

To understand the policies governing the provision of water and sewerage service in the county, it is helpful understand the definitions of terms used throughout this text. The following includes relevant definitions – many taken from the State regulations governing planning of water supply and sewerage systems (COMAR 26.03.01.01) – used in this Plan:

**Best Available Technology (BAT) System**

An aeration system used in a septic tank to improve Nitrogen removal from septic systems. Maryland Dept. of the Environment (MDE) regulations require installation of BAT systems for new septic system service and for some replacement septic systems within Bay Critical Areas. Within Montgomery County, located outside of any established Critical Areas, the County's Dept. of Permitting Services determines the need for BAT systems for new and existing septic systems.

**Capital Contribution Charge (City of Rockville only)**

A fee paid by new users of Rockville's water and sewerage systems, which the City uses to finance the capital cost of sanitary systems growth and improvements.

**Capital Improvements Program (CIP)**

Provides for the programming of planning, design, land acquisition, and construction on a yearly basis for major water and sewerage facilities. These facilities include project such as water filtration plants, sewage treatment plants, major water and sewer transmission mains, pumping stations, and storage facilities. The adopted WSSC CIP is incorporated annually into the County's CIP when approved by the Montgomery and Prince George's County Councils. Community system capital budgets are available as follows:

- WSSC: The current CIP budget document, and those for some prior years, are available through WSSC's budget webpage at <https://www.wsscwater.com/budget>.
- City of Rockville: Capital program information is available at <http://www.rockvillemd.gov/index.aspx?NID=1071>.
- Town of Poolesville: Capital program information is available at <http://www.poolesvillemd.gov/296/Budget>.

**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-3. Areas planned for future community service (W-4, W-5, and S-4, S-5) are included in the planned service envelopes.

Note that not all properties located within the planned community service envelope are currently approved for such service and designated categories 1, 3, 4 or 5. Most requests for service area category changes seeking community service are granted through a case-by-case consideration. As a result, some properties designated as W-6 and S-6 may also be within the planned service envelopes because they have never had requests filed for a category change. Also see the "Planned Service Envelopes vs. Existing Service Area" discussion following.

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.

A variation of the existing service areas could be considered as an approved service area. This would add those properties designated as service area categories W-3 and S-3 to the Existing Service Areas.

The majority of properties within existing service areas are connected to community systems. However, some properties continue to use individual, onsite systems even though community service is available. Note that some properties within existing service areas are located outside of the planned service envelopes; please see the following discussion.

Planned Service Envelopes vs. Existing Service Areas – Every property that is approved for and has access to community service (W-1, S-1) becomes part of the existing water/sewer service areas. However, a category change approval for such a property does not necessarily make it part of a planned service envelope.

Properties located outside the planned service envelopes are typically approved for community service (categories 1 or 3) through one of the special service policies in the County's Comprehensive Water and

Sewerage Plan (abutting mains, private institutional facilities, onsite system failures, etc.) or under another justification as determined by the County Council. 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.

This distinction is important in the Potomac Subregion Master Plan area where the master plan recommends the use of a peripheral sewer service policy, addressing properties located at the edge of the planned sewer envelope. Again, properties approved for S-1 or S-3 under this service policy do not add to or become part of the planned service envelope. This was intended to avoid a domino effect that could eventually extend sewer service well beyond the limits of the planned service envelope.

### **Community Sewerage System**

A publically-owned system serving two or more individual properties, for the collection and disposal of sewage or industrial wastes of a liquid nature, including various devices for the treatment of the sewage and industrial wastes. The community sewerage system is often referred to as the public sewerage system, or as public sewer service, in other documents.

### **Community Water Supply System**

A publically-owned source of water and a distribution system, including treatment and storage facilities, serving two or more individual properties. The community water supply system is often referred to as the public water system, or as public water service, in other documents.

### **Ejector Pump and Grinder Pump**

Onsite pumping systems are used to move sewage flows uphill to a point where the flow can then move by gravity to a transmission main or onsite treatment system. An ejector pump is used to lift sewage from the lower floors of a building to a gravity outfall on the property. A grinder pump typically feeds into a small-diameter, low-pressure main. Grinder pumps may be used as part of a larger low-pressure sewerage system that serves anywhere from a few houses to an entire subdivision. WSSC's grinder pump, low-pressure system policies require that a low-pressure sewerage system, for a non-residential use, is dedicated to only that user. No other grinder pumps are allowed to tie in.

### **Existing Service Area**

An area that is currently served; individual properties within the area are generally connected to the community system.

### **Front Foot Benefit Assessment (FFBA)**

An annual charge levied on properties abutting water and sewer mains in the Washington Suburban Sanitary District that partially pays for the extension of local service mains financed by general construction bonds. Additional information is provided in Chapter 1, Section IV.A.2.b. and in Chapters 3 and 4 of this Plan.

### **Ground Water Well (or Water Well)**

A well supplies water to a single residential, institutional or commercial user, usually from a well located on the user's property. The primary focus of this Plan is on wells used for potable water supply. However, other wells are sometimes used for purposes such as irrigation, watering of livestock, industrial processes, and geothermal heating and cooling. 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. The user may also require on-site water treatment and an above ground storage/pressure tank.

### **Holding Tank**

A tank, buried under the surface of a user's yard, for the purpose of holding sewage until it is pumped out by a licensed septic hauler. A holding tank is typically used in cases where no other individual, onsite septic system can be used and where community sewer service is not available. Holding tanks are used only to serve existing buildings, and not for new construction or expansion of an existing structure. Depending on usage, a holding tank will fill and need to be pumped out every two to four weeks. No useful sewage treatment occurs in the holding tank, as it would in a septic tank.

**Individual, Onsite Sewerage System**

A single system of piping, treatment tanks or other facilities serving only a single property and disposing of sewage or individual wastes of a liquid nature, in whole or in part, on or in the soil of a property. Typically, an individual sewerage system in the county is a septic system. Septic systems treat sewage through the use of a septic settling tank and subsurface drainfields which discharge their effluent to the ground. Microorganisms in the soil continue to treat the effluent as the fluid percolates through the soil profile.

**Individual, Onsite Water Supply System**

A single system of piping, pumps, tanks, or other facilities utilizing a source of ground or surface water to supply (potable water) to a single property. The most common individual water supply system in the county is a groundwater well. Wells use a pump to draw groundwater stored in the well shaft into the user's house or business.

**Interim Individual Water Supply or Sewerage System**

An individual system established within an existing or planned community service area for an interim period only and intended to be abandoned and replaced by community service within one year of the availability of community service.

**Limited Access Water and Sewer Mains**

Limited access water and sewer mains traverse or abut properties which this Plan designates as generally ineligible for community water and/or sewer service, either by the general policies in this Plan or by a specific action of the County Council restricting service.

**Multiuse Water Supply and Sewerage Systems**

Individual on-site systems, whether owned or operated by an individual or group of individuals under private or collective ownership, serving a group of individuals, and having a treatment capacity of 1,500 gallons or more per day (gpd). Multiuse water supply systems utilize a source of ground or surface water to provide potable water, and consist of wells, piping, pumps, tanks, and/or other facilities. Multiuse sewerage systems collect and dispose of sewage and consist of various devices for the treatment and discharge of sewage. For the purposes of this plan, multi-use 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.); and
- More than one water supply and/or sewerage system serving a single property with a cumulative capacity of 1,500 or more gpd.

**Municipal Service Area**

(See "Sanitary Districts" below.)

**Municipal Well**

A groundwater well that provides water for a community water supply system. In Montgomery County, only the Town of Poolesville uses municipal wells to provide a potable water supply to its customers.

**Onsite System Failures**

Individual, onsite system failures can result from causes such as age, contamination, insufficient maintenance, or structural problems. The following situations are among the most common that constitute an onsite systems failure:

- The presence of inadequately treated sewage rising to the surface of the ground or backing up into a building, resulting from a hydraulic overload of the septic tank and/or the drainfield. Proper septic system operation typically requires tank pumping every two to five years for preventative maintenance.
- Evidence of a septic system discharging inadequately treated sewage into ground or surface waters. This includes problems such as drainfields constructed within the water table, constructed on fractured bedrock, or constructed with an overflow pipe. Overflow pipes typically allow the discharge of inadequately treated sewage from the septic system into a drainage feature such as a swale, pond, or stream. Failures may also result from structural problems involving the septic tank or drainfields.

- A well with inadequate water quantity yield. (State minimum standard is 1 gallon per minute.)
- A well with inadequate water quality, resulting from either an inflow of surface water or contamination of the groundwater source.
- A well that does not satisfy current regulatory standards, including hand-dug wells, wells without adequate sleeves/casing, etc. A structural failure of the well may result, such as a side wall collapse

An excessive need to pump out a septic tank, usually on the order of several times in a year, to keep the septic overflows or backups from happening, can also signal a septic system failure. Other excessive actions indicating a septic failure may include curtailing the use of laundry, kitchen, and/or bathroom facilities to prevent overflows or backups. These situations can be considered as temporarily mitigated failures in that the property owner has intervened to prevent the failure from causing a public health problem (see below).

Relief measures for individual, onsite system failures generally fall into one of three categories:

- Onsite Repair – The repair of an onsite well or septic system typically involves a straightforward process that does not require DPS to issue a permit. Repairs can include replacing a broken pipe or septic tank baffle, clearing a clogged pipe, or replacing a pump. Repairs may also involve an improved maintenance schedule or the use of practices compatible with onsite systems.
- Onsite Replacement – An onsite systems replacement occurs where a major component of the well and/or septic system no longer functions as intended. A replacement will require DPS to issue a new permit for a new well, septic tank, and/or septic drainfield. Some septic system drainfield replacements can be considered as single replacements, where one new drainfield is feasible, but without the identification of reserve areas for future use. A full replacement for a septic system includes a new drainfield and an approved reserve area for future drainfields.
- Community Service – Community service is provided, if feasible, either where community service is already planned or where DPS determines that no reasonable onsite relief measure is feasible.

### **Public Health Problems – Existing and Potential**

Individual, onsite well and septic 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 insufficient drinking water supply.

Existing Public Health Problems: The determination by DPS that a property suffers from the failure of an onsite well or septic system to function as originally designed. Solutions for failed onsite systems may require a new well or septic system permit. New septic system permits are required for the replacement of the septic tank and/or drainfield or pit. In other cases, a repair, such as the replacement of a broken pipe, or change in use or maintenance, may suffice to address the failure.

Potential Public Health Problems: The expectation, based on a determination by the County, that the replacement of existing onsite wells and/or septic systems may not be capable of supporting existing development, resulting in future public health problems. Early identification of areas or neighborhoods where these conditions exist may result in corrective measures that will help to avoid future individual systems failures.

### **Sanitary District**

The entire area where the responsibility of providing community water and sewer service as identified in this plan falls to a single agency. The Washington Suburban Sanitary District (WSSD), which encompasses most of Montgomery and Prince George's Counties, is served by the WSSC as defined in State laws establishing WSSC. Two areas within the County are excluded from the WSSD:

- The Rockville Municipal Service Area, served by the City of Rockville's community water and sewerage systems; this service area does not always coincide with the City's corporate limits. (See Chapter 1, Section II.F.8.)
- The Poolesville Municipal Service Area, coincides with the Town of Poolesville corporate limits and is served by the Town's community water and sewerage systems.

### **Septic System**

An underground system that collects, treats, and safely disposes of sewage from a residential, an institutional, or a commercial user, most often 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. Liquid effluent from the tank flows into an underground **septic 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 table.

Several different types of septic system are in use throughout the county. For additional information, please refer to Chapter 1, Section III.C.2.

### **Sewer Service Area**

That area served, or potentially served, by a system of sanitary sewers connected to a treatment plant, or, in a very large system, sub-areas as delineated by the County.

### **Special Water or Sewer Service Area**

An area designated by the County Council where the provision of community water and/or sewer service is approved to provide relief for existing failures and/or potential health problems. Special service areas may be located either within or outside the planned community service envelopes.

### **Systems Development Charge (SDC)**

A fee paid by new users of the WSSC's water and sewerage systems which WSSC uses to partially fund the capital cost of water and sewer system growth and improvement.

### **Water Service Area**

That area served, or potentially served, by a single distribution system under control of a single utility, or, in a very large system, sub-areas as delineated by the County.

### **Water/Sewer Service Connection**

The portion of the service pipe for a structure located between the local service main and the property line, or between the main and the sanitary easement for the main. Within the WSSD, the house connection is the responsibility of the WSSC. 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>).

Abutting Service Connection: A service connection constructed at a right angle to a service main running directly to 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 the sewer main.

Non-Abutting Service Connection: A service connection used by WSSC in cases where an existing community system water or sewer main does not directly abut a customer's property. They are typically used in cases where an intervening property blocks access to the main, or where a service connection, built at a 90 -degree angle to the main providing service, will not intersect with the user's property line. Some abutting sewer connections are provided from sewer manholes, allowing them to be constructed perpendicular to the manhole and not at an angle of 90 degrees to the sewer main. Additional information and an illustration are provided in Chapter 1, Section II.A. & Figure I-F4.

### **Water/Sewer Site Utility**

The portion of the service connection for a structure located between the property line and the structure served. A single water or sewer site utility may serve more than one structure on a given property. In exceptional cases, site utilities may also be located within an easement on an adjacent property; these site utilities are installed in some cases where WSSC allows service from a non-abutting connection." Within the WSSD, the site utility is the responsibility of the property owner. Water and sewer site utilities were formerly referred to as "hookups."

### **Water/Sewer Service Area Category**

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.

### **Water/Sewer Service Area Category Conditions and Restrictions**

The following special service conditions and restrictions are used on the County's water and sewer service area category maps and in the service area category database: Space limitations on most map presentations require the use of shortened notes, as provided in the following table, to represent somewhat more involved, corresponding concepts.

<b>Table A-T1: Water/Sewer Service Area Category Conditions and Restrictions</b>		
<b>Map/Database Note</b>	<b>Applies to</b>	<b>Explanation</b>
Abutting Dry Main	Water & Sewer Categories	A dry water or sewer main, intended for future community service, abuts this property. The main is not currently in service as it is not connected to the community water system.
Affected by Public Improvements	Water & Sewer Categories	Community water or sewer service is provided where public infrastructure improvements such as road construction will adversely affect the property's individual, on-site well. *
Cluster	Water & Sewer Categories	Community water or sewer service is limited to properties established under an approved cluster option only (RE-1, RE-2C, RC Zones).
Conditional Approval	Water & Sewer Categories	A conditional water or sewer category change approval is pending final action (see action document for details).
Deferred	Water & Sewer Categories	A decision on a requested water or sewer category change is pending before the Council (see action document for details).
Health-Predates CWSP/Envelope	Water & Sewer Categories	Community water or sewer service, addressing a public health problem, existed prior to the service envelope established in the Water & Sewer Plan. *
Interim On-Site System	Water & Sewer Categories	The property is approved for an interim (non-permanent) permit well or septic system.
Multiuse System	Water & Sewer Categories	The property is approved for a multiuse (large-capacity) on-site water supply or wastewater disposal system. The multiuse system has a design capacity of at least 1,500 gallons per day. An inventory of multiuse water supply and sewerage systems is provided as Appendix B in the Water and Sewer Plan.
No Hookup Allowed-Abutting	Water & Sewer Categories	Community water or sewer service cannot be provided from the main abutting this property. The service hookup, allowed for the original abutting parcel, was approved for another qualifying property.
Non-Standard Onsite System	Only Sewer Categories	This property is approved for a non-standard, individual onsite septic system (alternative or innovative system, substandard system, holding tank). <i>(Does not apply to water service area categories.)</i>

<b>Table A-T1: Water/Sewer Service Area Category Conditions and Restrictions</b>		
<b>Map/Database Note</b>	<b>Applies to</b>	<b>Explanation</b>
Oaks Agreement	Only Water Categories	Community water service provided under the County's agreement with local property owners to provide water service in the vicinity of the Oaks Sanitary Landfill near Laytonsville. *
Onsite System Reg. Changes	Water & Sewer Categories	Community water or sewer service is provided to a property affected by changes to on-site water supply systems regulations. *
Other (Contact DEP)	Water & Sewer Categories	Other or multiple service conditions or restrictions apply to this property; please contact DEP staff for additional information.
PIF	Water & Sewer Categories	Community water or sewer service is provided for use only by a private institutional facility (PIF) only; see action document. *
PIF-Specified User	Water & Sewer Categories	Community water or sewer service is provided for use only by a private institutional facility (PIF) only. The approval action further restricts service to only a single, specified user; service for any other user is not allowed without a subsequent amendment to the Water and Sewer Plan. *
Piney Br. Sewer Agreement	Water & Sewer Categories	Community sewer service is provided under the conditions of the Piney Branch Restricted Sewer Access Policy, as established by a covenant including the Piney Branch Sewer Agreement. *
Piney Br. Single Property	Only Sewer Categories	Community sewer service is provided for a single existing property under the conditions of the Piney Branch Restricted Sewer Access Policy. No subdivision or resubdivision of the property is allowed without a subsequent amendment to the Water and Sewer Plan. *
Potomac Peripheral Sewer Service	Only Sewer Categories	Community sewer service is provided for properties at the edge of the master plan's recommended sewer service envelope. This designation does <u>not</u> create an expansion of the recommended sewer envelope. * <i>(Does not apply to water service area categories.)</i>
Predates CWSP/Envelope	Water & Sewer Categories	Community water or sewer service existed prior to the service envelope established in the Water & Sewer Plan. *
Predates Master Plan	Water & Sewer Categories	Community water or sewer service was provided or committed prior to current master plan recommendations and/or community service policies. *
Public Facility	Water & Sewer Categories	Community water or sewer service is provided only for use by a public facility. *
RNC Optional Cluster	Water & Sewer Categories	Community water or sewer service is limited to properties established under an approved RNC Zone optional cluster method only. Properties not approved for community service (open space and some conservancy lots) retain category W-6.
Single Hookup-Child Lot	Only Water Categories	Community water service is provided for a child lot only. * <i>(Child lots are sometimes allowed in low-density areas for the child of the owner of a larger property.)</i>
Single Hookup-Abutting	Water & Sewer Categories	Community water or sewer service is restricted to one water hook up only under the abutting mains policy. *
Single Hookup-Health	Water & Sewer Categories	Community water or sewer service is restricted to one water hook up only for relief of a public health problem. *

<b>Table A-T1: Water/Sewer Service Area Category Conditions and Restrictions</b>		
<b>Map/Database Note</b>	<b>Applies to</b>	<b>Explanation</b>
Single Hookup-Piney Br. Abutting	Only Sewer Categories	Community sewer service, restricted to only a single sewer hookup, is provided under the abutting mains provision of the Piney Branch Restricted Sewer Access Policy. The provision of this sewer hookup cannot be used to promote subdivision or resubdivision of this property. *
TDR	Water & Sewer Categories	Community water or sewer service is limited to properties established under an approved TDR development option only.
Utility Service Error	Water & Sewer Categories	Community water or sewer service is provided due to a service error by the utility. *
* 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.		