CHAPTER 1
INTRODUCTION

The Water and Sewer Plan is the embodiment of the County's goals, objectives and legal requirements for providing water and sewer service in Prince George's County. Together with other operational plans, such as solid waste, housing and transportation, the Water and Sewer Plan provides guidance for the implementation of the County's General Plan and area master plans as they relate to water and sewer service.

The Water and Sewer Plan (the Plan) documents existing water resources and wastewater treatment capacities, identifies needed mechanisms to meet future demand, and develops tools for sustaining these resources well into the future. The Plan serves as a tool to implement the land use plan found in the County's General Plan. It encourages the orderly expansion of the public water and sewer systems where appropriate and the use of private water and sewer systems where public service is not available or accessible.

The Water and Sewer Plan for Prince George's County acts as a statement of policy and as a working document. As a policy statement, the Plan implements the land use and development policies set by the County. As a working document, it guides the County planning and development processes by setting out the criteria under which both public and private water and sewer services can be provided.

The Water and Sewer Plan consists of two parts: the written plan and the maps. The Plan's text in Chapter 1 sets the goals and responsibilities for water and sewer planning in Prince George's County. Since the State of Maryland requires each County to prepare a Water and Sewer Plan, the State and local legal requirements are also included, as are the various government responsibilities. 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 environmental setting, community planning and legal framework. The water plan for community systems is covered in Chapter 3. It addresses the existing water systems and facilities, including water resources, treatment and transmission issues, current demand, financing, and planning for future needs. The sewer plan for community systems is included in Chapter 4. It describes the existing public sewer systems, policies, financing and biosolids management issues, and analyzes the future capacity demands. Chapter 5 documents the regulations and policies pertaining to individual and shared water supply wells and septic systems. The procedures and requirements to amend the Water and Sewer Plan and to amend water and sewer service categories are covered in Chapter 6.

The water and sewer maps play an important role in land use planning and development review. The maps reflect the official designation for all properties in the County water and sewer service categories, which determine if and when water and sewer service is available to the property. As category changes occur through the plan amendment process, the maps are regularly amended. The County maintains the water and sewer category maps in a Geographic Information

System (GIS) format. Small-scale maps are included as appendices to this Plan document. Special printouts can be obtained from the Department of Permitting, Inspections and Enforcement. See **Appendix 6-2** for the related fee structure.

1.1 LEGAL AUTHORITY

Maryland State law and implementing regulations govern the County's Water and Sewer Plan. The specific legal requirements are found in the Environment Article, Title 9, Subtitle 5, "County Water and Sewerage Plans," Sections 9-501 through 9-521 of the Annotated Code of Maryland, and in the Code of Maryland Regulations, Title 26, "Department of the Environment," Subtitle 3, Chapter 1, "Planning Water Supply and Sewerage Systems" (COMAR 26.03.01.01 - .08). The pertinent Federal and State legislation is further described in Chapter 2, and may be found as **Appendix A** and **Appendix B** of this Plan.

1.2 PLAN GOALS AND OBJECTIVES

The following goals for water and sewer planning comply with requirements in Maryland's Environment Article, Title 9, Subtitle 5, while others support the County's planning and development policies and affect interagency agreements. The goals and objectives fall into three categories:

Meet all regulatory requirements to ensure adequacy of the water and sewer system

- Provide for orderly expansion of community water supply and sewer systems.
- Provide for adequate treatment facilities.
- Ensure proper financing for and staging of construction and operation of programmed community water supply and sewer systems.
- Promote sustainable, cost-efficient water and sewer service in all parts of the County.
- Comply with all requirements of Maryland's Environment Article.

Support managed development in Prince George's County

- Enhance the quality of life and the economic well-being of the County and its residents by supporting land use policies and orderly development.
- Identify all physical, geographic and population factors that provide a framework to support water and sewer planning.
- Implement the goals of the Prince George's County adopted General Plan, "*Plan Prince George's 2035*," area master plans, functional master plans, all applicable County land use plans, and building practices.
- Meet the objectives of inter-agency agreements related to water and sewer planning.

Protect and enhance the environmental quality of Prince George's County through sound water and sewer planning

- Enhance environmental quality by ensuring proper utilization and sustainability of natural resources.
- Ensure that regulations and agreements are in place to protect the quality and quantity of water resources and wastewater discharge.
- Promote conservation principles to better manage our drinking water supplies.
- Ensure the integrity of the Sewer Envelope and Growth Boundary, and promote the use of shared systems and innovative, sustainable technologies in sensitive areas.
- Prevent contamination of any waters from any community or privately-owned water and sewer systems.

1.3 GOVERNMENT RESPONSIBILITIES

The Prince George's County Government exercises its powers of self-government under an adopted home rule charter. It consists of an elected County Executive to head the executive branch and an elected eleven-member County Council to exercise legislative powers. The organization of the executive branch of the Prince George's County Government is shown in **Figure 1**.

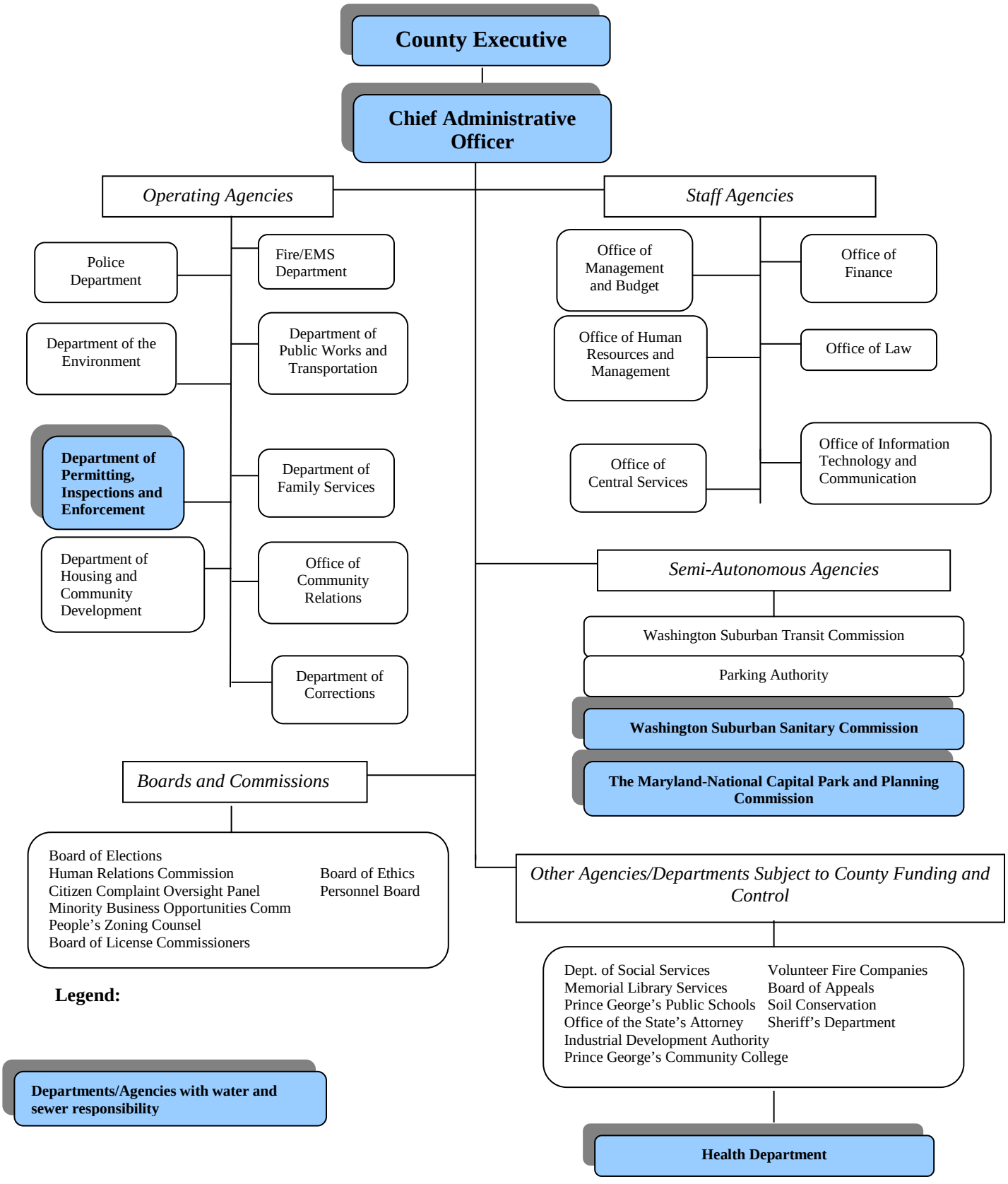
The State Environment Article, Title 9, Subtitle 5, outlines the administration of water and sewer planning for the County Executive and County Council.

County Executive - The County Executive has the responsibility for ensuring that the goals, objectives and legal authority are complied with, preparing the Water and Sewer Plan, and submitting the Plan and amendments to the County Council for its consideration and adoption. Within the Executive Branch of the County Government, the County Executive's responsibilities are delegated to the following agency:

Department of Permitting, Inspections and Enforcement (DPIE) – Executive Order No. 20-2012, a reorganization proposal created DPIE, an agency that would accommodate permitting, inspections, enforcement and various other functions in one agency. Council Bill CB-69-2012 implemented Executive Order No. 20-2012 and transferred permitting functions from the Department of Environmental Resources (DER) and other agencies to DPIE.

DPIE became the successor agency of the Department of the Environment, DoE, formerly the Department of Environmental Resources, DER, and the administration of the Water and Sewer Plan was effectively transferred to DPIE in July 2017. DPIE is responsible for preparing the Water and Sewer Plan and its amendments under the guidance of the County Executive and in accordance with State laws and regulations governing the County's water and sewer planning. In addition to its administration of the plan, DPIE provides information on use and occupancy, building permits, and inspections associated with development projects proposing to develop on public water and sewer systems or private well and septic systems.

Figure 1. Prince George's County Executive Branch



Additionally, DPIE reviews and approves street grade establishment, grading, storm drain, and stormwater plans, and inspection and code enforcement on site development projects.

The County Executive and the County Council also request the following County departments to review and comment on proposed amendments to the Plan:

Health Department - The County's Health Department provides information on soils, feasibility of using individual wells and septic systems, use of innovative and alternative on-site sewage disposal systems, preparation and listings of sanitary surveys, and other environmental health sanitation issues in Prince George's County.

Department of the Environment (DoE) - The County's Department of the Environment formerly the Department of Environmental Resources, DER, is the result of Executive Order No. 10-2014, a reorganizational proposal that changed the name to more accurately reflect the functions of the department as the environmental steward. Council Bill CB-32-2014 was enacted to implement Executive Order No. 10-2014, distinguishing the department from its former identity as a permitting, inspections and enforcement agency with a renewed image that projects responsible and innovative environmental stewardship. DoE responds to the needs of the public by improving the quality of life through the enhancement and cultivation of the natural and created environment. DoE provides for healthy, safe, and clean communities by protecting and enhancing the natural and built environment, creating an aesthetically pleasing environment, and makes comments on requirements for sustaining air, water and natural resources.

Department of Public Works and Transportation (DPW&T) – The County's Department of Public Works and Transportation maintains and constructs County roads and ensures the adequacy of the County streets and roads.

County Council – The County Council has the responsibility for preparing a statement of objectives and policies that set forth the framework for the County's Plan, and for approving the Plan and amendments after a public hearing.

State law further requires referral of the Plan, prior to its adoption by the County Council, for review and comments from the Washington Suburban Sanitary Commission (WSSC) and The Maryland-National Capital Park and Planning Commission (M-NCPPC). These agencies provide information and assistance to the County Executive and to the County Council, when requested, during the preparation of the Plan and amendments.

Washington Suburban Sanitary Commission (WSSC) – This bi-county State-chartered agency, owns, operates, and maintains various water and wastewater facilities within the Washington Suburban Sanitary District (WSSD). In addition, the WSSC utilizes wastewater treatment plants operated by other jurisdictions to treat wastewater generated in portions of the WSSD. The WSSC provides data and guidance to the County Executives and County Councils of Montgomery and Prince George's counties pertaining to capacity of its water supply and distribution systems and its sewerage treatment and collection systems. The Commission also provides information and guidance regarding engineering and fiscal aspects of water and wastewater system expansion.

The Maryland-National Capital Park and Planning Commission (M-NCPPC) – The Maryland-National Capital Park and Planning Commission, a bi-county State-chartered planning agency, provides information on population and employment distribution, growth projections, planning factors, zoning, environmental impacts, and other development review standards. The Planning Board reviews the Plan and amendments for consistency with the General Plan and submits recommendations to the County Executive and County Council for each category change in accordance with the County Code.

Other Agencies – Certain areas of Prince George's County are served by other water and sewer community systems, such as parts of the City of Bowie. The City of Laurel has its own planning agency. These municipalities and agencies also operate in coordination with the County's Water and Sewer Plan and, when appropriate, provide review and comment.

Maryland Department of the Environment (MDE) – Pursuant to State law, The Maryland Department of the Environment is responsible for the State's review and approval of the County's Plan. It adopts and administers regulations that the County must follow in preparing its Plan. MDE is responsible for approving and disapproving amendments to the Plan and has the authority to force amendments under some exceptional circumstances. MDE coordinates State grant and loan programs for major water and sewer infrastructure improvements and also regulates the discharge of treated wastewater into State waters through its permit issuing and monitoring programs. MDE coordinates the review and approval of the Plan and its amendments with the Maryland Department of Planning (MDP), the Maryland Department of Natural Resources (DNR), and the Maryland Department of Agriculture.

Maryland Department of Planning (MDP) – The Maryland Department of Planning provides guidance, analysis, outreach and support to ensure that all of the State's natural resources, built environment and public assets are preserved and protected as smart and sustainable growth goals are attained. The water and sewer plan, required of each County and Baltimore City, must demonstrate how safe and adequate water and sewerage facilities will be provided to support planned redevelopment and new growth, as outlined in their adopted Comprehensive Land Use Plan. MDP is mandated to advise MDE concerning the consistency of these water and sewer plans and plan amendments with the local comprehensive plans and other development related policies and programs.

1.3.1 Intergovernmental Agreements Relating to the Plan

Parts of the WSSC water and sewer system are integrated with adjoining jurisdictions. The management and operation of such facilities are governed by agreements that the County and WSSC have entered into with other jurisdictions. Primary agreements that relate to Prince George's County and its Water and Sewer Plan are briefly described herein.

Blue Plains Intermunicipal Agreement of 2012

The Blue Plains Intermunicipal Agreement of 2012 (2012 IMA) was ratified on April 3, 2013, between the District of Columbia (District), the District of Columbia Water and Sewer Authority (DC Water), Fairfax County, Virginia (Fairfax), Montgomery County, Maryland

(Montgomery), Prince George's County, Maryland (Prince George's), and the Washington Suburban Sanitary Commission (WSSC). The 2012 IMA replaces the 1985 IMA which is no longer in force or effect. The 2012 IMA was entered into for the purposes of: (a) allocating wastewater treatment capacity of Blue Plains; (b) equitably allocating the capital costs of wastewater treatment and biosolids management; (c) equitably allocating operation and maintenance costs; (d) defining the responsibilities of pretreatment and operational requirements and biosolids management; (e) defining the process of making future wastewater capacity planning decisions, including addressing load allocations; (f) providing a mechanism for continuing coordination, cooperation and communication; and (g) providing environmental stewardship.

1983 Bi-County Sewage Treatment Capacity Agreement

Prior to the 1985 IMA, Prince George's and Montgomery counties and WSSC had agreed upon allocation of WSSC share of the Blue Plains wastewater capacity between the two counties. The agreement, known as the 1983 Bi-County Sewage Treatment Capacity Agreement, outlines the use and maintenance of the apportioned shares. The general principles of this Agreement are further discussed in Chapter 4.

1985 City of Bowie/WSSC Water and Sewer Agreement

The City of Bowie (City) in Prince George's County, Maryland, supplies water to certain areas within the Washington Suburban Sanitary District, according to this interagency agreement. The areas serviced are within the City limits, east of MD Route 3 and north of US Route 50 at the Melford development. The City had provided interim sewer service to this area until a sewer project was completed. Sewer service at the Melford site is now provided by WSSC.

2017 City of Bowie/WSSC Interconnection Agreement

This agreement establishes allocation of costs and standard operating procedures for the Potable Water Interconnection ("the Interconnection") between the facilities of WSSC and the City, within the vicinity of the intersection of Holiday Lane and Easthaven Lane, in order to support the City during water supply emergency conditions.

Potomac River Water Appropriation and Use Permit (1957)

Issued by the MDE to WSSC, this permit allocates the water used for a municipal potable supply to the WSSC service area. It sets the daily average on a yearly basis and a maximum daily withdrawal from the Potomac River. The point of withdrawal is located at 12200 River Road in Potomac, Montgomery County, Maryland. The permit is renewed every 12 years with its latest renewal through August 1, 2022.

Patuxent River Water Appropriation and Use Permit (1938)

Issued by the MDE to WSSC, this permit allocates water used for a regional water supply for WSSC's Patuxent River service area. It sets the daily average on a yearly basis and a maximum daily withdrawal from the Patuxent River. The point of withdrawal is the T. Howard Duckett

Dam, one mile northwest of Laurel in Prince George's County, Maryland. The permit is renewed every 12 years with its latest renewal through October 1, 2025.

Agreements with Charles County (1980 and 1987)

WSSC signed an agreement with Charles County in October 1980 to provide Prince George's County with 20 percent, 3 million gallons a day (mgd), of the total 15 mgd of the wastewater treatment capacity in the Mattawoman Sewage Treatment Plant. Currently, the actual and committed flow from Prince George's County amounts to a little more than one mgd in serving the Brandywine and southern Accokeek areas. Additionally, the 1980 Agreement identifies WSSC flow allocations along the points of connection to the Mattawoman Interceptor Sewer. Since the Agreement was executed, the actual points of connection have differed and a proposed addendum is currently being prepared by WSSC to modify the exhibit in the agreement and to redistribute the allocations. The overall interceptor capacity available to WSSC will not change with this addendum.

Another agreement with Charles County signed in March 1987 provides for the water supply of up to 1.4 million gallons per day (mgd) to Charles County through a connection along Bealle Hill Road. Charles County is currently being supplied under the terms of this agreement.

Agreement with Howard County (1988)

WSSC and Howard County have an agreement in which WSSC provides up to 5 million gallons a day (mgd) of water supply to Howard County through its water distribution system – an interconnection at Woodview Terrace in the City of Laurel in Prince George's County, Maryland. The current agreement governing the supply of water between Howard County and WSSC was originally executed in 1954 and replaced with a new agreement in 1988. It has been amended twice (2008 and 2009; see below). In accordance with the 1988 agreement (as amended), Howard County may draw up to 5 mgd of potable water from the WSSC system with a minimum draw of 2.5 mgd daily. The supply may be used at any time at the discretion of Howard County. This Agreement was effected on June 16, 1988.

2008 Addendum to the 1988 Howard County Agreement.

In October 2008, WSSC and Howard County agreed to an addendum to the 1988 agreement. Howard County had not purchased its full allotment due to WSSC's water costing more than Howard County's other main supplier, the City of Baltimore (Baltimore). In this addendum to the agreement, Howard County agreed to guarantee a purchase of a portion of its full allotment, assuming WSSC charges a rate comparable to that of Howard County's other main supplier, Baltimore. Howard County conducted a pilot program for six months to test the capacity of its current equipment and facilities to determine what portion of its current allotment it could guarantee to utilize on a daily basis. WSSC agreed to reduce its current rate of payment in the original agreement to equal the service rate charged Howard County by Baltimore ($1,304.80 per million gallons) during the pilot period. After the pilot period ended, the rate of payment would revert to the 1988 Agreement, unless amended. All other terms and conditions of the 1988 Agreement were unchanged.

2009 Addendum to the 1988 Howard County Agreement

In August 2009, WSSC and Howard County agreed to a second addendum to the 1988 Agreement. This second addendum superseded the first addendum of 2008. In the second addendum, Howard County agreed to purchase a minimum of 2.5 million gallons of water per day, regardless of its actual draw, but no greater than the 5 million gallons maximum daily rate established in the 1988 Agreement. The minimum daily rate would be calculated as a monthly daily average "beginning at midnight of the 1st day of the month and ending at midnight of the last day of the month." Howard County would not be required to purchase any minimum amount of water for any day that (1) WSSC furnishes water for less than a full day, or (2) WSSC provides a restricted water supply at any time during the same period of time, or (3) WSSC and Howard County mutually agree to waive the minimum purchase. In such events, WSSC would adjust the minimum daily rate for that month by eliminating that day the purchase was not required. WSSC agreed to set its current billing rate for all potable water supplied to Howard County at the "Wholesale Service Rate" charged Howard County by the City of Baltimore (Baltimore) for each billing period, beginning at $1,304.80 per million gallons. Howard County agreed to promptly notify WSSC of any changes in Baltimore's billing rate and, annually on June 30th, provide certification to WSSC of the current Baltimore rates. Changes in Baltimore's billing rate would be applied retroactively to WSSC's billing rate as of the date of the Baltimore rate change. Howard County, at their expense, has the right to review and audit the statements and accounts of WSSC related to the supply of and billing for the potable water. WSSC, at their expense, would have the right to review and audit the statements and accounts of Howard County related to the supply of and billing for the use of potable water. Both entities would make their reviews or audits available to each other upon completion. The minimum daily rate, maximum daily rate, and billing rate can be reviewed every five years by the parties, or earlier at the request of either Howard County or WSSC. All other terms and conditions of the 1988 Agreement were unchanged.

1.3.2 Other Regional Water Agreements and Permits

Prince George's County is also party to agreements established by the States of Maryland and Virginia, the District of Columbia, the U.S. Environmental Protection Agency, the Chesapeake Bay Commission and the Metropolitan Washington Council of Governments that relate to water conservation, low-flow conditions, and river restoration in the Washington metropolitan area. WSSC, as the bi-county agent for Prince George's and Montgomery counties in Maryland is also a cosigner of these agreements. Some of the agreements that may affect the County's Plan include:

Potomac River Low Flow Allocation Agreement (LFAA) 1978

This Agreement establishes allowable withdrawals among major water users of the Potomac River during periods when there is not sufficient supply to allow unrestricted withdrawals. The signatories to this Agreement are the State of Maryland, the State of Virginia, the District of Columbia, the U.S. Army Corps of Engineers, WSSC and the Fairfax County Water Authority (FCWA). The LFAA Modification of 1982 provides for releases from the Jennings Randolph (Bloomington) and Savage reservoirs and Little Seneca Lake to be subject to the allocation formula of the LFAA. The 1982 modification also required the parties in April 1990, and at five-year intervals thereafter, to conduct 20-year demand forecasts and water resource

adequacy analyses, and further, to share the costs of any additional needed supplies by a stated formula.

Metropolitan Washington Water Supply and Drought Awareness Response Plan (2000)

This plan of action would be implemented during drought conditions for the purpose of coordinated regional response. It consists of two interrelated components: (1) a year-round plan emphasizing wise water use and conservation; and (2) a water supply and drought awareness and response plan. The plan covers emergencies that affect the quantity of water supplied from the Potomac River. Signatories to this agreement are the Metropolitan Washington Council of Governments' Board of Directors, including Prince George's County. A listing of the local governments acting as members of this board may be found in **Appendix 3-6** of this Plan.

Metropolitan Washington Water Supply Emergency Plan (1994)

Three plans are included: a regional response mechanism for health-related emergencies in the Washington Aqueduct Division system, a mechanism for emergencies that affect more than one of the utilities that withdraw raw water from the Potomac River; and, the routine planning and cooperative operating procedures to reduce the risk of drought affecting the region's water supply.

Patuxent Reservoirs Watershed Protection Agreement (1996)

The Patuxent Reservoirs Watershed Protection Agreement was signed on October 29, 1996 and provides for a consensus-based process to establish watershed protection strategies. These strategies encourage, enforce and ensure a safe, reliable source of drinking water. The signatories include Howard, Montgomery and Prince George's counties in Maryland, the Howard Soil Conservation District, the Montgomery Soil Conservation District, the Maryland-National Capital Park and Planning Commission, and Washington Suburban Sanitary Commission. The Patuxent watershed spans the three County signatories, originating from a small portion of Frederick County, Maryland. The reservoirs are surrounded by 6.6 square miles of parkland, owned and maintained by WSSC. The Agreement includes the Triadelphia and T. Howard Duckett reservoirs, the contributing Patuxent River, and its tributary streams and associated groundwater sources.

1.3.3 Other Related Agreements

Chesapeake Bay Agreement (2000)

The Chesapeake Bay Agreement to restore the Chesapeake Bay was signed in 1983 by the governors of Maryland, Virginia, and Pennsylvania, the mayor of the District of Columbia, the administrator of the Environmental Protection Agency, and the chairman of the Chesapeake Bay Commission. The Agreement was amended in 1987, 1992 and 2000. Its initial goal was to reduce by 40 percent, nutrient loadings (nitrogen and phosphorous) from point and nonpoint sources, to the mainstem of the Bay by the year 2000. In June 2000, the Chesapeake Bay Program adopted Chesapeake 2000, an agreement intended to guide restoration activities throughout the Chesapeake Bay watershed through 2010. The 2000 Agreement was a voluntary effort and a recommitment to restore, enhance and protect the living resources of the Chesapeake Bay. Its expanded goals

address reductions in sediment and chemical contaminants among a number of other issues. Regional Water Quality Initiatives in the Chesapeake Bay Watershed (Section 4.3.2 of Chapter 4), addresses actions for continuing efforts in reducing impairments to the Bay.

Chesapeake Bay Watershed Agreement (2014)

This agreement, signed on June 16, 2014, encompasses the seven jurisdictions in the watershed by adding New York, West Virginia and Delaware, and making them full partners in the Chesapeake Bay Program and the Chesapeake Executive Council. Federal agencies have also reaffirmed and augmented their long-standing and shared commitments. The agreement remains a voluntary effort and subject to the availability of appropriated funds. Its underlying principles remain the same: to restore, enhance, protect and sustain the Chesapeake Bay. It acknowledges that every issue cannot be addressed at once, and outlines progression in a strategic and cost-effective manner. Implementation of the agreement is dependent on local governments partnering with individuals, businesses, watershed groups and non-governmental organizations. The agreement may be found as **Appendix 1-1** of this chapter.

Anacostia Watershed Restoration Agreement (2001)

Efforts to restore the Anacostia River watersheds by reducing pollutant loads and protecting and restoring the ecological integrity of its streams are identified in this Agreement. Signatories are the District of Columbia, Montgomery and Prince George's counties, the State of Maryland, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the National Park Service.

1.3.4 Consent Decree (2005)

United States of America, State of Maryland, Anacostia Watershed Society, Audubon Naturalist Society of the Central Atlantic States, Inc., Friends of Sligo Creek, and the Natural Resources Defense Council v. Washington Suburban Sanitary Commission (2005)

In December 2005, in response to Clean Water Act litigation brought by the United States, the State of Maryland and a coalition of four environmental groups, the Department of Justice, the Environmental Protection Agency, the State of Maryland and Washington Suburban Sanitary Commission (WSSC) entered into a settlement agreement consisting of a 12 - year action plan to repair and upgrade its wastewater collection system and eliminate sanitary sewer overflows (SSOs). The Agreement accelerates $1.6 billion in improvements to WSSC's wastewater collection system and facilities, provides $4.4 million for supplemental environmental improvements projects (SEIPs) and a $1.1 million civil penalty. (The full text of this Agreement can be found at United States, State of Maryland, Anacostia Watershed Society, Audubon Naturalist Society of the Central Atlantic States, Inc., Friends of Sligo Creek, and Natural Resources Defense Council v. Washington Suburban Sanitary Commission, PJM-04-3679).

WSSC will perform wastewater collection systems evaluations, including sewer system evaluation surveys and trunk sewer inspections aimed at locating defects that may cause SSOs. WSSC will also inspect and permit all food service establishments in an effort to improve fats,

oils, and grease (FOG) abatement. Under Article VII of the Consent Decree, WSSC is required to conduct Performance Assessments of the work undertaken in Articles II (Sewer System Evaluation Surveys or SSES) and VI (Sewer Repair, Replacement, and Rehabilitation Plans or SR3 Plans) for each sewer basin in the collection system. As part of the performance assessments, WSSC will quantify the reduction of I/I in each sewer basin that is the subject of an SSES. The performance assessment shall be completed for each sewer basin no later than 18 months after complete implementation of the SR3 Plan for each sewer basin. The Performance Assessment report shall be prepared no later than 90 days after completion of the performance assessment, and submitted to MDE, EPA and the citizens listed as "plaintiffs-interveners" in the consent decree. The first Sewer Basin Performance Assessments began in 2014. To date, WSSC has completed five performance assessments. As the above work is completed, the sewer models will be updated to reassess system capacity constraints.

Under the first SEIP project, WSSC will acquire conservation easements and/or will purchase undeveloped real estate in the area surrounding the Patuxent Reservoir to reduce pollutant flows into the Reservoir. Under the second SEIP project, WSSC will further reduce the level of nitrogen that is discharged from its Western Branch Water Resource Recovery Facility (formerly Wastewater Treatment Plant), which will benefit the Chesapeake Bay.

APPENDIX 1-1

CHESAPEAKE BAY WATERSHED AGREEMENT

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CHESAPEAKE BAY WATERSHED AGREEMENT

2014

VISION

The Chesapeake Bay Program partners envision an environmentally and economically sustainable Chesapeake Bay watershed with clean water, abundant life, conserved lands and access to the water, a vibrant cultural heritage and a diversity of engaged citizens and stakeholders.

2014

PREAMBLE

The Chesapeake Bay watershed is one of the most extraordinary places in America, spanning six states and the District of Columbia. As the nation's largest and most productive estuary, the Chesapeake Bay and its vast network of more than 180,000 miles of streams, creeks and rivers, holds tremendous ecological, cultural, economic, historic and recreational value for the nearly 18 million people who live, work and play in the region.

To restore and protect this national treasure, the Chesapeake Bay Program partnership (the "Partnership") was formed in 1983 when the Governors of Maryland, Virginia, Pennsylvania, the Mayor of the District of Columbia, the Chair of the Chesapeake Bay Commission and the Administrator of the Environmental Protection Agency signed the first Chesapeake Bay agreement. That initial agreement recognized the "historical decline of living resources" in the Chesapeake Bay and committed to a cooperative approach to "fully address the extent, complexity and sources of pollutants entering the Bay." For more than 30 years, this regional Partnership has become recognized as one of the nation's premier estuarine restoration efforts, implementing policies, engaging in scientific investigation and coordinating actions among the states, the District of Columbia and the federal government.

The Chesapeake Bay Program partners have made much progress in that time, but there is more to do—especially in the face of continued challenges such as changes in population, loss of farm and forest lands and changing environmental conditions. Through the 2014 Chesapeake Bay Watershed Agreement (the "Agreement"), the Partnership recommits to the Bay watershed restoration effort based in and guided by science and the lessons learned from our experiences.

One of the most important lessons the partners have learned from the past three decades is that although watershed-wide partnerships can help to coordinate and catalyze progress, implementation happens locally. Local governments are key partners in our work, as are individual citizens, businesses, watershed groups and other non-governmental organizations. Working together to engage, empower and facilitate these partners will leverage resources and ensure better outcomes.

The Partnership's experience with watershed restoration and protection efforts has shown that measurable results, coupled with firm accountability, yield the most significant results. The Partnership stands ready to embrace new ideas, technologies and policies that will help meet its goals. The Partnership is committed to improving verification and transparency of its actions to strengthen and increase public confidence in its efforts.

The 1983 Agreement laid the foundation for a cooperative program that included four jurisdictions along with the Chesapeake Bay Commission and the federal government. This new Agreement includes the seven jurisdictions in the watershed, bringing New York, West Virginia and Delaware on board with the original signatories and making them full partners in the Chesapeake Bay Program and the Chesapeake Executive Council. Due in part to a 2009 Presidential Executive Order, numerous federal agencies have also reaffirmed and augmented their longstanding and shared commitment to restoring and protecting the Chesapeake Bay.

This Chesapeake Bay Watershed Agreement acknowledges that the Partnership cannot address every issue at once and that progress must be made in a strategic manner, focusing on efforts that will achieve the most cost-effective results. Watershed restoration and protection have the potential to become integral drivers of the region's economy. To that end, the Partnership is committed to achieving restoration success while maximizing the economic benefits to local communities across the region. The signatories to this voluntary Agreement commit to achieving the restoration and protection of the Chesapeake Bay watershed and its living resources.

PRINCIPLES

The following principles are an overarching framework by which the Chesapeake Bay Program commits to operate. They encompass the partners' collective, core values and are intended to help guide us in our work as the Partnership develops policy and takes actions to achieve this Agreement's Goals and Outcomes.

THE PARTNERSHIP WILL:

- **Collaborate** to achieve the Goals and Outcomes of this Agreement.
- **Achieve Goals and Outcomes** in a timely way and at the least possible cost to our citizens.
- **Represent the interests of people** throughout the watershed fairly and effectively, including a broad diversity of cultures, demographics and ages.
- **Operate with transparency** in program decisions, policies, actions and reporting on progress to strengthen public confidence in our efforts.
- **Use science-based decision-making and seek out innovative technologies** and **approaches** to support sound management decisions in a changing system.
- **Maintain a coordinated watershed-wide monitoring and research program** to support decision-making and track progress and the effectiveness of management actions.
- **Acknowledge, support and embrace local governments** and other local entities in watershed restoration and protection activities.
- **Anticipate changing conditions**, including long-term trends in sea level, temperature, precipitation, land use and other variables.
- **Adaptively manage** at all levels of the Partnership to foster continuous improvement.
- **Seek consensus** when making decisions.
- **Use place-based approaches,** where appropriate, that produce recognizable benefits to local communities while contributing to larger ecosystem goals.
- **Engage citizens** to increase the number and diversity of people who support and carry out the conservation and restoration activities necessary to achieve the Goals and Outcomes of the Agreement.
- **Explore using social science** to better understand and measure how human behavior can drive natural resource use, management and decision-making.
- **Promote environmental justice** through the meaningful involvement and fair treatment of all people, regardless of race, color, national origin or income, in the implementation of this Agreement.

GOALS & OUTCOMES

The commitments contained in this section are the Goals and Outcomes that the signatories will work on collectively to advance restoration and protection of the Chesapeake Bay ecosystem and its watershed. The Goals articulate the desired high-level aspects of the partners' Vision. The Outcomes related to each Goal are specific, time-bound, measureable targets that directly contribute to achieving that Goal.

The Management Strategies further described in the next section of this Agreement articulate the actions necessary to achieve the Goals and Outcomes. This work will require effort from many, including all levels of government, academic institutions, non-governmental organizations, watershed groups, businesses and individual citizens. Local government will continue to play a unique and critical role in helping the Partnership realize this shared Vision for the Chesapeake Bay. Signatories will participate in achieving the Outcomes of this Agreement in the manner described in the "Management Strategies Development and Implementation" section.

While the Goals and Outcomes are described by separate topic areas, the signatories recognize that they are interrelated. Improvements in habitat and water quality lead to healthier living resources. Environmentally literate citizens are more engaged stewards of the Chesapeake Bay's healthy watersheds. Better water quality means swimmable, fishable waters for Bay residents and visitors. Increased public access to the Bay inspires people to care for critical landscapes and honor the region's heritage and culture. Healthy fish and shellfish populations support a vibrant economy for a spectrum of fishing-related industries. The signatories recognize that all aspects of the ecosystem are connected and that these Goals and Outcomes support the health and the protection of the entire Bay watershed.

As the signatories identify new opportunities and concerns, Goals or Outcomes may be adopted or modified. Any changes or additions to Goals will be approved by the Executive Council. The Principals' Staff Committee will approve changes or additions to Outcomes, although significant changes or additions will be raised to the Executive Council for approval. Proposed changes to Goals and Outcomes or the addition of new ones will be open for public input before being finalized. Final changes or additions will be available on the Chesapeake Bay Program's website.

GOALS & OUTCOMES

SUSTAINABLE FISHERIES

Habitat loss, poor water quality, non-native and invasive species, toxics and fishing pressure continue to threaten the sustainability of the Chesapeake Bay's fisheries. Sustaining fish and shellfish populations contributes to a strong economy and maritime culture and supports a healthy ecosystem for all Bay watershed residents.

GOAL: Protect, restore and enhance finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem in the watershed and Bay.

Blue Crab Abundance Outcome	Maintain a sustainable blue crab population based on the current 2012 target of 215 million adult females. Refine population targets through 2025 based on best available science.
Blue Crab Management Outcome	Manage for a stable and productive crab fishery including working with the industry, recreational crabbers and other stakeholders to improve commercial and recreational harvest accountability. By 2018, evaluate the establishment of a Bay-wide, allocation-based management framework with annual levels set by the jurisdictions for the purpose of accounting for and adjusting harvest by each jurisdiction.
Oyster Outcome	Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.
Forage Fish Outcome	Continually improve the Partnership's capacity to understand the role of forage fish populations in the Chesapeake Bay. By 2016, develop a strategy for assessing the forage fish base available as food for predatory species in the Chesapeake Bay.
Fish Habitat Outcome	Continually improve effectiveness of fish habitat conservation and restoration efforts by identifying and characterizing critical spawning, nursery and forage areas within the Bay and tributaries for important fish and shellfish, and use existing and new tools to integrate information and conduct assessments to inform restoration and conservation efforts.

GOALS & OUTCOMES

VITAL HABITATS

Increasing needs for land and resources have resulted in fragmentation and degradation of many habitats across the watershed while also challenging the health of many Bay watershed species. Conserving healthy habitats and restoring the connectivity and function of degraded habitats is essential to the long-term resilience and sustainability of the ecosystem and the region's quality of life.

GOAL: Restore, enhance and protect a network of land and water habitats to support fish and wildlife, and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed.

Wetlands Outcome

Continually increase the capacity of wetlands to provide water quality and habitat benefits throughout the watershed. Create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025. These activities may occur in any land use (including urban) but primarily occur in agricultural or natural landscapes.

Black Duck

By 2025, restore, enhance and preserve wetland habitats that support a wintering population of 100,000 black ducks, a species representative of the health of tidal marshes across the watershed. Refine population targets through 2025 based on best available science.

Stream Health Outcome

Continually improve stream health and function throughout the watershed. Improve health and function of ten percent of stream miles above the 2008 baseline for the Chesapeake Bay watershed.

Brook Trout

Restore and sustain naturally reproducing brook trout populations in Chesapeake headwater streams with an eight percent increase in occupied habitat by 2025.

GOALS & OUTCOMES

VITAL HABITATS (CONTINUED)

GOAL: Restore, enhance and protect a network of land and water habitats to support fish and wildlife, and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed.

Fish Passage Outcome

Continually increase available habitat to support sustainable migratory fish populations in Chesapeake Bay freshwater rivers and streams. By 2025, restore historical fish migratory routes by opening 1,000 additional stream miles, with restoration success indicated by the consistent presence of alewife, blueback herring, American shad, hickory shad, American eel and brook trout, to be monitored in accordance with available agency resources and collaboratively developed methods.

Submerged Aquatic Vegetation (SAV) Outcome

Sustain and increase the habitat benefits of SAV (underwater grasses) in the Chesapeake Bay. Achieve and sustain the ultimate outcome of 185,000 acres of SAV Bay-wide necessary for a restored Bay. Progress toward this ultimate outcome will be measured against a target of 90,000 acres by 2017 and 130,000 acres by 2025.

Forest Buffer Outcome

Continually increase the capacity of forest buffers to provide water quality and habitat benefits throughout the watershed. Restore 900 miles per year of riparian forest buffer and conserve existing buffers until at least 70 percent of riparian areas throughout the watershed are forested.

Tree Canopy Outcome

Continually increase urban tree canopy capacity to provide air quality, water quality and habitat benefits throughout the watershed. Expand urban tree canopy by 2,400 acres by 2025.

GOALS & OUTCOMES

WATER QUALITY

Restoring the Bay's waters is critical to overall watershed restoration because clean water is the foundation for healthy fisheries, habitats and communities across the region. However excess amounts of nitrogen, phosphorus and sediment in the Bay and its tributaries have caused many sections of the Bay to be listed as "impaired" under the Clean Water Act. The Chesapeake Bay Total Maximum Daily Load (TMDL) is driving nutrient and sediment reductions as described in the Watershed Implementation Plans (WIPs), adopted by the states and the District of Columbia, and establishes the foundation for water quality improvements embodied in this Agreement. These plans set nutrient and sediment reduction targets for various sources—stormwater, agriculture, air deposition, wastewater and septic systems.

GOAL: Reduce pollutants to achieve the water quality necessary to support the aquatic living resources of the Bay and its tributaries and protect human health.

2017 Watershed Implementation Plans (WIP) Outcome

By 2017, have practices and controls in place that are expected to achieve 60 percent of the nutrient and sediment pollution load reductions necessary to achieve applicable water quality standards compared to 2009 levels.

2025 WIP Outcome

By 2025, have all practices and controls installed to achieve the Bay's dissolved oxygen, water clarity/submerged aquatic vegetation and chlorophyll *a* standards as articulated in the Chesapeake Bay TMDL document.

Water Quality Standards Attainment and Monitoring Outcome

Continually improve the capacity to monitor and assess the effects of management actions being undertaken to implement the Bay TMDL and improve water quality. Use the monitoring results to report annually to the public on progress made in attaining established Bay water quality standards and trends in reducing nutrients and sediment in the watershed.

GOALS & OUTCOMES

TOXIC CONTAMINANTS

Toxic contaminants harm fish and wildlife in the Bay and its watershed and create risks to human health that limit the amount of fish that people can eat. Reducing the impacts of toxic contaminants is critical to improve the health of fish and wildlife, thereby improving their recreational value for citizens.

GOAL: Ensure that the Bay and its rivers are free of effects of toxic contaminants on living resources and human health.

Toxic Contaminants Research Outcome

Continually increase our understanding of the impacts and mitigation options for toxic contaminants. Develop a research agenda and further characterize the occurrence, concentrations, sources and effects of mercury, PCBs and other contaminants of emerging and widespread concern. In addition, identify which best management practices might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants in waterways.

Toxic Contaminants Policy and Prevention Outcome

Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of PCBs in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

GOALS & OUTCOMES

HEALTHY WATERSHEDS

Many small watersheds in the Bay region are currently healthy but also at risk of degradation as the demand for local lands and resources increases. Promoting the long-term conservation and protection of healthy watershed systems through stakeholder engagement, collaboration and education is critical to the health of the larger ecosystem.

GOAL: Sustain state-identified healthy waters and watersheds recognized for their high quality and/or high ecological value.

Healthy Watersheds Outcome

100 percent of state-identified currently healthy waters and watersheds remain healthy.

GOALS & OUTCOMES

STEWARDSHIP

The long-term success of the Chesapeake Bay restoration effort will depend on local leadership—and local action that depends primarily on a strong citizen stewardship. More than 600 local conservation and watershed organizations in our region are educating and empowering citizens to restore and protect their local streams and rivers. Tens of thousands of local citizen volunteers continue to donate their time and talent to our shared goals. Building a larger, broader, and more diverse constituency of stewards is vital to achieving many of the Goals and Outcomes outlined in this Agreement.

GOAL: Increase the number and the diversity of local citizen stewards and local governments that actively support and carry out the conservation and restoration activities that achieve healthy local streams, rivers and a vibrant Chesapeake Bay.

Citizen Stewardship Outcome	Increase the number and diversity of trained and mobilized citizen volunteers with the knowledge and skills needed to enhance the health of their local watersheds.
Local Leadership Outcome	Continually increase the knowledge and capacity of local officials on issues related to water resources and in the implementation of economic and policy incentives that will support local conservation actions.
Diversity Outcome	Identify minority stakeholder groups that are not currently represented in the leadership, decision-making and implementation of conservation and restoration activities and create meaningful opportunities and programs to recruit and engage them in the Partnership's efforts.

GOALS & OUTCOMES

LAND CONSERVATION

The landscapes around the Bay and its tributaries are ecologically, culturally, historically and recreationally valuable to the people and communities of the region. Stimulating, renewing and expanding commitments to conserve priority lands for use and enjoyment is an integral part of furthering the watershed's identity and spirit.

GOAL: Conserve landscapes treasured by citizens in order to maintain water quality and habitat; sustain working forests, farms and maritime communities; and conserve lands of cultural, indigenous and community value.

Protected Lands Outcome

By 2025, protect an additional two million acres of lands throughout the watershed—currently identified as high conservation priorities at the federal, state or local level—including 225,000 acres of wetlands and 695,000 acres of forest land of highest value for maintaining water quality. (2010 baseline year)

Land Use Methods and Metrics Development Outcome

Continually improve the knowledge of land conversion and the associated impacts throughout the watershed. By 2016, develop a Chesapeake Bay watershed-wide methodology and local level metrics for characterizing the rate of farmland, forest and wetland conversion, measuring the extent and rate of change in impervious surface coverage and quantifying the potential impacts of land conversion to water quality, healthy watersheds and communities. Launch a public awareness campaign to share this information with citizens, local governments, elected officials and stakeholders.

Land Use Options Evaluation Outcome

By the end of 2017, with the direct involvement of local governments or their representatives, evaluate policy options, incentives and planning tools that could assist them in continually improving their capacity to reduce the rate of conversion of agricultural lands, forests and wetlands as well as the rate of changing landscapes from more natural lands that soak up pollutants to those that are paved over, hardscaped or otherwise impervious. Strategies should be developed for supporting local governments' and others' efforts in reducing these rates by 2025 and beyond.

GOALS & OUTCOMES

PUBLIC ACCESS

Physical access to the Bay and its tributaries is very limited, with real consequences for quality of life, local economies and long-term conservation. Increasing public access to local waterways for fishing, swimming, boating and other activities fosters a shared sense of responsibility and increased stewardship that supports Bay watershed restoration goals.

GOAL: Expand public access to the Bay and its tributaries through existing and new local, state and federal parks, refuges, reserves, trails and partner sites.

Public Access Site Development Outcome

By 2025, add 300 new public access sites, with a strong emphasis on providing opportunities for boating, swimming and fishing, where feasible. (2010 baseline year)

GOALS & OUTCOMES

ENVIRONMENTAL LITERACY

The well-being of the Chesapeake Bay watershed will soon rest in the hands of its youngest citizens—the more than three million students in kindergarten through twelfth grade. Establishing strong, targeted environmental education programs now provides a vital foundation for these future watershed stewards.

GOAL: Enable every student in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed.

Student Outcome	Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school depending on available resources.
Sustainable Schools Outcome	Continually increase the number of schools in the region that reduce the impact of their buildings and grounds on their local watershed, environment and human health through best practices, including student-led protection and restoration projects.
Environmental Literacy Planning Outcome	Each participating Bay jurisdiction should develop a comprehensive and systemic approach to environmental literacy for all students in the region that includes policies, practices and voluntary metrics that support the environmental literacy Goals and Outcomes of this Agreement.

GOALS & OUTCOMES

CLIMATE RESILIENCY

Changing climatic and sea level conditions may alter the Bay ecosystem and human activities, requiring adjustment to policies, programs and projects to successfully achieve our restoration and protection goals for the Chesapeake Bay and its watershed. This challenge requires careful monitoring and assessment of these impacts and application of this knowledge to policies, programs and projects.

GOAL: Increase the resiliency of the Chesapeake Bay watershed, including its living resources, habitats, public infrastructure and communities, to withstand adverse impacts from changing environmental and climate conditions.

Monitoring and Assessment Outcome

Continually monitor and assess the trends and likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem, including the effectiveness of restoration and protection policies, programs and projects.

Adaptation Outcome

Continually pursue, design and construct restoration and protection projects to enhance the resiliency of Bay and aquatic ecosystems from the impacts of coastal erosion, coastal flooding, more intense and more frequent storms and sea level rise.

MANAGEMENT STRATEGIES

DEVELOPMENT AND IMPLEMENTATION

Within one year of the signing of the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program's Goal Implementation Teams will develop Management Strategies for the Outcomes that support this Agreement's goals. These strategies will outline the means for accomplishing each Outcome as well as monitoring, assessing and reporting progress and coordinating actions among partners and stakeholders as necessary. Where appropriate, Management Strategies should describe how local governments, nonprofit and private partners will be engaged; where actions, tools or technical support are needed to empower local governments and others to do their part; and what steps will be taken to facilitate greater local participation in achieving the Outcome.

Participation in Management Strategies or participating in the achievement of Outcomes is expected to vary by signatory based on differing priorities across the watershed. This participation may include sharing knowledge, data or information, educating citizens or members, working on future legislation and developing or implementing programs or practices. Management Strategies, which are aimed at implementing outcomes, will identify participating signatories and other stakeholders, including local governments and nonprofit organizations, and will be implemented in two-year periods.

The signatories and other partners shall thereafter update and/or modify such commitments every two years. Specific Management Strategies will be developed in consultation with stakeholders, organizations and other agencies and will include a period for public input and review prior to final adoption. The Principals' Staff Committee will report on adoption of Management Strategies at the next Executive Council meeting and report on implementation of Management Strategies every two years.

Management Strategies may address multiple Outcomes if deemed appropriate. Goal Implementation Teams will re-evaluate biennially and update strategies as necessary, with attention to changing environmental and economic conditions. Partners may identify policy changes to address these conditions and minimize obstacles to achieve the Outcomes.

Stakeholder input will be incorporated into the development and reevaluation of each of the strategies. The Chesapeake Bay Program will make these strategies and reports on progress available to the public in a transparent manner on its websites and through public meetings of the appropriate Goal Implementation Teams and Management Board.

The Goal Implementation Teams will submit the Management Strategies to the Partnership's Management Board for review. If the Management Board determines that any strategy or plan developed prior to the signing of this Agreement meets the requirements of a Management Strategy as defined above, no new strategy needs to be developed. This includes, but is not limited to, the strategies and plans for implementing the Chesapeake Bay TMDL.

AFFIRMATION

As Chesapeake Bay Program Partners, we recognize the need to accelerate implementation of actions necessary to achieve the Goals and Outcomes outlined herein and realize our shared Vision of a healthy and vibrant Chesapeake Bay watershed.

As Chesapeake Bay Program Partners, we acknowledge that this Agreement is voluntary and subject to the availability of appropriated funds. This Agreement is not a contract or an assistance agreement. We also understand that this Agreement does not pre-empt, supersede or override any other law or regulation applicable to each signatory.

We, the undersigned members of the Chesapeake Executive Council, re-affirm our commitment to support the Goals of this Agreement and to work cooperatively in its implementation. We agree to work both independently and collaboratively toward the Goals and Outcomes of this Agreement and to implement specific Management Strategies to achieve them. Every citizen of this great watershed is invited to join with the Partnership, uniting as a region and embracing the actions that will lead to success.

Date: June 16, 2014

For the Chesapeake Bay Commission

For the State of Delaware

For the District of Columbia

For the State of Maryland

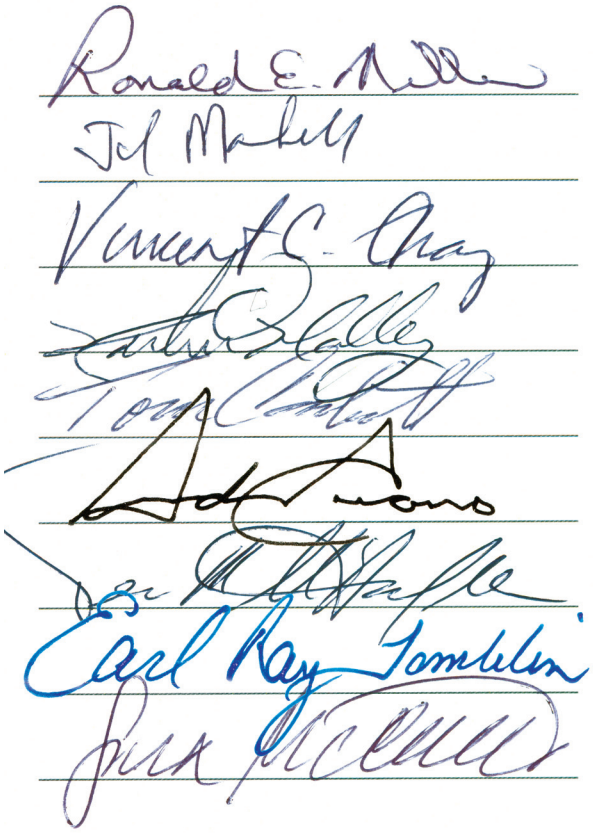
For the Commonwealth of Pennsylvania

For the State of New York

For the Commonwealth of Virginia

For the State of West Virginia

For the United States of America
on behalf of the Federal Government and the
Federal Leadership Committee for the Chesapeake Bay:
U.S. Environmental Protection Agency
U.S. Department of Agriculture
U.S. Department of Commerce
U.S. Department of Defense
U.S. Department of Homeland Security
U.S. Department of the Interior
U.S. Department of Transportation



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