

ADOPTED 2018 WATER AND SEWER PLAN

CHAPTER 5 RURAL SANITATION

This chapter describes the policies and regulations pertaining to installation and retrofitting of onsite wells and sewage disposal systems. The Prince George's County Department of Permitting, Inspections and Enforcement (DPIE) and the Prince George's County Health Department (Health Department) administer the permitting and inspections of wells, and individual and shared onsite sewage disposal systems.

5.1 ONSITE WATER AND SEWER SYSTEMS

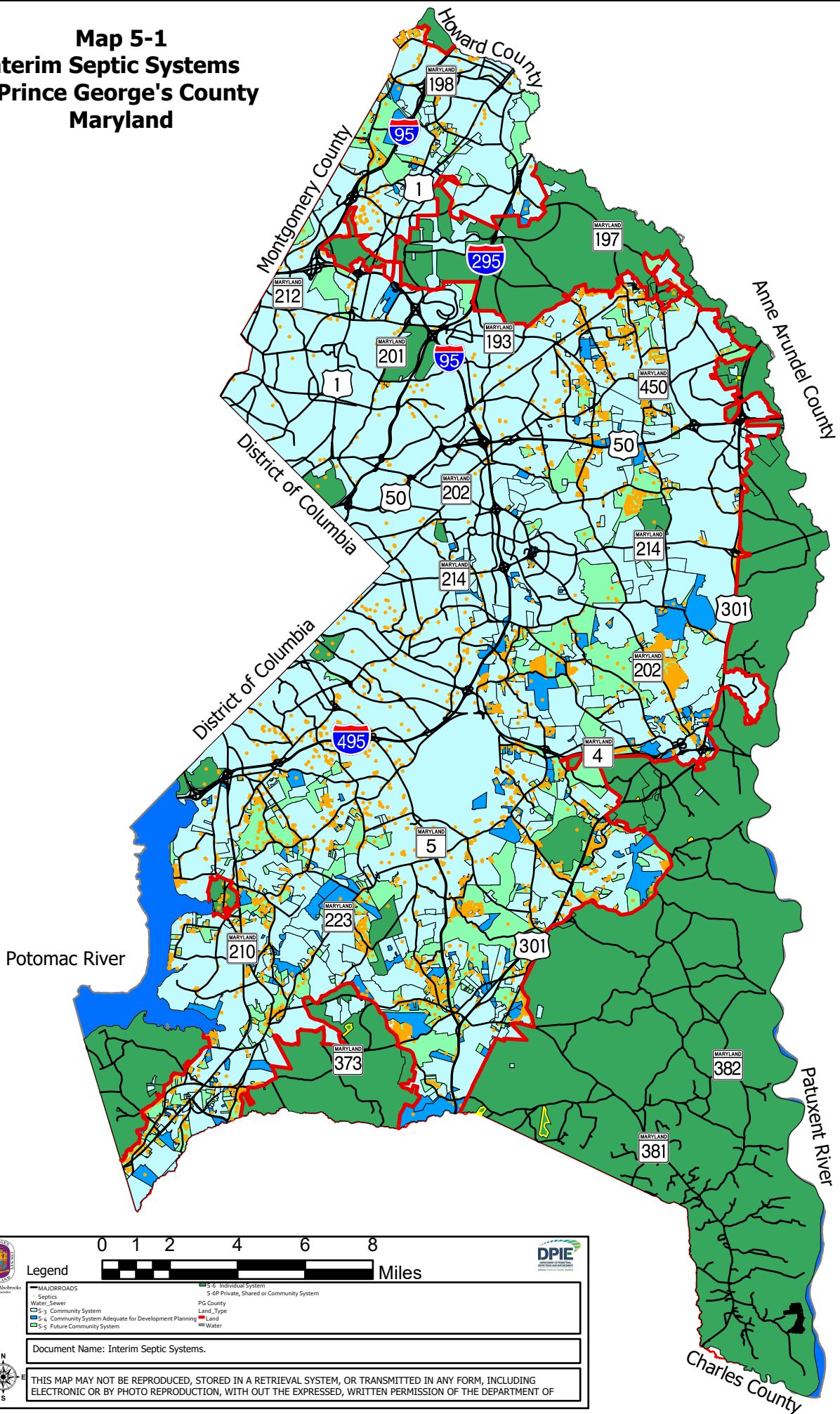
Onsite systems are defined as water supply wells and sewage disposal systems that are located on the property that they serve. There are thousands of properties served by onsite systems in the County. DPIE and the Health Department approve, permit, and maintain records of these systems.

Any onsite potable water supply or sewage disposal system with an average annual capacity of 5,000 gallons per day is considered a community system and must be included in the Water and Sewer Plan. Water withdrawal for nonpotable uses such as agriculture, dewatering, or remediation of contaminated groundwater do not require inclusion in the Plan provided the annual average flow does not exceed 10,000 gallons per day, and there is no anticipated impact to existing or potential potable water supplies.

As a general rule, an onsite water supply or sewage disposal system shall be installed in the County where public water and sewer facilities are not available. These areas are primarily located outside the Sewer Envelope and designated in Category 6. However, the installation and use of temporary or interim individual systems in areas other than Category 6 may be necessary where public water and sewer facilities are either not adequate or not available until economic or engineering constraints can be overcome. **Map 5-1**, Interim Septic Usage, depicts the current distribution of individual – interim septic systems usage inside the Sewer Envelope, in Sewer Category 5, 4 and 3. This map may be amended by DPIE as properties connect, or when found to have connected to the public sewer system (See Section 5.2.5 Interim Systems, et al). The use of new, innovative and alternative technologies may be encouraged in order to reduce demand on the sewage treatment system. The County has not maintained a map for individual wells.

The County Health Department will explore all options to solve existing health hazards with onsite sewage disposal systems; however, existing health hazards may require that a subdivision or individual property be connected to an existing community system regardless of the designated water and sewer category. Under conditions of an existing or anticipated health hazard, the County Health Department may require a subdivision or individual properties to connect to an existing community system regardless of the designated water and sewer category. If a community water and sewer system is not economically available to remediate a health hazard, then the County Health Department will require the repair, remodeling or replacement of the existing well or sewage disposal system that is posing a health hazard. If the health hazard cannot be abated through replacing or repairing the onsite system, the Health Department will invoke other measures to ensure that the health hazard has been abated.

Map 5-1 Interim Septic Systems Prince George's County Maryland



Angela D. Alford
Chief Executive

0 1 2 4 6 8 Miles

Legend	
	MAJORROADS
	Septics
	Water_Sewer
	Community System
	S-a Community System Adequate for Development Planning
	S-s Future Community System
	PG County Land Type
	Land
	Water
	S-s Individual System
	S-GP Private, Shared or Community System

Document Name: Interim Septic Systems.

THIS MAP MAY NOT BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, INCLUDING ELECTRONIC OR BY PHOTO REPRODUCTION, WITH OUT THE EXPRESSED, WRITTEN PERMISSION OF THE DEPARTMENT OF

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5.2 ONSITE SYSTEMS FOR NEW CONSTRUCTION

5.2.1 Conventional Systems

Conventional onsite sewage disposal systems are to be used in the areas outside the Sewer Envelope where there is no planned community service. They are specifically required for lots created through the State's subdivision regulations found in the Code of Maryland Regulations (COMAR 26.04.03). In general, conventional onsite sewage disposal systems are permitted provided they are in compliance with the applicable code (COMAR 26.04.02), and the Prince George's County Code (Subtitle 22).

Conventional sewage disposal systems typically incorporate the use of septic tanks and an accompanying drain field, dry well or sand mound system. As of January 1, 2013, all new construction within the Chesapeake Bay Critical Area requires the installation of Best Available Technology (BAT) for the reduction of nitrogen treatment tanks. These systems can incorporate a combination of features such as aeration, agitation, recirculation, filtration, chemical treatment, etc. in order to improve the quality of the effluent discharged from the system and lessen the environmental impact on the waters of the State, including the Chesapeake Bay. Residents in other areas of the County may, if they choose, install BAT tanks, but are not required at this time.

The feasibility of these systems is determined through onsite percolation testing of the soils. Percolation test rates normally distinguish conventional disposal systems from alternative or experimental systems which may be constructed in less permeable soils. Subtitle 22 of the Prince George's County Code specifies the minimum satisfactory percolation test requirements necessary for delineating the sewage disposal recovery area for any individual lot.

Applications to perform percolation tests and to obtain permits for onsite sewage disposal systems shall be filed with the County Health Department through the License Office at the Department of Permitting, Inspections and Enforcement (DPIE). When applying for percolation testing, the applicant shall submit a site plan detailing the proposed development of the property. A percolation test application remains active until all tests are completed for the proposed property. For lots where site conditions dictate the use of an innovative and alternative disposal system (I&A), a separate I&A percolation test application must be filed.

Most percolation testing conducted in the County occurs during the "wet season" that normally begins February 1 and ends April 30 of each year. The County Health Department determines when properties can be tested depending on the various types of soils on the property. Several soils within the Prince George's County Soil Survey are classified as severely limited for the installation of sewage disposal systems due to high water tables, perched water tables, seasonally high water tables, excessive slopes, and flood hazards. The predominance of any one or a combination of types of soil with these limitations, on or in close proximity to the property, determine whether a property has to be tested during the wet season or may be tested at any time of the year.

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Preliminary plan approval of subdivisions utilizing conventional septic systems must show for each lot a minimum 10,000 square foot sewage disposal area based on at least two satisfactory percolation tests. The preliminary plan must also show the location of any proposed wells and the topography at two-foot interval contours.

In addition to onsite water supply wells, the Health Department also issues permits for geothermal, remediation and monitoring wells under COMAR 26.04.04. Applicable regulations governing well and sewage disposal system permits and installation procedures are obtained through the Prince George's County Health Department, Division of Environmental Health/Disease Control, Environmental Engineering/Policy Program.

5.2.2 Abandonment Policies

The abandonment of a well or a sewage disposal system must comply with appropriate State laws and regulations in order to prevent them from acting as conduits of contamination to the waters of the State and to help eliminate health and safety hazards. Proper abandonment of the old wells and septic systems is required for any new development, and is often a condition of a preliminary subdivision approval. The State regulation, COMAR 26.04.04, requires that wells be backfilled and sealed by a licensed well driller or witnessed by a representative from the Division of Environmental Health of the County Health Department. The abandonment of a septic system must be done in a manner to ensure that it cannot be used again, and that it does not become either a health or safety hazard. To comply with the Code, the septic tank must be pumped out by a licensed scavenger and either backfilled in place or removed. Owners or developers are required to contact the Health Department if other portions of the septic system are to be disturbed.

5.2.3 Shared Onsite Water and Sewer Facilities

Prince George's County supports the use of shared water and sewer facilities in areas of the County that are outside the Sewer Envelope. Shared facilities often allow development of these areas consistent with the County's land use plans such as conservation subdivisions, while assuring the protection of sensitive areas and preventing contamination of ground and surface waters.

Shared facilities are community systems of limited size, utilizing onsite wells and or sewage disposal systems serving two or more lots. Shared facilities are governed by COMAR 26.04.05. According to COMAR, all shared facilities must be managed and operated by a governmental entity called a "controlling authority." This entity provides management, operation and continuous preventive and corrective maintenance of the shared facility. In Prince George's County, the controlling authority shall be a third party entity acceptable to the County Health Officer. As the approving authority, the Health Department cannot be a controlling authority.

The shared facility must be approved by the County Health Department and, should the shared system exceed 5,000 gallons per day, by the Maryland Department of the Environment (MDE). It must meet all applicable State and County regulations, including those of WSSC and M-NCPPC. Prior to submittal of a preliminary plan, a concept design plan for a shared sewage disposal system and/or shared water supply facility must be submitted to the Health Department.

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For a shared sewage disposal system, the plan shall include the shared sewage disposal easement area(s) delineated by satisfactory percolation tests and water table observation holes. The plan must also show the proposed location of gravity and force sewer mains, the projected locations of sewage and pump tanks, and the treatment facilities. The concept design for a shared water supply facility is to show the well location(s), water mains, and necessary storage and treatment facilities. In accordance with the Public Utilities Article of the WSSC District Laws, the design and construction of the components of the shared facilities shall meet all relevant WSSC design and construction standards for the benefit of public health and welfare. WSSC shall review and approve treatment systems, excluding septic treatment and disposal systems; and, regardless of the type of treatment system, shall review and approve all on-site piping.

Prior to record plat approval for shared sewage disposal systems, the Health Department must receive a detailed site plan depicting the exact location of the force and gravity mains, the proposed treatment facilities and the sewage disposal area. In addition, an approved MDE ground water discharge permit must be obtained for any shared sewage disposal system that exceeds 5,000 gallons per day. For shared water supply facilities, the site plan shall detail the location of the proposed wells that are to be used as the shared water source. The plan must also show all water supply lines and the location of water treatment facilities. A water appropriation permit will be required from MDE prior to record plat approval. Test wells are likely required before the issuance of the water appropriations permit. All shared facilities must be approved as an amendment to the Water and Sewer Plan prior to final plat approval. Agreements with the controlling authority must be reviewed and approved by the County and the MDE prior to final plat approval. Shared facility agreements shall clearly specify the rights, duties, and responsibilities of the system owners and the controlling authority, both financially and operationally, to assure perpetual operation of the system(s) and clarify the roles of the State and local health authorities to inspect the system(s) as WSSC has no intention of assuming ownership or operation and maintenance responsibilities. DPIE and the Health Department must cosign final plats of subdivision for properties using shared facilities.

5.2.4 Alternative Systems

Alternative systems allow development of lots recorded in the land records of Prince George's County that are determined to be compatible and consistent with County growth policies including the General Plan Rural and Agricultural Areas Strategies for conserving agricultural and forest resources. Alternative systems must also conform to percolation rates specified in the MDE guidance memorandum "Alternative Onsite Sewage Disposal Systems," dated September 28, 1994. Types of alternative systems include:

- At-grade mound
- Sand mound
- Enhanced pretreatment system
- Waterless toilet/graywater system
- Shallow low-pressure distribution system
- Shallow alternating trench system

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Alternative systems require more intensive site review, installation inspection, and operational maintenance than conventional types of disposal systems. Conditions for approval of alternative systems are as follows:

1. Approval for these systems rests with the County Health Department with assistance from the staff of the MDE.
2. Alternative systems must meet the same criteria as conventional systems for setback distances, recovery areas and unsaturated treatment zones.
3. The property owner, the County Health Department, and MDE must sign an Agreement and Easement document to be recorded in the County Land Records and returned to the Health Department. The Agreement and Easement document establishes the regulatory conditions associated with the alternative system, necessary operational and maintenance requirements, and allows access for monitoring by State and County personnel.

5.2.5 Interim Systems or Waivers for Wells and Septic Systems

Interim Systems are used in areas of Prince George's County where there is an expectation that public sewer and water will eventually serve the property, but is currently unavailable. This does not include the Rural and Agricultural Areas where permanent systems are expected to serve the property. DPIE manages the approval of interim systems through a waiver process based on recommendations from the Health Department and WSSC. Waiver application forms may be obtained from DPIE (see Chapter 6). Interim Systems will generally be approved only for individual single-family homes or minor subdivisions as defined in Section 24-117 of the County Code. Percolation tests may be conducted prior to a waiver application. Construction trailers can use temporary wells and sewage disposal systems without an interim system approval if they are on sites that will ultimately be served by public water and sewer.

A waiver to install an interim onsite water and sewer system may be granted by DPIE provided that:

- A. The applicant meets all the requirements specified above for conventional or alternative systems.
- B. The cost of service connection to the community system substantially exceeds the Health Department's estimate of the cost of constructing an individual system. WSSC shall determine the availability and adequacy of water and sewer service based on transmission and treatment capacities, or economic and engineering constraints. Where WSSC finds that service cannot be provided, it shall inform DPIE of the limitations and develop a projected cost estimate to provide service to the property in question.

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- C. Once public water and sewer is made available to a lot, the property owner may continue using the interim system, but must connect within one year of the line being placed into service and abutting the property.
- D. In the event of malfunction of the interim system, it will be the property owner's responsibility to abate the health hazard by replacing or repairing the existing system under Health Department oversight. However, if the community system is available and accessible, the property must connect to the community system.

5.3 SEWAGE DISPOSAL SYSTEMS FOR EXISTING STRUCTURES

The Prince George's County Government will generally require connection of an existing occupied residence to public sewer systems to address public health issues. If public sewer is not available, the County Health Department will pursue the installation of a conventional or alternative sewage disposal system. Failing systems in the Chesapeake Bay Critical Area must be remedied with a Best Available Technology (BAT) system for the reduction of nitrogen or connection to the public sewer leading to a wastewater treatment plant which has incorporated Enhanced Nutrient Reduction (ENR) technologies.

5.3.1 Experimental and Innovative Sewage Disposal Systems

Should the installation of conventional or alternative sewage disposal systems not be possible due to poor soil characteristics or high ground water tables, the County supports the use of innovative sewage disposal systems when such systems are considered to be economically and environmentally acceptable. The County government endorses continuing research that would provide data useful in determining the suitability of various innovative systems to the County's natural environments. One provision of the MDE guidelines specifies the need for a maintenance contract to ensure the continued operation of these more complex systems. Further information can be obtained from the Prince George's County Health Department, Environmental Engineering/Policy Program.

5.3.2 Holding Tanks

A holding tank is a watertight tank with sufficient capacity to receive and retain at least one week's volume of sewage flow. A holding tank must be emptied on a regular basis by a licensed scavenger. The County shall not authorize the use of a holding tank for new construction. Rather, it is an acceptable means of sewage disposal when a malfunctioning sewage disposal system cannot be repaired or renovated, until such time as public sewer or some other acceptable disposal method can replace the system.

5.3.3 Chemical Toilets

A chemical toilet is a self-contained unit that directs human waste into a watertight tank containing deodorizing and liquefying chemicals. A chemical toilet will be accepted for use at temporary events not exceeding 14 days in length and on construction sites during the actual

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construction phase. The Health Department may also accept the use of chemical toilets in parks owned by governmental agencies.

5.3.4 Upgrade of Existing Sewage Disposal Systems

Sewage disposal systems that are required to be upgraded to meet anticipated increases in sewage flow must comply with requirements for conventional or alternative sewage disposal system, before the Health Department can approve the increase in sewage flow. The Department's determination that the system can be upgraded will be based on the projected increase in the size of the disposal system and the capability of the property to support that increase. The projected sewage flow, percolation test information, capacity and design of the existing system, and the amount of available land to upgrade the system will be contributing factors in making that determination.

5.4 FUNDING FOR ON-SITE SYSTEMS

The County Health Department is delegated responsibility to administer funding from the State's Chesapeake Bay Restoration Fund (BRF). Successful applicants for such funding may have the cost of BAT tank purchase and installation (including the system's initial year(s) of periodic operations and maintenance inspections) paid by the BRF. Funding may also be applied to the connection of an existing domestic dwelling with a failing septic system to the public sewerage system. Interested parties should contact the Health Department's Division of Environmental Health/Disease Control, Environmental Engineering/Policy Program for further information and an application.

5.5 CONTRACTOR SERVICES

The Health Department, pursuant to Prince George's County Code, Subtitle 22, issues annual licenses to persons performing sewage system related services, i.e., percolation testing, sewage disposal system installation and scavenger companies. The Department also performs annual inspections to certify the suitability of scavenger vehicles to WSSC as a condition of their being allowed to collect and discharge septage to WSSC treatment facilities. Where transfer of septage from small capacity trucks to larger vehicles is carried out, such activity shall be listed in this Water and Sewer Plan.

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