COUNTY COUNCIL OF PRINCE GEORGE'S COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL
2008 Legislative Session

Resolution No. CR-94-2008
Proposed by The Chairman (by Request – Planning Board)
Introduced by Council Member Dean
Co-Sponsors
Date of Introduction October 14, 2008

RESOLUTION

A RESOLUTION concerning

A Countywide Water Resources Functional Master Plan for that Part of the Maryland Washington Regional District in Prince George's County, Maryland

For the purpose of initiating a Countywide Water Resources Functional Master Plan in order to satisfy the requirements mandated in Chapter 381 of the 2006 Laws of Maryland (HB 1141), Section 1.03(iii) of Article 66B of the Annotated Code of Maryland that all Maryland counties and municipalities that exercise planning and zoning authority prepare and adopt a Water Resources Element ("WRE") in their comprehensive plans by October 1, 2009, or October 1, 2010, with extensions.

WHEREAS, Section 27-641 of the Zoning Ordinance establishes procedures whereby the Prince George's County Planning Board may initiate a functional master plan with the approval of the District Council; and

WHEREAS, the Approved FY 2008 Planning Department Work Program required the preparation of a Water Resources Functional Master Plan as a strategy to implement the policies of the *2002 General Plan*; and

WHEREAS, the Goals, Concepts, Guidelines, and Public Participation Program (Attachment A) establish the purposes, the issues to be addressed during the plan preparation, and the methodology for ensuring adequate community involvement in the planning process; and

WHEREAS, on September 25, 2008, the Prince George's County Planning Board of The Maryland-National Capital Park and Planning Commission, pursuant to Section 27-641 of the Zoning Ordinance of Prince George's County, requested the Prince George's County Council to

initiate the Water Resources Functional Master Plan; and

WHEREAS, on July 30, 2002, the Prince George's County Council, sitting as the District Council, approved the *General Plan* in CR-47-2002.

NOW, THEREFORE, BE IT RESOLVED by the County Council of Prince George's County, Maryland, sitting as the District Council for that part of the Maryland-Washington Regional District in Prince George's County, Maryland, that The Maryland-National Capital Park and Planning Commission is hereby directed to prepare a Water Resources Functional Master Plan for Prince George's County, in accordance with Part 13 of the Zoning Ordinance.

BE IT FURTHER RESOLVED that the District Council has considered and hereby approves the Goals, Concepts, Guidelines and Public Participation Program (Attachment A).

Adopted this 14th day of October , 2008.

COUNTY COUNCIL OF PRINCE GEORGE'S COUNTY, MARYLAND, SITTING AS THE DISTRICT COUNCIL FOR THAT PART OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT IN PRINCE GEORGE'S COUNTY, MARYLAND

BY: _____
Samuel H. Dean
Chairman

ATTEST:

_____
Redis C. Floyd
Clerk of the Council

Proposed
Goals, Concepts and Guidelines

and

Public Participation Program

for the

WATER RESOURCES FUNCTIONAL MASTER PLAN

for

Prince George's County

Water Resources Functional Master Plan

September 2008

INTRODUCTION

The Water Resources Element is one of several State planning requirements signed into law on May 2, 2006 as HB 1141.

Mandated in HB 1141, Section 1.03(iii) of Article 66B of the Annotated Code of Maryland, all Maryland counties and municipalities that exercise planning and zoning authority must prepare and adopt a Water Resources Element (WRE) in their comprehensive plans by October 2009 or October 2010 with extensions.

To provide comprehensive planning guidance and technical support for current and future County planning recommendations, a Water Resources Functional Master Plan will be developed to fulfill the State's HB 1141 WRE requirements. A successful Water Resources Functional Master Plan will be required to address all state and county planning processes and product requirements as addressed in the 2002 *Prince George's County Approved General Plan*, the Maryland Department of Planning's "*Models and Guidelines 26 – The Water Resources Element: Planning for Water Supply and Wastewater and Stormwater Management* and, county functional master plans.

The purposes of the Water Resources Functional Master Plan are:

- To ensure a safe and ample supply of drinking water from both surface and groundwater sources, and adequate treatment of wastewater.
- To minimize the nutrient loading impacts to our groundwater, streams, rivers and the Chesapeake Bay from the uses we employ on our land.
- To provide water resources data that supports best practices analysis and can be interpreted to establish growth area boundaries, land-use recommendations, and preservation/conservation areas.
- To improve data collection and analysis to promote a balance of sustainable growth and preservation of the Chesapeake Bay.

To meet the state mandate, the plan policies will:

- Evaluate drinking water and other water resources for adequacy relative to the needs of existing and future development defined in the land-use element of the plan, utilizing available data modeling provided by the Maryland Department of the Environment (MDE).
- Identify suitable receiving waters and land areas to meet the stormwater management and wastewater treatment and disposal needs of existing and future development defined in the land use element of the plan, utilizing available data modeling provided by the Maryland Department of the Environment (MDE).

This document contains the **Goals, Concepts, Guidelines and Public Participation Program** for the preparation of the county's first Water Resources Functional Master Plan. This document addresses directives from the Maryland Department of Planning and Maryland Department of the Environment to evaluate land use in Prince George's County to support the goals of the Chesapeake Bay 2000 Agreement and Bay Tributary Strategies. It will be used as the guiding document for the preparation of development capacity plans as part of the master planning process.

The Water Resources Functional Master Plan Goals, Concepts, Guidelines and Public Participation Program will summarize the issues and priorities identified during the preplanning phase of the project. These issues and priorities are derived from General Plan, Green Infrastructure Plan, Water and Sewer Plan policies relative to water resources in the county as well as other relevant state plans and the input of project team members. The categories of issues correspond to the various elements to be addressed in the plan including:

- ***Water***
- ***Wastewater***
- ***Septic***
- ***Stormwater***

The planning process will examine these categories of issues, and recommend planning strategies to guide future growth and development.

Water

In order to determine net excess capacity available as allocation for growth, the plan will determine:

- Annual average daily capacity
- Average daily capacity during the maximum usage month
- Impacts to capacity during droughts
- Maximum daily capacity

The Water Resources Functional Master Plan will evaluate existing capacity and projected use and will determine response recommendations including:

- Demand management; conservation, leak repair, reuse, right pricing
- Increased storage
- New water sources
- Water supply easements
- Redirected growth patterns

Along with providing adequate potable water resources for the county the plan will additionally provide recommendations for:

- Source water protection
- Aquifer protection
- Base flow maintenance
- Sustained flow-bys

Wastewater

The Water Resources Functional Master Plan will examine adequate wastewater capacity to prevent hydraulic overload and determine protection of water quality through:

- National Pollutant Discharge Elimination System[1] permit requirements
- Total Maximum Daily Load (TMDL)[2] limits
- Tributary Strategies[3] goals

The plan will examine wastewater management alternatives including:

- Expanded infrastructure
- Controlled inflow and infiltration
- Increased treatment
- Spray irrigation
- Offsets
- Capacity trading
- Redirected growth patterns
- Gray water reuse opportunities

Septic

The plan will help determine quantity and loads of existing systems and develop strategies to mitigate impacts to ground and surface waters through innovative recommendations such as:

- Advanced treatment septic systems
- Expansion of public sewer systems
- Shared and community systems

The plan will support local government planning agencies to make decisions for:

- Adequate capacity

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[1] The Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) stormwater regulations were published in 1990. Phase I of these regulations require stormwater permits for 11 categories of industrial activity and certain size municipal separate storm sewer systems. Phase II municipal stormwater regulations followed in 1999 and established obligations for small storm drain system owners within urbanized areas not covered previously. Phase II in Maryland is addressed through general stormwater discharge permits that specify that basic runoff control programs be implemented. http://www.mde.state.md.us/assets/document/NPDES%20Fact%20Sheet.pdf.

[2] A TMDL (Total Maximum Daily Load) establishes the maximum amount of an impairing substance or stressor that a waterbody can assimilate and still meet WQSs and allocates that load among pollution contributors. TMDLs are a tool for implementing State water quality standards. They are based on the relationship between pollution sources and in-stream water quality conditions. A TMDL addresses a single pollutant or stressor for each waterbody. http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/index.asp

[3] Tributary Strategies are river-specific cleanup strategies that detail the "on-the-ground" actions needed to reduce the amount of nutrients and sediment flowing into the Chesapeake Bay. They are a framework that will evolve over time to chart the most efficient and effective course to a clean Chesapeake Bay.

- Sustainable yield
- Protection of sources water
- Protection of natural resources

Stormwater

The plan will assess existing stormwater management systems and evaluate the functionality of these systems based on:

- Protection of water quality
- Reduction in nutrient and sediment loads
  - TMDL limits
  - Tributary Strategies goals
  - MS 4[4] permit requirements
- Maintenance of hydrologic patterns
- Protection of stream stability and flow-bys

The plan will examine additional stormwater management strategies to achieve water quality goals through various recommendations:

- Reduced impervious surfaces
- Sensitive resources and buffers including; forests, streams, steep and severe slopes, highly erodible soils, floodplains, and wetlands

- Environmentally Sensitive Design (ESD)[5] applications
- Redirected growth

GOAL

The Goals, Concepts, Guidelines and Public Participation Program is based on the **General Plan's** recommendations. The goal of the **Water Resources Plan** is to support environmental and development goals stated in the General Plan. Countywide goals describe the importance to create, preserve, and protect natural resources through planning. Following Planning Board's approval of the Goals, Concepts, Guidelines and Public Participation Program, the Planning Board may advise the Council to direct staff to proceed with the initiation and preparation of the plan.

[4] Maryland's stormwater program establishes permitting requirements for construction sites disturbing more than one acre, industrial sites, and Municipal Separate Storm Sewer Systems (MS4s). All MS4s should currently be permitted, or in the permit process. Each permitted MS4 will be responsible for establishing a Stormwater Management Program (SWMP), which may result in additional local treatment requirements. http://www.stormwaterauthority.org/regulatory_data/state.aspx?id=141

[5] Title 4, Subtitle 201.1(B) of the Stormwater Management Act of 2007 defines ESD as "…using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources."

The **General Plan** makes the following environmental goal recommendations:

- Protect and enhance/restore areas within the Green Infrastructure
- Protect/restore ecological functions (including aquatic living resources)
- Protect and enhance water quality within each watershed
- Meet or exceed forest/tree cover goals, reduce forest fragmentation, and preserve mature forests
- Encourage environmental awareness
- Continue property acquisition or easements along key stream valleys
- Control flooding and reduce flood-related property damage

The **General Plan** makes the following environmental water-related policy and strategy recommendations:

- Preserve, protect and enhance surface and ground water features and restore lost ecological functions.
    - Prepare and implement major watershed management plans to address the preservation and restoration of ecological functions within watersheds, with an emphasis on the restoration and maintenance of water quality, protection of the aquatic living resources, and the control of water quality with consideration of the development pattern of this General Plan.
    - Periodically employ a water-quality model that evaluates existing water quality and use the results to determine where additional efforts are needed.
    - Evaluate the effectiveness of current ordinances and regulations regarding stream and wetland buffer widths. Consider revising the current regulations to provide varying buffer widths.
    - Augment current forest conservation and sediment and erosion control enforcement efforts.
    - Continue parkland acquisition in key steam valleys and seek additional funding sources for acquisition and conservation easements.
    - Continue implementation of available federal and state programs to control flooding and losses due to flooding without impairing water quality. Seek additional funding sources to augment current efforts.
    - Implement through existing ordinances the use of systems and processes for treating stormwater runoff that preserve and/or reestablish natural resources and systems, such as reducing natural vegetation removal, reducing impervious surfaces, and increasing infiltration.
    - Evaluate current regulations that result in the construction of required impervious surfaces. Encourage the use of innovative design that reduces the amount of impervious surfaces.
    - Treat stormwater on site to the fullest extent possible in the Mattawoman watershed to maximize infiltration, restore the natural hydrologic system, improve water quality, and minimize run-off.
    - Evaluate opportunities for coordination of watershed protection policies and programs with adjoining jurisdictions.

The goal of the **Water Resources Functional Master Plan** is to support environmental and development goals stated in the **Green Infrastructure Plan**. The **Green Infrastructure Plan** makes the following environmental policy and strategy recommendations:

- Preserve, enhance, and where appropriate, restore environmentally sensitive features through the identification of green infrastructure elements.
- Implement the desired development pattern throughout the county while protecting sensitive environmental features and meeting the full intent of environmental policies and regulations.
- Restore and enhance water quality in areas that have been degraded by a high percentage of impervious surfaces and preserve water quality in areas not degraded.
- Preserve some portions of the county from future development, improve water quality, and restore important ecological functions to degraded ecosystems.

WATER RESOURCES FUNCTIONAL MASTER PLAN ISSUES

The plan will be expected to, through the production of a functional master plan and technical manual and/or appendices to the functional plan, determine the adequacy and capacity of water and wastewater resources using the state modeling spreadsheets considering:

- Capacity of water supply facilities
- Capacity of wastewater systems
- Source waters, headwaters, aquifers, wetlands, and receiving waters quality protection
- Water appropriation permit limits
- Resource availability during drought
- Wastewater management through identification of alternate distribution technologies

The plan will be expected to determine the adequacy and capacity of septic systems considering:

- Current and proposed individual septic systems
- Source waters, headwaters, aquifers, wetlands, and receiving waters quality protection
- Location and implementation of new advanced treatment septic systems
- Expansion of public sewer systems
- Shared and community systems

The plan will be expected to determine the adequacy and capacity of stormwater management considering:

- Current and proposed stormwater management systems and practices
- Source waters, headwaters, aquifers, wetlands, and receiving waters quality protection
- Location and implementation strategies for Environmental Site Design (ESD)
- Identification of restoration, conservation and preservation areas to maintain and/or improve water quality

The following specific questions will be answered in the Water Resources Functional Master Plan.

1. Is there adequate water supply to meet current and future needs?

Washington Suburban Sanitary Commission (WSSC) maintains the public water supply in Prince George's County and provides Growth and Average Production Forecasts. WSSC's average water production is expected to increase by about 1% per year, reaching 224 million gallons per day (mgd) in the year 2030. These latest projections are slightly lower than the previous projections done in 2001 (Water Productions Projections, WSSC, Planning Group, April, 2001).

Well water serves the majority of uses within the county's Rural Tier. Issues affecting ground-water

availability in Prince George's County as identified by the Maryland Geological Survey include:

- Additional capacity is available in most of the county.
- Withdrawals from adjacent counties cause drawdown in Prince George's County.
- Large drawdowns may cause domestic well failures in some areas.
- Withdrawals from shallow aquifers may reduce stream flow and affect wetlands ecology.

2. Is there adequate wastewater treatment and on-site sewage disposal capacity to meet current and future needs?

WSSC provides Capacity Management Plans for all wastewater treatment plants serving the Washington Suburban Sanitary District (WSSD). This includes all plants owned and operated by WSSC as well as those at which WSSC purchases capacity.

3. How will stormwater management practices from existing and future development protect water quality?

Stormwater management strategies to address surface water quality continue to be the most challenging aspect impeding implementation of the 2000 Chesapeake Bay Agreement. The **Stormwater Management Act of 2007** recommends establishing a comprehensive process for stormwater management approval, implementing ESD to the maximum extent practicable, and ensuring that structural practices are used only where absolutely necessary.

The primary goal of Maryland's stormwater management program is to maintain after development, as nearly as possible, the predevelopment runoff characteristics. Traditional stormwater management strategies treat runoff to mitigate adverse water quality and/or quantity impacts associated with new development. Designs applying these strategies often combine centralized structural practices for pollutant removal with channel erosion or flood control impoundments. These designs are less able to mimic predevelopment conditions because they focus on managing large volumes of polluted stormwater rather than treating runoff closer to the source.

4. What impacts will filling these needs have on land use and growth boundaries?

Water and sewer systems provide the basic building blocks for a modern, growing and environmentally healthy community. Water and sewer planning is critical to the staging and promotion of orderly growth of communities and the prevention of urban sprawl. Therefore, water and sewer planning must be based on consideration of geographical features and environmental factors, community needs as expressed in the county's land use and development policies, federal and state policy guidance, and public health requirements. The contextual framework for water and sewer planning includes the natural environment, community planning and development, and legal requirements.

PROPOSED PUBLIC PARTICIPATION PROCESS

The **Water Resources Functional Master Plan** builds on the public participation process that was used to develop the ***2002 Prince George's County Approved General Plan*** and various other functional master plans and community plans to address issues of capacity, demands and impacts to water resources in

response to growth and growth projections. The plan will provide policy recommendations guidance for future development activity appropriate for the General Plan-designated Developed Tier, Developing Tier and Rural Tier. During the preparation of community plans for Subregions 5 and 6, input was received on elements of water resources through comments from citizens, focus groups, and regional forums. Listening sessions were held as part of the public participation program in Subregions 5 and 6. Some sessions focused on broad environmental issues, water resources management being part of these discussions.

The **Water Resources Functional Master Plan** area encompasses the approximately 311,750 land acres located Prince George's County, Maryland. The plan requires interjurisdictional planning and coordination in response to watershed boundaries in Maryland and will look at land use and land use planning in the City of Laurel, Montgomery County, Charles County, Anne Arundel County, and Calvert County.

Public participation is a critical element in the preparation of functional master plans. The public participation process for this plan encourages a balance of participation by stakeholders affected by the plan. Stakeholders include citizens, local business groups, the building industry, municipalities, agriculture and forestry groups, and environmental advocacy and awareness groups.

A public participation program explains the techniques to facilitate committed public involvement in the preparation of the plan. The program includes techniques to keep the larger affected community informed and contains a timetable explaining the length of time for the preparation of the preliminary plan.

Public participation elements of the plan-making process are described below:

Water Resources Functional Master Plan Public Forums: During a minimum of two geographically targeted public forums, the attendees will be informed regarding the Water Resources Functional Master Plan project, the state requirements of HB 1141 for this plan, and the Prince George's County Planning Department's application of this plan's policies into other master plans.

Staff expects to receive input from attendees concerning the issues identified by the state and county and other issues that should be addressed in the plan process. The public forums will be open to all citizens, businesses, property owners and interested parties.

Focus Groups: Representatives of the stakeholder groups will be invited to take part in exploratory work sessions to discuss issues, opportunities and the range of topics to be considered in the development of the Water Resources Functional Master Plan. Identified focus groups are: citizens at large, elected officials, the building/development industry, environmental advocacy groups, watershed groups, utility companies, municipalities, Chambers of Commerce, and agriculture and forestry boards/groups.

For the focus groups, staff will make a presentation at scheduled meetings and request that participants in the focus group identify their affiliation and area of interest. The identified participants will then be convened to specifically discuss the Water Resources Functional Master Plan.

After the Focus Groups have completed their work, individual interviews may be scheduled to address specific concerns or topics.

Plan Review Groups: The purpose of these work sessions will be to bring together the various focus group participants to discuss the draft concept, policy and strategy recommendations for the plan. Based on input from this work session, staff will develop a draft preliminary plan. A final work session will be held to present this information to the combined focus groups and to discuss any modifications to the draft preliminary plan prior to its completion and submission to the Planning Board and District Council for a joint public hearing.

Joint Planning Board/County Council Public Hearing: This will be the formal opportunity for the public to address the Planning Board and County Council on the Preliminary Water Resources Functional Master Plan. The Planning Board and Council will determine whether to amend, adopt and/or approve the preliminary plan. If needed, an additional public hearing may be held by the County Council after Planning Board adoption.

Information Distribution Methods: Throughout the Public Forums, Focus Group sessions, Plan Review Group sessions, and the preparation of the Water Resources Functional Master Plan, the Planning Department's web site will contain up-to-date information regarding dates of meetings, meeting agendas, meeting summaries and other relevant information. Mailing lists compiled from the public forum and focus groups will also be used to distribute information as appropriate. E-mail and putting meeting notices and other material in WSSC's Prince George's bills will be used, whenever possible, to minimize paper and mailing costs. Throughout the plan development process staff will also be available for personal contacts with stakeholders as needed.

It is anticipated that the Focus Groups and Plan Review Group meetings will be completed by March 2009, the joint public hearing will be held November 2009, and final Council action on the Water Resources Functional Master Plan is anticipated by fall of 2010.

SCHEDULE

1. Pre-Planning — January 2008 - September 2008
2. Consultant – Notice to Proceed — July 2008 - August 2008

3.	Planning Board Initiation	September 2008
4.	District Council Authorization	October 2008
5.	Public Participation	November 2008 – December 2008
6.	Complete Modeling	
7.	Prepare Plan	
8.	Permission to Print	December 8, 2008
9.	MDP/MDE review	
10.	First Joint Public Hearing	May 5, 2009
11.	Planning Board Adoption and Endorsement	July 30, 2009
12.	Plan Transmittal to District Council	August 28, 2009
13.	District Council Sets Second Public Hearing	
14.	Second Joint Public Hearing	
15.	District Council Approval	October 2010