

T&E COMMITTEE #3  
September 12, 2022

**Briefing/Discussion**

**M E M O R A N D U M**

September 7, 2022

TO: Transportation and Environment (T&E) Committee

FROM: Keith Levchenko, Legislative Analyst

SUBJECT: **Briefing/Discussion:** Ten-Year Comprehensive Water Supply and Sewerage Systems Plan 2022-2031

**Meeting #1 Agenda:**

- **Briefing: Summary of the County Executive's Recommended Plan Update (Council and DEP Staff)**
- **Discussion of Major Issues**

**Meeting #2 (October 3, 2022) Agenda:**

- **Committee Review and Recommendations**

NOTE: Both the Approved 2018-27 and Recommended 2022-2031 Water and Plans are available for download at: <https://www.montgomerycountymd.gov/water/supply/county-water-plan.html>

Attachments to this Memorandum

- Draft Resolution (©1-2)
- County Executive Transmittal Memorandum and Water and Sewer Plan Executive Summary (©3-12)
- Department of Environmental Protection Briefing Slides on the Draft 2022-2031 Ten-Year Comprehensive Water Supply and Sewerage Systems Plan (©13-31)
- Water and Sewer Plan Primer (©32-50)
- Planning Board Letter dated July 11, 2022 (©51-52)
- Planning Department Staff Report (©53-73)
- County Executive's January 27, 2022 Memorandum to the Council President: Proposed Water and Sewer Plan Commercial Service Policy (©74-75)

## Expected Participants

### **Department of Environmental Protection**

- Steve Shofar, Chief, Intergovernmental Affairs Division, Department of Environmental Protection (DEP)
- Alan Soukup, Senior Planner, Intergovernmental Affairs Division, DEP
- Nasser Kamazani, Senior Engineer, Intergovernmental Affairs Division, DEP
- George Dizelos, Planning Specialist, Intergovernmental Affairs Division, DEP

### **Planning Board/Planning Department**

- Casey Anderson, Chairman, Montgomery County Planning Board
- Robert Kronenberg, Deputy Director, Montgomery County Planning Department
- Patrick Butler, Chief, Upcounty Planning, Montgomery County Planning Department
- Katherine Nelson, Planner Coordinator, Montgomery County Planning Department
- Mark Symborski, Planner III, Montgomery County Planning Department

## **Process**

On June 3, 2022, the County Council received the County Executive's Recommended Montgomery County 2022-2031 Comprehensive Water Supply and Sewerage Systems Plan. The transmittal letter and Executive Summary outlining the key changes and updates are attached on ©3-12. A draft approval resolution is attached on ©1-2.

The focus of the September 12 meeting will be for Committee members to receive a briefing by DEP Staff summarizing the major changes included in the Executive's Recommended Plan Update and to discuss other issues of interest identified by Council Staff.

Based on the Committee discussion at the September 12 meeting, Council Staff will finalize the list of issues for Committee action at its October 3 meeting.

Since this is an election year for the County Council, the Water and Sewer Plan expressly prohibits the current Council from holding hearings, worksessions, or acting on Water and Sewer Plan amendments after October 31<sup>st</sup>. Therefore, for the current Council to hold a worksession and act, Committee review must conclude in early October.

Because several councilmembers will be reviewing the Water and Sewer Plan for the first time, Council Staff prepared a Water and Sewer Plan primer (see ©32-50) for background on the Water and Sewer Plan and the review and approval process.

## **Plan Background**

As noted in the Executive Summary (see ©5) the purpose of the County's Ten-Year Comprehensive Water Supply and Sewerage Systems Plan is to "provide an overview of the planning policies, needs, issues and planned infrastructure related to community and individual water and sewerage systems."

Of most interest to the Council, the Plan serves some key functions including:

- Implementing Master Plan recommendations regarding public water and sewer service
- Providing for specific water and sewer policies which allow for consideration for the provision of public water and sewer outside the Master Plan's planned service envelopes under certain circumstances.
- Detailing water supply and sewerage system infrastructure and any ongoing or recommended policy and planning issues requiring review

State law requires that each governing body review its county plan at least once every three years.<sup>1</sup> All Council-approved changes to the Water and Sewer Plan are subject to review and approval by the Maryland Department of the Environment (MDE).

The primary focus of this comprehensive review is on Chapter One of the Plan which covers Objectives and Policies. However, some updates and Executive recommendations from other chapters are also discussed.

### **Racial Equity and Social Justice Considerations**

On December 2, 2019, the Council adopted Bill 27-19, Administration -Human Rights - Office of Racial Equity and Social Justice - Racial Equity and Social Justice Committee – Established. Among other provisions, this legislation requires the County Executive to submit a racial equity and social justice (RESJ) impact statement for each bill and each management initiative or program that would be funded in the operating or capital budget.

Regarding land use issues, the Council is currently reviewing the Thrive Montgomery 2050 Draft Plan. A major component of that review is an RESJ review of the policies and practices recommended in the Plan. The Thrive Montgomery 2050 Plan will inform future master planning efforts which in turn could impact water and sewer policies, so elements of this RESJ effort may ultimately need to be reflected or referenced in the Water and Sewer Plan.

One area of water and Sewer planning where RESJ issues are expected to play a role is in extension cost financing. The recommendations of the Bi-County Infrastructure Working Group regarding sewer extension needs for Unserved & Underserved Neighborhoods include the development of extension subdistricts and financing/subsidy mechanisms to make sewer extensions more affordable for properties approved for service. If the subdistrict process moves forward, the creation and prioritization of these subdistricts could include an RESJ component.

### **Public Hearing**

A public hearing was held on July 12, 2022. Oral testimony can be viewed at: <https://www.youtube.com/watch?v=8NRNeD-V3Tc>

Written testimony is available at:

<https://www.montgomerycountymd.gov/COUNCIL/OnDemand/testimony/20220712/item7.html>

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<sup>1</sup>The last comprehensive revision was approved by the Council in October 2018, so this update is late; but understandably so given the COVID-19 pandemic and the County's emergency response beginning in March 2020.

The issues raised in the public hearing and in written correspondence are noted later in this memorandum.

The West Montgomery County Citizens Association provided detailed [written testimony](#) with a list of suggested edits and clarifications to the Plan Update. Council Staff is working with DEP staff to review and address those points.

### **Park and Planning Review**

The Planning Board met on July 7, 2022 to discuss the Plan Update. The Park and Planning staff report is attached on ©53-73. The Planning Board's letter to the Council (dated July 11, 2022) is also attached (©51-52). Most of the Board's recommendations involve technical or clarifying language (with which Council and Executive Staff concur). The letter also notes the Planning Board's support for the creation of a policy framework for the prioritization and financing of water/sewer extensions.<sup>2</sup>

### **Technical and Factual Edits**

Before transmittal from the Executive, DEP had incorporated suggested technical and factual edits received from WSSCWater, Planning Department Staff and others into the Plan Update. Some additional technical edits were discussed at the Planning Board hearing and are noted in the Planning Board's letter. These and additional comments received from WSSCWater will be incorporated into the Plan Update for action by the Council. **Council Staff supports these edits. Where applicable, these comments are noted in the major issues discussion below.**

### **Major Issues for Discussion**

Based on meetings with Park and Planning and Executive Staff, as well as public hearing and other correspondence received, Council Staff has identified several major issues for Committee discussion.

Most of the issues focus on "special policies" in the Water and Sewer Plan. As noted in the Plan Update (see Page 1-33) these policies are intended to address situations arising mostly outside the planned water/sewer envelopes and which may not have been anticipated in a Master Plan's general recommendations. These special policies have been developed and modified over time to address issues raised in specific cases and which the Council has felt should be dealt with consistently over time rather than case-by-case.

Where possible, Council Staff suggests that the Council should support sufficient policy detail to allow most cases to be approved administratively by DEP; leaving only those cases which are recommended for denial and/or which have unusual circumstances requiring more discussion. However, some future case by case review may still be needed where new policy issues arise.

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<sup>2</sup> The issue of sewer extension costs and affordability is the subject of a Bi-County Workgroup report: "Sewer Extension Needs for Unserved & Underserved Neighborhoods: Final Recommendations of Bi County Infrastructure Working Group" which the T&E Committee is scheduled to be briefed on at its September 12, 2022 meeting.

## Abutting Mains Policy (see Plan Update Pages 1-36 – 1-41)

This longstanding policy allows for properties outside the planned water/sewer envelope which abut a water or sewer main to be eligible for a single-hookup. Most of these cases are approved administratively by DEP. However, issues arise within specific cases from time-to-time. Three issues for discussion related to the abutting mains policy are noted below.

1. **Allowing Limited Extensions:** The Executive is recommending new language (see ©17-19) which would allow DEP to approve limited extensions from existing abutting mains for better placement of the service connection (for instance so the service connection would avoid sensitive environmental areas on the subject property or provide a more logical connection to the property).

Under the Executive's proposed changes, if an extension were to abut additional properties, then those properties would also become eligible for a single-hookup. In March, 2021 the Council deferred two category change requests (Arora and Kapoor) pending consideration of this extension policy (see Council Worksession Staff Report [here](#)).

The Executive's recommendation would prohibit the extension beyond a point where it can "best provide a logical connection to the existing outfall from the building to the septic tank..."<sup>3</sup> Also, no further extensions of the main would be allowed except to address properties with on-site system failures.

DEP staff have noted that historically it has been extremely rare for an applicant to seek a sewer extension under the abutting mains policy because the existing main may already be in a logical location to connect to the property and because of the high cost per linear foot for main extensions. On-site connections tend to be cheaper per linear foot than main extensions. Therefore, DEP does not expect these types of cases to come up often.

In the Arora/ Kapoor case, the Arora property was eligible for an abutting mains connection and could be approved administratively. However, Arora was seeking a 140' main extension (and a shorter on-site extension) that would result in the extended main abutting the Kapoor property and allowing for that property to connect as well. The Kapoor property would be the last property that could be served by the main and is the only remaining property on that block that is not currently eligible for a sewer connection. Councilmembers expressed support for Mr. Kapoor's situation (i.e. given it was the last property on the block not served), but agreed to defer the request pending review of the abutting mains policy in the Plan Update.

The Council received public hearing testimony from the West Montgomery County Citizens Association opposing any new abutting mains policy language in the Water and Sewer Plan which could lead to more properties being developed on sewer beyond what is generally allowed within the Potomac Subregion Master Plan's recommendations and expressed concerns about crafting policies to address specific cases.

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<sup>3</sup> If this policy change is supported, Council Staff suggests adding the following language covering water main extensions: "...or to the existing feed from the well to the building."

## Issues for Discussion

- Should the abutting mains policy allow for consideration of main extensions upon request of the applicant? What criteria should DEP and WSSC Water use to establish if a main extension is to be allowed and how far the extension can be run?
  - If a main extension would abut an additional property, does that newly abutting property need to be improved to qualify for a single connection? Or should unimproved properties also be eligible?
  - Should abutting mains cases involving main extension requests be eligible for approval through the administrative delegation process, or should these cases be required to go to the Council for review and action?
  - If these cases are required to go to the Council for action, what criteria would the Council consider in deciding whether to approve or deny the request?
2. **Clarifying Process for Approving Multiple Service Connections:** The Executive is recommending new language to clarify the process under which the Council can approve multiple service connections under this policy. Typically, this approval has been done where there appears to be an environmental benefit to serving multiple properties on sewer rather than septic (minimizing tree loss for instance). The new language would note that onsite system testing is required to determine the total number of connections that may be used for dwelling units connecting to public service. **Council Staff concurs with this clarification.**
3. **Transferring Abutting Mains Rights from One Property to Another:** In March 2021, the Council deferred the Ainane request (see Council Worksession Staff Report [here](#)) pending further discussion of whether to revise the abutting mains policy to allow for the transfer of abutting main connection rights from one property to another under limited circumstances. The applicant was requesting approval of public sewer to serve an outlot (Outlot A) immediately adjacent to another developed property (Lot 2) also owned by the applicant and which uses a septic system. Both properties abut a sewer main, with Lot 2 eligible under the Abutting Mains Policy. However, Outlot A is ineligible to connect (since it was part of a prior subdivision whereby another property was provided the single-hookup rights).

The Planning Board had recommended allowing for a transfer of the abutting mains rights from Lot 2 to Outlot A.

In its Executive Staff Report for this request, DEP staff had noted that if Lot 2 and Outlot A were to go through a re subdivision process and a portion of Lot 1 were to be subsumed into Outlot A, then the abutting mains policy could be interpreted to allow a single connection to either one of the properties.

The Executive's Recommended Plan Update does not include any new language to allow a transfer of abutting mains rights.

The Council received public hearing testimony from the West Montgomery County Citizens Association opposing the Ainane request since it could lead to more properties ultimately being developed on sewer beyond what is currently allowed.

**Options for Consideration:**

- The Council could leave the abutting mains policy unchanged (i.e. not allow a direct transfer of single-hookup rights via the abutting mains policy). In some cases (such as Ainane) the applicant may be able to pursue a resubdivision to accomplish a similar result.
- Alternatively, rather than requiring the applicant to go through a re-subdivision process which could achieve the same result as a transfer of abutting mains rights, **the Council could consider new language in the abutting mains policy that would allow for the transfer of abutting mains connection rights from one property to another under limited circumstances. These circumstances could include:**
  - **Both properties must:**
    - **abut the water/sewer main**
    - **be contiguous (i.e. share a property boundary)**
    - **be under common ownership**
    - **If improved, the property with the existing abutting mains connection right must have a fully functioning septic system which meets the latest septic system requirements as documented by the Department of Permitting Services.**

Potomac Peripheral Sewer Policy

This policy, which dates to the 2002 Potomac Subregion Master Plan allows for properties outside the planned sewer service envelope but which abut or confront properties within the Master Plan's designated sewer service envelope to connect to public sewer. The Water and Sewer Plan notes that extensions should "follow existing public rights-of-way and must not affect streams, stream valley buffers, or other environmentally sensitive areas." The Master Plan specifically excludes properties in the Piney Branch subwatershed, the Palatine of Potomac neighborhood, and the Greenbriar Estates neighborhoods. Council Staff has identified the following issues for discussion.

1. New language affirms current practice that the policy does not apply to properties within the City of Rockville. **Council Staff concurs with this clarifying language.**
2. The Council currently has a category change request (Mohebbi) before it which directly involves the Potomac Peripheral Sewer Policy and in particular the exclusion of properties adjacent to and in the vicinity of the Palatine neighborhood. (see April 19, 2022 [Public Hearing Staff Report](#))

According to the Executive Staff Report for this request, this policy exclusion "was based on WSSCWater's evaluation that the low-pressure sewerage (LPS) system serving the Palatine subdivision could not accept any additional sewer service connections." Subsequent improvements have been made to parts of the LPS system and WSSCWater now notes that



some additional capacity may be available to properties “at the periphery of the Palatine LPS system.”

The Executive recommended deferral of the request pending a re-evaluation of the technical limitations of the Palatine LPS system. Council Staff recommends that the Potomac Peripheral Sewer Service Policy exclusion for this area be discussed as part of the Comprehensive Update to the Ten Year Plan and that this category change request be taken up after the conclusion of that review.

#### **Options for Consideration:**

- Since the policy restriction resides in the Potomac Subregion Master Plan, one option is to address the issue as part of a limited Master Plan amendment process (perhaps for this and several other Water and Sewer-related issues in the Potomac area). The implications for changing the policy, in terms of sewer construction impacts and the likely additional development/impervious area can be considered. DEP staff have noted that:  
*“the entire Palatine region could be considered as environmentally sensitive as much of it sits on the serpentinite outcrop. Soils are generally very thin with shallow rock substrate. Development of the Palatine subdivision revealed the difficulties in developing this area and the detrimental effects of construction. (Much of the remaining serpentinite outcrop was dedicated to a conservation park.) It also demonstrated the need for shallow, LPS mains that didn’t need the deeper excavations needed for gravity sewers. Sewer service for many “non-accessible” properties at the northern end of the subdivision would affect streams and stream buffers.”*
- Alternatively, the Council could seek further review of this issue within the Plan Update, given DEP Staff’s contention that the restriction was originally included in the Potomac Subregion Master Plan for technical feasibility reasons. Under this approach, further study by DEP and WSSCWater would still be needed to assess if and how the policy should be revised to reflect current conditions.

#### Consideration for Extensions Outside the Planned Service Area to Serve Commercial Properties

This issue arose during the Council’s discussions of the Transquest LLC and Travilah Oak LLC category change requests last fall (Council Worksession Staff Report available [here](#)). Both requests were deferred “pending consideration of a special service policy in the Water and Sewer Plan to address public service for commercial uses outside the planned public Water/Sewer service areas”

On January 27, 2022, the Executive notified the Council (see ©74-75) that while he was not supportive of such a policy, to assist the Council with its deliberations, he would transmit a draft policy that would address these deferrals. Council Staff had expected this draft policy to be transmitted in time for the September 12 Committee discussion. However, DEP staff have recently noted that they expect the draft policy to be transmitted in early October with the next category change package for Council review.



The Council received written testimony in support of the provision of sewer to both properties including from Bob Eisinger, owner of the Old White House property (Transquest LLC request). His [written testimony](#) notes support for the creation of a new commercial sewer policy that would enable the crossroads area of Travilah to provide “a more robust mix of neighborhood retail at the Potomac Oak Center (Travilah Oak LLC request) and an economically viable reuse of the Old White House property.

The owner of a child care center at the Potomac Oak Center also expressed his support for a new policy [writing](#) that it would allow him to increase the center’s capacity.

### **Options for Consideration:**

As with the Peripheral Sewer Policy Issue discussed earlier, the Council could choose to address the specific issues raised in the deferred category change requests via an amendment to the Potomac Subregion Master Plan which would focus on the properties involved in the deferred requests and if and under what conditions they should be served by public sewer. This approach would avoid the need to develop a broader policy in the Water and Sewer Plan that would apply Countywide.

However, if the Committee is interested in creating a commercial service policy in the Water and Sewer Plan, then Council Staff suggests the following parameters be considered to limit the community and environmental impacts:

- Certain zones could be excluded from this policy (such as the Rural (R) and Agricultural Reserve (AR) zones)
- The policy could be limited to certain commercial uses. If so, these uses would need to be defined as part of the new policy.
- Consistent with other special policies, Council Staff suggests that main extensions be required to stay within public rights of way and avoid sensitive environmental features such as streams and forests.
- Main extensions should not result in the need for additional public infrastructure (such as pumping facilities).
- Properties along the new main extensions which are otherwise ineligible for service should not be allowed to connect to the new main extension except to address documented on-site system failures.
- Should main extensions approved under this policy be limited in length? For context, the deferred requests noted earlier each involve main extensions of approximately 5,300 feet.

DEP staff have noted that they do not expect such a policy, if enacted, to result in many requests, given the high costs of extending sewer and the fact that many commercial uses in these low-density areas function satisfactorily without sewer. However, the currently deferred requests, Transquest LLC and Travilah Oak LLC, could potentially move forward under such a policy.

Another question is whether the Council wants to take up all category change requests seeking approval under this policy on a case-by-case basis. A case-by-case review would presumably mean the Council could say no, even if requests meet the minimum criteria established in the policy (similar to how the PIF Policy works now). Alternatively, the Council could choose to make the defined policy criteria the only test, and if requests meet the criteria than the requests

could be approved administratively by DEP (with the Council having the option to move particular requests back to the Council review process in cases where there may be some potential issues with the criteria or there are broader policy issues in question).

#### Regional Water Supply/Raw Water Storage (see 3-18)

The current Ten-Year Plan includes language recommending “a more comprehensive re-evaluation of the potential benefit to the WSSC water supply system from the eventual closeout and acquisition of the Travilah Quarry...” for purposes of increasing raw water storage capacity and resiliency for the region. The Recommended Plan Update includes essentially the same language.

WSSCWater staff recently provided updated draft language taking into account current regional planning efforts.<sup>4</sup> DEP staff are supportive of the WSSCWater draft language as is Council Staff. **Council Staff will work with Executive Branch and WSSCWater staff to update the language in the Plan Update accordingly.**

#### Sewer Extension Needs for Unserved & Underserved Neighborhoods: Final Recommendations of Bi County Infrastructure Working Group (see Plan Update Pages 1-66 and 1-67)

The T&E Committee is scheduled to receive a briefing on the Working Group report on September 12, 2022. If the Committee is supportive of the Working Group’s recommendations, Council Staff will work with DEP staff to draft revised language for the Plan Update for consideration by the Council which notes the next steps in the process.

#### Septic System Ownership Requirements (Bill 40-21)

This bill currently before the Council (T&E review is tentatively scheduled for October 24) would require septic system owners to pump out their systems at least once every five years and report this information to DEP. Penalties would be established for non-compliance. A subsidy program would also be authorized in the legislation. For more details on this legislation, please see the Public Hearing Staff Report from November 30, 2021 available [here](#).

The Plan Update references this legislation. If this legislation is adopted, the Ten-Year Plan can be updated accordingly.

#### Private Institutional Facilities (PIF) Policy (see

In past years, PIF requests and the underlying PIF Policy have been major discussion points at the Council. As a result, the Council has made numerous changes to the PIF Policy including:

- Requiring the applicant to be the PIF (to avoid speculative ventures)

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<sup>4</sup> In early June, a joint letter was sent to the House of Representatives signed by the Montgomery County Executive, the County Manager of Arlington County, VA, the General Managers/CEOs of WSSCWater and DCWater, the Executive Director of the Interstate Commission on the Potomac River Basin, and the Chair of the Council of Governments Chesapeake Bay Policy Committee expressing support for a provision included within the 2022 Water Resources Development Act (which was recently advanced out of the House Transportation and Infrastructure Committee). This provision provides federal funding for a feasibility study on diversifying the water supply for Washington DC, suburban Maryland, and Northern Virginia.

- Prohibiting PIF approvals in the RDT zone.
- Capping multi-use system capacities in the RDT zone at 4,999 gallons per day or less
- Applicants must submit concept plans to the Development Review Committee (DRC) for their review and comment.

Perhaps because of these prior actions, the current Plan Update includes mostly clarifying language (such as how the County’s implementation of the PIF Policy is consistent with RLUIPA<sup>5</sup> (see Page 1-41). There is also clarification that the concept plans submitted by the applicant must be consistent with “specific, established imperviousness limitations imposed by County regulations.”

**Council Staff is supportive of the revised language for the PIF Policy in the Plan Update.**

#### Riverwood Drive Restricted Sewer Service Area (see Plan Update Appendix C II.N.)

The Water and Sewer Plan includes a restricted service policy (dating back to 1998) for the sewer main along Riverwood Drive south of River Road in Potomac. As part of the approval resolution for the Riverwood Sewer, certain properties in nearby neighborhoods were restricted from obtaining sewer service from this sewer main.

The Plan Update assumes to reduce the restricted area by:

- Removing properties which have subsequently been served by other public sewer main extensions
- Removing restrictions for properties which are not feasible to be served by the Riverwood Drive sewer given the steep slopes in the intervening stream valley.

**Council Staff is supportive of updating the restricted area but recommends only removing the restriction for the properties already served by sewer. The properties that are not assumed to be feasible to be served should remain in the restricted policy to avoid any confusion in the future if sewer extensions were later to be sought.**

#### Glen Hills Study Area (Appendix C II.E.) and Establishing Onsite Systems Survey Areas

The Plan Update makes no changes to the current sewer policy for the Glen Hills area.

The 2002 Potomac Subregion Master Plan included specific sewer restrictions for the Glen Hills area pending completion of a study of general septic system suitability in the area. Properties in the Glen Hills area had to have a documented septic system failure to be eligible for public sewer. Neither the Abutting Mains Policy nor the Peripheral Sewer Service Policy were applicable in the Glen Hills area.

The study was ultimately completed in 2013 and a Water and Sewer Plan amendment was transmitted by the Executive to the Council in June 2015. In March 2016, the Council approved a Glen Hills Area Water and Sewer Plan Text Amendment ([Resolution 18-423](#)) which maintained the

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<sup>5</sup> “Religious land Use and Institutionalized Persons Act of 2000”

policy that on-site systems were the primary wastewater disposal method for the area (consistent with the Potomac Subregion Master Plan and the Water and Sewer Plan's general policies regarding lots greater than one acre. However, the Abutting Mains Policy and the Peripheral Sewer Service Policy restrictions specific to the Glen Hills area were removed, placing Glen Hills on par with other similarly zoned properties outside the planned sewer envelope elsewhere in the County.

As part of the County's 2018 Plan Update, the requirement for the establishment of an Onsite Systems Survey Area was revised to require at least one septic system failure as documented by the Department of Permitting Services (DPS). The failure must also be identified by DPS as not being able to be reasonably addressed by a conventional replacement system. This requirement was put in place in response to concerns that special sewer service areas could lead to unnecessary sewer extensions into areas not intended for sewer service. A July 2017 approval of an area in Glen Hills (The South Overlea Drive Septic Survey Area) was noted as an example.

At the public hearing on the current Plan Update, a Boardmember of the Potomac Highlands Citizens Association and President of the Overlea Sewer Consortium [testified](#) in support of a limited Master Plan Amendment to address the needs identified in the Glen Hills Study, and also recommended removing the septic failure requirement for the initiation of septic survey (i.e. going back to how survey areas were established prior to 2018). One survey area that had been initiated in the North Overlea Area (and then suspended as a result of the new requirement) is recommended to be restarted.

Council Staff suggests that if the Council is interested in considering further flexibility for sewer in the Glen Hills area, that a limited amendment to the Potomac Subregion Master Plan would be the appropriate process. Council Resolution 18-423 includes language calling for a limited Master Plan amendment to consider septic and sewer issues in light of the results of the Glen Hills study.

Regarding the requirement for at least one property to have a documented septic failure with no reasonable onsite solution for a Survey Area to be established, that is a Countywide policy restriction affecting septic surveys throughout the County. The Executive's Recommended Plan Update makes no change to that language. If the Committee is interested in revisiting this issue, Council Staff can include this item as a discussion topic for the October 3 T&E Committee worksession.

attachments

Resolution No.: \_\_\_\_\_  
Introduced: \_\_\_\_\_  
Adopted: \_\_\_\_\_

**COUNTY COUNCIL  
FOR MONTGOMERY COUNTY, MARYLAND**

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Lead Sponsor: County Council

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**SUBJECT:** Ten-Year Comprehensive Water Supply and Sewerage Systems Plan, 2022-2031

**Background**

1. Section 9-501 et seq. of the Health-Environmental Article of the Maryland Code requires the governing body of each county to adopt and submit to the State Department of the Environment a comprehensive County Plan, and on a triennial basis comprehensively review its Plan.
2. In accordance with the State law on December 30, 1969, by Resolution No. 6-2563, the County Council adopted a Comprehensive Ten-Year Water Supply and Sewerage Systems Plan, which was approved by the State Department of the Environment.
3. The County Council has from time to time amended the Plan.
4. On June 2, 2022, the County Executive submitted the Recommended Montgomery County 2022-2031 Comprehensive Water Supply and Sewerage Systems Plan.
5. Recommendations on these amendments were solicited from the Maryland-National Capital Park and Planning Commission, Washington Suburban Sanitary Commission staff, and affected municipalities.
6. A public hearing was held.

**Action**

The County Council for Montgomery County, Maryland approves the following resolution:

The County Executive's Recommended Montgomery County 2022-2031 Comprehensive Water Supply and Sewerage Systems Plan is approved with the following changes, as shown in the attachments to this resolution.

This is a correct copy of Council action.


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Judy Rupp  
Clerk of the Council

## MEMORANDUM

June 2, 2022

TO: Gabe Albornoz, President  
Montgomery County Council

FROM: Marc Elrich, Office of the County Executive 

SUBJECT: Executive Draft 2022 Comprehensive Water Supply and Sewerage Systems Plan

The Department of Environmental Protection (DEP) has completed an update to the County's Approved 2018 Comprehensive Water Supply and Sewerage Systems Plan ("Plan" or "Ten-Year Water and Sewer Plan"). This 2022 Executive Draft Plan update is being transmitted to the County Council for review and approval. The Approved Plan by the County Council will then be submitted to the Maryland Department of Environment (MDE) and other State agencies for final review and adoption.

This 2022 Executive Draft Plan contains policy and technical updates on the County's public water supply and sewerage systems that have changed since the 2018 comprehensive update of the Plan. The updated 2022 Executive Draft Plan is enclosed in PDF format. Also, enclosed are copies the Plan's Executive Summary.

The following summarizes major policy updates and revisions included in the Executive draft Plan:

### ***CHAPTER 1: OBJECTIVES AND POLICIES: Updates & Revisions***

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- **Special Policies for Water and Sewer Service: Abutting Mains Policy (Section II.G.3):**
  - Allows for consideration of limited extensions from existing abutting mains in cases where an extension would allow for better placement of the service connection relative to the building receiving new service. This would also allow another property that abuts the new extension to qualify for community service under this policy. (II.G.3.a) (Related category changes: Kapoor and Arora properties, Boswell Ln.)
  - Revises the option for multiple service connections to require onsite system testing to determine the number of connections that may be used for dwelling units using public systems service. (III.G.3.c.)
- **Special Policies for Water and Sewer Service: Private Institutional Facilities (PIF) policy (Section II.G.4.):**
  - Clarifies that the Council's consideration of concept plans for new PIF cases and PIF use revision cases will be focused primarily on imperviousness and new main extension issues. (II.G.4.c. and II.G.4.d.)



- Added an emphasis on consistency with established imperviousness limitations. (II.G.4.c.)
- **Individual Systems: Onsite Systems Management Program (Section III.C.d.):** Updated the discussion to explain the program's status and the proposed legislation for a septic tank pumping requirement.
- **Water and Sewerage Systems Financing: Underserved and Unserved Communities (Section IV.):** Updated to reflect the current status of the WSSC Water – Bi-county Work Group.

***APPENDIX C: EXCEPTIONAL SERVICE POLICIES AND RECOMMENDATIONS: Updates & Revisions***

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- **Glen Hills Study Area and Potomac Area RE-1 and RE-2-Zoned Properties (Sections II.E. & II.M.):** Added that properties within the City of Rockville are ineligible for the use as part of the Potomac peripheral sewer service policy.
- **Jonesville and Jerusalem (Section II.G.):** Added a discussion of WSSC Water flow monitoring that shows sewage flows into the Poolesville WWTP repeatedly exceeding the agreed upon limit of 20,000 gallons per day. The discussion further cautions that pending a study of inflow/infiltration into the system, either more stringent limitations on sewer connections in the service area may be needed (such as a moratorium) or WSSC Water may need to discuss additional capacity at the WWTP.
- **Riverwood Drive (Section II.N.):** Revised the restricted community sewer service area to include only the subdivisions of Carr's Addition and Fox Meadow. This reflects properties already served by community sewerage systems and properties that cannot logically access the Riverwood Drive sewer main.

Also note that the County Council's previous decision to develop a policy to allow for public service for commercial development outside the sewer envelope (White House Country Inn and Potomac Oaks Center) is not part of this update. To avoid a delay of the update to the water and sewer plan, it is proposed that the new policy regarding commercial development be completed as an independent update.

The staff at DEP is prepared to arrange for a meeting to brief you on some of the more important issues included in this updated Draft Plan and review other related details. Please let me know if you have any questions or need additional information.

ME:ah

Enclosures

cc: Adriana Hochberg, DEP, Acting Director  
Vicky Wan, DEP, Acting Deputy Director  
Steven Shofar, DEP, Division Chief, Intergovernmental Affairs Division  
Nasser Kamazani, DEP, Senior Engineer, Intergovernmental Affairs Division  
Alan Soukup, DEP, Senior Planner, Intergovernmental Affairs Division  
George Dizelos, DEP, Environmental Planner III, Intergovernmental Affairs Division

## ***EXECUTIVE SUMMARY***

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The 2022 - 2031 Ten-Year Comprehensive Water Supply and Sewerage Systems Plan (Water and Sewer Plan or 2022 Plan) provides updates to the 2018 plan based on the latest available data and information. It includes updated information on County policies and plans.

This 2022 Plan includes the adopted policies and plans contained in the prior Plan and in subsequent adopted Plan amendments, while removing outdated or no longer relevant material. The Department of Environmental Protection (DEP) has added updated information from several sources that reflect new information from both technical sources and related County plans. This information has been reorganized in the Plan's text, figures, and maps with the intention of making it easier to understand and follow. Technical information has been summarized and presented on both a watershed and planning area basis to allow interested parties the opportunity to focus on issues that are organized by geographic area.

The purpose of the Comprehensive Water Supply and Sewerage Systems Plan is to provide an overview of the planning policies, needs, issues and planned infrastructure related to community and individual water and sewerage systems. The plan considers public health, environmental protection, and land-use issues as they relate to water and sewerage systems in Montgomery County. It is intended to provide both background information and a planning basis for the evaluation of water supply and sewerage system needs in the county. It is also expected to allow a more thorough context for developing, analyzing, and evaluating the issues related to the review and implementation of the WSSC Water Capital Improvement Program (CIP), including the timing and funding of identified projects. It seeks to achieve this purpose by:

- ❖ Outlining planning principles and policies that relate to land-use planning, infrastructure development, public health, and environmental protection;
- ❖ Describing current conditions of the water supply and sewerage systems relative to condition, capacity, availability, and related issues;
- ❖ Identifying and prioritizing community needs for improved water supply and sewerage infrastructure;
- ❖ Identifying planning and infrastructure projects needed to address existing or projected needs.

To achieve this purpose, the Water and Sewer Plan is organized into four chapters and several appendices. These four chapters address the following major subject areas:

### ***Chapter 1: OBJECTIVES AND POLICIES***

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This chapter includes an introduction to the Comprehensive Water Supply and Sewerage Systems Plan, identifying its purpose, legal context, and governance issues. It outlines the plan's goals and objectives for the orderly and cost-effective development of community water supply and sewerage systems and summarizes the Plan's structure and content. Chapter 1 describes the planning process used in Montgomery County to stage and implement water and sewer infrastructure improvements, including identification of policies and a review of the procedures for the adoption of amendments and/or modifications to the Plan. This chapter includes both general and special-condition policies that have been adopted by the County Council for the designation of community water and sewer service areas, which regulate water and sewerage system extensions, connections, and their staging.

The update of Chapter 1 continues a process of reorganization to assist those using the Plan. This particularly applies to those sections addressing governmental agency responsibilities, general

service policies, special and restricted service area policies, and water and sewerage systems policies and financing.

The preceding changes are largely structural to the Plan, moving sections together with a common theme to provide for clarity, better continuity, and less redundancy. Chapter 1 incorporates text amendments approved by the County since adoption of the prior Plan update. Chapter 1 also provides new information, policy directions, and recommendations, as follow (The numbering shown below corresponds to the subsections of the plan within the chapter):

## **II.: POLICIES FOR THE PROVISION OF WATER AND SEWERAGE SERVICE**

### **II.D.: Water and Sewer Service Development Policies by Service Area Designation**

The policy requirement that all new subdivisions in categories W-3 and S-3 must provide community water and sewer service has been modified for areas zoned for large-lot development (RE-1, RE-2, RE-2C, & RC). This modifies the policy that was revised in the 2018 Plan to require all subdivisions in planned service areas to use public systems. Experience showed that some exceptions in large lot areas (particularly Potomac) were justified.

### **II.G. Special Policies for Water and Sewer Service**

#### **II.G.3.: Community Service for Properties Abutting Community System Mains**

##### **II.G.3.a.: General Requirements**

The text addresses a recent situation where an owner of a qualifying property wanted an extension that would bring a sewer main directly opposite his house. This extension would have also allowed another non-qualifying property to have sewer service approved under the abutting mains policy. The text revision proposes allowing limited main extensions.

This section previously prevented an intervening property that would abut a new main extension from initiating the construction of all or part of the new main. Given the problems we have encountered with the financing of new mains, this requirement served to unduly limit flexibility for options to move new main construction forward. The policy is revised to now allow intervening owners to initiate new main construction.

##### **II.G.3.c. Multiple Abutting Community Service Connections**

This provision of the abutting mains policy is reworked to focus on providing multiple service connections for public service for only the number of properties that could clearly be approved for development by successful onsite systems testing. Previously, multiple abutting mains connections were based on an environmental benefit; however, this required only DEP's estimation that onsite service was feasible, not confirmation of successful testing.

#### **II.G.4.: Community Service for Private Institutional Facilities**

Added a statement about the consistency of the private institutional facilities (PIF) policy with the Federal Religious Institutions Land Use and Institutionalized Persons Act (RLUIPA).

##### **II.G.4.b.: Further PIF Policy Considerations**

Revised the issue of limitations specifically on PIF uses as this could be as interpreted as prejudiced against religious institutions.

Added a proposal to adopt environmental overlay zones that would limit imperviousness in additional watersheds.

##### **II.G.4.c.: PIF Policy Category Change Application Requirements**

Added an emphasis on consistency with established imperviousness limitations. Noted that the County Council's emphasis in considering concept development plans for PIF uses will be on issues addressing imperviousness and water and sewer main extensions.

### **III.: GENERAL POLICIES FOR WATER SUPPLY AND SEWERAGE SYSTEMS FACILITIES**

#### **III.A.4.: Environmental Considerations for Community Systems Construction**

This section was updated to reflect DEP's current stream monitoring and water quality reporting procedures.

#### **III.A.5.: Facility Planning**

This and following sections were substantially revised to acknowledge changes to WSSC's facility planning process over recent years. The 2018 update include a mash-up of old and new processes. This new version is more focused strictly on WSSC's existing processes, including the Asset Management Program and Business Case review.

##### **III.A.5.b.: Interagency Coordination**

Added a recommendation to address and support further DEP and WSSC Water discussions regarding interagency coordination issues or the WSSC project development process.

#### **III.B: Municipal Community Systems**

Added a new introduction for municipal community systems to better fit into the structure of the chapter.

#### **III.C.: Individual Systems**

##### **III.C.4.d.: Onsite Systems Management Program**

##### **Water and Sewer Plan Recommendation: Individual Onsite Systems Management**

This recommendation has been updated to recognize where this program now stands.

DEP staff have supplemented onsite systems management programs research efforts by the Office of Legislative Oversight (OLO) with a report titled "Review of Conventional Onsite Treatment System Laws and Regulations" (March 2021). This report provides a more recent and broader inventory of onsite systems management programs in Maryland, neighboring states, and more distant jurisdictions.

##### **III.C.5.: General Policies for Multiuse Water Supply and Sewerage Systems**

##### **III.C.5.c.: Policy Constraints on Multiuse Sewerage Systems Capacities**

##### Exemptions from Design Capacity Restrictions

DEP has deleted one bullet ("Approved Systems – Existing multiuse sewerage systems and systems not yet built but which are approved and permitted by the Department of Permitting Services prior to February 14, 2006") as it is no longer valid. According to DPS, uninstalled "approved systems" permitted prior Feb. 14, 2006, are not allowed to proceed to construction without pursuing new permits. An unfulfilled permit is valid for only one (1) year from the date of issuance.

### **IV.: WATER AND SEWERAGE SYSTEMS FINANCING**

#### **IV.A.1.b.: Systems Development Charge**

WSSC's work on revising the SDC program is not resolved as of the date of the staff draft of this Plan. This section may be updated if the process moves forward to conclusion before the Council approves this Plan update.

#### **IV.A.2.b.: WSSC-Built Projects**

Some details of the WSSC-Built Projects program have been removed from this update of the Plan as the program is largely irrelevant today.

#### **IV.A.2.c.: Replacing the WSSC-Built Extension Program**

Reworked this section, focusing more on the current work of the Unserved and Underserved Communities subgroup. The subgroup is investigating improved means of providing public service

main extensions to neighborhoods planned for public service but that lack access to existing mains. The subgroup's report is being finalized.

## **V.: PROCEDURES FOR ADOPTING AND AMENDING THE WATER AND SEWER PLAN**

This update removes the term "interim" from amendments to the Plan that occur between the triennial, comprehensive updates. They are simply amendments to the current Plan.

### **V.B.: Triennial Water and Sewer Plan Comprehensive Update**

Revised information about the State's review of the Plan's comprehensive update for consistency with State law.

### **V.C.: Water and Sewer Plan Amendments**

These sections were restructured for clearer organization.

#### **V.C.1.: Property Owner-Initiated Category Change Requests**

Some details concerning WSCCR applications have been removed. This information is available in DEP's application instructions packet, available on DEP's web site. However, the PIF application information was retained.

Removed some of the background information on the WSCCR application fee as it's been in place for 16 years, since 2005.

#### **V.C.2.: County-Initiated Area-Wide Category Map Amendments**

Added an expanded explanation of special community service areas (formerly public health problem areas).

### **V.E: Plan Amendment Actions**

#### **V.E.3: Deferred Amendments**

##### Deferral Timing

Added a specified maximum deferral period of three (3) years for deferrals after which the County Executive will return the amendment to the Council and recommend its denial.

#### **V.E.4.: Tabled Amendments**

Added language that recommends that amendments be tabled for no more than one year without subsequent consideration. Tabling of amendments is strictly at the Council's discretion.

#### **V.E.6.: Appeals**

Removed language concerning why an applicant might seek an appeal.

## **Chapter 2: GENERAL BACKGROUND**

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Chapter 2 provides an overview of the natural and cultural environments in Montgomery County. This chapter identifies the environmental features and characteristics of the county that have a bearing on development patterns, natural resources and other factors related to the physical environment. DEP has used GIS-based graphics to depict information related to watersheds, stream classifications, topography, and other natural features, such as soils, geology and groundwater. This information provides the background for resource protection as it relates to water supply and sewerage system planning in Montgomery County.

This chapter also identifies the cultural environment that includes the planning issues related to demographics, land-use, and development. This information in coordination with the policies adopted in the county's General Plan and land-use master plans identifies the areas of the county that

are subject to development in the future at densities that will require new or expanded water supply and/or sewerage systems.

### **Chapter 3: WATER SUPPLY SYSTEMS**

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This chapter contains information about the various aspects of the county's water supply systems, including water supply sources, treatment, and distribution systems. It identifies the regional nature of the supply sources and the agreements that exist to address issues of water demand and drought management. There is also a discussion of the role of groundwater for both individual water supply systems and for the Town of Poolesville. In addition, the Chapter's discussion of rural sanitation issues includes a table which summarizes known well water supply problem areas in the County. This information provides a basis for further investigations and actions to address these rural sanitation concerns.

#### **I.B.: Water Supply Service Area - Sanitary Districts:**

DEP has maintained the previous Plan structure addressing the three major community water supply systems in the county individually: WSSC, Rockville, and Poolesville. These systems are examined in detail with regard to their treatment, transmission and storage systems. In the geographically extensive WSSC system, graphics relate the various pressure zones to planning areas in the county. This information is provided to assist persons using this plan to understand the relationships between identified water supply projects to the identifiable geographic areas and potential impacts to those areas. These system descriptions also include a summary of the system improvements and growth-related projects.

#### **II.F, III.E.5, and IV.F.: Projected Water Supply System Needs:**

Information is provided on the projected needs of the major water supply systems in the County. The long-range planning is projected out up to 2040, with interim planning dates for facility requirements. Regional, Bi-County and County-wide systems needs are reviewed based on information obtained from various reports and projected population growth in these areas. This information is supported by the regional population projections ((MWCOG), local land-use plans (M-NCPPC), regional water supply projections (ICPRB) and Bi-County water supply needs (WSSC). The projects that are planned to address these identified needs are summarized in the text of this chapter and in the appendices to the Plan, which incorporates the project summary information of WSSC's most recent Capital Improvement Program (CIP).

In addition to this documentation of the county's community water systems, Chapter 3 also presents policy recommendations and directions related to water supply systems for future guidance. The Chapter's major recommendations are summarized as follows:

- ❖ II.C. through II.C.5.: Potential Use of Travilah Quarry for Additional Raw Water Storage: The Travilah Quarry, with an estimated storage capacity of approximately 17 billion gallons of raw water storage, within several miles of the Potomac Water Filtration Plant. This quarry has evaluated by WSSC for several years and this Plan, along with the Potomac Subregion Master Plan, encourages actions be taken to ensure its future availability to the water supply needs of the County and possibly the region.
- ❖ II.E through II.E.6.: Continue Investing in Major Water Supply System Infrastructure: Most of the water supply needs are addressed by the WSSC. As such, the Montgomery County Council directs the focus of WSSC's efforts in directing the WSSC's annual budget and the associated six-year Capital Improvements Projects (CIP). These documents in addition to this Plan allow the County Council to direct the policies and investments needed to meet the future needs of the County. In recent years the emphasis has been on investing in major water supply system infrastructure with a commitment to large diameter water main evaluations, rehabilitation, and

replacement efforts, particularly for Pre-Stressed Concrete Cylinder Pipes (PCCP). Emphasis has also been placed on the sustainability of the small diameter water distribution pipes, adopting programs for the 1 percent replacement of these pipes. This program was adopted to allow a replacement interval of 100 years for these distribution mains, consistent with their expected useful life.

- ❖ II.F.2.c.: Local and Regional Water Conservation Programs: In reference to local and regional water conservation programs, Chapter 3 urges the County's public agencies to lead by example with respect to water conservation measures. These conservation efforts are promoted by several mechanisms that require continued review and evaluation to be effective. Plumbing codes, water rates, and unaccounted water use are emphasized as key factors in ensuring efficient use of water resources for water supply needs.

## **Chapter 4: SEWERAGE SYSTEMS**

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Chapter 4 describes the planning basis for the sewerage systems in the County. It identifies the regional, Bi-County, and system relationships that are based on both political and geographic boundaries.

### **Sewerage Systems Service Area - Sanitary Districts:**

The County's sewerage systems are defined according to the treatment plant service areas, sewer basins and planning areas located in the County. Similar to Chapter 3, updates to sewerage systems are structured individually based on the three major community sewerage systems in the County which include the WSSC, the City of Rockville, and the Town of Poolesville. The WSSC system provides the majority of the community sewer service in the County. Accordingly, much of this chapter is dedicated to defining the regional agreements and policies that pertain to the WSSC system and how they relate to the provision of sewer service and capital project planning to meet anticipated system needs. The Chapter describes key policies, planning procedures, and references the Inter-Municipal Agreement (IMA) of 2012 as a significant long-range plan addressing the regional wastewater treatment needs of the region.

### **I.A. Through I.C.: Washington Suburban Sanitary District, Blue Plains WWTP, and IMA of 2012:**

Over eighty percent of the wastewater collected in the community sewerage systems in Montgomery County is conveyed to the Blue Plains Wastewater Treatment Plant (WWTP) in Washington D.C. Accordingly, the provisions of the IMA that govern the terms and conditions of shared use of this facility with the District of Columbia, Fairfax County and other regional entities is described in detail. Important issues to the County relate to peak and average flow limitations to the sewers that convey flows to Blue Plains WWTP, allocated treatment capacities to the user jurisdictions and the capital improvement projects planned for this facility. Related to Blue Plains and the terms of the IMA are issues that involve the use of the facilities and the management of the sewage treatment process by-product, known as biosolids. The IMA of 2012 addresses the long-term use of this facility by Montgomery County and the region. This agreement was adopted with a ninety nine-year effective date that ensures the viable regional arrangement far into the future. Important to this duration are the mechanisms in the plan to allow it to be amended to meet future planning and regulatory requirements.

Chapter 4 reviews the needs for the sewerage system on a sewershed basis provided by WSSC through their hydro-dynamic modeling of the sewerage system, identifying areas or parts of the sewerage systems requiring relief, either now or in the future. Chapter 4 also provides a brief discussion on rural sanitation issues and includes a table which summarizes known septic system problem areas in the County. This information provides a basis for further investigations and actions to address these rural sanitation issues.



Chapter 4 also presents policy and program recommendations and directions related to sewerage systems for future guidance. The Chapter's major recommendations are summarized as follows:

- ❖ I.B.2.: WSSC Flow Modeling Integration: The Plan urges WSSC to integrate its flow modeling systems with the MC:MAPS geographic information system, which can provide direct access to modeling information WSSC needs from the County.
- ❖ I.B.3.: Development of a Prioritized Listing of SSES Basins and a Financial Plan by WSSC (Section): WSSC has been addressing a comprehensive maintenance, operations and management system for the past ten years. These issues affect capital expenditures, sewer overflow conditions, and regional agreements. This Plan suggests that WSSC develop a prioritized list of SSES basins and a financial plan to address the needs these studies reveal.
- ❖ V.B.3.: To address concerns about potential sanitation problems from aging individual, On-Site systems in the County's neighborhoods (Section): Currently the County is developing a maintenance program for implementation to address the potential sanitation problems from aging and improperly maintained individual onsite systems in the County. Details relative to the implementation of this maintenance program are currently under evaluation and development. Some of the main objective of this maintenance program include:
  - Development of a comprehensive inventory of all the on-site systems in the County.
  - Providing public education and community outreach.
  - Implementation of a preventive maintenance program through regular system pump-outs

## **APPENDICES**

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### **Appendix A**

Appendix A Includes the Plan's glossary. Capital program projects, previously summarized in Appendix A, are included in the Plan by reference to available documentation online.

### **Appendix B**

Appendix B inventories the County's multiuse systems (large-capacity, individual, onsite water and sewerage systems) and has been updated.

### **Appendix C**

Appendix C includes information on exceptional water and sewer service policy areas. Sections updated in Appendix C include:

#### **II.E: GLEN HILLS STUDY AREA**

##### Service Recommendation & Comments:

Related to sewer service under the Potomac peripheral sewer service policy, added text about excluding properties at the periphery of the Rockville planned service area.

#### **II.G: JONESVILLE AND JERUSALEM COMMUNITIES**

##### Service Recommendation & Comments:

Added text that addresses recent WSSC Water flow monitoring from the Jonesville and Jerusalem sewerage system into the Poolesville WWTP. This monitoring shows that these flows repeatedly exceed the agreed upon 20,000 gallons per day capacity, particularly during wet weather events. WSSC Water is investigating possible inflow and infiltration issues in the sewerage system. This section warns that, pending the outcome of this investigation, the County and WSSC Water may need to institute more stringent sewer connection limitations in the service area to minimize excessive

flows to the WWTP. Alternately, WSSC Water could see if the Town is open to negotiations for increasing the amount of flow into the WWTP.

## **II.M.: POTOMAC AREA RE-1 AND RE-2-ZONED PROPERTIES**

### **Service Recommendation & Comments:**

Added text that explains that the policy also needs to exclude properties adjacent to or confronting the planned sewer service envelope within the Rockville service area. Service available from the City has no bearing on county properties outside the City's planned service area. A similar restriction for the Town of Poolesville is not needed as no part of the Potomac Subregion Master Plan Area is adjacent to the town. Will modify the accompanying figure to match.

## **II.N. RIVERWOOD DRIVE**

### **Service Recommendation & Comments:**

Explained that this restricted sewer service area is substantially larger than is necessary. Many parts of the restricted service area already have community sewer service. In other areas, the technical limitations of extending sewer service across the cut for Sandy Landing Rd., 100 feet deep in some parts, makes such extensions impractical. The only areas that need to remain within the restricted sewer service area are Carrs Addition and Fox Meadow. The accompanying figure has been modified to match.

## **Appendix D**

Appendix D includes updated municipal, county, state, and regional agency contact information.

## **Appendix E**

Appendix E provides an inventory of major public and institutional facilities in the county.

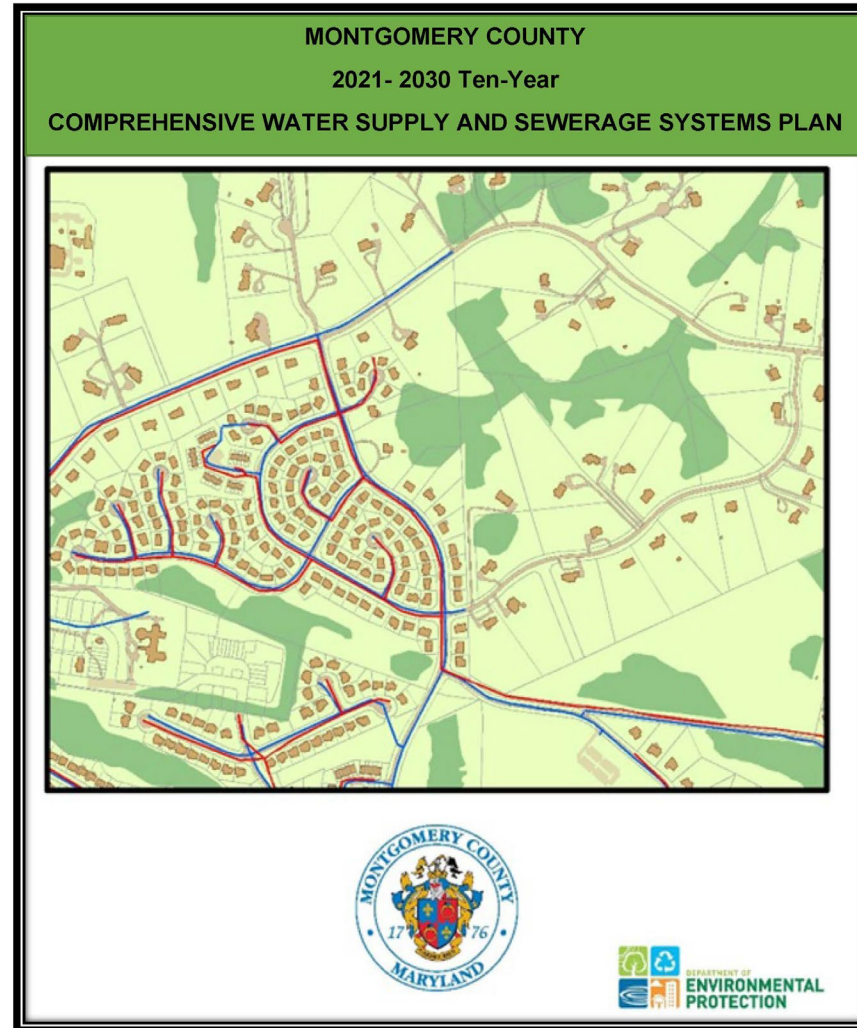
## **Appendix F**

Appendix F provides a summary of included updates and changes to the 2022-2031 Plan relative to the approved 2018-2027 Plan.



DEPARTMENT OF  
**ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY • MARYLAND

## Montgomery County Ten-Year Comprehensive Water Supply and Sewerage Systems Plan (Draft 2022 – 2031 Plan)



# **PURPOSE**

## **STATUTORY REQUIREMENTS**

Section 9-503 Environment Article of the Maryland Code requires that each County have a plan and that it be updated comprehensively at least once every 3 years. Amendments can be approved at any time.

## **APPROVAL PROCESS AND SCHEDULE**

- DEP Transmittal to County Executive for review
- Executive Transmittal to County Council for review and approval
- Council Transmittal to MDE and Other State Agencies for Adoption

# **INTRODUCTION: Executive Summary**

## **CHAPTER 1: Objectives and Policies**

- Legal requirements for the plan & objectives for water and sewer service
  - Policies for the provision of water and sewer service from community (public), individual onsite (wells and septic systems), and multiuse systems
  - Policies affecting public infrastructure, including financing
  - Policies affecting the use of individual onsite wells and septic systems
  - Procedures and organizational roles through which the County and State adopt, amend, and administer the Plan.
- 

- Background information on Natural and Cultural (man-made) environments relevant to the provision of water and sewer service.

## **CHAPTER 3: Water Supply Systems**

- Information on and current conditions of existing water supply treatment, transmission and distribution systems.
- Planning efforts to ensure that mid- and long-term water supply needs are and will be satisfied in a manner consistent with public policy and the plan's objectives.

## CHAPTER 4: Sewerage Systems

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- **Onsite System Exceptions (Section II.D.):**

Allows for consideration of exceptions that would permit interim onsite systems for subdivisions in areas zoned for large lot development (RE-1, RE-2, etc.).

- **Special Policies for Water and Sewer Service (Section II.G.):**

- Community Service for Properties Abutting Community System Mains (II.G.3.):

- 1) Allows consideration of limited main extensions from existing abutting mains where it would allow for better placement of the service connection relative to the building receiving new service. This would also allow another property that abuts the new extension to qualify for community service under this policy. (II.G.3.a) - *Slide 6*

[Deferred WSCCRs 20-TRV-03A – Arora & 20-TRV-05A – Kapoor - *Slide 7*]

- 2) Consideration to transfer an abutting mains “right” from one commonly-owned property to another. *This revision is NOT included in the Executive draft Plan.*

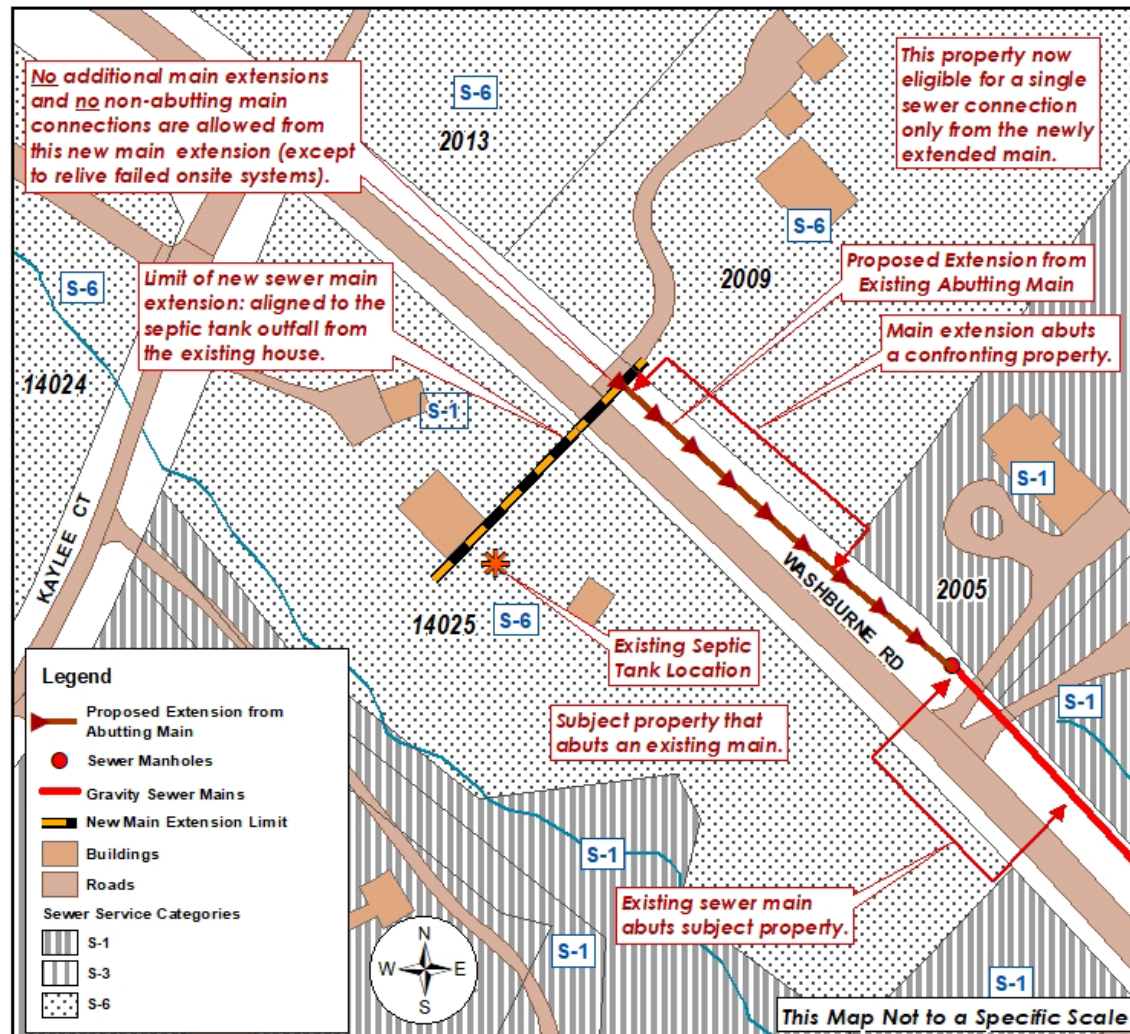
[Deferred WSCCR 20-TRV-09A – Ainane - *Slide 8*]

- 3) Revises the option for multiple abutting service connections to require onsite system testing to determine the number of connections that may be used for dwelling units using public systems service. (III.G.3.c.)

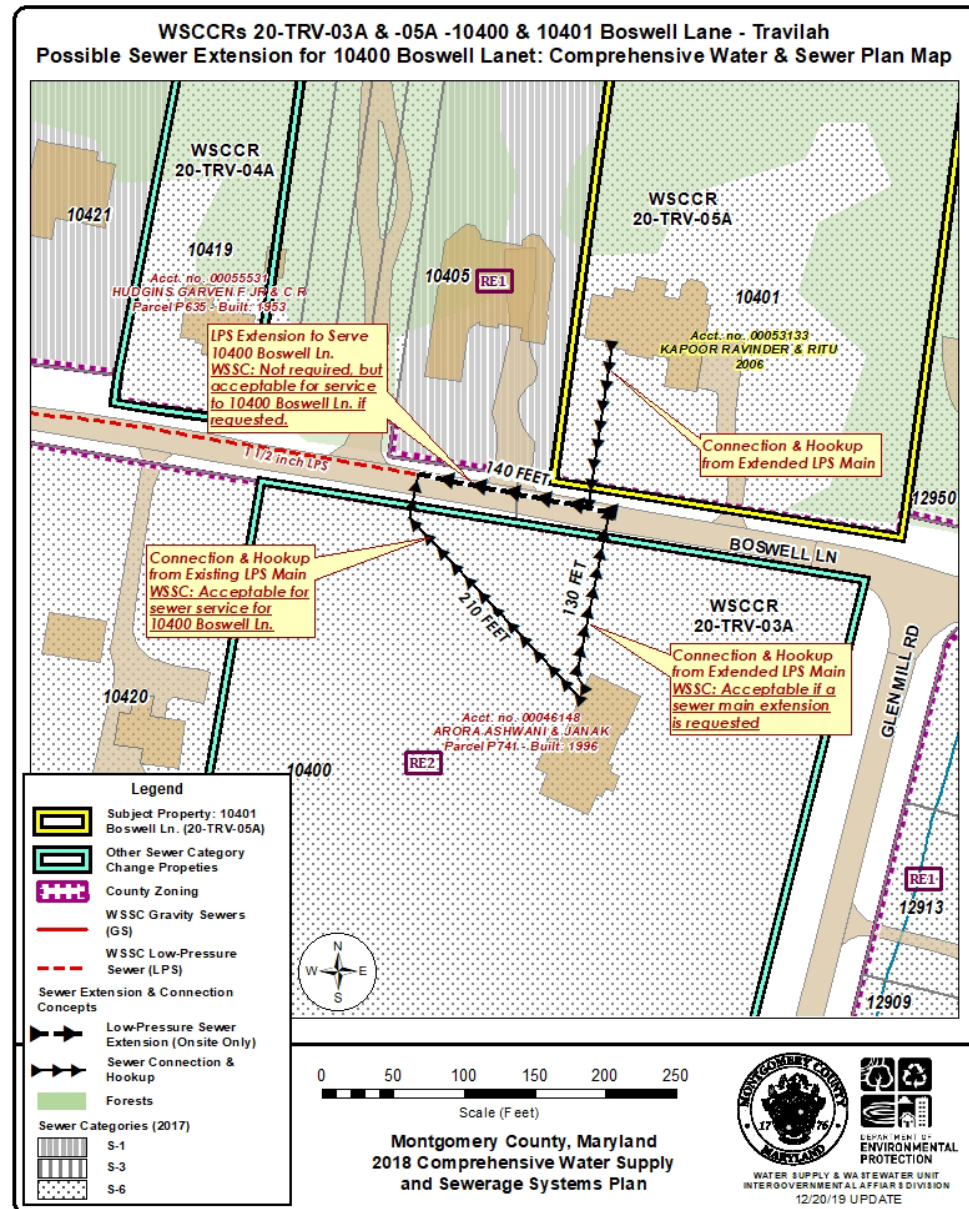


# New Initiatives & Critical Policy Revisions – Chapter 1

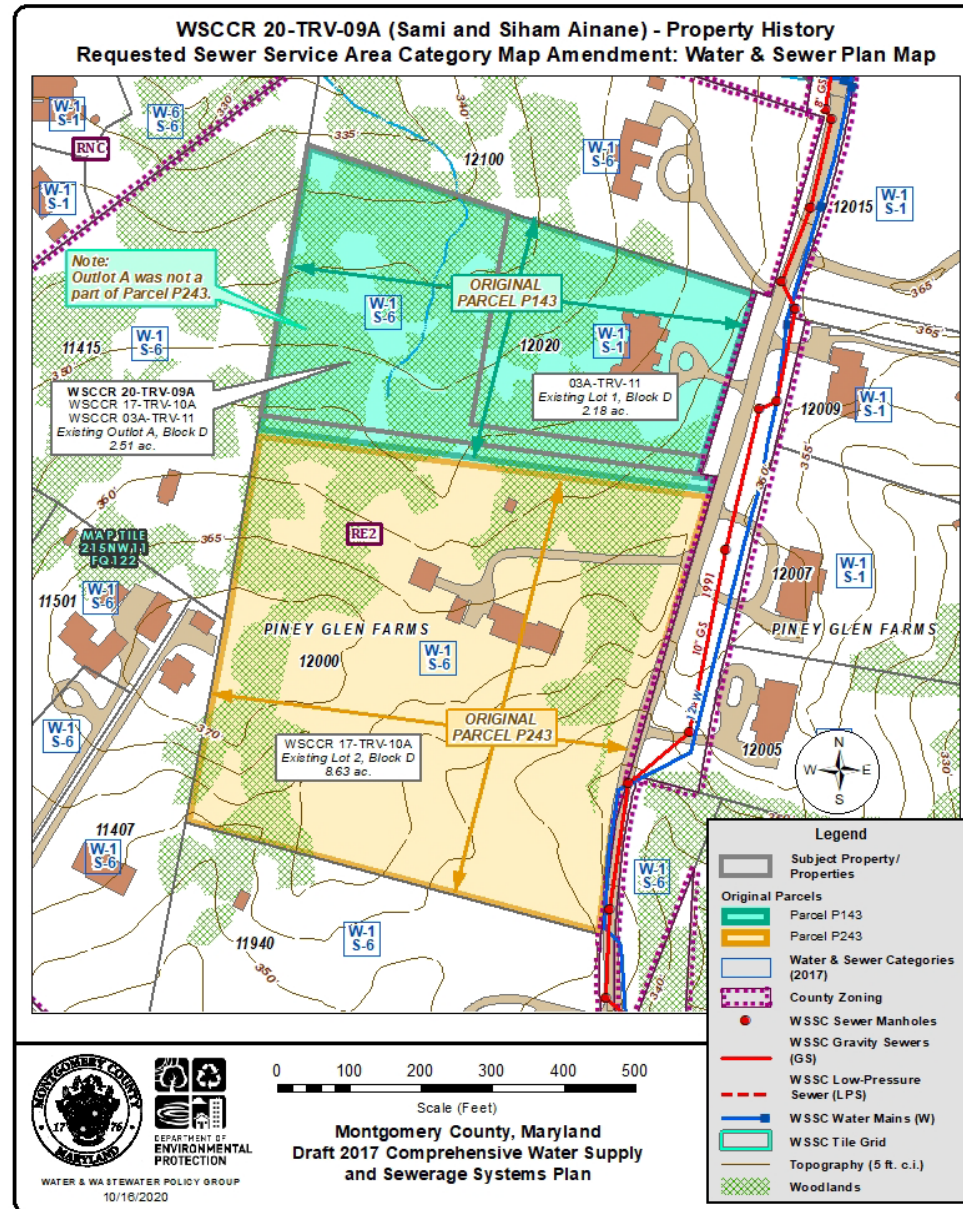
Figure 1-F\_: New Extensions from Abutting Community Service Mains



# New Initiatives & Critical Policy Revisions – Chapter 1



# New Initiatives & Critical Policy Revisions – Chapter 1



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(II.G.4.)

- 1) Clarifies that the Council's consideration of concept plans for new PIF cases and PIF use revisions will focus primarily on imperviousness and new main extension issues. (II.G.4.c and II.G.4.d.)
  - 2) Added an emphasis on consistency with established imperviousness limitations. (II.G.4.c.) and suggested the consideration of additional environmental overlay zones with imperviousness limits. (II.G.4.b.)
  - 3) Added statement concerning the Religious Land Uses and Institutionalized Persons Act (RLUIPA) of 2000 (II.G.4.)
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- **Glen Hills Study Area & Potomac Area RE-1 and RE-2-Zoned Properties Sections (Potomac Peripheral Sewer Service Policy)**

Added that properties within the City of Rockville are ineligible for the use of the Potomac peripheral sewer service policy. (II.E .& II.M.) - *Slide 12*

- **Jonesville and Jerusalem Section near Poolesville**

Added that WSSC Water flow monitoring that shows sewage flows into the Poolesville WWTP repeatedly exceeding the agreed upon limit of 20,000 gallons per day. The discussion further cautions that pending a study of inflow/infiltration into the system, either more stringent limitations on sewer connections in the service area may be needed or WSSC Water may need to discuss additional capacity at the WWTP. (II.G.)

- **Riverwood Drive Section in Potomac**

Proposed reducing the area of the existing sewer restriction as:

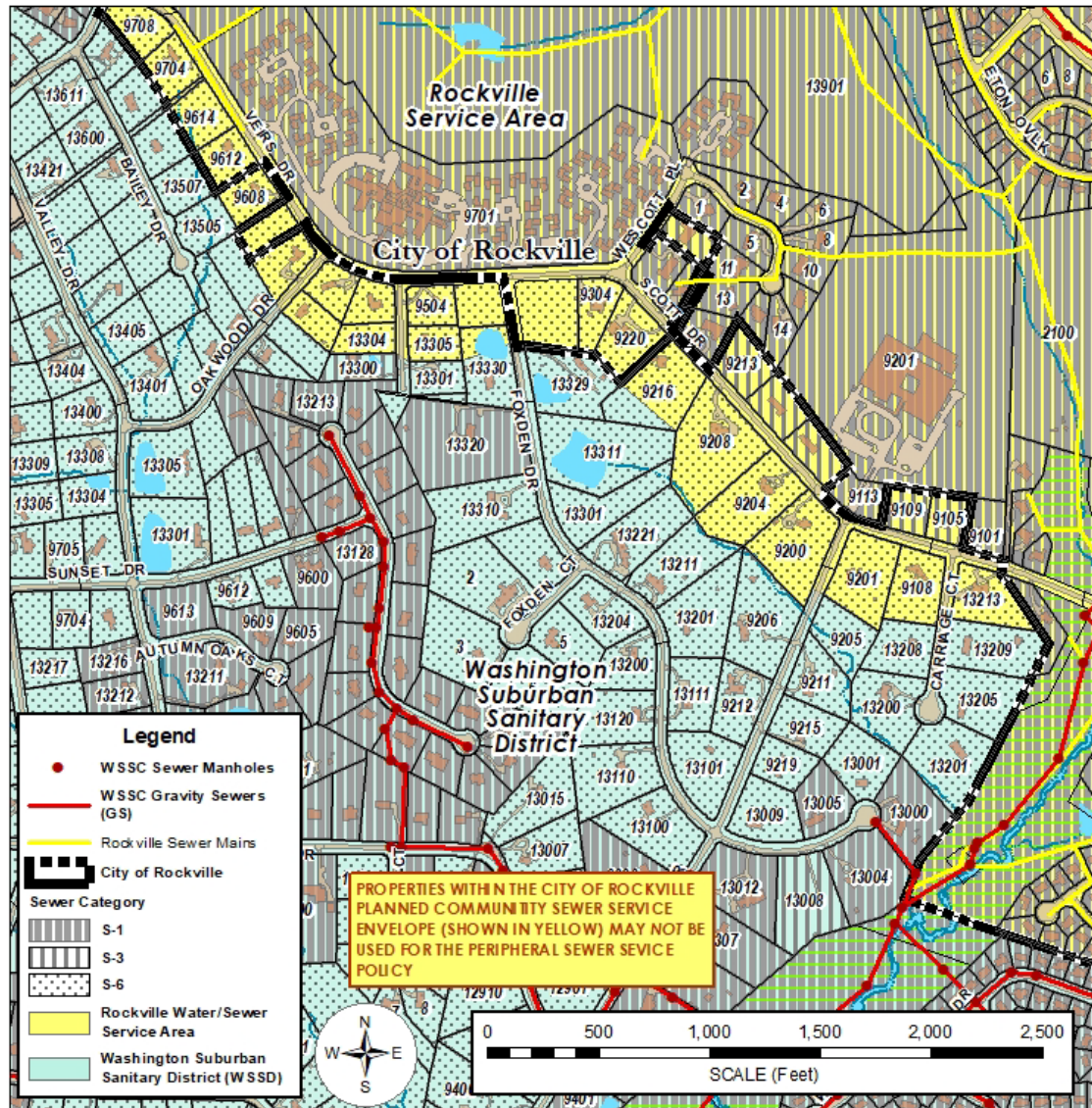
- 1) Part of the existing area already has public sewer service, and
- 2) Other parts of the existing area are not accessible for sewer service from the Riverwood Drive sewer main. (II.N.) - *Slide 13*

In discussions, Council staff suggested an alternative that keeps properties addressed by item no. 2 within the restricted service area. - *Slide 14*



# New Initiatives & Critical Policy Revisions – Appendix C

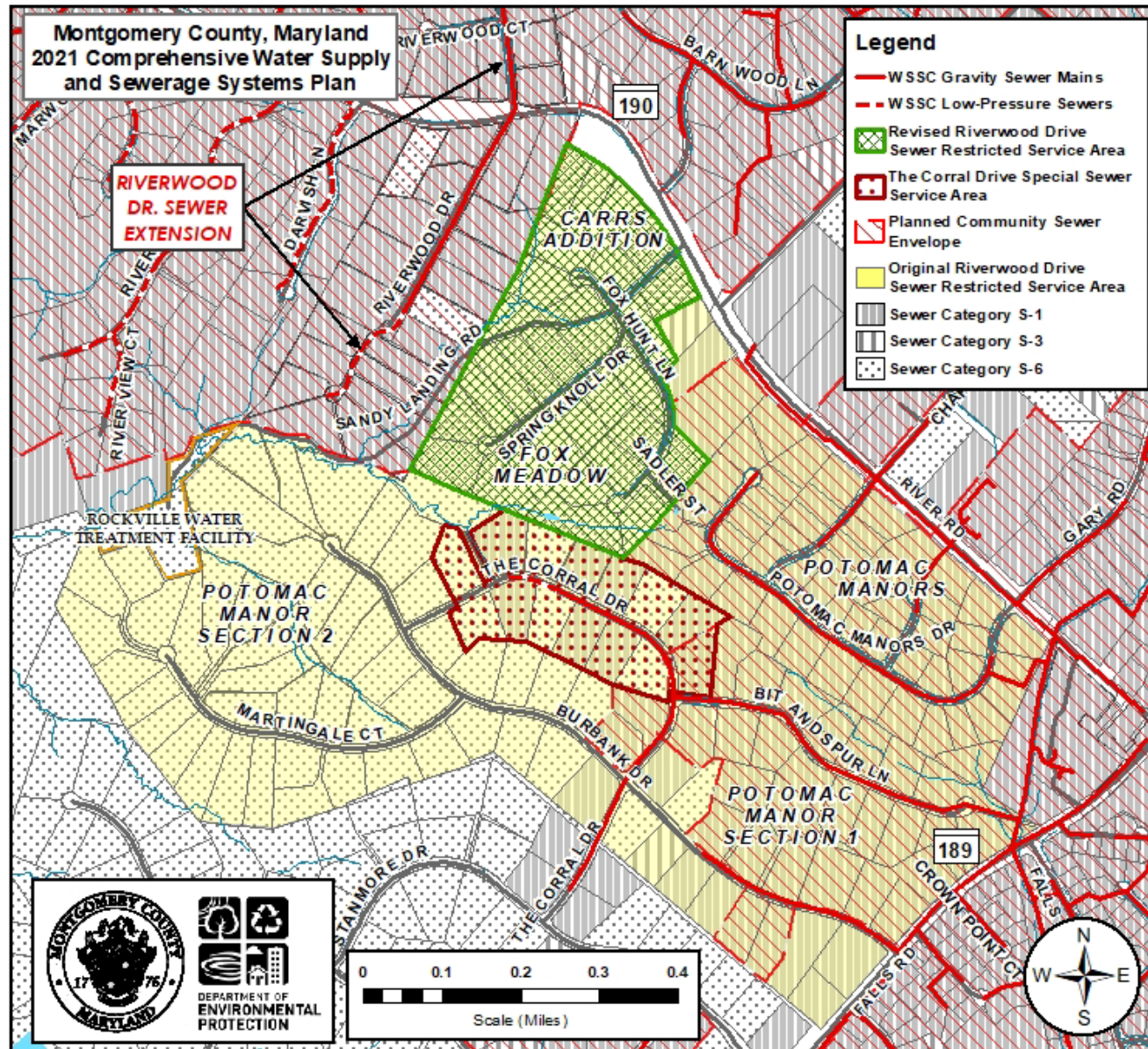
## Potomac Peripheral Sewer Service Policy Properties Within the City of Rockville Community Service Area Excluded





## New Initiatives & Critical Policy Revisions – Appendix C

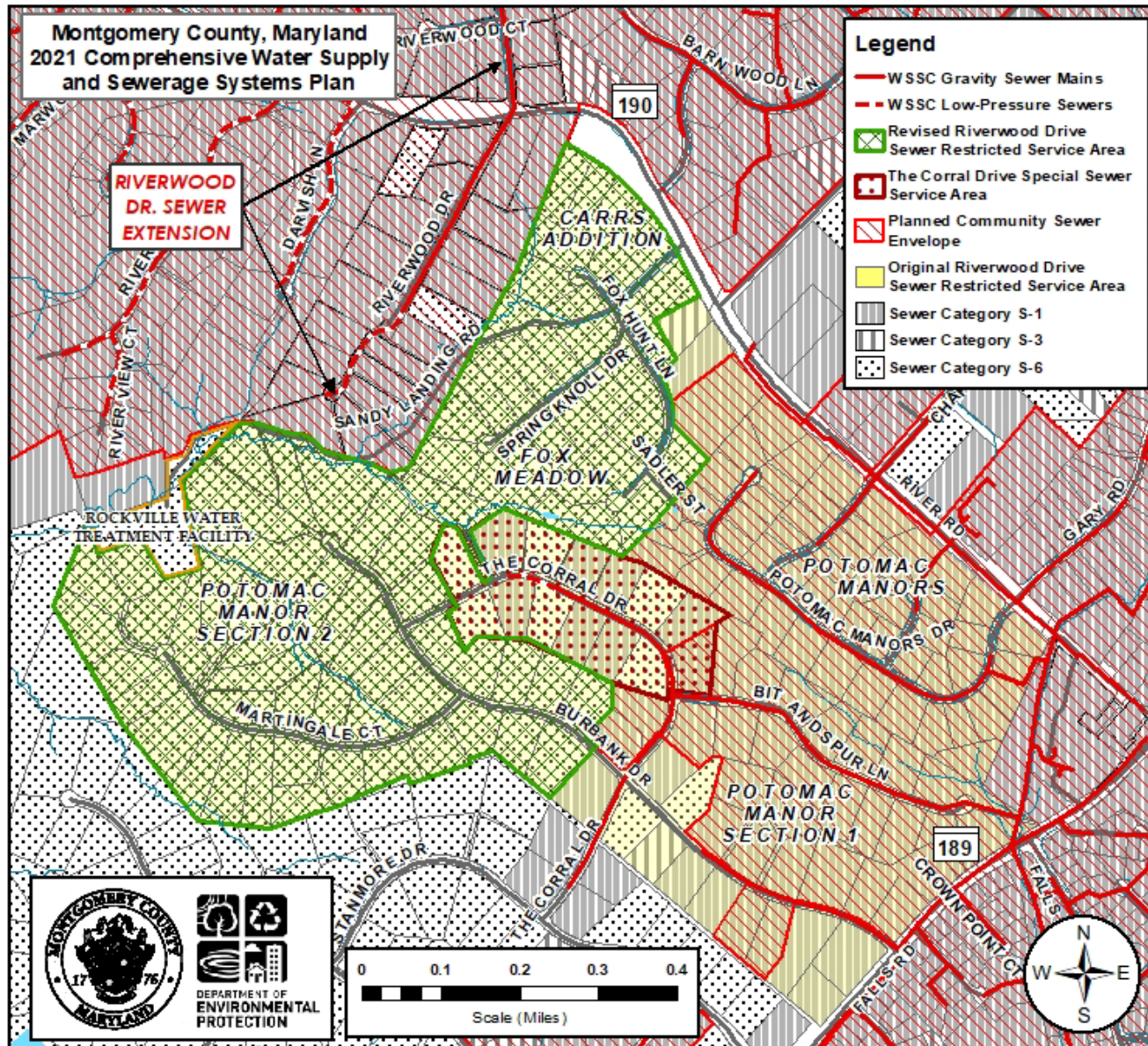
***Riverwood Drive Restriction: As Recommended in Executive Draft Plan***





## New Initiatives & Critical Policy Revisions – Appendix C

### ***Riverwood Drive Restriction: Council Staff Suggestion***



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- **Community Service for Commercial Sites Outside the Planned Service Envelopes**

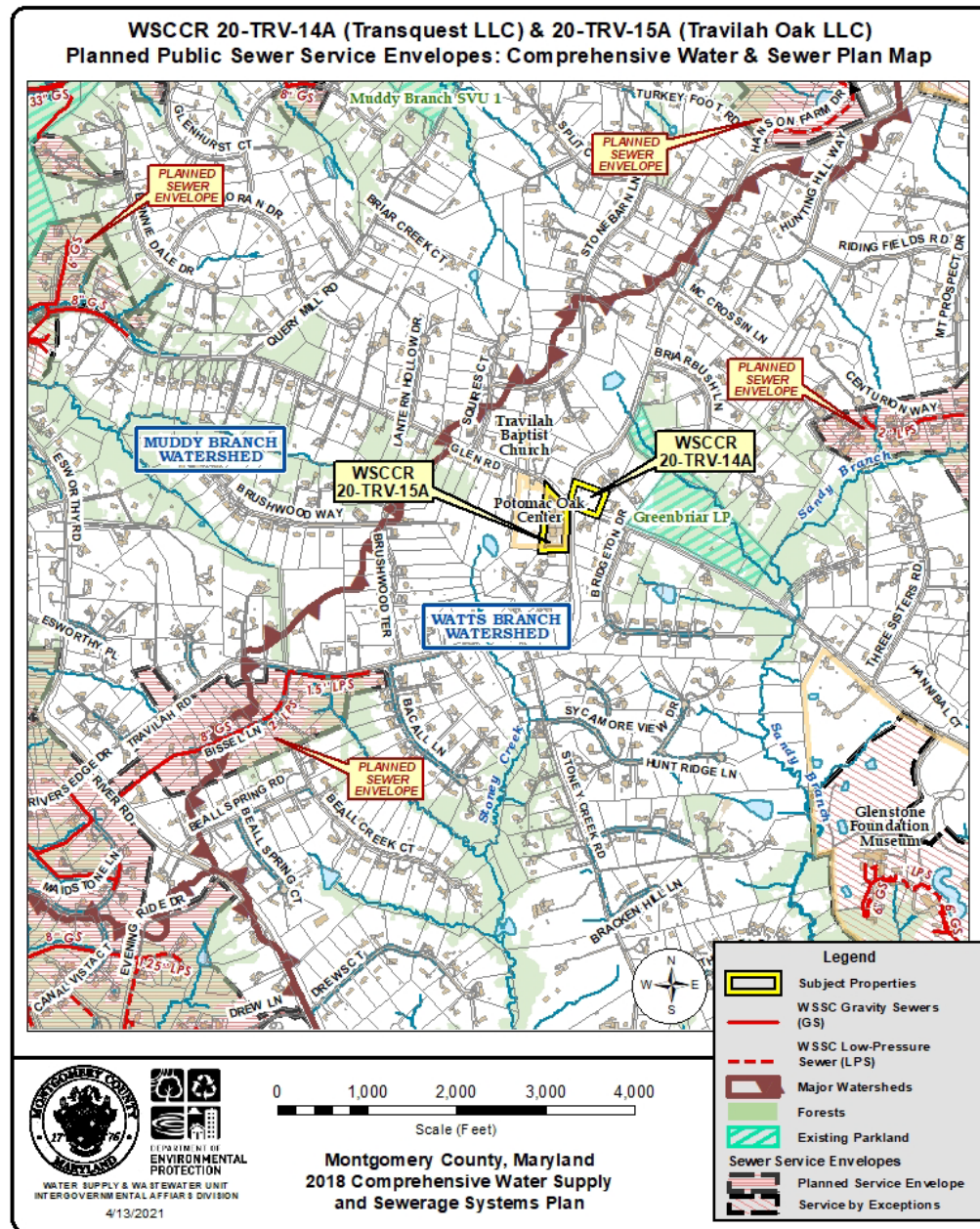
- Pending policy amendment (expected in the next category change packet). Would allow for *limited* extension of community water/sewer service to commercial sites beyond the planned community service envelopes. Draft policy not yet available.
- [Deferred WSCCRs 20-TRV-14A (Transquest LLC) & 20-TRV-15A (Potomac Oak LLC – *Slide 16*)]
- Planning Board recommended denial for these two cases. However, it also conceptually supported redevelopment plans for these sites and of the Council finding a way to move these requests forward.

- **Reconsideration of Potomac Peripheral Sewer Service Policy – Palatine Exclusion**

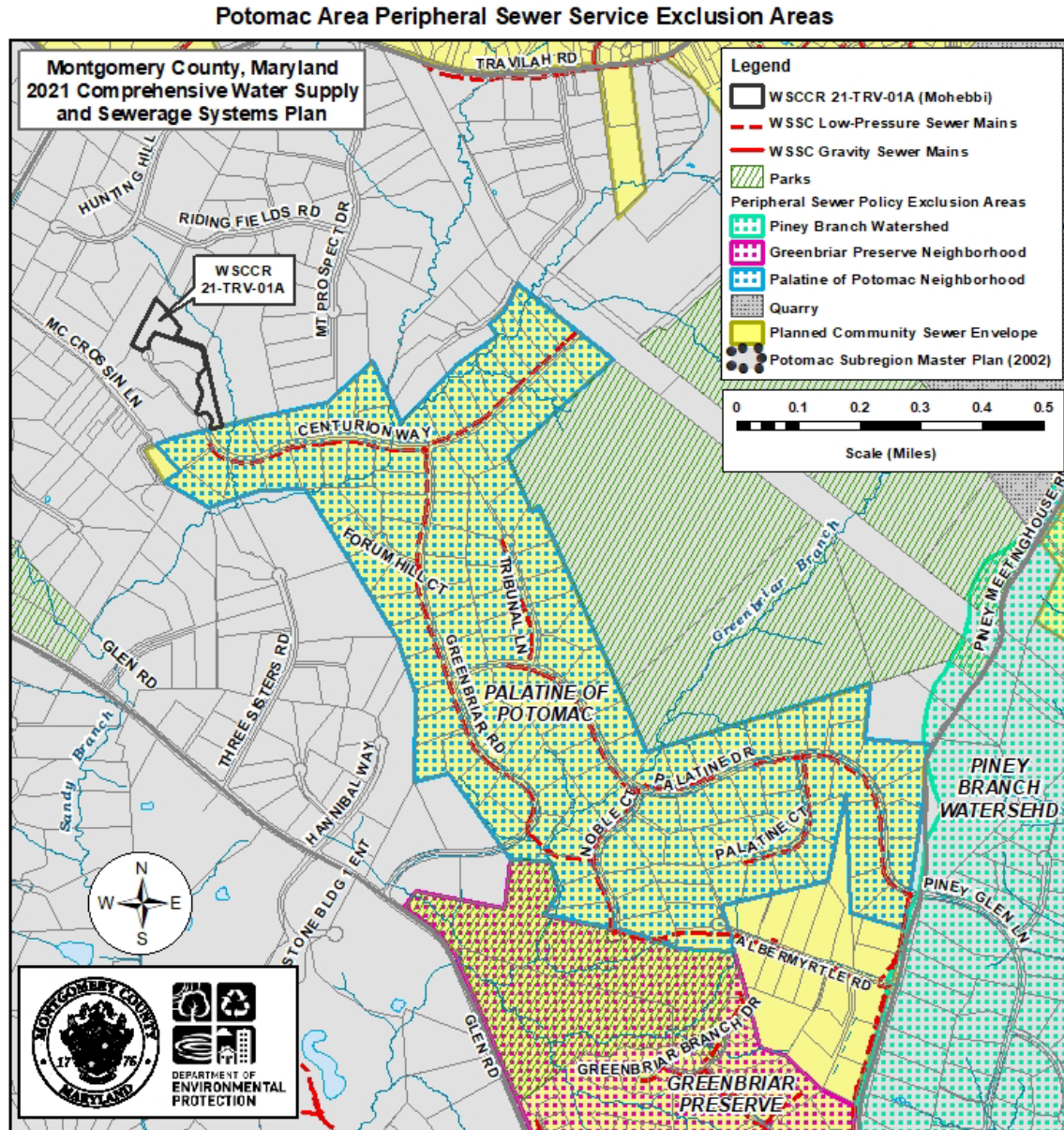
- Palatine subdivision was excluded from use with the peripheral service policy because of low-pressure sewerage system capacity limits. Recent sewerage system changes may allow for additional capacity per recent WSSC-Water report.
- CE recommended deferral pending DEP and WSSC-Water study of this issue subdivision-wide (part of the current packet before the Council).
- [Pending request: WSCCR 21-TRV-01A (Mohebbi) - *Slide 17*]
- Planning staff and Planning Board recommended denial for this case.



# Other Policy Issues Cited by County Council Staff



# Other Policy Issues Cited by County Council Staff



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- **Unserved and Underserved Communities** (Chapter 1, IV.A.2.c.)

WSSC-Water Planning staff have provided an updated discussion related to the recent working group report. The report has been reviewed by the WSSC Commissioners, the Prince George's Co. Council, and the Montgomery Co. Executive. Consideration by the Montgomery Co. Council is pending. - See *Slide 10, above*

- **Raw Water Storage at Travilah Quarry** (Chapter 3, II.C.2. & II.E.6.)

WSSC-Water Planning staff have provided updated discussions in several sections (regional drought operations, water supply system redundancy) related to the potential use of Travilah Quarry for raw water storage for some users of the Potomac River as a raw water source.

# Questions?



DEPARTMENT OF  
**ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY • MARYLAND



# 10 Year Water and Sewer Plan: A Primer

SEPTEMBER 12, 2022





# Purpose of the Plan

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“To provide an overview of the planning policies, needs, issues and planned infrastructure related to community and individual water and sewerage systems, public health, environmental protection and land-use issues in Montgomery County...”

- - - *from Approved 2018-2027 Plan*

# Agenda

- ▶ Statutory Requirements
- ▶ Water and Sewer Plan Components
- ▶ Amendment Process
- ▶ Policies
  - ▶ Service Area Categories
  - ▶ General Policies
  - ▶ Special Policies
  - ▶ Multi-Use Systems

# Statutory Requirements

- ▶ Section 9-503 Environment Article of the Maryland Code requires that each County have a plan and that it be reviewed at least every 3 years (although amendments can be approved at any time).

*Note: We are late with our 3-year requirement. Our plan was last comprehensively reviewed and approved in 2018. The next plan revision is currently before the Council*

# Statutory Requirements (continued)

- ▶ Section 9-515 includes specific requirements for Montgomery and Prince George's Counties (including 30- day notice of public hearing to the Planning Board and WSSC)
- ▶ The Maryland Department of the Environment (MDE) reviews and approves all amendments passed by the Council. The Maryland Department of Planning (MDP) comments on the consistency of an amendment to applicable master plans and to certain State policies (such as smart growth regulations).

# Water and Sewer Plan Components

## **Chapter 1: Objectives and Policies** – Provides:

- ▶ Legal requirements for the plan
- ▶ Overall objectives for water and sewer service
- ▶ **Policies addressing the provision of water and sewer service from community, multi-use and individual systems**
- ▶ Procedures and organizational roles through which the County and State adopt, amend, and administer the Plan.

## **Chapter 2: General Background** – Provides:

- ▶ Background information on natural and man-made environments relevant to the provision of water and sewer service

# Water and Sewer Plan Components

## **Chapter 3: Water Supply Systems** – Provides:

- ▶ Information on existing water supply systems
- ▶ Planning efforts to ensure that mid- and long-term water supply needs are and will be satisfied in a manner consistent with public policy and the plan's objectives
- ▶ Regional planning issues, as they relate to the county

## **Chapter 4: Sewerage Systems** - Provides:

- ▶ Information on sewerage systems
- ▶ Planning efforts to ensure that mid- and long-term sewerage needs are and will be satisfied in a manner consistent with public policy and the plan's objectives
- ▶ Regional planning issues, as they relate to the county



# Water and Sewer Plan Components

## **Appendices** – Provide:

- ▶ Technical or reference information to supplement the Plan's four chapters. DEP may update portions of this information, such as the capital water and sewer projects listing, more frequently than the Plan's three-year comprehensive amendment cycle.

## **Water and Sewer Service Area Category and Systems Maps** – Provide:

- ▶ The water and sewer service area categories designated in this Plan for all properties within the county.

# Amendment Process:

## Types of Amendments

- ▶ Text amendments

*Example: Changes in the Abutting Mains Policy*

- ▶ Category Changes (Map Amendments)

- ▶ Area (multiple property owners)

*Example: Town of Laytonsville Water Service, Tune Ave. (Damascus) health problem area sewer service, Clarksburg*

- ▶ Individual (single property owner)

*Example: Homeowner currently on well and septic seeking water and/or sewer, development project needing public water and sewer*

- ▶ Multi-Use System Designations

- ▶ Requires both map and text amendments

*Example: Derwood Bible Church Request for Multi-Use Water and Sewerage Systems near Laytonsville*



# Amendment Process: Council Actions

- ▶ Approval
- ▶ Conditional Approval – Other actions must occur before final approval. DEP verifies when conditions are met and finalizes approval. No further Council action required.

*Examples: Planning Board approval of a cluster-option subdivision plan, Council approval of WSSCWATER capital projects (such as a sewage pumping station)*

- ▶ Deferral – Item will be considered later (assumed to come back within one year). A future public hearing may be required under certain circumstances.

*Examples: More information needed, or pending a land-use, zoning, Water and Sewer Plan Update, or master plan decision.*

- ▶ Denial

# Amendment Process – CE and Council Review

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- ▶ DEP seeks input from M-NCPPC, WSSC, and DPS (Well and Septic) and develops an Executive Staff Report
- ▶ CE makes formal recommendations and transmits to the Council.
- ▶ Council introduces and sets a public hearing date (30-day notice required to WSSCWATER and the Planning Board)
- ▶ Public Hearing
- ▶ T&E Committee Review
- ▶ Council Worksession (straw votes on each amendment taken)
- ▶ Council Action (formal approval of resolution)
- ▶ CE Ten-Day Review Period
- ▶ Resolution submitted to MDE which has 60 days to review and take action (MDE may extend its review for two additional 45 days blocks)
- ▶ Council can seek reconsideration within 6 months of any denial by MDE

# Amendment Process- Administrative Delegation

- ▶ DEP Director authorized to approve Plan amendments meeting specific policy requirements: Chapter 1, Section V.D.2 Council-members review, but no direct Council action is required.
- ▶ Public Hearing Process
  - ▶ Consistent with Existing Plans (Master Plan and Water and Sewer Plan)
  - ▶ Properties Abutting Existing Mains (Residual and Combined Properties, multiple sewer hookups)
  - ▶ Public Facilities
  - ▶ Individual Systems Regulations Changes
  - ▶ Child Lots
  - ▶ Larger Capacity Multi-Use Systems
- ▶ Direct Approval Process (no public hearing or interagency review required)
  - ▶ Public Health Problems
  - ▶ Properties Abutting Existing Mains (single hookups only)
  - ▶ Interim Individual Systems
  - ▶ Smaller-Capacity Multi-Use Systems
- ▶ DEP identifies amendments eligible for administrative delegation and directs controversial and non-qualifying cases to the Council's review process. No "right" to administrative review.
- ▶ Individual Council-members or Planning Board may require deferral to the Council's review.
- ▶ All Approved Amendments are submitted to MDE for final action.

# Most Common Service Area Categories

- ▶ W1/S1: area is served by community (public) systems or systems are under construction
- ▶ W3/S3: area is approved for community service and service is expected within approximately 2 years
- ▶ W6/S6: area is intended to use individual, on-site systems; no community service is planned
- ▶ W6/S6 (multi-use system): property is served by an on-site system with a capacity of 1,500 gallons per day (gpd) or more.

Note: Approval of a particular category change may include conditions or restrictions that may limit how and when service is provided.

# General Water Service Policies:

- ▶ Public water generally assumed to serve moderate to high residential development densities of two or more units per acre (R-60, R-90, R-200 etc...) and under certain cluster options.
- ▶ “Large Lot” Policy
  - ▶ service **may** be approved to lower-density development (RE-1, RE-2, RC cluster) if service is logical, economical, and provides for adequate protection of surface and ground waters.
  - ▶ Rural and Agricultural areas (R & RDT) intended for individual, on-site water supply systems (i.e. wells)



# General Sewer Service Policies:

- ▶ Public sewer is generally assumed to serve moderate to high residential development densities of two or more units per acre (R-60, R-90, R-200 etc...) and under certain cluster options (RE-2C, RNC, etc.).
- ▶ Areas zoned for lower-density residential development (RE-1, RE-2 and other large lot and rural zones) are intended to be served by on-site systems (i.e. septic systems).

# Special Service Policies

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- ▶ Master Plan Recommended Exceptions

- ▶ may include provisions allowing community service under certain conditions

*Example: Some master plans include “logical, economical, environmental” criteria for specific areas and/or allow for a case-by-case review (such as parts of Cloverly and Fairland)*

- ▶ may restrict community service even further

*Examples: Burtonsville Crossroads Master Plan and the Piney Branch Restricted Sewer Access Policy in the Potomac Subregion Master Plan.*

# Special Policies (continued)

- ▶ Existing or Anticipated Public Health Problems
- ▶ Abutting Mains
- ▶ Private Institutional Facilities (PIFs)
- ▶ Public Facilities
- ▶ Properties affected by Public Improvements
- ▶ Community Development Projects
- ▶ For TDR Receiving Areas with lower-density base zoning (RE-1, RE-2, etc...)
- ▶ Water Service for Child Lots
- ▶ To Address Individual On-Site Systems Regulations Changes
- ▶ Special and Restricted Service Areas

*Examples: Oaks Landfill Water Service Area, Laytonsville Restricted Water Service Area, Piney Branch Restricted Sewer Service Area*



# Multi-Use Systems

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Definition: An on-site water supply or wastewater disposal system, serving a single user, with a peak design flow of 1500 or more gallons per day (gpd).

- ▶ Typically intended for institutional, commercial, and industrial uses in low-density zones.
- ▶ All multi-use systems must be approved as formal map and text amendments to this plan.
- ▶ In RDT-zoned areas, the “Knapp Cap” restricts the size of multi-use sewerage systems to a capacity equivalent to the residential design capacity that could be approved for the property (at 600 gpd per each residential unit), with a maximum allowed capacity of 4,999 gpd.

\*see resolution at:

[http://www.montgomerycountymd.gov/content/council/pdf/res/2006/20060214res\\_15-1343.pdf](http://www.montgomerycountymd.gov/content/council/pdf/res/2006/20060214res_15-1343.pdf))

# Questions?



**July 11, 2022**

**TO:** The Honorable Gabe Albornoz  
President, Montgomery County Council  
Stella B. Werner Council Office Building  
100 Maryland Avenue, Room 501  
Rockville, Maryland 20850

**FROM:** Montgomery County Planning Board

**Subject:** Draft 2022-2031 Montgomery County Ten-Year Comprehensive Water Supply and Sewerage Systems Plan

#### **BOARD RECOMMENDATION**

The Montgomery County Planning Board of The Maryland–National Capital Park and Planning Commission reviewed the Draft 2022-2031 Ten-Year Comprehensive Water Supply and Sewerage Systems Plan at its regular meeting on July 7, 2022. By a vote of 4:0 (Commissioner Patterson absent from the meeting), the Planning Board recommends approval of transmitting the following recommendations and comments on the plan to the County Council, as part of the public hearing testimony.

#### **Recommendations and Edits**

##### **Policy-Related Recommendations**

###### **1. Water and Sewer Extension-Related Policies**

The updates to the plan regarding water and sewer extensions are appropriate as far as they go, but before attempting to address water and sewer extension issues both inside and outside the envelopes comprehensively the Council should first adopt a framework for prioritizing and financing extensions that considers 1) the number of properties involved, how long the extension will be, the total cost of the project, and how much it will cost on a per project or per connection basis; 2) the socioeconomic conditions of the neighborhood and how much the property owner can be expected to pay; 3) the different situations of individual homeowners, some of whom have undeveloped land while others are long-term residents on parcels that now have failing septic systems; and 4) how to account for the issues that arise regarding owners of properties without public service who can afford to wait until extensions are made to address septic failures on nearby properties, at which point they can hook up and realize significant financial benefits with minimal costs.

If a neighborhood is unsuitable for septic systems, there should be some mechanism to compel the property owners to participate in sharing the costs equitably.

Outlots should be approved for connection to public water and sewer by transfer of public service rights from other parcels under the same ownership on a case-by-case basis and following appropriate findings by the Planning Board as part of the subdivision process.

2. Chapter 1: Section II.G.4.c: PIF Policy Category Change Application Requirements

Include language indicating that concept plans are not regulatory in nature but provide an opportunity for various agencies to comment and provide feedback.

3. Chapter 1: Objectives and Policies: Section IV.A.2.c.: Efforts to Address Underserved and Unserved Communities

Include language in the discussion and recommendation on the need to consider equity issues in the ongoing efforts to address unserved and underserved communities.

## **Edits**

1. Chapter 1: Objectives and Policies: Community Service for Properties Abutting Community System Mains: Section II.G.3.a.: General Requirements, paragraph 4, last two sentences

Add the text in red below for clarity and consistency with the foregoing discussion in the plan:

Service connections from the extended main to other newly abutting **confronting** properties must be direct connections from the main. Non-abutting service connections **or additional sewer extensions** are not allowed in these cases.

## **CERTIFICATION**

This is to certify that the attached report is a true and correct copy of the technical staff report and the foregoing is the recommendation adopted by the Montgomery County Planning Board of The Maryland-National Capital Park and Planning Commission, at its regular meeting held in Wheaton, Maryland, on Thursday, July 7, 2022.



**Casey Anderson**

Chair

CA:MS:aj



## 2022-2031 COMPREHENSIVE WATER SUPPLY AND SEWERAGE SYSTEMS PLAN, EXECUTIVE DRAFT—PUBLIC HEARING

### Description

Public Hearing and staff comments on the County Executive Draft updates to the 2018-2027 Comprehensive Water Supply and Sewerage Systems Plan.

COMPLETED: 6-30-2022

MCPB  
Item No. 10  
July 7, 2022

2425 Reedie Drive  
Floor 14  
Wheaton, MD 20902



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## Summary

- The County is required by State law to update its Water and Sewerage Plan at least every three years and submit its final draft for review and recommendation to the Maryland-National Capital Park and Planning Commission.
- The Planning Board's recommendations will be transmitted to the County Council as part of its Public Hearing process on the Water and Sewer Plan Update.
- The Planning Staff recommends transmittal of staff comments and any additional comments and recommendations of the Planning Board.

### LOCATION:

Countywide

### MASTER PLANS

2022-2031 Comprehensive Water Supply and Sewerage Systems Plan, Executive Draft

### PROPERTY SIZE

N/A

### APPLICATION

N/A

### ACCEPTANCE DATE:

N/A

### REVIEW BASIS:

Title 9, Subtitle 5, Section 9-515 (d)(2),  
Maryland Annotated Code, Environment

## SECTION I

### SUMMARY

#### Description:

The State of Maryland requires that each jurisdiction in the State prepare a comprehensive update to its comprehensive water supply and sewerage systems plan every three years. DEP staff have prepared the 2022 triennial comprehensive update of the Water and Sewer Plan. The County Executive's Office has transmitted this document as the Executive draft of the 2022 Plan update to the County Council for consideration and action.

Planning Department staff reviewed an earlier inter-agency draft of the plan last year and have some additional edits and recommendations for the Planning Board to consider for transmittal to the County Council as part of its Water and Sewer Plan Update public hearing process.

#### Background and Process:

In Maryland, the planning and coordination for sanitary services are delegated from the state to each county government. Montgomery County addresses this responsibility through the ***Ten-Year Comprehensive Water Supply and Sewerage Systems Plan*** (Water and Sewer Plan), which ensures that existing and future water supply and wastewater disposal needs are coordinated in a manner that:

- Is timely and cost-effective
- Is well integrated with land use planning efforts
- Protects the health, safety, and welfare of residents, businesses, and institutions
- Protects the quality of the environmental resources of the county, the state, and the Chesapeake Bay region
- Helps to improve the quality of the environmental resources of the county, state, and region

The Maryland Department of the Environment (MDE) requires the County to prepare a comprehensive update of the Water and Sewer Plan every three years. Between comprehensive updates, the County approves amendments to the plan (such as service area categories, new or revised policies, and technical information) through procedures described in Chapter 1 of the plan. Under state law, the County Council is responsible for approving the plan and its amendments.

The County Executive, acting through the Department of Environmental Protection (DEP), prepares the plan's comprehensive updates and provides recommendations to the Council for action on proposed amendments.

DEP, with the assistance of other agencies, develops proposed amendments, typically those that involve policy issues or affect groups of properties. Property owners also propose amendments, usually those involving single properties or larger tracts intended for subdivision of new lots.

#### **Service Planning Coordination with Land Use Planning**

Coordination between the Water and Sewer Plan and local area master plans and sector plans is crucial to the development and water/sewer planning processes. Master and sector plans direct the character, pattern and density of development in the County's communities. The level of coordination between master plans and water/sewer service planning varies. A sector plan for downtown Bethesda, an area served exclusively by public systems, will address water and sewer service issues minimally. However, the approved master plan for Damascus, where the boundaries between areas recommended for service by public utilities as opposed to private water and sewer systems have changed, addresses the subject at greater length. For master plan areas, such as Damascus, DEP staff members are usually involved in the master plan development, review, and approval process from the early stages.

### **Purpose and Function of the Plan**

The Water and Sewer Plan is a functional master plan for providing water and sewer services throughout Montgomery County. As such, it provides an important link between the County's land use and development planning and the actual construction of the water supply and sewerage systems needed to implement that planning effort.

The Water and Sewer Plan establishes policies that support the goals and objectives of the County's General Plan, as amended by local area and other master plans. These policies emphasize:

- The use of public water and sewerage systems along higher-density urban and suburban development areas, and
- The use of individual, on-site wells, and septic systems throughout lower-density suburban, rural, and agricultural areas.

The plan's policies are implemented in part by assigning water and sewer service area categories for all properties within the County. The service area categories:

- Designate whether properties are intended to be developed using (and are eligible for) public or private service, and
- Provide staging elements or a sequence for planning and providing public service.

The plan provides information on the County's existing water supply and sewerage systems from beginning to end. It includes everything from the point where raw water is drawn from a surface water body or groundwater supply, through delivery and use by the consumer, to the final treatment and disposal or reuse of wastewater effluent.

The plan provides projections for the future needs of water and sewerage systems, which result from land use planning studies, demographic projections, legal mandates, and policy requirements. It addresses these needs using a variety of approaches, such as:

- New, expanded, or replacement water and sewer facilities, such as transmission mains, pumping stations, storage tanks, or treatment plants,
- Expansion of existing water or sewerage systems, or the use of alternative systems, to address communities experiencing public health problems from failing wells or septic systems, and
- New or updated programs and service policies that address issues like changes in sanitary service technology, support for new development concepts and protection from undesired sanitary system expansion or on-site system use.

### **2022-2031 Draft Water and Sewer Plan Update**

Over the course of time, the policies and information included in the Water and Sewer Plan require a comprehensive update. The County Executive has recommended the 2022-2031 update of the Water and Sewer Plan to the County Council. As part of this comprehensive update, all map changes and text amendments adopted since the previous update are also included.

## **SECTION II**

### **OVERVIEW OF THE PLAN AND KEY 2022-2031 UPDATES**

#### **EXECUTIVE SUMMARY**

The 2022 - 2031 Ten-Year Comprehensive Water Supply and Sewerage Systems Plan (Water and Sewer Plan or 2022 Plan) provides updates to the 2018 plan based on the latest available data and information. It includes updated information on County policies and plans.



This 2022 Plan includes the adopted policies and plans contained in the prior Plan and in subsequent adopted Plan amendments, while removing outdated or no longer relevant material. The Department of Environmental Protection (DEP) has added updated information from several sources that reflect new information from both technical sources and related County plans. This information has been reorganized in the Plan's text, figures, and maps with the intention of making it easier to understand and follow. Technical information has been summarized and presented on both a watershed and planning area basis to allow interested parties the opportunity to focus on issues that are organized by geographic area.

The purpose of the Comprehensive Water Supply and Sewerage Systems Plan is to provide an overview of the planning policies, needs, issues and planned infrastructure related to community and individual water and sewerage systems. The plan considers public health, environmental protection, and land-use issues as they relate to water and sewerage systems in Montgomery County. It is intended to provide both background information and a planning basis for the evaluation of water supply and sewerage system needs in the county. It is also expected to allow a more thorough context for developing, analyzing, and evaluating the issues related to the review and implementation of the WSSC Water Capital Improvement Program (CIP), including the timing and funding of identified projects. It seeks to achieve this purpose by:

- ❖ Outlining planning principles and policies that relate to land-use planning, infrastructure development, public health, and environmental protection;
- ❖ Describing current conditions of the water supply and sewerage systems relative to condition, capacity, availability, and related issues;
- ❖ Identifying and prioritizing community needs for improved water supply and sewerage infrastructure;
- ❖ Identifying planning and infrastructure projects needed to address existing or projected needs.

To achieve this purpose, the Water and Sewer Plan is organized into four chapters and several appendices. These four chapters address the following major subject areas:

## **Chapter 1: OBJECTIVES AND POLICIES**

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20DRAFT%20CHAPTER%201.pdf>

This chapter includes an introduction to the Comprehensive Water Supply and Sewerage Systems Plan, identifying its purpose, legal context, and governance issues. It outlines the plan's goals and objectives for the orderly and cost-effective development of community water supply and sewerage systems and summarizes the Plan's structure and content. Chapter 1 describes the planning process used in Montgomery County to stage and implement water and sewer infrastructure improvements, including identification of policies and a review of the procedures for the adoption of amendments and/or modifications to the Plan. This chapter includes both general and special-condition policies that have been adopted by the County Council for the designation of community water and sewer service areas, which regulate water and sewerage system extensions, connections, and their staging.

The update of Chapter 1 continues a process of reorganization to assist those using the Plan. This particularly applies to those sections addressing governmental agency responsibilities, general service policies, special and restricted service area policies, and water and sewerage systems policies and financing.

The preceding changes are largely structural to the Plan, moving sections together with a common theme to provide for clarity, better continuity, and less redundancy. Chapter 1 incorporates text amendments approved by the County since adoption of the prior Plan update. Chapter 1 also provides new information, policy directions, and recommendations, as follow (The numbering shown below corresponds to the subsections of the plan within the chapter):

## **II.: POLICIES FOR THE PROVISION OF WATER AND SEWERAGE SERVICE**

### **II.D.: Water and Sewer Service Development Policies by Service Area Designation**

The policy requirement that all new subdivisions in categories W-3 and S-3 must provide community water and sewer service has been modified for areas zoned for large-lot development (RE-1, RE-2, RE-2C, & RC). This modifies the policy that was revised in the 2018 Plan to require all subdivisions in planned service areas to use public systems. Experience showed that some exceptions in large lot areas (particularly Potomac) were justified.

## **II.G. Special Policies for Water and Sewer Service**

### **II.G.3.: Community Service for Properties Abutting Community System Mains**

#### **II.G.3.a.: General Requirements**

The text addresses a recent situation where an owner of a qualifying property wanted an extension that would bring a sewer main directly opposite his house. This extension would have also allowed another non-qualifying property to have sewer service approved under the abutting mains policy. The text revision proposes allowing limited main extensions.

This section previously prevented an intervening property that would abut a new main extension from initiating the construction of all or part of the new main. Given the problems we have encountered with the financing of new mains, this requirement served to unduly limit flexibility for options to move new main construction forward. The policy is revised to now allow intervening owners to initiate new main construction.

#### **II.G.3.c. Multiple Abutting Community Service Connections**

This provision of the abutting mains policy is reworked to focus on providing multiple service connections for public service for only the number of properties that could clearly be approved for development by successful onsite systems testing. Previously, multiple abutting mains connections were based on an environmental benefit; however, this required only DEP's estimation that onsite service was feasible, not confirmation of successful testing.

### **II.G.4.: Community Service for Private Institutional Facilities**

Added a statement about the consistency of the private institutional facilities (PIF) policy with the Federal Religious Institutions Land Use and Institutionalized Persons Act (RLUIPA).

#### **II.G.4.b.: Further PIF Policy Considerations**

Revised the issue of limitations specifically on PIF uses as this could be as interpreted as prejudiced against religious institutions.

Added a proposal to adopt environmental overlay zones that would limit imperviousness in additional watersheds.

#### **II.G.4.c.: PIF Policy Category Change Application Requirements**

Added an emphasis on consistency with established imperviousness limitations. Noted that the County Council's emphasis in considering concept development plans for PIF uses will be on issues addressing imperviousness and water and sewer main extensions.

## **III.: GENERAL POLICIES FOR WATER SUPPLY AND SEWERAGE SYSTEMS FACILITIES**

### **III.A.4.: Environmental Considerations for Community Systems Construction**

This section was updated to reflect DEP's current stream monitoring and water quality reporting procedures.

#### **III.A.5.: Facility Planning**

This and following sections were substantially revised to acknowledge changes to WSSC's facility planning process over recent years. The 2018 update include a mash-up of old and new processes. This new version is more focused strictly on WSSC's existing processes, including the Asset Management Program and Business Case review.

#### **III.A.5.b.: Interagency Coordination**

Added a recommendation to address and support further DEP and WSSC Water discussions regarding interagency coordination issues or the WSSC project development process.

### **III.B: Municipal Community Systems**

Added a new introduction for municipal community systems to better fit into the structure of the chapter.

### **III.C.: Individual Systems**

#### **III.C.4.d.: Onsite Systems Management Program**

##### **Water and Sewer Plan Recommendation: Individual Onsite Systems Management**

This recommendation has been updated to recognize where this program now stands.

DEP staff have supplemented onsite systems management programs research efforts by the Office of Legislative Oversight (OLO) with a report titled “Review of Conventional Onsite Treatment System Laws and Regulations” (March 2021). This report provides a more recent and broader inventory of onsite systems management programs in Maryland, neighboring states, and more distant jurisdictions.

### **III.C.5.: General Policies for Multiuse Water Supply and Sewerage Systems**

#### **III.C.5.c.: Policy Constraints on Multiuse Sewerage Systems Capacities**

##### Exemptions from Design Capacity Restrictions

DEP has deleted one bullet (“Approved Systems – Existing multiuse sewerage systems and systems not yet built but which are approved and permitted by the Department of Permitting Services prior to February 14, 2006”) as it is no longer valid. According to DPS, uninstalled “approved systems” permitted prior Feb. 14, 2006, are not allowed to proceed to construction without pursuing new permits. An unfulfilled permit is valid for only one (1) year from the date of issuance.

## **IV.: WATER AND SEWERAGE SYSTEMS FINANCING**

### **IV.A.1.b.: Systems Development Charge**

WSSC’s work on revising the SDC program is not resolved as of the date of the staff draft of this Plan. This section may be updated if the process moves forward to conclusion before the Council approves this Plan update.

### **IV.A.2.b.: WSSC-Built Projects**

Some details of the WSSC-Built Projects program have been removed from this update of the Plan as the program is largely irrelevant today.

### **IV.A.2.c.: Replacing the WSSC-Built Extension Program**

Reworked this section, focusing more on the current work of the Unserved and Underserved Communities subgroup. The subgroup is investigating improved means of providing public service main extensions to neighborhoods planned for public service but that lack access to existing mains. The subgroup’s report is being finalized.

## **V.: PROCEDURES FOR ADOPTING AND AMENDING THE WATER AND SEWER PLAN**

This update removes the term “interim” from amendments to the Plan that occur between the triennial, comprehensive updates. They are simply amendments to the current Plan.

### **V.B.: Triennial Water and Sewer Plan Comprehensive Update**

Revised information about the State’s review of the Plan’s comprehensive update for consistency with State law.

### **V.C.: Water and Sewer Plan Amendments**

These sections were restructured for clearer organization.

#### **V.C.1.: Property Owner-Initiated Category Change Requests**

Some details concerning WSCCR applications have been removed. This information is available in DEP’s application instructions packet, available on DEP’s web site. However, the PIF application information was retained.

Removed some of the background information on the WSCCR application fee as it’s been in place for 16 years, since 2005.

#### **V.C.2.: County-Initiated Area-Wide Category Map Amendments**

Added an expanded explanation of special community service areas (formerly public health problem areas).

## **V.E: Plan Amendment Actions**

### **V.E.3: Deferred Amendments**

#### Deferral Timing

Added a specified maximum deferral period of three (3) years for deferrals after which the County Executive will return the amendment to the Council and recommend its denial.

### **V.E.4.: Tabled Amendments**

Added language that recommends that amendments be tabled for no more than one year without subsequent consideration. Tabling of amendments is strictly at the Council's discretion.

### **V.E.6.: Appeals**

Removed language concerning why an applicant might seek an appeal.

## **Chapter 2: GENERAL BACKGROUND**

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20DRAFT%20CHAPTER%202.pdf>

Chapter 2 provides an overview of the natural and cultural environments in Montgomery County. This chapter identifies the environmental features and characteristics of the county that have a bearing on development patterns, natural resources and other factors related to the physical environment. DEP has used GIS-based graphics to depict information related to watersheds, stream classifications, topography, and other natural features, such as soils, geology and groundwater. This information provides the background for resource protection as it relates to water supply and sewerage system planning in Montgomery County.

This chapter also identifies the cultural environment that includes the planning issues related to demographics, land use, and development. This information in coordination with the policies adopted in the county's General Plan and land-use master plans identifies the areas of the county that are subject to development in the future at densities that will require new or expanded water supply and/or sewerage systems.

## **Chapter 3: WATER SUPPLY SYSTEMS**

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20DRAFT%20CHAPTER%203.pdf>

This chapter contains information about the various aspects of the county's water supply systems, including water supply sources, treatment, and distribution systems. It identifies the regional nature of the supply sources and the agreements that exist to address issues of water demand and drought management. There is also a discussion of the role of groundwater for both individual water supply systems and for the Town of Poolesville. In addition, the Chapter's discussion of rural sanitation issues includes a table which summarizes known well water supply problem areas in the County. This information provides a basis for further investigations and actions to address these rural sanitation concerns.

### **I.B.: Water Supply Service Area - Sanitary Districts:**

DEP has maintained the previous Plan structure addressing the three major community water supply systems in the county individually: WSSC, Rockville, and Poolesville. These systems are examined in detail with regard to their treatment, transmission and storage systems. In the geographically extensive WSSC system, graphics relate the various pressure zones to planning areas in the county. This information is provided to assist persons using this plan to understand the relationships between identified water supply projects to the identifiable geographic areas and potential impacts to those areas. These system descriptions also include a summary of the system improvements and growth-related projects.

### **II.F, III.E.5, and IV.F.: Projected Water Supply System Needs:**

Information is provided on the projected needs of the major water supply systems in the County. The long-range planning is projected out up to 2040, with interim planning dates for facility requirements. Regional, Bi-County and

County-wide systems needs are reviewed based on information obtained from various reports and projected population growth in these areas. This information is supported by the regional population projections (MWCOG), local land-use plans (M-NCPPC), regional water supply projections (ICPRB) and Bi-County water supply needs (WSSC). The projects that are planned to address these identified needs are summarized in the text of this chapter and in the appendices to the Plan, which incorporates the project summary information of WSSC's most recent Capital Improvement Program (CIP).

In addition to this documentation of the county's community water systems, Chapter 3 also presents policy recommendations and directions related to water supply systems for future guidance. The Chapter's major recommendations are summarized as follows:

- ❖ II.C. through II.C.5.: Potential Use of Travilah Quarry for Additional Raw Water Storage: The Travilah Quarry, with an estimated storage capacity of approximately 17 billion gallons of raw water storage, within several miles of the Potomac Water Filtration Plant. This quarry has evaluated by WSSC for several years and this Plan, along with the Potomac Subregion Master Plan, encourages actions be taken to ensure its future availability to the water supply needs of the County and possibly the region.
- ❖ II.E through II.E.6.: Continue Investing in Major Water Supply System Infrastructure: Most of the water supply needs are addressed by the WSSC. As such, the Montgomery County Council directs the focus of WSSC's efforts in directing the WSSC's annual budget and the associated six-year Capital Improvements Projects (CIP). These documents in addition to this Plan allow the County Council to direct the policies and investments needed to meet the future needs of the County. In recent years the emphasis has been on investing in major water supply system infrastructure with a commitment to large diameter water main evaluations, rehabilitation, and replacement efforts, particularly for Pre-Stressed Concrete Cylinder Pipes (PCCP). Emphasis has also been placed on the sustainability of the small diameter water distribution pipes, adopting programs for the 1 percent replacement of these pipes. This program was adopted to allow a replacement interval of 100 years for these distribution mains, consistent with their expected useful life.
- ❖ II.F.2.c.: Local and Regional Water Conservation Programs: In reference to local and regional water conservation programs, Chapter 3 urges the County's public agencies to lead by example with respect to water conservation measures. These conservation efforts are promoted by several mechanisms that require continued review and evaluation to be effective. Plumbing codes, water rates, and unaccounted water use are emphasized as key factors in ensuring efficient use of water resources for water supply needs.

#### **Chapter 4: SEWERAGE SUPPLY SYSTEMS**

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20DRAFT%20CHAPTER%204.pdf>

Chapter 4 describes the planning basis for the sewerage systems in the County. It identifies the regional, Bi-County, and system relationships that are based on both political and geographic boundaries.

#### **Sewerage Systems Service Area - Sanitary Districts:**

The County's sewerage systems are defined according to the treatment plant service areas, sewer basins and planning areas located in the County. Similar to Chapter 3, updates to sewerage systems are structured individually based on the three major community sewerage systems in the County which include the WSSC, the City of Rockville, and the Town of Poolesville. The WSSC system provides the majority of the community sewer service in the County. Accordingly, much of this chapter is dedicated to defining the regional agreements and policies that pertain to the WSSC system and how they relate to the provision of sewer service and capital project planning to meet anticipated system needs. The Chapter describes key policies, planning procedures, and references the Inter-Municipal Agreement (IMA) of 2012 as a significant long-range plan addressing the regional wastewater treatment needs of the region.

#### **I.A. Through I.C.: Washington Suburban Sanitary District, Blue Plains WWTP, and IMA of 2012:**

Over eighty percent of the wastewater collected in the community sewerage systems in Montgomery County is conveyed to the Blue Plains Wastewater Treatment Plant (WWTP) in Washington D.C. Accordingly, the provisions of the IMA that govern the terms and conditions of shared use of this facility with the District of Columbia, Fairfax County and other regional entities is described in detail. Important issues to the County relate to peak and average flow limitations to the sewers that convey flows to Blue Plains WWTP, allocated treatment capacities to the user jurisdictions and the capital improvement projects planned for this facility. Related to Blue Plains and the terms of the IMA are issues that involve the use of the facilities and the management of the sewage treatment process by-product, known as biosolids. The IMA of 2012 addresses the long-term use of this facility by Montgomery County and the region. This agreement was adopted with a ninety nine-year effective date that ensures the viable regional arrangement far into the future. Important to this duration are the mechanisms in the plan to allow it to be amended to meet future planning and regulatory requirements.

Chapter 4 reviews the needs for the sewerage system on a sewershed basis provided by WSSC through their hydro-dynamic modeling of the sewerage system, identifying areas or parts of the sewerage systems requiring relief, either now or in the future. Chapter 4 also provides a brief discussion on rural sanitation issues and includes a table which summarizes known septic system problem areas in the County. This information provides a basis for further investigations and actions to address these rural sanitation issues.

Chapter 4 also presents policy and program recommendations and directions related to sewerage systems for future guidance. The Chapter's major recommendations are summarized as follows:

- ❖ I.B.2.: WSSC Flow Modeling Integration: The Plan urges WSSC to integrate its flow modeling systems with the MC:MAPS geographic information system, which can provide direct access to modeling information WSSC needs from the County.
- ❖ I.B.3.: Development of a Prioritized Listing of SSES Basins and a Financial Plan by WSSC (Section): WSSC has been addressing a comprehensive maintenance, operations and management system for the past ten years. These issues affect capital expenditures, sewer overflow conditions, and regional agreements. This Plan suggests that WSSC develop a prioritized list of SSES basins and a financial plan to address the needs these studies reveal.
- ❖ V.B.3.: To address concerns about potential sanitation problems from aging individual, On-Site systems in the County's neighborhoods (Section): Currently the County is developing a maintenance program for implementation to address the potential sanitation problems from aging and improperly maintained individual onsite systems in the County. Details relative to the implementation of this maintenance program are currently under evaluation and development. Some of the main objective of this maintenance program include:
  - Development of a comprehensive inventory of all the on-site systems in the County.
  - Providing public education and community outreach.
  - Implementation of a preventive maintenance program through regular system pump-outs

## APPENDICES

### Appendix A

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20Draft%20Appendix%20A--%20Glossary.pdf>

Appendix A Includes the Plan's glossary. Capital program projects, previously summarized in Appendix A, are included in the Plan by reference to available documentation online.



## **Appendix B**

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20Draft%20Appendix%20B%20-%20Multiuse%20Systems.pdf>

Appendix B inventories the County's multiuse systems (large-capacity, individual, onsite water and sewerage systems) and has been updated.

## **Appendix C**

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20Draft%20Appendix%20C-%20Exceptional%20Service%20Areas.pdf>

Appendix C includes information on exceptional water and sewer service policy areas. Sections updated in Appendix C include:

### **II.E: GLEN HILLS STUDY AREA**

#### Service Recommendation & Comments:

Related to sewer service under the Potomac peripheral sewer service policy, added text about excluding properties at the periphery of the Rockville planned service area.

### **II.G: JONESVILLE AND JERUSALEM COMMUNITIES**

#### Service Recommendation & Comments:

Added text that addresses recent WSSC Water flow monitoring from the Jonesville and Jerusalem sewerage system into the Poolesville WWTP. This monitoring shows that these flows repeatedly exceed the agreed upon 20,000 gallons per day capacity, particularly during wet weather events. WSSC Water is investigating possible inflow and infiltration issues in the sewerage system. This section warns that, pending the outcome of this investigation, the County and WSSC Water may need to institute more stringent sewer connection limitations in the service area to minimize excessive flows to the WWTP. Alternately, WSSC Water could see if the Town is open to negotiations for increasing the amount of flow into the WWTP.

### **II.M.: POTOMAC AREA RE-1 AND RE-2-ZONED PROPERTIES**

#### Service Recommendation & Comments:

Added text that explains that the policy also needs to exclude properties adjacent to or confronting the planned sewer service envelope within the Rockville service area. Service available from the City has no bearing on county properties outside the City's planned service area. A similar restriction for the Town of Poolesville is not needed as no part of the Potomac Subregion Master Plan Area is adjacent to the town. Will modify the accompanying figure to match.

### **II.N. RIVERWOOD DRIVE**

#### Service Recommendation & Comments:

Explained that this restricted sewer service area is substantially larger than is necessary. Many parts of the restricted service area already have community sewer service. In other areas, the technical limitations of extending sewer service across the cut for Sandy Landing Rd., 100 feet deep in some parts, makes such extensions impractical. The only areas that need to remain within the restricted sewer service area are Carrs Addition and Fox Meadow. The accompanying figure has been modified to match.

## **Appendix D**

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20Draft%20Appendix%20D%20-%20Agencies.pdf>

Appendix D includes updated municipal, county, state, and regional agency contact information.

## **Appendix E**

<https://www.montgomerycountymd.gov/water/Resources/Files/supply/2022%20Draft%20Appendix%20E%20-%20Major%20facilities%20and%20institutions.pdf>

Appendix E provides an inventory of major public and institutional facilities in the county.

## **Appendix F (See Attachment)**

Appendix F provides a summary of included updates and changes to the 2022-2031 Plan relative to the approved 2018-2027 Plan. This summary covers much the same ground as the Executive Summary but also includes more technical updates such as revised flowrates and references to updated graphs, charts, and maps.

## **MAPS**

Water Categories Map

[https://www.montgomerycountymd.gov/water/Resources/Files/supply/CWSP\\_2021\\_Water\\_11x17.pdf](https://www.montgomerycountymd.gov/water/Resources/Files/supply/CWSP_2021_Water_11x17.pdf)

Sewer Categories Map

[https://www.montgomerycountymd.gov/water/Resources/Files/supply/CWSP\\_2021\\_Sewer\\_11x17.pdf](https://www.montgomerycountymd.gov/water/Resources/Files/supply/CWSP_2021_Sewer_11x17.pdf)

## **SECTION III**

### **KEY ISSUES EXPECTED TO BE DISCUSSED AT COUNTY COUNCIL AND T&E SESSIONS**

Council Staff have advised us that the following topics are among those expected to be discussed at the upcoming County Council public hearing and T&E Subcommittee sessions on the Water and Sewer Plan Update. As part of their presentation on the Water and Sewer Plan Update at this Planning Board public hearing, DEP staff will touch on these issues. Some of these issues relate to certain properties that have come before the Planning Board that raised issues that DEP staff were directed by the County Council to cover in policy updates in the Water and Sewer Plan. There are some additional properties that involve issues that are also expected to be discussed at the County Council Water and Sewer Plan Update sessions that are not currently addressed in the draft update of the Plan.

1. Abutting Mains Policy
  - a. Multiple abutting service connections
2. Extensions outside the planned envelope to serve commercial properties
3. Creation of special service areas outside the planned envelope (big issue in the last update)
4. Travilah Quarry Language (update based on regional discussions/potential Federal aid request)
5. Private Institutional Facilities (PIF) Policy
  - a. RLUIPA language
  - b. Concept Plan language
  - c. Environmental Overlay Zones
  - d. Imperviousness restrictions and PIFs
6. Unserved/Underserved Properties Bi-County Infrastructure Workgroup Report recommendations which deal with various related issues including funding deficits and how to address them (Reference in Plan, add Subdistrict creation process)
7. Septic Ownership Requirements (re: CE legislation (40-21) at Council)
8. Glen Hills Issues
  - a. Potomac Peripheral Sewer Policy not applying to the City of Rockville properties
9. Poolesville WWTP Capacity Issues

## SECTION IV

### RECOMMENDATIONS

Planning Staff reviewed an inter-agency review draft of the Water and Sewer Plan Update last year and forwarded comments to DEP staff who incorporated them into the draft that went to the County Executive. As part of the current review Planning Staff has reviewed the draft updates to the plan that occurred through the Executive review process. Planning Staff recommends supporting the current draft of the Water and Sewer Plan Update with the following edits and recommendations, and any others that the Planning Board may approve for transmittal to the County Council:

#### **Chapter 1: Objectives and Policies**

Section II.G.3.a.: General Requirements, paragraph 4, last two sentences, add text in red for clarity and consistency with the foregoing discussion

Service connections from the extended main to other newly abutting **confronting** properties must be direct connections from the main. Non-abutting service connections **or additional sewer extensions** are not allowed in these cases.

Section II.G.4.c: PIF Policy Category Change Application Requirements

Include language that indicates that concept plans are not regulatory in nature but provide an opportunity for various agencies to comment and provide feedback.

Section IV.A.2.c.: Efforts to Address Underserved and Unserved Communities

Include language in the discussion and recommendation that indicates the need to consider equity issues in the ongoing efforts to address unserved and underserved communities.

## SECTION V

### NEXT STEP

The Planning Board's recommendations will be transmitted to the County Council and incorporated as part of their Public Hearing on the Water and Sewer Plan Update on July 12, 2022. Final action will subsequently be taken by the full Council after the Public Hearing and subsequent T&E Committee sessions.

#### **ATTACHMENT**

Appendix F, 2022-2031 Comprehensive Water Supply and Sewerage Systems Plan, Executive Draft

Appendix F, 2022-2031 Comprehensive Water Supply and Sewerage Systems Plan, Executive Draft

## Montgomery County Comprehensive Water Supply and Sewerage Systems Plan

### Appendix F: Summary of Updates, Executive Draft 2021 - 2032 Plan

Listed below are an overall summary of changes and updates included in the draft 2021-2030 Ten-Year Plan relative to the adopted 2018-2027 Plan.

#### **Chapter 1: OBJECTIVES AND POLICIES**

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This chapter includes an introduction to the Comprehensive Water Supply and Sewerage Systems Plan, identifying its purpose, legal context, and governance issues. This chapter includes both general and special-condition policies that have been adopted by the County Council for the designation of community water and sewer service areas, which regulate water and sewerage system extensions, connections, and their staging.

The update of Chapter 1 continues a process of reorganization to assist those using the Plan. The preceding changes are largely structural to the Plan, moving sections together with a common theme to provide for clarity, better continuity, and less redundancy. Chapter 1 incorporates text amendments approved by the County since adoption of the prior Plan update. Chapter 1 also provides new information, policy directions, and recommendations, as follow:

- **Onsite System Exceptions (Section II.D.):**
  - The 2018 Plan removed requirements for dry system mains; and established that all subdivisions within service area categories 1 and 3 will use community service, rather than interim permit individual onsite systems. However, the policy now allows for consideration of exceptions that would allow for interim permit onsite systems in areas zoned for large lot development.
- **Updates to Special Policies for Water and Sewer Service (Section II.G.):**
  - For the Community Service for Abutting Mains Policy - Revised the policies for community service for properties abutting community service mains (II.G.3.):
    - Limited extensions of existing abutting mains may be considered in cases where an extension would allow for better placement of the service connection relative to the building receiving new service. This would also allow another property that abuts the new extension to qualify for community service under this policy (II.G.3.a). Properties that abut new main extensions are limited to one connection per property. That allowed connection cannot support subdivision or resubdivision of that newly abutted property.
    - The option for multiple service connections under this policy is revised to require onsite system testing to determine the number of connections that may be replaced by dwelling units using public systems service. (III.G.3.c.)
  - For the Community Service for Private Institutional Facilities (PIF) policy:
    - Added a statement about the relationship between the PIF policy and the Federal Religious Institutions Land Use and Institutionalized Persons act (RLUIPA).
    - Revised the “Additional Considerations” section to clarify the difference between policy changes that could be addressed via the Water and Sewer Plan (e.g., PIF limitations in other zones besides the AR Zone) and changes that would have to be addressed via other venues (e.g., watershed regulations). (II.G.4.b.)
    - Clarified that the Council’s consideration of concept plans for new PIF cases and PIF use revisions will be focused primarily on imperviousness and new main extension issues. (II.G.4.c and II.G.4.d.)
    - Added an emphasis on consistency with established imperviousness limitations. (II.G.4.c.)

- **Updates to WSSC Facility Planning Process (Section III.A.5.):**
  - Added text provided by WSSC to address new aspects of the facility planning process, including WSSC's Asset Management and Business Case Evaluation Programs.
  - Added a recommendation for continuing coordination efforts between WSSC Water and the County concerning the facility planning process.
- **Updates to Individual Systems (Section III.C.):**
  - Updated the Onsite Systems Management Program discussion to explain where the program stands now and the proposed legislation for a septic tank pumping requirement. (III.C.4.d.)
  - Removed a condition from the Exceptions from Design Capacity Restrictions that addresses individual onsite systems with approved permits prior to February 14, 2006, as those permits would no longer be valid. (II.C.5.c.)
- **UPDATES TO WATER AND SEWERAGE SYSTEMS FINANCING (SECTION IV.):**
  - **REMOVED SOME INFORMATION FROM THE WSSC WATER-BUILT PROJECTS PROGRAM FROM THIS UPDATE OF THE PLAN AS THE PROGRAM IS LARGELY IRRELEVANT TODAY. (IV.A.2.B.)**
  - Updated the discussion concerning Efforts to Address Underserved and Unserved Communities to reflect the current status of the WSSC Water – Bi-county Work Group.
- **Updates to Plan Amendment Actions (Section V.E.):**
  - Specified that Deferred Amendments still pending after three years will be returned to the Council's attention with a recommendation for denial from the County Executive. (V.E.3.)

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## **Chapter 2: GENERAL BACKGROUND**

Chapter 2 provides an overview of the natural and cultural environments in Montgomery County. Updated new information in this chapter include:

- Updates to the County's latest ratings of stream conditions based on biological monitoring.
- Updates to the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System Permit Program (AKA the MS4 Permit Program).
- Updates to Population dynamics and forecasting. The latest forecasts (Round 9.1 Cooperative Forecasting) of population, households, and employment were developed and published by MWCOG through a cooperative process involving the Council of Governments, its member jurisdictions, the Baltimore region, the states and other planning agencies.

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## **Chapter 3: WATER SUPPLY SYSTEMS**

This chapter contains information about the various aspects of the county's water supply systems; including water supply sources, treatment, and distribution systems. Updated new information in this chapter include:

- **Updates to Projected Water Supply Demand:** Based on analysis of the latest water production and consumption data, WSSC has also developed the following water demand per unit to be used for growth projections and planning water system improvements:
  - Single-Family Dwelling Unit (SFDU):-----177.0 gallons per day (gpd)
  - Employees:-----36.1 gpd
  - Multi-Family Dwelling Unit (MFDU):-----146.8 gpd



The above numbers have been developed using COG/M-NCPPC Round 8.1 population forecasts.

- **Updates to Projected Water Supply System Needs:** The following includes WSSC's major current and planned studies and facilities needed to meet the projected treatment capacity at each of its water treatment plants.
  - Potomac Solids Handling
  - Source Water Protection
  - Potomac Basin Corrosion Mitigation Project
  - Potomac Submerged Channel Raw Water Intake
  - Potomac Filter Air Scour Improvements
  - 2019 – 2020 AWIA Risk and Resiliency Assessment
  - Patuxent Water Treatment Plant Replacement and Expansion
  - Brighton Dam Maintenance
  - Germantown/Clarksburg Area Projects
  - Standpipe Replacement Projects
- **UPDATES TO TABLES, FIGURES, GRAPHICS, AND OTHER TECHNICAL DATA:** All the tables, figures, and graphics have been updated to reflect the latest data, information, and trends. These include:
  - Water Service Area Category Maps
  - Water Service Area maps
  - Planning areas and pressure zones
  - Water supply sources for each service area
  - Well problem areas
  - Inventory of existing impounded water supplies
  - Existing and projected water supply demands, trends, and planned capacities for each service area (WSSD, City of Rockville, and the Town of Poolesville)
  - Inventory of existing and approved Multi-Use Water Supply Systems
- **Updates to Programs and Policies:** Included in this updated Plan are revisions to a few program and policies mainly by WSSC to meet regulatory requirements and its financial needs and include:
  - Water Conservation Plan
  - Public Outreach and Education Programs
  - Plumbing Code
  - Water consumption Rate Structure

#### **Chapter 4: SEWERAGE SYSTEMS**

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This Chapter describes the county's existing and planned community and private, individual sewerage systems. Main focus and updates included in this chapter include:

- **Updates to Wastewater Flow Analysis and Projections:** The updated wastewater flow projections used in this Chapter are developed on 5-year intervals and are based on Round 9.1 Cooperative demographic forecasts and WSSC's latest wastewater flow factors. Wastewater flow forecasts are developed from detailed analyses of existing flow records and projected additional future flow based on projected demographics, wastewater flow per household and per employment, and other factors such as infiltration (extraneous groundwater) and inflow from rainfall. Population forecasting and flow projection are based on the best available data at the time the analysis is conducted.

- **Updates to Planned Sewerage System Needs:** Based on the latest population projections and using Wastewater System Modeling, WSSC identifies the potential impact of current and future wastewater flows on sewerage system capacities. The Wastewater System Modeling is also used to identify collection system needs such as capacity constraint due to insufficient capacity for present and/or future wastewater flows and plan needed improvements. Updates to planned sewerage systems based on the latest flow analysis for each service area and individual sewer basin include:
  - **Blue Plains Service Area:** Approximately 85% of the municipal wastewater generated in Montgomery County is treated at the Blue Plains WWTP. This service area encompasses much of the central and eastern part of the county which includes Muddy Branch, Rock Creek, Watts Branch, Cabin John Creek, Rock Run, Little Falls Branch, Northwest Branch, Paint Branch, and Sligo Creek Basins. The Blue Plains service area also includes the Rockville Sanitary District.
    - - Projected Treatment Capacity Needs: Produced by WSSC and based on COG's Round 8.1 Cooperative demographic forecasts and WSSC's latest wastewater flow factors. The County's projected wastewater treatment needs within the Blue Plains service area will be met well beyond the year 2025.
      - Projected Transmission and Conveyance Needs: Projected needs for all sewersheds discharging to the Blue Plains WWTP are listed below. These projections are based on COG's Round 8.1 Cooperative demographic forecasts and WSSC's latest wastewater flow factors.
        - I. Muddy Branch - 7,500 feet of trunk sewers along the main stem in Muddy Branch may have capacity constraints under 2025 wet weather conditions.
        - II. Watts Branch - Basin's conveyance facilities will be able to handle the basin's anticipated wastewater flows through the year 2025
        - III. Rock Run - 5,495 feet along the main stem of Rock Run Branch may have capacity constraints under 2025 wet weather conditions.
        - IV. Cabin John - 3,300 feet of relief sewer along Cabin John Creek near River Road and the Capital Beltway may have capacity constraints under 2025 wet weather conditions.
        - V. Rock Creek – Capacity constraints under 2025 wet weather conditions near Reddy Branch Wastewater Pumping Station and a tributary to Mill Creek Branch
        - VI. Little Falls - Based on the latest WSSC wastewater flow, it has been determined that the Little Falls trunk sewer has adequate capacity to receive the projected wastewater flows through 2025.
        - VII. Anacostia Interceptor System – Flows discharged into Anacostia Interceptor System from Montgomery County include Sligo Creek Basin, Northwest Branch Basin, and Paint Branch Basin - Much of the development potential in Sligo Creek is limited to redevelopment of existing commercial areas, such as the downtown areas of Silver Spring and Wheaton. Although, the basin is identified as a Potential Overflow Basin, WSSC does not anticipate future sewage capacity constraints or overflows within Montgomery County. The Northwest Branch Basin is currently identified as a Potential Overflow Basin. A small length of gravity sewer (about 200 feet) is identified as having capacity constraints under projected future wet weather conditions. Major sewer lines in Paint Branch Basin have adequate capacity at present, and there are no planned CIP projects in this basin. However, considerable growth is expected to occur in this area along the U.S. Route 29 corridor. WSSC has determined through its sewer modeling that that 17,000 feet of sewer in the Paint Branch basin within Montgomery County will have capacity constraints under projected future wet weather flow conditions.
  - **Seneca Service Area:** - Projected flows based on forecasted population and other flow factors for the Seneca Service Area have been developed by the WSSC and are based on Round 8.1 Cooperative demographic forecasts. The basin has been one of the most active basins in the County in providing

new wastewater services during recent years. There are a number of active projects in this service area to address wastewater conveyance constraints/needs and improve service in the Seneca Creek Basin. The Seneca WWTP has adequate capacity to treat the 2025 projected flows.

- **Damascus Service Area:** - Projected flows based on demographic forecasts and other flow factors for the Damascus Service Area indicate that existing treatment facility will handle all expected wastewater flows from this service area for the foreseeable future.
- **Poolesville Service Area:** - The Town of Poolesville has developed a Wastewater Capacity Management Plan. The Plan utilizes a three-year rolling average of discharge flows from the WWTP to determine the available capacity for development allocation.

- **Updates to Sanitary Sewer Overflows Consent Decree:** In December 2005, the Washington Suburban Sanitary Commission (WSSC) entered into a Consent Decree with the U.S. Environmental Protection Agency (EPA), the State of Maryland and four Citizen Groups on an action plan to significantly minimize, and eliminate where possible, sanitary sewer overflows (SSOs). The Citizens Groups were the Natural Resources Defense Council (NRDC), the Anacostia Watershed Society (AWS), the Friends of Sligo Creek (FOSC), and the Audubon Natural Society. On January 19, 2006, the Court entered the First Amendment to the Consent Decree to add Patuxent Riverkeeper to the definition of Citizens Groups. The sanitary sewer system is being inspected and rehabilitated. The agreement estimates approximately \$1.3 billion in improvements to the WSSC's wastewater collection system, provides \$4.4 million for additional environmental improvement projects and includes a \$1.1 million civil penalty.

A short description of the requirements of the Consent Decree and additional details regarding the current status and the remedial measures progress to date have been provided in the Plan.

- **Updates to Biosolids Management:** - WSSC has recently completed a major facility planning study to explore and determine the best alternative in managing its future biosolids produced from all of its wastewater treatment plants within both Montgomery and Prince George's counties.

The focus of this facility plan was to examine and develop a comprehensive program providing for the best alternative to process biosolids in a manner that is environmentally beneficial and is also economically feasible. The recommended and approved alternative included the design and construction of a central bio-energy project comprised of Thermal Hydrolysis, Mesophilic Anaerobic Digestion, and Combined Heat and Power facilities. The project is currently at the preliminary design stage and the expected completion date has been scheduled for the year 2021. When complete, some of the expected environmental and economic benefits would include:

- Significant reduction in biosolids quantity.
- Production of digester gas as renewable fuel which will be used to produce heat and electric power.
- Producing high quality (Class-A) biosolids which can be used more widely than the Class-B biosolids currently produced.

As part of their updated Biosolids Management Program (BMP), the DC-Water is currently at the final phases of constructing major facilities to upgrade its biosolids processing and management practices. The upgraded biosolids processing plant when complete will largely replace the current lime stabilization with thermal hydrolysis and anaerobic digestion.

- **UPDATES TO TABLES, FIGURES, GRAPHICS, AND OTHER TECHNICAL DATA:** All the tables, figures, and graphics contained in the current approved Plan have been updated to reflect the latest data, information, and trends. These include:
  - Wastewater Service Area Category Map for Montgomery County
  - Wastewater Service Area district maps

- Planning areas and sewersheds
  - Projected Transmission and Conveyance Needs for individual sewersheds
  - Wastewater treatment plant service area maps
  - Projected wastewater treatment capacity needs for all wastewater treatment plants
  - Current and projected safe capacities for all wastewater pumping stations
  - Individual sewershed maps
  - Existing and projected wastewater flows for individual sewersheds
  - Projected facility needs for individual sewersheds
  - Projected facility needs for all districts and treatment service areas
  - Inventory of existing and approved Multi-Use sewerage systems
- **New Policy Initiatives and Program Recommendations:** Included in this updated draft version of the Plan, few policy and program recommendations relative to County's Sewerage systems have been presented for considerations and include:
    - ❖ **WSSC - IMA Allocated Flow Capacity and Related Nitrogen and Phosphorus Load Allocations at the Blue Plains WWTP:** WSSC use of IMA allocated flow capacity of 169.6 MGD at the Blue Plains Wastewater Treatment Plant has been reduced to 163.6 MGD due to diversion of nitrogen and phosphorus load allocations (loads associated with 6 MGD) at the WSSC's Seneca Wastewater Treatment Plant. WSSC should initiate a process to explore the possibilities of restoring the full WSSC's allocated capacity in the Blue Plains Wastewater Treatment Plant.
    - ❖ **County to Develop Program Addressing the Potential Sanitation Problems from Aging Individual, On-Site Systems in the County's Neighborhoods:** The County should create, budget, and implement appropriate programs to research, prioritize, and address the potential sanitation problems from aging individual, on-site systems facing the County's neighborhoods. This will be especially important for rural neighborhoods located outside the effective/efficient reach of community water and sewerage systems.

Solving the concerns about older neighborhoods using individual on-site systems may require new and innovative solutions beyond the usual provision of community water and/or sewer service. These may include, but are not limited to:

- I. Proactive, periodic on-site systems maintenance and inspection programs coordinated with public outreach and education on individual systems maintenance;
- II. Alternative community distribution, collection and treatment systems;
- III. Shared water and/or sewerage systems, owned by local communities and operated by authorized agencies or utilities
- IV. Alternative financing for relief systems (community or otherwise), including but not limited to special assessment districts, grants or loans from government resources, or utility assistance programs;
- V. Programs to assist lower-income individuals and communities in financing required relief systems.

## **APPENDIX C: EXCEPTIONAL SERVICE POLICIES AND RECOMMENDATIONS**

This appendix complies existing areas with either exceptional service allowances or exceptional service restrictions.

- In the Glen Hills Study Area section, added that properties within the City of Rockville cannot be used as justification for sewer category change approvals under the Potomac peripheral sewer service policy. (II.E.)
- In the Jonesville and Jerusalem section, added language addressing repeated sewage flow events exceeding WSSC Water's negotiated 20,000 gallons per day maximum flow into the Poolesville Wastewater Treatment Plant. Noted that, pending WSSC Water investigations into possible infiltration and inflow within its sewerage system, the County and

WSSC Water may need to consider either further service restrictions in the service area or renegotiation on flow limits with the Town.

- In the Potomac Area RE-1 and RE-2-Zoned Properties section, added that properties within the City of Rockville cannot be used as justification for sewer category change approvals under the Potomac peripheral sewer service policy. (II.M.)
- In the Riverwood Drive section, proposed to reduce the area of the existing restriction as part of the existing area already has public sewer service and other parts of the existing area are not accessible from the Riverwood Drive sewer main. (II.N.)




OFFICE OF THE COUNTY EXECUTIVE

Marc Elrich  
*County Executive*

**M E M O R A N D U M**

January 27, 2022

TO: Gabe Albornoz, President  
Montgomery County Council

FROM: Marc Elrich, County Executive 

SUBJECT: Proposed Water and Sewer Plan Commercial Service Policy

This is to advise the County Council that the new special service policy in the Ten-Year Water and Sewer Plan (the Plan) that would allow for public service for commercial uses outside the planned public service envelope will not be part of the pending Plan Update. It will be on a separate track to avoid delaying the release of the Plan Update.

The intent to create such a policy was established in the Council's action under Resolution No. 19-1019, on October 12, 2021, for deferral of two category change requests: 20-TRV-14 and 20-TRV-15. The two requests are for commercial use projects at the intersection of Glen Road and Travilah Road in Potomac, Maryland: the existing Potomac Oak Center shopping center and the proposed Old White House Country Inn. The Council's vote to defer action on these requests pending the creation of a new service policy was unanimous on a recommendation from the T&E Committee, as follows:

**“Defer action on the request for S-3 pending development of a special service policy in the Water and Sewer Plan to address public service for remote commercial uses such as the existing shopping center.”**

The Council intends to limit public service to only these commercial uses and not allow for public service for nearby residential uses that will generally be in low-density zoned areas. It is my intention to limit this policy to the extent possible to the existing category change request and not create a policy that would cover the entire County.

I would like to reiterate that I do not agree with the proposal and think that the consideration of a master plan limited amendment to address these two sites would be a better approach. It is anticipated that this policy change will be part of the April/May 2022 Council package.



Proposed Water and Sewer Plan Commercial Service Policy  
January 27, 2022  
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CC: Adriana Hochberg, Acting Director, DEP  
Steve Shofar, Chief, Intergovernmental Affairs Division, DEP  
Keith Levchenko, County Council staff