

# 2018

# Water & Sewer Plan





Department of Permitting, Inspections and Enforcement Site/Road Plan Review Division Water/Sewer Unit

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# Adopted 2018 Water and Sewer Plan

Ten-Year Plan for Water Supply and Sewerage Systems

Prince George's County, Maryland



# PRINCE GEORGE'S COUNTY, MARYLAND

# ADOPTED OCTOBER 8, 2019

# 2018 WATER AND SEWER PLAN

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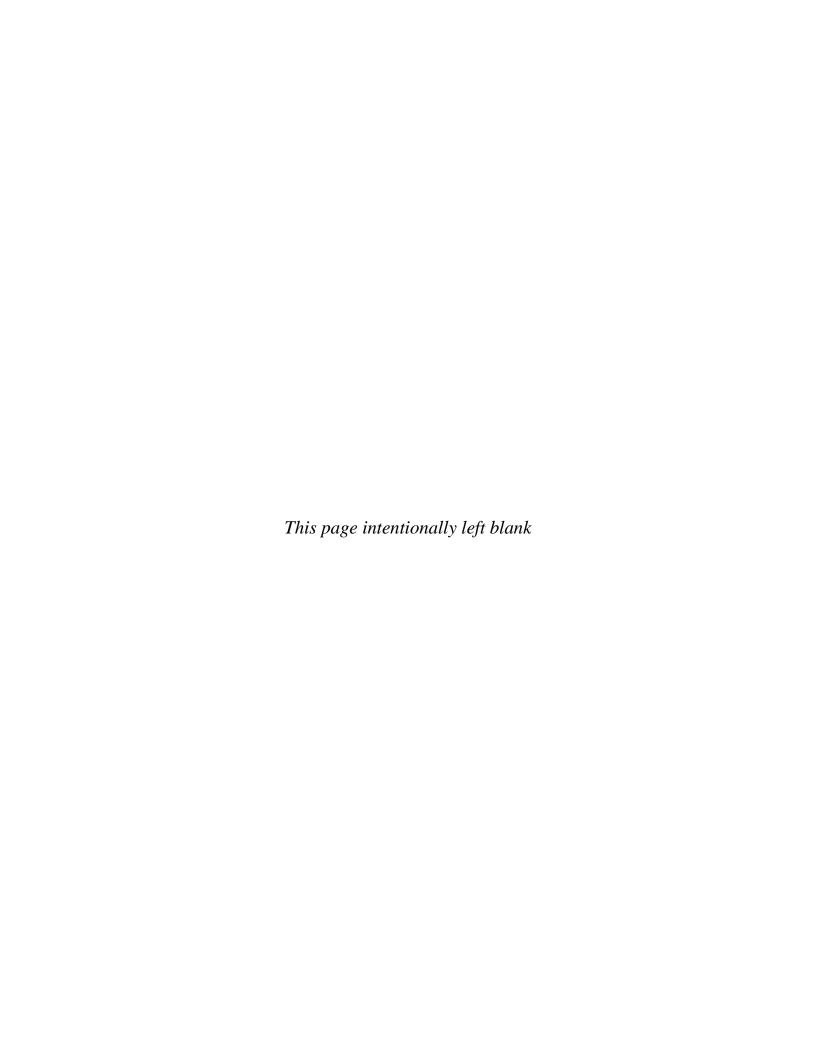
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# 2018 Water and Sewer Plan Summary of Changes

#### 1) Coordination with new County plans and policies

One of the primary goals for water and sewer planning is to assure consistency with all county and local plans and policies and to ensure adequate water and sewer services to the residents of the County. Since the 2008 Water and Sewer Plan, several new planning and policy documents have been adopted and published in Prince George's County. Throughout this document, all efforts are made to incorporate language from the General Plan adopted in 2014 as "Plan Prince George's 2035," area and functional Master Plans, the Water Resources Plan, the Green Infrastructure Plan, the Sustainable Growth Act, and to implement elements of sustainable practices.

#### 2) Improvements to environmental sustainability

The 2018 Water and Sewer Plan recommends strategic planning for sewage treatment and transmission capacity to ensure long-term water quality in our streams and rivers. The Plan also acknowledges the Sanitary Sewage Overflow (SSO) Consent Decree requiring immediate improvements and incorporates new information on biosolids management to include a storage lagoon and potential digesters.

#### 3) Map revisions and category adjustments

- The Water and Sewer Category maps approved with the 2018 Plan will include all amendments adopted since CR-91-2008, and up to and including CR-044-2019. Maps also incorporate amendments to bring the service categories in compliance with Plan 2035 recommendations and policies.
- Revisions to the Sewer Envelope boundary correlate to that of the Growth Boundary, as adopted with the General Plan, and as amended through Sectional Map Amendments (SMA) and Subregion Master Plan Amendments (incorporated within *Plan 2035*), since the adoption of the 2008 Water and Sewer Plan.
- The 2018 Plan redesignates properties previously located outside the Sewer Envelope into the Growth Boundary (*or inside the Sewer Envelope*), and into Category 5 Future Community Systems. Additionally, properties outside the Sewer Envelope that predate this Plan that have not met requirements for the appropriations, have been reclassified to reflect existing conditions. The M-NCPPC has redesignated properties previously inside the Sewer Envelope to outside the Growth Boundary that will effectively be redesignated to Category 6 Individual Systems upon adoption of the 2018 Water and Sewer Plan.
- Properties outside the Sewer Envelope boundary being served or to be served by shared facilities or community systems are shown outlined in Category 6, rather than as Category 3 Community System, which is generally "interpreted as public" for

properties inside the Sewer Envelope. This eliminates confusion as to the type of service afforded the property by clearly reflecting its preferred designation.

- 4) Administrative Changes to the Amendment Process
  - The 2018 Plan proposes to enhance plan amendment criteria to coincide with recommendations of Plan 2035 relating to land use planning. All residential development shall be evaluated for its fiscal impact on County services, public facilities, and residential capacity. All amendment requests must adhere to the established Water and Sewer Plan, Plan 2035 policies, functional master plans, and existing development review processes.
  - The 2018 Plan proposes an increase in the number of legislative amendment cycles from tri-annual to quaternary filing, with administrative amendment cycles on a continuous monthly basis.
- 5) General updates and corrections
  - All data has been reviewed and updated in accordance to County planning and policy documents.
  - The 2018 Water and Sewer Plan includes new maps on:
    - o General Plan Tiers
    - Sustainable Growth Act Tiers
    - o Flood Plains/Watersheds
    - Suitable/Unsuitable Soils
    - Geologic Formations
    - o Land Use
    - Zoning
    - o Public Facilities
    - Water Quality Criteria
  - The fee structure has been updated to reflect the actual cost of administering the water and sewer program with an eye towards maintaining a cost competitive posture with our neighboring jurisdictions.
  - The Water and Sewer Category maps associated with the 2018 Plan have been updated to include all amendments since the adoption of the 2008 Water and Sewer Plan (CR-91-2008), as well as corrections of known drafting errors.

This version of the 2018 Water and Sewer Plan has been pre-reviewed by staff at Maryland Department of the Environment (MDE) and the Maryland Department of Planning (MDP) and has been found to be compliant with the adopted General Plan. Recommendations by the respective departmental staff are included in this version, effective September 25, 2018.

#### **Indexed Summary of Changes**

#### **Chapter 1, Introduction**

This chapter sets the goals and responsibilities for water and sewer planning in Prince George's County. The State and local legal requirements are also included, as are the various government responsibilities. This chapter also describes the State mandate and intergovernmental agreements setting the framework for water and sewer planning. Sections within this chapter that have been substantially revised or added are summarized herein.

<u>Section 1.3 Government Responsibilities</u>, summarizes agency responsibilities under the Water and Sewer Plan and incorporates the Department of Permitting, Inspections and Enforcement (DPIE) as the delegated agency to manage the Water and Sewer Plan.

<u>Section 1.3.1 Intergovernmental Agreements Relating to the Plan</u> includes updated information on agreements, such as the 2012 Intermunicipal Agreement (IMA), ratified on April 3, 2013, and new or revised agreements with the City of Bowie, Charles County, and Howard County.

<u>Section 1.3.3 Other Related Agreements</u> clarifies the purpose of the Chesapeake Bay Agreement (2000) as a goal for reducing nutrient loadings in the Chesapeake Bay and as a guide for restoration activities.

<u>Section 1.3.4 Consent Decree</u> summarizes the agreement between the Department of Justice, the Environmental Protection Agency, the State of Maryland and the Washington Suburban Sanitary Commission (WSSC) in response to the Clean Water Act litigation, and the responsibilities of the WSSC under a 12-year action plan.

#### **Chapter 2, Framework for Water and Sewer Planning**

Chapter 2 outlines the policies and procedures for water and sewer planning, including the water and sewer categories, category change policies, and their connection to the County's development review process. It describes the basis for the County's water and sewer planning process by defining the natural environmental setting, community planning, and legal framework. In addition, the following sections are of particular interest in the development review process and contain revisions to policies and procedures.

<u>Section 2.1 Policies and Procedures for Water and Sewer Planning,</u> incorporates elements of the 2010 Water Resources Plan (WRP) to include assessing the status of each aquifer in the county for its capacity to accommodate future growth and the impact of development in adjacent counties on the aquifer. The WRP further enforces policies of the Sewer Envelope and Growth Tier boundaries.

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- Section 2.1.1 Sewer Envelope depicts the limit of planned water and sewer facilities and servicing. The Sewer Envelope coincides with the Growth Boundary adopted by Plan 2035. Consequently, some properties having been redesignated by Plan 2035 to be inside or outside the Growth Boundary will be redesignated accordingly to the staged service designation for properties inside or outside the Sewer Envelope.
- <u>Section 2.2 Natural Environment</u> introduces the 2017 Resource Conservation Plan, a functional master plan that combines the related elements of green infrastructure planning and agricultural and rural conservation to support a platform for sustainable growth. Plan 2035 targets the conservation of 1,500 acres annually, countywide.
- <u>Section 2.2.4 Water Quality Criteria</u> provides a glimpse of State and Federal requirements for protecting, maintaining and improving the quality of surface waters. A use table and Criteria Map are included in this Chapter.
- <u>Section 2.3.1 Role of the General Plan in Water and Sewer Planning</u> addresses the provision of public facilities, including water and sewer needed to serve existing and future county residents and businesses. This rewrite is consistent to recommendations and policies contained within the adopted General Plan, Plan 2035.
- <u>Section 2.3.2 Projected Growth Rate, Land Use and Zoning,</u> is updated to include data from the Planning Department's Round 9.0 Cooperative Forecasts, *2012*. New maps, required by Maryland Department of Planning (MDP), on Land Use, Zoning and Government Facilities may be found in this section.

#### **Chapter 3, Water Plan for Community Systems**

This chapter addresses the existing water systems and facilities, including water resources, treatment and transmission issues, current demand, financing and planning for future needs. The sections contained herein address current water-planning issues.

- Section 3.2 Treatment and Transmission. Three new storage facilities are identified in the WSSC FY 2018-2023 Capital Improvement Program (CIP), and three old standpipes were demolished. This section summarizes design plans and data for the new facilities.
- <u>Section 3.2.6 Water Reclamation (Reuse)</u> discusses the innovative practice of recycling reclaimed water for beneficial use or a controlled use under MDE guidelines. It further defines the types of reclaimed water proposed for non-potable purposes that may be considered in requests for green building design in commercial and industrial facilities.
- <u>Section 3.3.2 Water Loss Reduction Plan (2010 2017)</u> includes new information on the efforts of Total Water Management, based on ten practices recommended by the American

Water Works Associated (AWWA) Manual M36. Excerpts may be found as Appendix 3-3 of this Chapter.

<u>Section 3.3.3 WSSC Water Conservation Plan (2010)</u> documents WSSC long-term water resources management goals. Excerpts of this plan may be found as Appendix 3-4 of this Chapter.

<u>Section 3.4 Water Supply Source Programs and Policies</u> discusses agreements among the region's utilities describing how water is distributed and used during drought conditions.

#### **Chapter 4, Sewer Plan for Community Systems**

Chapter 4 describes the existing public sewer systems, policies, financing and biosolids management issues and analyzes the future capacity demands. Also found in the sections below are emerging sewer-planning issues, to include the Bay Restoration Fund Law.

<u>Section 4.1 Existing Sewer System</u> introduces Water Resource Recovery Facility (WRRF) which replaces the term Wastewater Treatment Plant (WWTP) for the three facilities located in the County and operated by the Washington Suburban Sanitary Commission.

<u>Section 4.2 Wastewater Treatment Plants Serving the County,</u> raises the issues of approaching capacity limitations at the plants, and sanitary system overflows in the transmission system. New permitting guidelines and criteria by which a Wastewater Capacity Management Plan must be submitted are discussed.

Section 4.2.1 Blue Plains Wastewater Treatment Plant confers the County's commitment to the terms of the 2012 Intermunicipal Agreement (IMA), providing for wastewater collection and treatment, and biosolids management for the Blue Plains service area. Additionally, discussed in this section is the Sanitary Sewer Overflow (SSO) Consent Decree, signed by WSSC on December 7, 2005, and amended on June 29, 2016. The deadline for completion of delayed work is February 9, 2022.

<u>Section 4.2.4 Piscataway Water Resource Recovery Facility</u> highlights a long-term agreement between Mattawoman Energy, LLC and the Washington Suburban Sanitary Commission for the purchase of treated effluent from the Piscataway WRRF for use at the proposed 990-megawatt power plant in Brandywine.

Section 4.3.2 Regional Water Quality Initiatives in the Chesapeake Bay Watershed incorporates the Bay Restoration Fund Law, the Enhanced Nutrient Removal (ENR) requirements, Total Maximum Daily Load (TMDL) restrictions, the Bay Restoration fee being collected from all residences and public utility customers (commenced in January 2005), and from private septic system owners (commenced in October 2005). Increased fees (from \$2.50 to \$5.00) became effective July 2012.

- <u>Section 4.3.4 Sanitary Sewer Overflows (SSO)</u>, describes the cause and effect of the overflows, enforcement actions by EPA, and improvements implemented by WSSC on its collection systems.
- <u>Section 4.3.5 Biosolids Management Plan for DC Water</u> identifies capital improvements needed and funding required in maintaining and complying with regulations.
- <u>Section 4.3.6 Unserved and Underserved Areas</u> gives a brief description of the problems that have created long term use of interim septic systems where public sewer lines were to have been constructed. The Bi-County Infrastructure Working Group's analysis and possible solutions to alleviate problem areas is excerpted as Plan Appendix G.

#### **Chapter 5, Rural Sanitation**

This chapter documents the regulations and policies pertaining to individual and shared water supply wells and septic systems. The Prince George's County Environmental Health Division of the Health Department updated this chapter, having oversight over such systems usage in the County.

- <u>Section 5.2.5 Interim Systems or Waivers for Wells and Septic Systems</u> discusses the use of such systems and defines the conditions under which the use is granted.
- <u>Section 5.3.1 Experimental and Innovative Sewage Disposal Systems</u> addresses use and procedures applicable for these systems.
  - <u>Section 5.3.2 Holding Tanks</u> addresses use and procedures applicable for these systems.
- <u>5.4 Funding for On-Site Systems</u> provides information on the availability of funding under the State's Chesapeake Bay Restoration Fund (BRF) for eligible applicants.
- <u>5.5 Contractor Services</u> introduces the issuance of licenses for persons performing sewage related services, i.e. percolation testing and system installation.

#### Chapter 6, Procedures for Adopting and Amending the Plan

Chapter 6 describes the Legislative and Administrative Amendment processes as well as the waiver process. The sections contained herewith reflect new policy or procedures incorporated into the 2018 Water and Sewer Plan administered by the Department of Permitting, Inspections and Enforcement (DPIE).

<u>6.3 Legislative Amendment Process</u> records the delegation of DPIE as the managing agency of the Water and Sewer Plan and amendments processes, and the frequency in which this process is held, increasing the number of "cycles" from tri-annual to quaternary.

<u>Section 6.3.1 Referral and Review Process</u> discusses the reviewing agencies and the response time to comment on applications. Reviewing agencies are given 15 days (a decrease from 30 days) to review and comment to DPIE on applications submitted.

<u>Section 6.4 Administrative Amendment Process</u> will allow applicants meeting the criteria to file on a continuous basis, however, will only be considered if the application is complete for the month in which it will have filed. Applications will still be grouped when possible.

<u>Section 6.5.1 Waiver Criteria – Connection to Public (Community) Water and Sewer</u> further clarifies and identifies individual residential properties and minor subdivisions (as defined and amended in the subdivision regulations) that meet the criteria to be eligible for this procedure. Revised Development Services Code 1102.1.1 dictates 200 feet for non-abutting connections, up from 100 feet in the previous code. This will limit the number of residential properties eligible for waivers and increase those requiring an extension via a category change.

<u>Section 6.5.2 Waiver Criteria – Use of Interim Individual Well and Septic Systems,</u> further clarifies and identifies individual residential properties and minor subdivisions (as defined and amended in the subdivision regulations) that meet the criteria to be eligible for this procedure. Revised Development Services Code 1102.1.1 dictates 200 feet for non-abutting connections, up from 100 feet in the previous code. This will limit the number of *non-developed* residential properties eligible for interim well and septic use in publicly designated areas. Consequently, *existing* residential properties will still benefit while the area does not have accessibility to public lines.

Appendix 6-1 Application Forms and Instructions, presents revised application forms for the processing of legislative and administrative amendments, waiver applications, and final plat approvals under the 2018 Water and Sewer Plan, policies and procedures. Applications are being reviewed and adjusted for online transmittal followed by one signed original. Electronic copies of applications are forwarded to reviewing agencies.

Appendix 6-2 Fee Schedule includes the fees associated with the plan amendment processes, maps and special requests of services. The fees have remained consistent since the adoption of the 2008 Water and Sewer Plan but should be reconsidered for increase. There is no need to distinguish between the developed and developing tiers, and therefore all fees are the same regardless of location. Fees are waived for public entities i.e., Federal, State, County and Municipal projects.

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