewater Policy Group. DEP staff provide appropriate public hearing notices consistent with State requirements. Public hearing notification requirements for the administrative process are addressed in a following section-(see Section V.D.2.d). DEP generally leaves the public record open for one (1) week following the hearing. Following the closing of the public hearing record, staff provide the requested amendments, along with DEP staff and other agency recommendations and a summary of the hearing record, to the Director for consideration and action.

Plan amendments initially recommended by DEP staff for administrative delegation actions will be removed from that process, and redirected to the County Council for consideration, in the event that they involve issues that:

- The Planning Board, voting as a body, has identified as requiring Council consideration.
- One or more Council-members have identified as requiring Council consideration
- The DEP Director has identified as requiring consideration by the full Council.

Amendments redirected from administrative actions are typically included with the next regular semiannual transmittal of amendments from the County Executive to the County Council, and are subject to the Council's public review process, including a public hearing.

V.D.2.a: Administrative Delegation Policies

The specific policies and procedures under which a proposed amendment may be acted on through this administrative process, and the requirements for such actions, are outlined as follows. Only those amendment requests satisfying one of the following administrative policies will be considered for this process:

Community Service Consistent with Existing Plans

DEP may act to approve or conditionally approve service area category changes consistent with the recommendations of the local area master plan and the general policies of this Water and Sewer Plan as specified under Section II.F.: General Policies for Water and Sewer Service.

Community Service for Public Health Problems

DEP may act on service area changes to allow community service for properties to relieve existing or anticipated public health problems, as specified under Section II.G.2.: Community Service to Relieve Public Health Problems. Under this administrative authority, only one residential water and/or sewer hookup may be provided to qualifying lots or parcels. Such actions may occur after DEP has directed WSSC to expedite the provision of community service to a property and, in some cases where existing community service is immediately available, after that service has been provided.

Community Service for Properties Abutting Community Mains

DEP may grant service area changes to allow community service for properties which abut existing or authorized water and/or sewer mains, as specified under Section II.G.3.b.: Community Service for Properties Abutting Existing Mains. Under this administrative authority, only one residential water and/or sewer hookup may be provided to the whole of qualifying lots or parcels. Such actions may occur after DEP has directed WSSC to provide community service to a property and in some cases after WSSC has provided that service.

Community Service for Service for Public Facilities

DEP may act on service area category changes for public facilities and for private buildings affected by public projects, as specified under Sections II.G.5. Community Service for Public Facilities, and II.G.6, Community Service for Properties Affected by Public Improvements.

Community Service Allowed by Individual Systems Regulations Changes

DEP may act on service area category changes for properties which satisfy the specific requirements of Section II.G.9.: Community Service Due to Individual On-Site Systems Regulations Changes.

Community Service for Community Development Projects

DEP may act on service area category changes for projects defined as community development projects as specified under Section II.G.7.: Community Service for Community Development Projects.

Multiuse Onsite Systems

DEP may amend the water and sewer category maps to identify sites approved for multiuse onsite water supply and/or sewerage systems. (See Section III.C.5. for additional information on multiuse systems.) Appropriate text amendments identifying the proposed multi-use systems may be handled under the provisions of the Plan's administrative policies, Section V.D.2.c., although DEP staff will typically handle the required text amendment for a particular multi-use system through the same administrative process as is used for the related map amendment. The approval of such systems shall be consistent with the protection of surface and groundwater and shall require the concurrence of the Department of Permitting Services. In order to ensure this protection, DEP may, upon consultation with the DPS, require hydrogeologic studies of the potential effects of the proposed systems on ground and surface water resources.

V.D.2.b: Administrative Delegation Advance Action Process

Under limited circumstances, DEP may act to approve a qualifying map amendment in advance of an administrative public hearing process to help expedite straightforward cases. As a practice and for purposes of efficiency, DEP will generally consider these amendments later along with those proceeding through quarterly administrative hearings.

Community Service for Public Health Problems

DEP may act in advance on service area changes to allow community service for properties to relieve existing or anticipated public health problems, as specified under Section II.G.2.: Community Service to Relieve Public Health Problems. Under this advance action authority, only one water and/or sewer hookup may be provided to qualifying lots or parcels and for only residential uses. DEP's advance action is in the form of a notice to WSSC to proceed with and expedite community service to the property, regardless of the existing service area category.

Community Service for Properties Abutting Community System Mains

DEP may act in advance to approve service area changes to allow community service for properties which abut existing or authorized water and/or sewer mains, as specified under Section II.G.3: Community Service for Properties Abutting Community System Mains. Under this advance action authority, only one residential water and/or sewer hookup may be provided to the whole of qualifying lots or parcels. DEP's advance action is in the form of a notice to WSSC to proceed with community service to the property, regardless of the existing service area category.

Multiuse Onsite Systems

DEP may act in advance to amend the water and sewer category maps to identify sites approved for multiuse water supply and/or sewerage systems. Only smaller-capacity multi-use systems, those with a peak capacity of less than 5000 gallons per day (gpd), may be addressed under this authority. Advance action for text amendments identifying these multi-use systems may also be addressed under this authority. DEP's advance action is in the form of a notice to DPS that the proposed multiuse system is approved on the category map and in the Plan text.

V.D.2.c.: Administrative Delegation Staff Approval Process

DEP's action on plan amendments under the following administrative policies shall require only an interagency review, as appropriate. The approval authority resides with the DEP Director of his or her designee, who may directly approve the amendments. Neither a public hearing, nor interagency concurrence for administrative approval, nor County Council review and concurrence for administrative approval shall be required, unless requested by the Director of DEP.

Water and Sewer Map Corrections, Revisions, and Informational Updates

DEP may amend service area categories as necessary to correct verified service area mapping and other errors. These cases most often involve revisions to identify properties with existing community service not shown on the category maps and to correct improperly mapped prior amendments. Informational updates for the maps addressing existing or proposed infrastructure, right-of-way dedication or abandonment, and other non-policy issues may also be approved.

Changes of service area categories from W-3 and W-1 and from S-3 and S-1 (approved community service areas) and vice versa may occur to reflect the actual status of community service and do not require a formal approval action by either DEP staff or the DEP Director. DEP staff document these changes as needed in the service area category database.

Interim Permit Individual Systems

DEP may amend the water and sewer category maps to identify sites approved for interim on-site wells and septic systems, as specified under Section III.C.3., subheading: General Conditions for Interim Individual Systems.

Water and Sewer Service Area Category Map Interim Updates

Interim water and sewer map updates are based on approved amendments to the Water and Sewer Plan: category changes, map corrections and revisions, and informational updates. DEP is able to update these GIS-based maps to show these amendments on a more frequent schedule than the State's required triennial comprehensive updates, providing more up-to-date information to the public, to the development industry, and to public agencies. DEP will update the GIS database as water and sewer map amendments are approved in order to maintain an accurate and current record of the county's service area categories. DEP's administrative

approval of the published maps adopts them as the interim official record of the County's approved service area categories, pending the County Council's approval of the triennial update of the plan.

Informational Plan Text Amendments

DEP may approve text amendments which provide informational updates to the Water and Sewer Plan. These may include, but are not limited to, information updates concerning approved community water supply and sewerage systems infrastructure, information concerning multi-use water supply and sewerage systems, and general background information concerning the county and its municipalities. Informational updates may relate to specific water and/or sewer service area category change requests under consideration for approval through the administrative delegation process. Text amendments that are other than informational updates, or that concern policy issues, will not be included for administrative approval and will be referred to the County Council.

V.D.2.d: Administrative Delegation Public Hearing Notice and Outreach

The administrative delegation public hearing process follows the same public notification procedures required for County Council actions on interim amendments. State law requires the following notices:

- A notice to appropriate County and State agencies, at least 30 days prior to the hearing, specifying the proposed amendments.
- A public notice, at least 10 days prior to the hearing and appearing in a newspaper of general circulation in the County, specifying the proposed amendments and information on how to provide testimony.

In addition to these notices, DEP provides a notice of each hearing to the amendment applicants and to other interested parties. DEP also makes reasonable efforts to notify adjacent and confronting property owners and local public interest, homeowners, civic and environmental groups. DEP uses a combination of mailings, internet postings, and e-mail notifications on Water and Sewer Plan amendments, as appropriate. DEP also holds public meetings to present proposals for general water/sewer map amendments related to master plan updates.

V.D.3: State Consideration of Interim Amendments

The Maryland Department of the Environment (MDE) reviews the County's interim amendments to the Water and Sewer Plan and coordinates a review by the Maryland Department of Planning and by other State agencies, as appropriate. Within 60 days of its receipt of the interim amendments, MDE must approve the amendments, disallow the amendments either in whole or in part, declare a 45-day review extension. MDE may also require a second 45-day review extension that would require a notice from MDE to the County, the County's delegation to the General Assembly, and the Governor. If MDE has neither acted nor declared the need for a review extension by any of these three deadlines, the amendments are approved as adopted by the County by default. If MDE disallows any amendment or part of an amendment to the Plan, the County has 180 days from the date of MDE's notification to formally challenge MDE's decision. This State review process applies to amendments either approved or conditionally approved by the County; the State generally neither reviews nor comments on deferred and denied amendments.

The Maryland Department of the Environment (MDE) reviews the County's interim amendments to the Water and Sewer Plan and coordinates a review by the Maryland Department of Planning and by other State agencies, as appropriate. Within 90 days of its receipt of the interim amendments, MDE must approve the amendments, disallow the amendments either in whole or in part, or request a 90-day review extension. If MDE has not acted by either the initial 90-day or the extended 180-day deadline, the amendments are approved as adopted by the County by default. This State review process applies to amendments either approved or conditionally approved by the County; the State generally neither reviews nor comments on deferred and denied amendments.

V.E: Plan Amendment Actions

County Council and administrative actions on plan amendments usually fall into one of the following types:

V.E.1: Approved Amendments

An approval action adopts the proposed map or text amendment into the Plan. In some cases, the County may decide to modify the approval somewhat from the original request. An approval for a category map amendment

may also include service conditions or restrictions that limit the scope of the approval. See Section II.C.2. for examples of these condition and restrictions. An amendment approval is not formally adopted until MDE notifies the County of the amendment's approval. The applicant can proceed with development approvals and water/sewer service authorizations, at the applicant's risk, during the State's review period.

The County Council's approval of category change requests for private institutional facility (PIF) uses is typically based on the Council's review and acceptance of a concept plan for the proposed use. If the PIF user subsequently and significantly alters that concept plan (prior to the extension of service), DEP can require the Council's reconsideration of the original category change action. DEP will determine when changes to the concept development plan warrant the Council's reconsideration.

V.E.2: Conditionally Approved Amendments

A conditional action grants tentative approval a proposed amendment to the Plan. The condition(s) shall be clearly stated in the action amending the plan. An actual or final approval of the amendment will require that the conditions for final approval either be satisfied or be made moot. It is incumbent upon the applicant to notify DEP and document that the condition(s) for final approval has been satisfied. The DEP Director shall then grant final approval of the amendment in accordance with the original action and notify the applicant and all appropriate agencies of the change to the Plan.

Over time, circumstances affecting a Plan amendment with an outstanding conditional approval may change from those existing at the time the County acted on the amendment. These changes may include, but are not limited to, master plan land use and zoning recommendations, water and sewer service policies, and sanitary system availability. Therefore, conditional approvals granted starting in FY 2017 are valid for a period of up to five (5) years from the original date of the County's action granting the conditional approval. DEP may grant, upon the applicant's written request, an extension of up to five (5) years beyond the original five years. After this five- or ten-year period without resolution of the required conditions, DEP will prepare a final category change action that will revert the property back to its original service area categories. Reinstatement of the amendment after this DEP action is not allowed. Reconsideration of such an amendment will require the applicant to file a new request with DEP and proceed through an appropriate review and action process. Conditional approvals adopted for County-initiated general water/sewer map amendments are exempted from this sunset policy.

V.E.3: Deferred Amendments

A deferral action places the County's consideration of a proposed Plan amendment on hold pending the completion of some other action. Actions that defer Plan amendments must clearly state the reason for deferral and what action or milestone is needed in order to reconsider the amendment. A deferral may result from the need for additional information which is not readily available to properly evaluate an amendment. A deferral can also occur to allow another process, such as a master plan or rezoning case, to proceed before making a decision on the amendment.

Deferrals typically occur in the County Council's consideration process for the following circumstances:

- *Incomplete Information*: There is a need for additional information not readily available in order to properly evaluate an amendment, such as a proposed main alignment or specifics about a proposed development plan.
- *Master Plan Revision in Progress*: There is a need to complete a master plan revision process that has the potential to affect water/sewer service recommendations and therefore the evaluation of a water/sewer service amendment. This Plan considers that a master or sector plan is "in progress" at the time the M-NCPPC staff draft of the plan is complete. Exceptions to the preceding policy are allowed where the County Council and the Planning Board concur that more expedient review and action—including administrative delegation—is appropriate for a particular amendment, and the proposed action is:
 - Consistent with existing master plan recommendation;
 - Consistent with water and sewer planning policies; and
 - Not affected by the master plan update, which is not expected to change relevant policies.

- *Other Land Use and Zoning Decisions:* There is a need to allow another process—often involving land use or zoning issues—to proceed before making a decision on the Water and Sewer Plan amendment. These can include decisions on local zoning map amendments, zoning ordinance text amendments, and special exceptions. These decisions are either relevant to the decision on water and sewer service, or could be unduly biased by the County Council’s action on the issue of water and sewer service.

Deferral Timing

Deferral must not become the final resting place of any proposed Plan amendment. Unless a deferred amendment is withdrawn by the applicant, the County must take an action on that amendment (approval, conditional approval, or denial). Generally, the deferral period is intended to last no more than one year before an action on the amendment is anticipated. However, a one-year deferral period is a guideline, not a regulation. DEP will use this one-year time frame as a check on the status of deferred amendments. The other land use planning and regulatory processes that are frequently involved in deferred amendments do not always follow precise, predictable schedules. However, DEP will monitor the progress of deferred amendments to avoid situations where cases slip into an indefinite, unending holding pattern. In the event that a deferral extends substantially beyond the expected time frame, and lacks an expected resolution, the County Executive may recommend that the Council deny the amendment. The applicant can then file for a new amendment when conditions better favor that request.

Process Options Following Deferral

Upon resolution of the reason for a deferral, an amendment may be brought back for further consideration by the Council. To promote an orderly public process, whenever possible a previously deferred amendment should be resubmitted to the Council as part of a semiannual amendment packet from the County Executive. If a previously deferred amendment is resubmitted to the Council outside of the Executive’s semiannual amendment transmittal process, then the Council shall proceed according to the following processes, as appropriate:

- *Deferred Amendments with Significant Changes:* If the details of the proposed amendment have changed (for example, the proposed water or sewer extension is changed significantly or the proposed use of the property to be served has changed) since the item last went to public hearing, then the Council must hold a new public hearing for the amendment. The Council must provide at least 15 days’ notice to the reviewing agencies: DEP, DPS, WSSC, M-NCPPC, and MDE, and to all parties that submitted either oral or written testimony on the amendment at the Council’s prior public hearing. The Council must also advertise the public hearing at least 15 days before the public hearing date. The Council may schedule a committee or Council worksession on the item to occur any time after the public hearing. However, the meetings must be listed on the Council or Committee agenda at least ten days before the worksession.
- *Deferred Amendments with No Significant Changes:* If the details of the proposed amendment have not changed since the item last went to public hearing (for example, the water and/or sewer alignment is the same and the applicant’s plans for use of the property to receive service have not changed), then the Council is not required to hold a new public hearing. A Committee or Council meeting on this request must be listed on the Council agenda at least ten days before the meeting. In addition, if more than 90 days have elapsed since a prior Council meeting on the amendment, then the Council must provide a notice of the new meeting to the reviewing agencies, to the applicant, and to all parties that submitted either oral or written testimony on the amendment at the prior public hearing. Although an additional public hearing is not required, the Council President can choose to hold a public hearing for this deferred request.
- *Deferred Amendments Qualifying for Administrative Approval:* If the resolution of the deferral issue has created conditions that satisfy the Plan’s administrative approval policies (see Section V.D.2.), then DEP may recommend the amendment for administrative action. DEP will generally include qualifying amendments as part of the next available administrative hearing process. The amendment must proceed through an administrative cycle that includes preparation and review of a staff recommendation, a 30-day agency notice, a 10-day public notice, and a public hearing. Although not required, the Council’s deferral decision may include a note that addresses the possibility of subsequent consideration through the administrative delegation process.

V.E.4.: Tabled Amendments

The T&E Committee or the full Council may temporarily set aside work on a proposed Plan amendment by “tabling” its consideration. The reasons for tabling an amendment are varied and not always directly related to the substance of the water and sewer issues involved. For example, an amendment might be tabled to allow for discussions between the County or another party and the applicant, or to allow for additional research on the part of the applicant or County staff.

V.E.5.: Denied Amendments

A decision to deny a requested Plan amendment effectively ends its consideration by the County, leaving the Plan unchanged. Unless accepted by DEP because of changed conditions, applicants may not resubmit denied amendments for a period of one (1) year following the date of the denial action.

V.E.6.: Appeals

State law does not include a formal appeal process for the County's actions on the Plan or its amendments. The most common method of “appealing” an action is to again file the requested amendment with DEP consistent with the denial policy preceding (Section V.E.5). Most situations that have previously prompted interest concerning appeals are those involving denied amendments, although applicants have also sought to appeal conditional approvals or deferrals. Other interested parties, such as civic or environmental groups and individual citizens, have also sought appeals, mostly of approval actions with which they disagree.

State law does provide for a ten-day review of the Council's actions on the Plan by the County Executive, who may then recommend for the Council's consideration any revision or amendment the Executive deems necessary, including presumably, an appeal of an amendment action. Although the State of Maryland has a review period for approval and oversight of the County's Plan amendments through MDE and MDP, the State's review does not function as an appeals process.

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