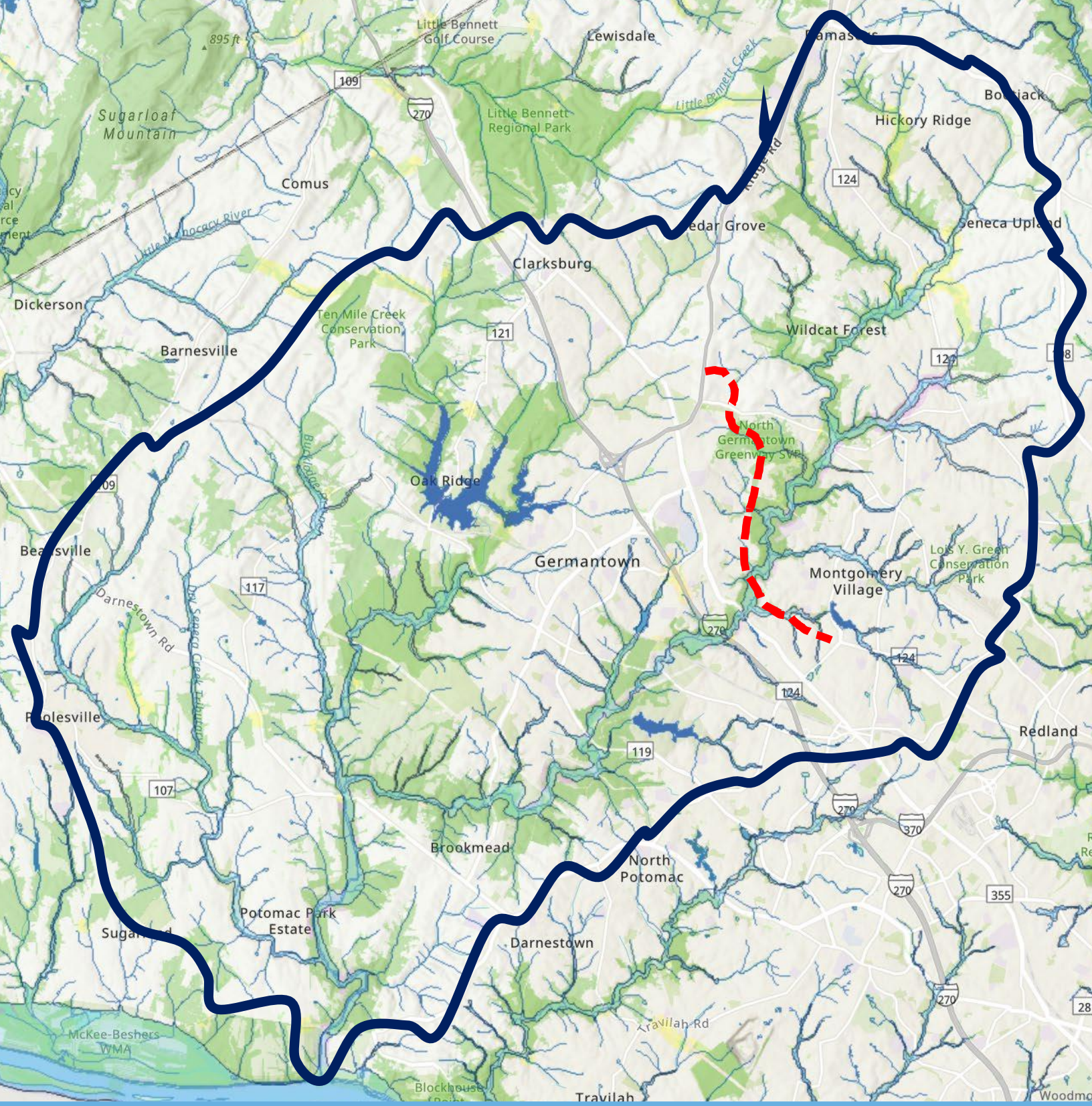

Protecting the Seneca Creek Watershed

By Cancelling Midcounty Highway Extended (M83)

Montgomery County, Maryland • June 2025

TAME

Transit Alternatives to Mid-County Highway Extended

Cover: Seneca Creek Watershed with proposed M83 in red.

Photos © Ecorizons Conservation Consulting except where noted.

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Summary

Mid-County Highway Extended (M-83) is a proposed highway in Montgomery County. This report focuses on the northern section of the highway from Montgomery Village to Clarksburg which is **entirely within the Seneca Creek watershed**. It describes the natural treasure that is the Seneca watershed, and the losses if M-83 were to be constructed.

Introduction

What is a watershed?

A watershed (also called a basin or catchment) is the land area where flowing water ultimately drains into the same stream, lake or river. Watersheds often have smaller watersheds nested within (sometimes called a subwatershed). Streams in these smaller watersheds are tributaries to the streams in the larger watershed.

Where is the Seneca Creek Watershed?

The Seneca Creek watershed is located in the Mid- and Upcounty regions of Montgomery County **(Figure 1)**. It is the largest watershed entirely in the County and covers over 129 square miles (82,738 acres). The Seneca Creek watershed is contained within the Potomac River watershed, which is in turn contained within the large Chesapeake Bay watershed.

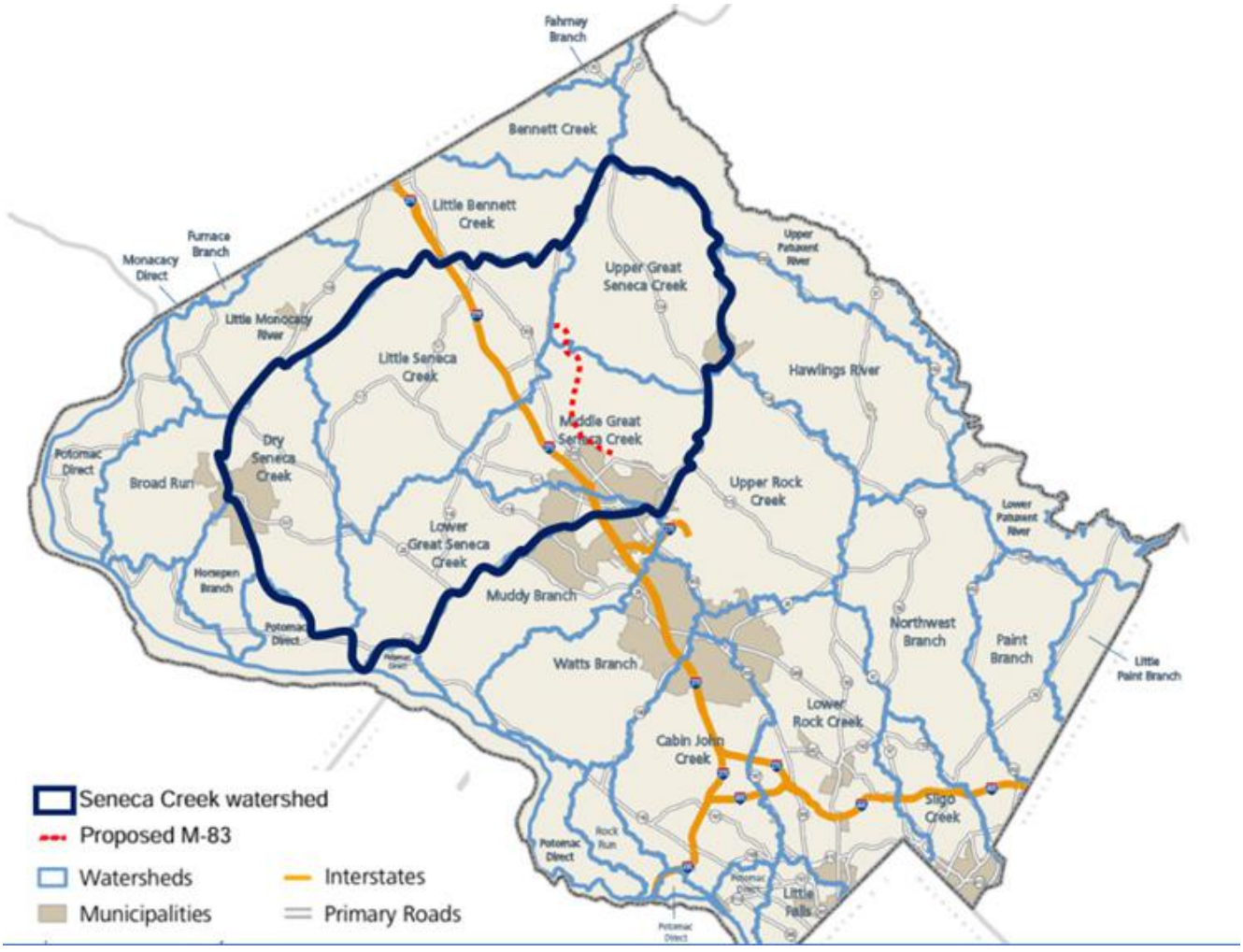


Figure 1. Seneca Creek watershed in Montgomery County. Proposed M83 in red

The headwaters ("source") of Seneca Creek are in the Upcounty near Damascus. Seneca Creek flows south for 22 miles where it empties into the Potomac River. The Seneca Creek watershed can be roughly delineated by a circle connecting Damascus, Clarksburg, Germantown, Poolesville, Darnestown, Gaithersburg, Montgomery Village and Laytonsville.

Montgomery County identifies 5 subwatersheds in the Seneca Creek watershed: Upper, Middle and Lower Great Seneca Creek, Little Seneca Creek, and Dry Seneca Creek. Each of these is further divided into subwatersheds.

https://montgomeryplanning.org/resources/watersheds/

Watersheds are identified by a numeric code. As a watershed is divided, each subwatershed within has additional digits added. Maryland's Seneca Creek watershed code is 02140208 and the Middle Great Seneca subwatershed is 021402080860. Federal, state and county codes may differ.

Why is watershed protection important?

Precipitation anywhere in a watershed flows downhill and eventually into water bodies, groundwater, and even drinking water intakes. Natural vegetation and soil act as biofilters to prevent nutrients and pollutants from entering water bodies. As land is converted to buildings, pavement and roads, this protective cover is lost. This leads to an increase in "flashiness" – i.e., a more rapid rise and fall of stream flow in response to precipitation, and flooding, along with erosion and scouring of stream channels (EcoLogix 2018). Precipitation runoff as stormwater flows over hard surfaces to culverts and storm drains, then directly into water bodies, carrying contaminants of all kinds. Maintaining unfragmented areas of natural vegetation throughout a watershed is a critically important water quality management strategy.

> *"Well-managed land cover is the most important factor in protecting a watershed's water quality."*
> ***- U.S. EPA***
>
> *https://www.epa.gov/hwp/basic-information-and-answers-frequent-questions*
>
> While municipalities spend millions to protect water quality, this protection is provided **for free** by the watershed's natural land cover.

What is M-83?

Mid-County Highway Extended (M-83) is a proposed 5.2 mile, 4 lane highway from Montgomery Village Ave. to Clarksburg east of MD 355 and a 0.7 mile section from Shady Grove Road to the Inter-County Connector (ICC/ MD-200) **(Figure 2).**

https://montgomeryplanning.org/planning/transportation/highway-planning/midcounty-highway-m-83/

The enormous environmental impact potential of proposed M83 has been thoroughly documented over the decades by scientists, community members, governments and regulatory agencies. The Montgomery County Department of Transportation (MCDOT) evaluated environmental effects in its 2013 Draft Environmental Effects Report (DEER) and 2015 Draft Preferred Alternative/Conceptual Mitigation Report (PA/CM).

https://www.montgomerycountymd.gov/corridor/PublicOutreach.html#May

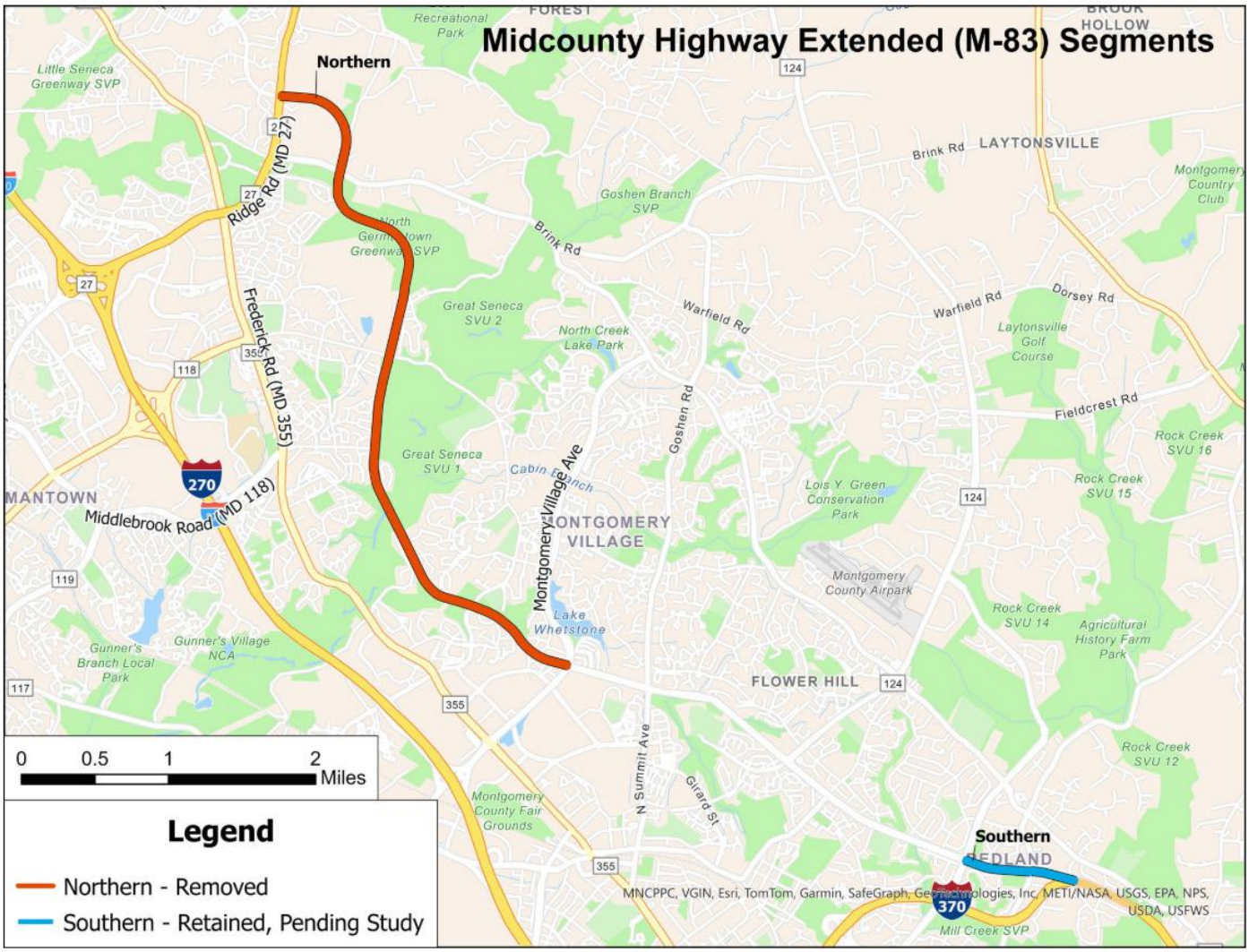


Figure 2. Proposed M-83 segments

Montgomery County Parks and Planning staff conducted a comprehensive evaluation in 2013 of proposed M83 impacts to natural, cultural and recreational resources.

https://montgomeryplanningboard.org/agenda/2013/documents/ITEM9FinalStaffReport_111413.pdf.

The Clean Water Act (CWA) requires that projects that impact wetlands and waters of the U.S. obtain a federal permit from the U.S. Army Corps of Engineers (USACE). In their reviews of the DEER, U.S. Environmental Protection Agency (USEPA) and USACE cited substantial resource impacts and deficiencies in the County's analyses. No permits for M83 were ever issued. Agency comments and MCDOT's responses are available at:

https://www.montgomerycountymd.gov/corridor/PublicOutreach.html#May

Seneca Creek Watershed Natural Assets and Impacts

The Seneca Creek watershed is a natural treasure in Montgomery County. It contains a wealth of forests, streams, wetlands, floodplains, aquatic life, parks, trails, and green buffers **(Figure 3)**. These priceless features support vanishing ecosystems, flora and fauna, safe drinking water, healthy soil, productive agriculture, water-based recreation, physical and mental health for people, and climate change resilience. The Seneca Creek watershed is home to ecologically important biodiversity areas and the visionary, award-winning Agricultural Reserve.

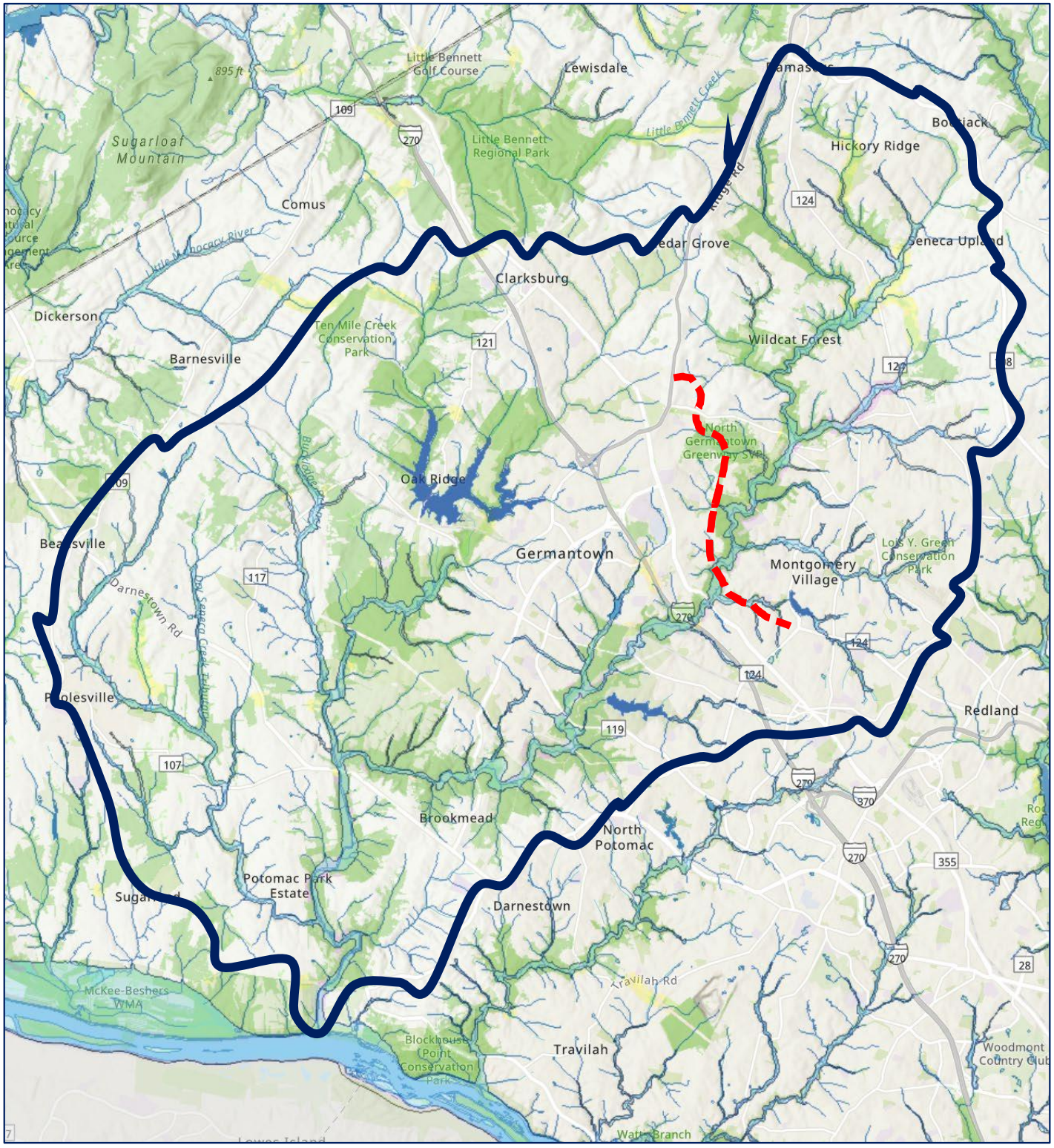


Figure 3. Seneca Creek watershed, streams, wetlands and forests. Proposed M83 in red.

The many assets of the Seneca Creek watershed in the path of proposed M83 **(Figure 4)** are described below from upstream to downstream. Detailed maps of the M83 alignment are available at:

https://www.montgomerycountymd.gov/corridor/PublicOutreach.html#May

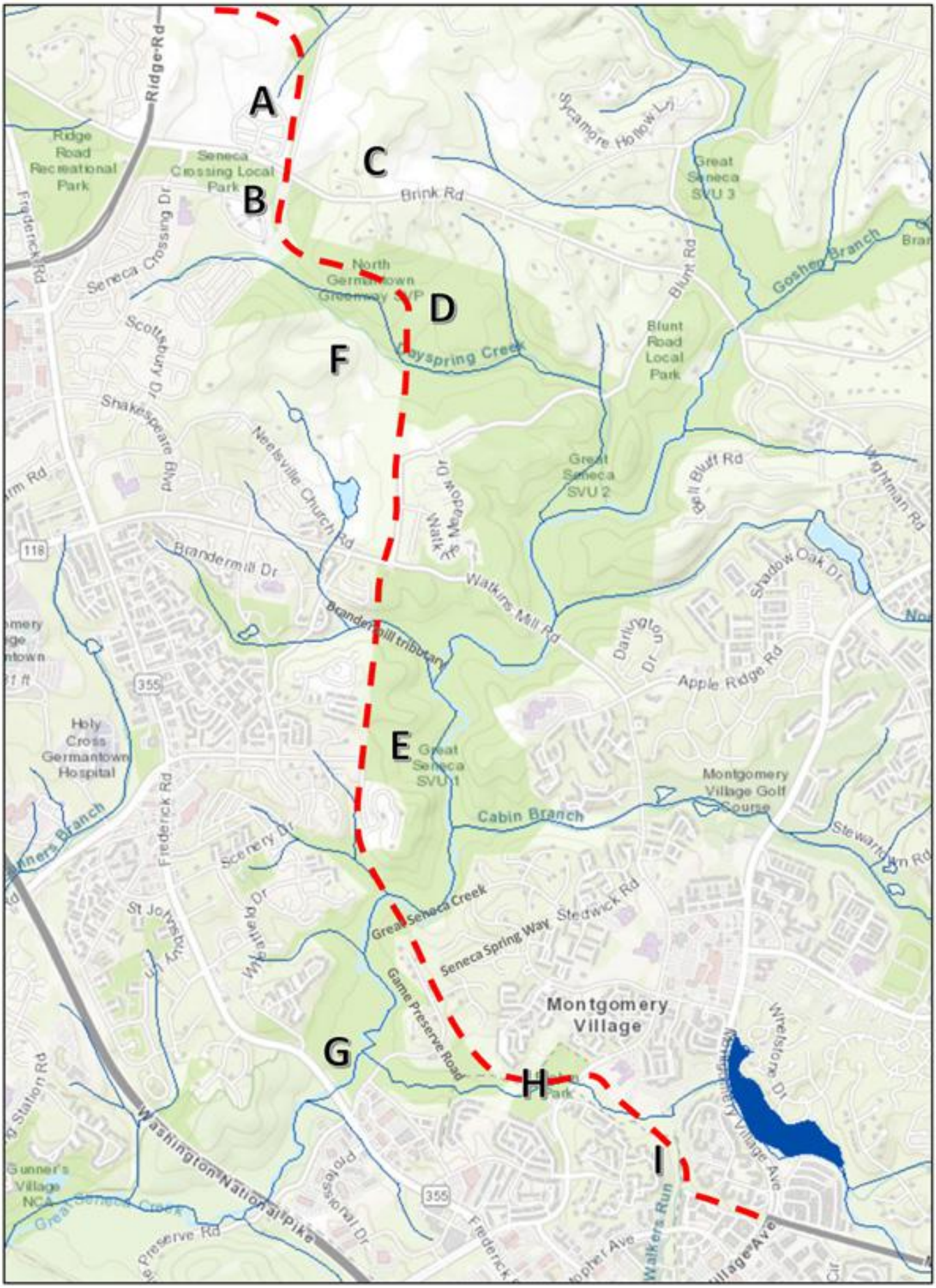


Figure 4. Key points in this report. Proposed M83 in red.

A - Wildcat Branch Stream Valley Park (SVP) is a 47-acre park acquired by M-NCPPC in 2003. It contains Wildcat Branch, a state-designated Trout Reproducing Stream. Trout need cold water temperatures (<=68° F, 28 C) to survive. Wildcat Branch and its tributaries are contained within the Clarksburg Special Protection Area (SPA) and subject to more stringent water quality requirements.

https://montgomeryplanning.org/planning/environment/water-and-wetlands/special-protection-areas/

Photo from Wildcat Branch Stream Valley Park - Montgomery Parks

B - Seneca Crossing Local Park is a 28-acre open space buffer adjacent to the forest of North Germantown Greenway Stream Valley Park. It is located directly across Brink Road from All Souls Cemetery and Wildcat Branch Stream Valley Park. M-NCPPC acquired Seneca Crossing Local Park in 1998.

Photo from Seneca Crossing Local Park - Montgomery Parks

C - Montgomery County's internationally-recognized **Agricultural Reserve** is home to over 500 working farms. Significantly, these 93,000 acres of farms are not merely a patchwork, but a contiguous landscape of a functioning agricultural economy for a county of nearly 1.1 million people.

https://montgomeryplanning.org/planning/agricultural-reserve/

"Keeping a large contiguous area of farmland intact was crucial to sustaining farming. Farmers' experience taught once an area was fragmented by residential subdivisions, farming became less viable."

- Royce Hanson, Agricultural Reserve founder

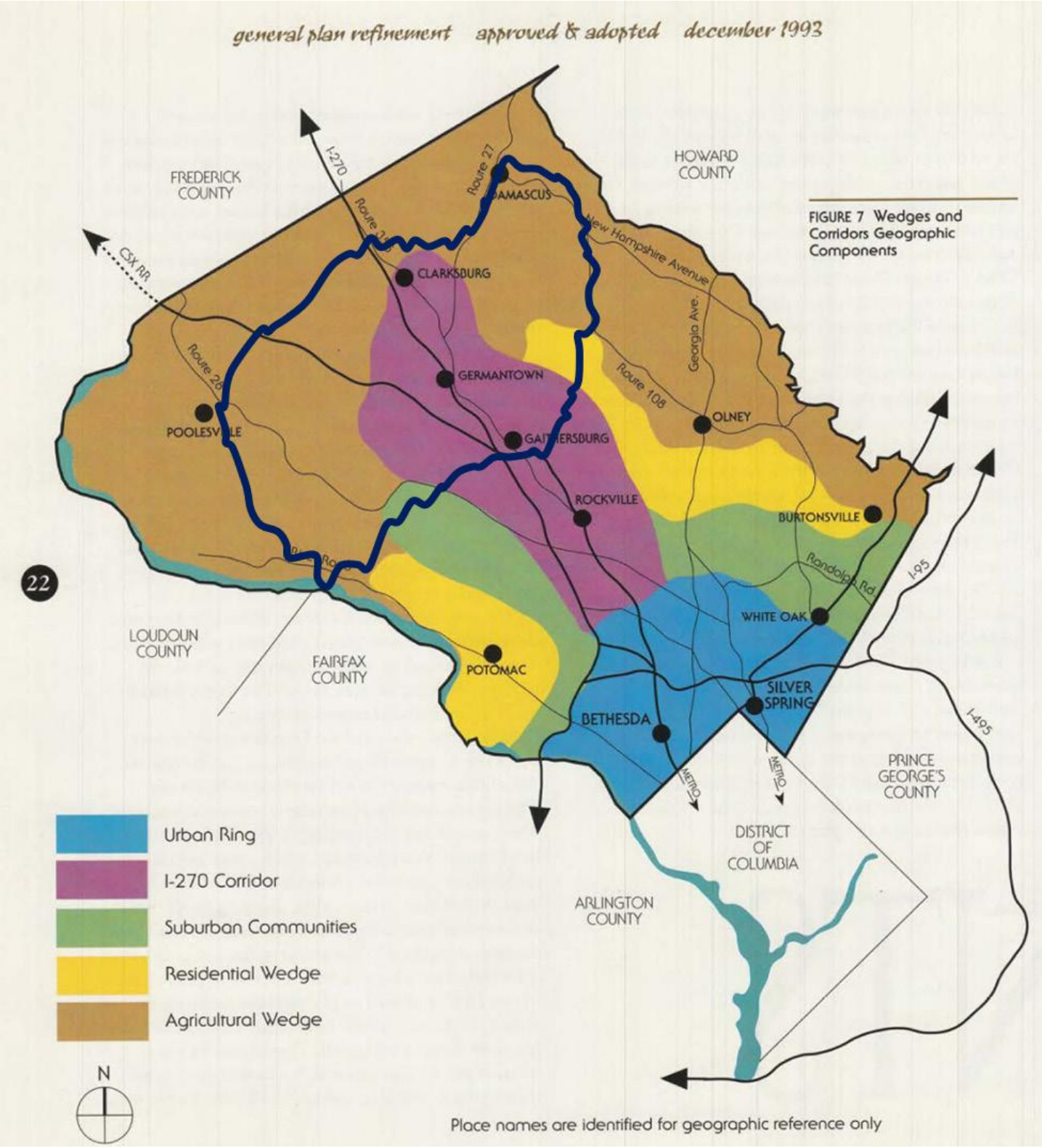


Figure 5 - 1993 Wedges and Corridors and Seneca Creek watershed

County zoning was designed to support various land uses **(Figure 5)**. Zoned adjacent to the Agriculture Reserve is the rural Residential Wedge that serves as a protective buffer for the farms and contains Dayspring Silent Retreat Center and parklands in the Seneca Creek watershed. Smart growth principles respect these urban-rural boundaries.

https://montgomeryplanning.org/wp-content/uploads/2017/10/GeneralPlanRefinement1993ocr.pdf

As illustrated in **Figure 6**, water quality in the Agriculture Reserve and the rural Residential Wedge is superior to that within the urban and I-270 corridor. Introducing a major highway such as M83 would further degrade the water quality, fragment the Agricultural Reserve, urbanize the rural area, promote sprawl, and contradict smart growth principles.

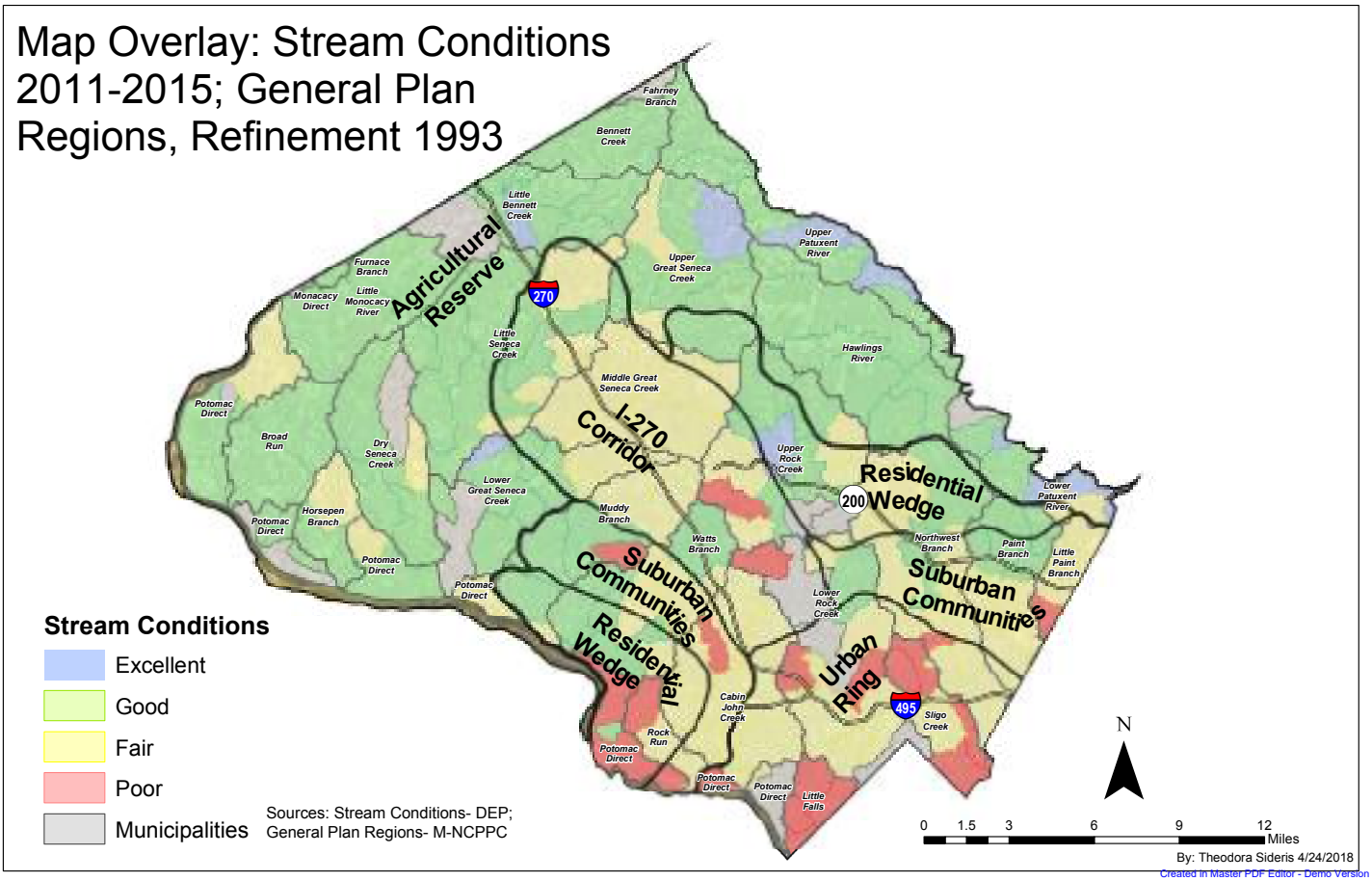


Figure 6. Montgomery County stream conditions, 1993 Wedges and Corridors and Seneca Creek watershed

D - North Germantown Greenway SVP and E - Great Seneca Greenway SVP

Montgomery County has recognized the ecological significance of the connected North Germantown Greenway and Great Seneca Greenway SVPs **(Figure 7)** by designating them as **Biodiversity Areas** in its 2012 Park Recreation and Open Space (PROS) Plan.

FIDS hub, Great Seneca Greenway SVP in the M83 ROW

https://montgomeryparks.org/wp-content/uploads/2023/09/montgomery-parks-pros-plan-adopted-july-2012.pdf.

Biodiversity areas are large tracts that contain significant and exceptional, rare, high quality, scenic biotic and/or abiotic features (Appendix A).

Maryland's **Habitat Connectivity Network (HCN)** is a network of Hubs and Corridors of undeveloped lands that provide the bulk of the state's natural support system.

https://dnr.maryland.gov/land/Pages/Green-Infrastructure-Forests.aspx

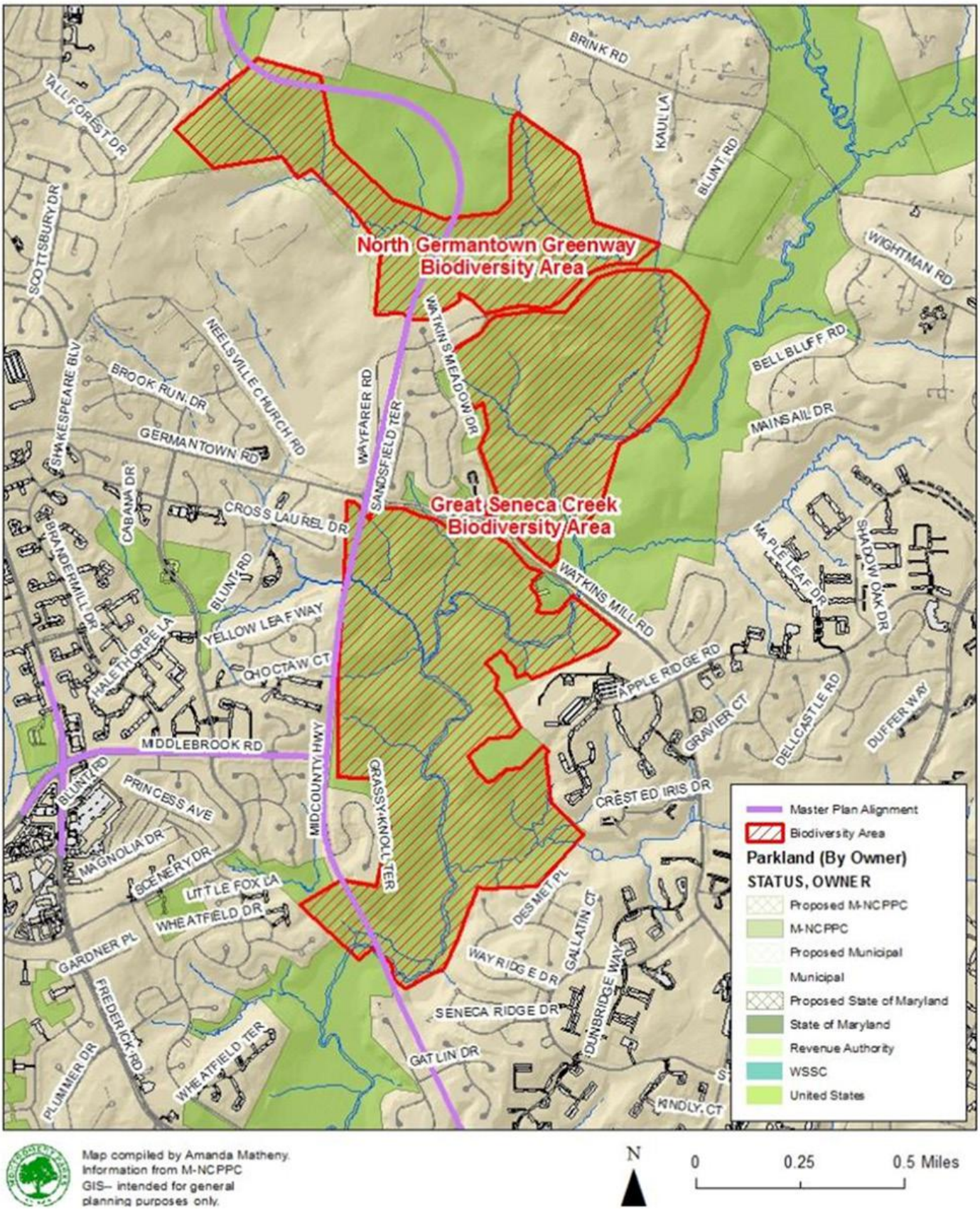


Figure 7. North Germantown and Great Seneca Greenway Stream Valley Parks Biodiversity Areas (Montgomery Parks 2013)

Hubs are contiguous forest blocks and wetland complexes of at least 250 acres, rare or sensitive species habitats, biologically important rivers and streams, or existing conservation lands managed for natural values. Corridors are linear features that accommodate movement of plant

propagules and wildlife between hubs. Size thresholds for hubs and corridors were based on the conservation needs of Maryland's **Forest Interior Dependent Species of birds (FIDS)**. FIDS are declining in population globally due to the loss and fragmentation of forests. **The large unbroken forest tracts of North Germantown Greenway (200 acres) and Great Seneca Greenway (461 acres) SVPs parks are included in the HCN as providing Upland Hubs habitat for FIDS.** MCDOT estimated that construction of M83 would directly remove or indirectly degrade 93.5 acres of FIDS forest habitat. This means that the smaller parcels of remaining forest cover would no longer provide enough habitat area to support viable populations of FIDS, and could lead to the extirpation of these species. Most of the forest loss would be in the North Germantown Greenway SVP **(Figure 8)**.

FIDS hub, North Germantown Greenway SVP in the M83 ROW

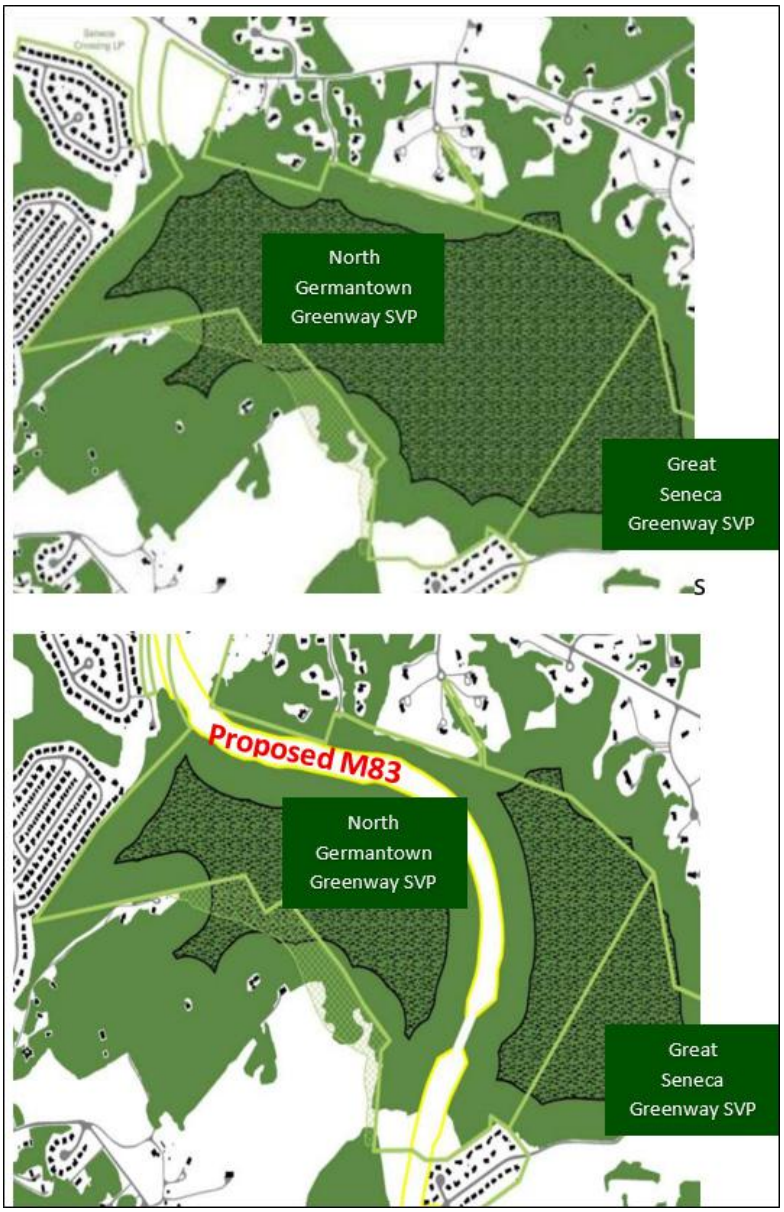


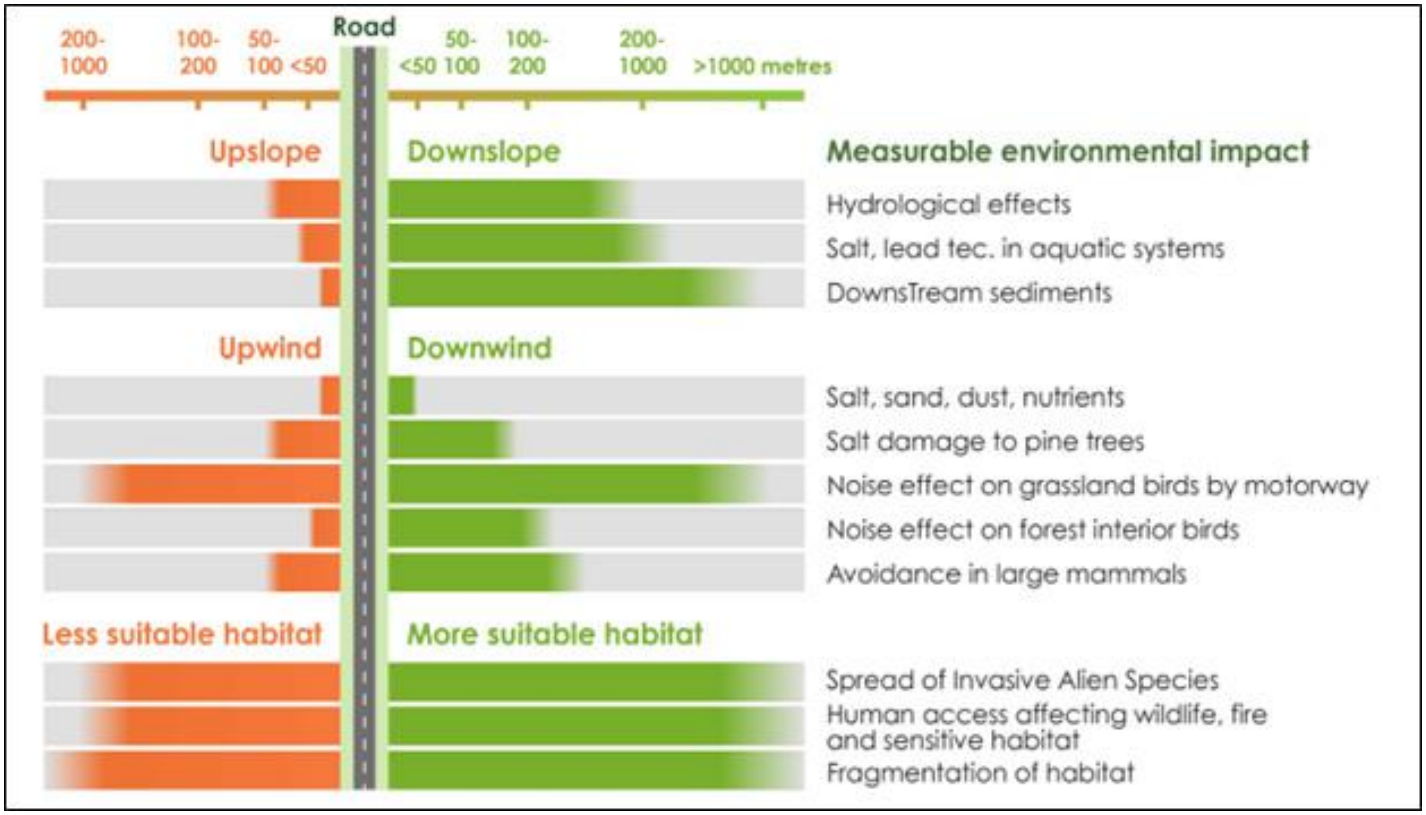
Figure 8. Fragmentation of FIDS habitat by proposed M83. (Montgomery Parks 2013)

In its **2012 Environmental Review** of the Mid-County Corridor study, including the M83 proposal, Maryland Department of Natural Resources (DNR) specifically advised MCDOT: ***"Avoid placement of new roads or related construction in the forest interior." (Appendix B).*** However, MCDOT failed to implement this guidance, and all options of its "preferred alternative" 9 traverse the North Germantown Biodiversity Area and the Great Seneca Creek Biodiversity Area.

Impacts extend beyond Montgomery County parks. Resources in other ownership, such as South Valley and Blohm Parks, Whetstone Run and Walkers Run, would also be lost and are not reflected in the Parks impacts acreage. Habitats not directly in the M83 ROW would be **indirectly** impacted over the long term by detrimental edge effects, fragmentation, interior forest condition, changes to soil and microclimate, increased susceptibility to nonnative invasive species, noise and light pollution, windthrow, erosion and contamination of streams and wetlands with sediment and chemical pollutants.

The spatial extent of indirect impacts from road building has been shown to be an order of magnitude greater than the direct impacts themselves **(Figure 9)**.

https://www.biodiversityinfrastructure.org/biodiversity_infrastructure_handbook_1_3_10_edge_effects-2/



"The Master Plan alignments (8 and 9) with an approximate 180-ft. wide limit of disturbance would have a potentially calamitous impact to resources described above. These alignments bisect three of the largest biodiversity areas in the County. Accordingly, the Department of Parks support the Planning Department's recommendation to further consider and evaluate a transit alternative that incorporates elements of Alternative 2 and 5 and that the Master Plan alignments be removed from further consideration."

- M-NCPPC 2013

Impacts to water resources - wetlands, riparian zones and floodplains - would be significant. These were described in the 2013 DEER.

https://www.montgomerycountymd.gov/corridor/PublicOutreach.html#May

The revised 2015 proposal (*https://www.montgomerycountymd.gov/corridor/Resources/Files/MidCountyCorridor/DRAFTPACM_Vol1_03ARDS.pdf*) reduced some impacts to water resources, but still included:

- 1500 linear feet (1/3 mile) of Seneca Creek tributaries would be permanently piped or relocated.

- 3.6 acres of wetlands and wetland buffers would be permanently filled or converted from forested wetland to a lower quality wetland type. This does not include wetlands temporarily or indirectly impacted by runoff, hydrology changes, edge effects, invasive species, etc.
- Five bridges ranging from 80-500 feet in length and 16-43 feet in height would span Wildcat Branch, Dayspring Creek, Brandermill Tributary, Great Seneca Creek and
- 4.8 acres of floodplain would be permanently impacted.

> *"By acting upon the habitat needs of species at greatest risk from forest fragmentation, the department is also able to address the accompanying ecosystem services and other species habitat needs that are also dependent upon large blocks of intact habitat."*
> ***- Maryland Department of Natural Resources***

Due to the stream and wetlands density, an extraordinary amount of bridging, stormwater management facilities, retaining walls, barriers and mitigation would be required. Bridges create permanent bank and water **shading** where nothing can grow. Bridge infrastructure disrupts the heterogeneity of **stream morphology** needed for colonization, abundance, and diversity of fish and benthic communities. Seneca Creek is already severely degraded under MD 355, just ½ mile downstream from the proposed M83 crossing. Planning staff noted the floodplain and riparian losses could be greater than envisioned.

https://mde.maryland.gov/programs/Water/TMDL/DocLib_Seneca_02140208/Seneca_Creek_BSID_Report_06-16-09_Final.pdf

In 2004, Dayspring Church commissioned a survey of amphibians, forest interior dwelling birds, rare plants and significant habitats and an impact assessment of the M83 highway proposal (Parrish, J. and RG Steinman, 2004). The report details specific impacts:

> *"The North Germantown biodiversity area contains unique aquatic and terrestrial features rarely seen in Montgomery County.... The contiguous, stable, and un-incised stretch of bedrock stream is a rarity in the piedmont and the only stretch this long in M-NCPPC parkland."*
> ***- Montgomery Planning 2013***

- Amphibian breeding forested wetlands on the floodplain of Dayspring Creek[1] and Brandermill Tributary would be directly and permanently destroyed. M83 would create a barrier and hazard to the movement of amphibians to and from breeding wetlands **not** destroyed by highway construction. Eight amphibian species found within the highway ROW: *American Toad, Wood Frog, Gray Treefrog, Spring Peeper, Redback Salamander, Pickerel Frog, Green Frog, and Dusky Salamander.*
- At least 4 state-listed rare plants grow in or near the M83 ROW: *Black Ash (Fraxinus nigra), Butternut (Juglans cinerea), American Chestnuts (Castanea dentata)* and *Bashful Bulrush (Scirpus verecundus).*

[1] In 2013, M-NCPPC referred to Dayspring Creek as North Germantown Tributary.

- Bedrock outcrops on the slopes of the Brandermill and North Germantown tributaries that support rare plants are threatened by direct and indirect impacts.
- Rare glade and dry chestnut oak forest habitats in the North Germantown Greenway lie directly in the path of proposed M83. Destruction of this site would mean a loss of unusual habitat and a loss of native species diversity.

"Riparian areas include a complex natural stream system that includes the low and high flow channels, floodplain, and biological communities. These communities include above-ground and subsurface terrestrial communities, such as forests and meadows and their soils, the in-stream aquatic community, and the subsurface zones where the groundwater and surface water interface within the soil profile. Floodplains perform important natural functions, including temporary storage of floodwaters, moderation of peak flows, maintenance of water quality, groundwater recharge, and prevention of erosion."
- M-NCPPC

F - The 200-acre **Dayspring Silent Retreat Center** in Germantown, founded in 1956, hosts thousands of visitors each year. Its core mission is to provide a sanctuary open to all for silence and meditation in nature. Dayspring is sustainably managed for the benefit of native plants and wildlife. Its existence is fundamentally dependent on the surrounding quiet rural landscape.

Characteristic bedrock feature on Dayspring Creek. Photo by Jim Hall

Dayspring's ecological lifeline is the pristine **Dayspring Creek**[2] and the adjacent **M-NCPPC North Germantown and Great Seneca Stream Valley Parks**. These linked natural areas facilitate the dispersal of native flora and fauna to and from each other and the Dayspring property. M83 would bisect North Germantown Greenway, severing these linkages. The Dayspring land would become a habitat island and suffer the ecological effects of this isolation (Parrish, J. and RG Steinman, 2004).

"30 years ago, government planners at all levels, including the federal EPA - and right here locally in Montgomery County - decided to use what they called the 'watershed planning approach' to protect our natural resources. This is based on the science that says when you want to protect a stream or a lake or a river, you need to protect all the land that drains into that body of water. That means to protect Dayspring Creek, we need to protect the North Germantown Greenway."
- Diane Cameron, TAME Coalition

[2] See Figure 13 for monitoring data for Dayspring Creek 1994-2024.

G - The spectacular **24-mile Seneca Creek Greenway Trail** from Damascus to the Potomac River is one of the county's most popular and important recreational amenities. **This natural surface trail provides one of the rarest amenities of any urban area, a quiet wilderness-like nature experience.**

The northern section, located on Montgomery County park land, meanders through the 1,557-acre Great Seneca Creek SVP for 7.8 miles from Frederick Road (MD 355) north to Damascus. The lower section of the trail in Seneca Creek State Park is 16.2 miles from MD 355 to the Potomac River. The trail is open to hiking and bicycling, and is **part of the larger planned trail greenway connection between the Potomac and Patuxent Rivers**.

https://montgomeryparks.org/parks-and-trails/great-seneca-stream-valley-park/seneca-creek-greenway-trail/

The proposed M83 highway would cut across what is currently a continuous 2.9-mile trail from Frederick Road to Germantown/Watkins Mill Road **(Figure 10)**.

It would parallel approximately 2000 feet of the trail and force relocation of 500 feet of trail with an additional fill of 0.2 acres of forested wetlands.

https://www.montgomerycountymd.gov/corridor/Resources/Files/MidCountyCorridor/DRAFTPACM_Vol1_03ARDS.pdf

M83 would introduce a new source of **permanent noise** that would severely degrade the trail and park experience. A **500-foot long bridge** is proposed over Great Seneca Creek just ½ mile north from the existing MD-355/Frederick Road bridge **(Figure 11)**.

Wetland seep/spring on the slope below M83 ROW, North Germantown SVP. Due to the disruption of its hydrology were M83 built, this spring would likely disappear.

> *"We have visitors from all over the area, all over the country, and even all over the world who come to be on retreat here and experience the quiet, the spiritual silence and solitude, in community.... That silence of retreat is a universal value across religions and cultures, and we welcome people from all religions and also people who are not religious."*
> ***- Nat Reid, Director, Dayspring Silent Retreat Center***

Seneca Greenway Trail at Brandermill Tributary in the M83 ROW

For trail users, just as the traffic noise from MD-355 is out of earshot, traffic noise from this new M83 bridge crossing would take over. It would become impossible to escape the road noise. In short, M83 would render nearly 3 miles of the Greenway trail unpleasant at best, and useless at worst.

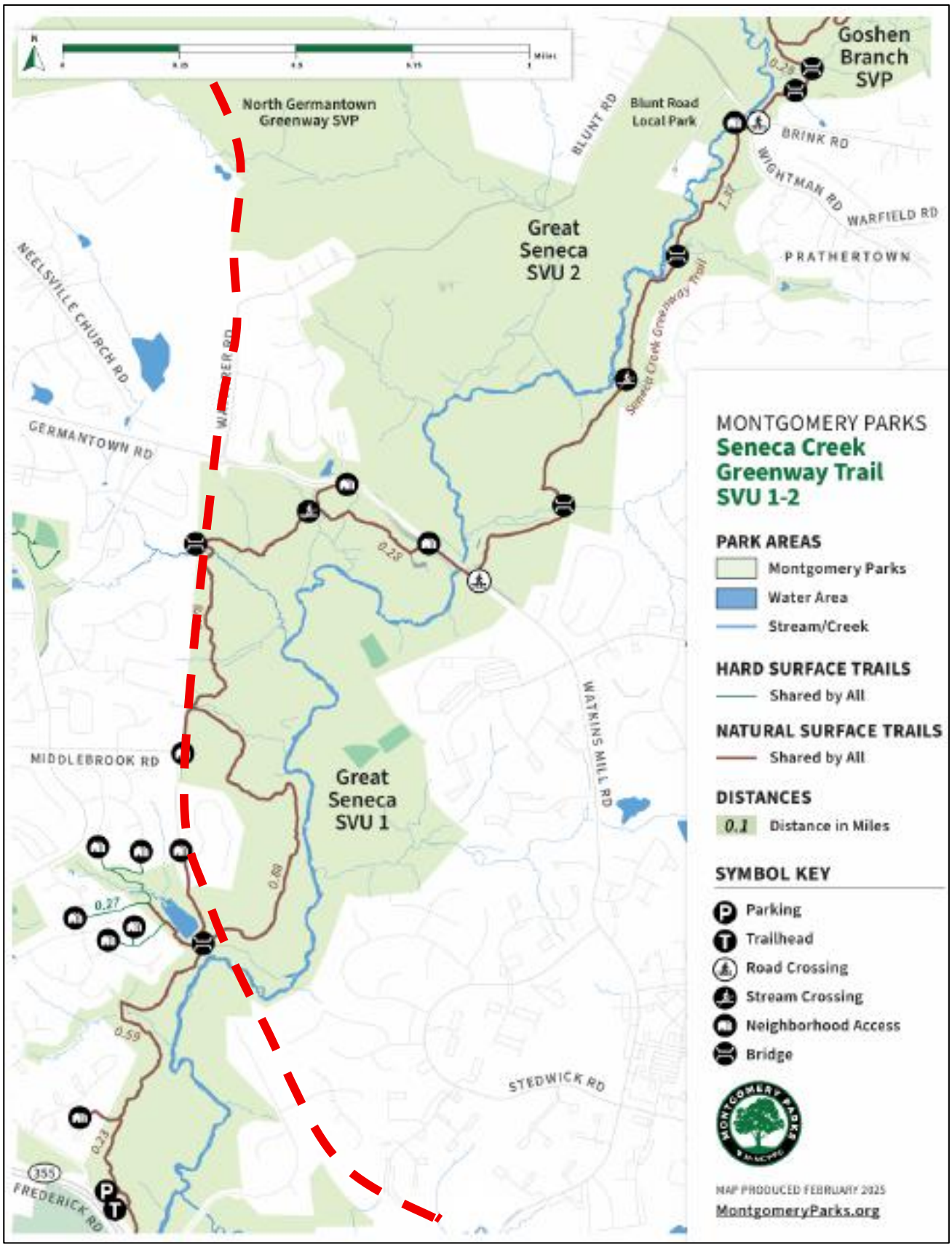
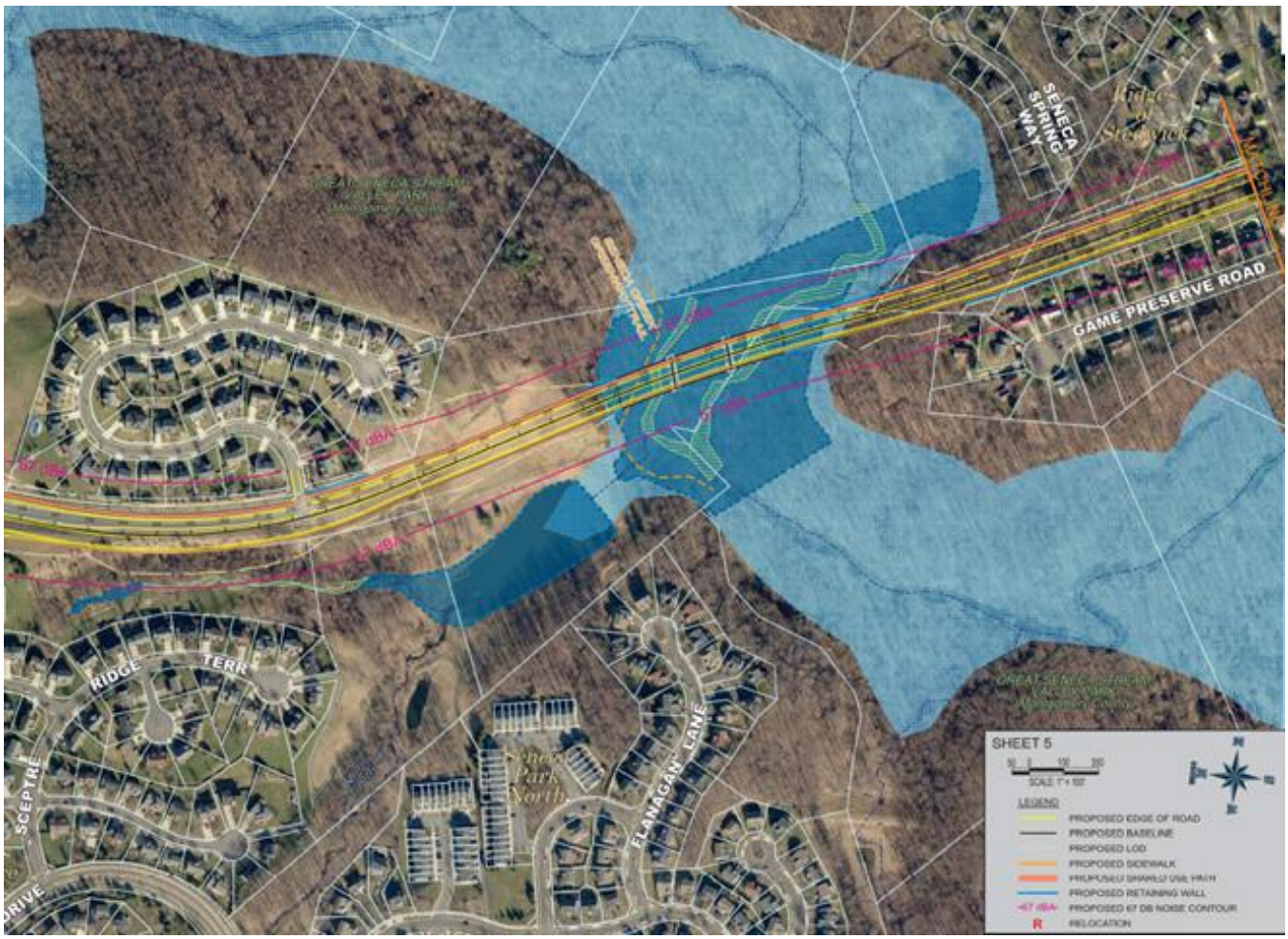


Figure 10. Seneca Greenway trail northern section. Proposed M83 in red.

H - Blohm Park. The City of Gaithersburg is designing a trail system with stream crossings, an overlook and boardwalk. M83 would obliterate this new amenity.

https://www.gaithersburgmd.gov/government/projects-in-the-city/blohm-park-trail-improvements



I - Whetstone Run flows downstream from Lake Whetstone, through Blohm Park and into Great Seneca Creek. **Walkers Run** tributary feeds Whetstone Run. These streams and their buffers create a **forested greenway** from Montgomery Village Avenue to Watkins Mill Road. The greenway is open space and "green lungs" for thousands of residents, and a critical natural corridor for flora and fauna including uncommon migratory bird species. Proposed M83 would eliminate this greenway. The cumulative effects of M83 with the recent removal of a 1.7 acre forest at Lost Knife Road and Montgomery Village Ave, would exacerbate the **heat island** in this area.

https://www.gaithersburgmd.gov/government/projects-in-the-city/lakeforest-mall-sdp-9736-2024

"I heard Northern Waterthrush in our (Whetstone Run) stream valley earlier this morning. It's a rare migrating warbler in central Maryland. Warblers will stop off in practically any patch of forest when they are migrating... but if the highway got built, that would be one less patch of forest for tired little birds travelling great distances across continents."

- Janette Rosenbaum, Montgomery Village resident

Great Seneca Creek near Seneca Spring Way. M83 would pass along the ridge on the left.

Water Quality

Despite its enormous significance to our region's natural heritage and residents' well-being, the Seneca Creek watershed's health is not protected as well as it should be. The area of the watershed through which M83 is proposed is characterized by steep and varied topography. It has a high drainage density, meaning a high ratio of water bodies relative to watershed size. This makes new roads highly problematic because they must cross numerous water bodies and steep terrain.

Whetstone Run in the M83 ROW

Aquatic organisms can be categorized by their sensitivity to pollution and are therefore an important indicator of water quality.

https://www.montgomerycountymd.gov/DEP/water/clean-water-montgomery/stream-health/stream-bugs-SH.html#monitor

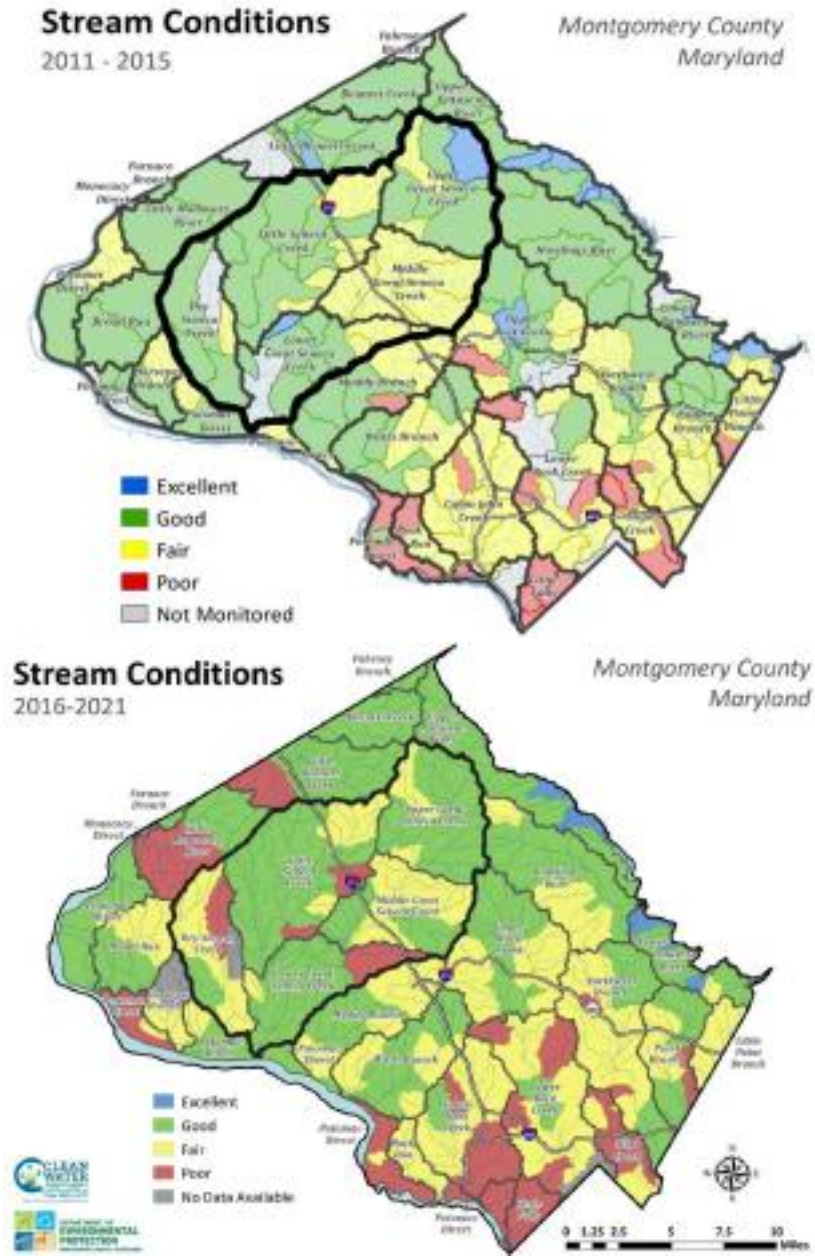


Figure 12. Stream conditions in Montgomery County watersheds, 2011-15 and 2016-21, based on Index of Biological Integrity (IBI).

Stream Conditions are determined by biological sampling of benthic macroinvertebrates ("bugs" that spend some or all of their lives in the water), and fish. If conditions are poor, sensitive fish and bugs won't be found. The **Index of Biological Integrity (IBI)** is a score using several metrics to evaluate the health of these biological communities. These scores can then be used to determine if the stream is in Poor, Fair, Good, or Excellent condition. **Figure 12** shows the decline of stream health in most of the Seneca Creek watershed and Montgomery County over 10 years.

A local team using the Nature Forward protocol has monitored the aquatic invertebrate communities in Dayspring Creek continuously, 3-4 times per year, for over 20 years. Data show the decline in the IBI **(Figure 13)**. In 2001, construction of a large subdivision upstream triggered a collapse of the benthic macroinvertebrate health (Jim Hall, personal communication, 2025). Although somewhat recovered from its 2002-04 low, the IBI has never returned to its excellent pre-development conditions.

Watershed volunteers sampling macroinvertebrates on Dayspring Creek

MDE's 2009 **Biological Stressor Identification Analysis (BSID)** evaluated stressors affecting the health of biological communities in Seneca Creek. The BSID results linked degraded biological communities in the Seneca Creek watershed to urban land use. Altered hydrology and associated habitat stressors were identified in all areas of the watershed.

https://mde.maryland.gov/programs/Water/TMDL/DocLib_Seneca_02140208/Seneca_Creek_BSID_Report_06-16-09_Final.pdf

Figure 13. Declining stream condition in Dayspring Creek 1993-2024. (The low data points from 1993-4 were taken before the study protocols were fully implemented).

Groundwater and surface water physically overlap at the groundwater/surface water interface through the exchange of water and chemicals. Pollution does not affect only surface water-it also contaminates groundwater which supplies drinking water wells and maintains base flow of surface water bodies. Thus, protection must begin with pollution prevention before it reaches receiving waters.

Regulatory Context for Water Quality

A **water quality standard (WQS)** is the combination of a **designated use** for a particular body of water and **water quality criteria** designed to protect the designated uses. Designated uses must include aquatic life and water contact recreation at a minimum. Criteria are numeric values for parameters such as dissolved oxygen, temperature, pH, sediment, etc. and may also include narrative statements.

https://mde.maryland.gov/programs/Water/TMDL/WaterQualityStandards/Pages/index.aspx

> *"Groundwater aquifers feed into our surface water streams, lakes and rivers - what happens to our groundwater affects our surface water."*
> ***- Caroline Taylor, Montgomery Countryside Alliance***

Water bodies are monitored to ensure that their applicable criteria support the designated use. Failure to meet required criteria results in a water body being listed as "impaired" in MDE's water quality reporting to EPA. A **Total Maximum Daily Load (TMDL)**, a pollution diet required by the federal Clean Water Act, is imposed to quantify the reduction needed to improve the water quality so it meets the WQS.

https://mde.maryland.gov/programs/water/TMDL/Pages/index.aspx

Seneca Creek and most of its tributaries upstream of MD 355 have designated uses of Water Contact Recreation, Nontidal Warmwater Aquatic Life, and Public Water Supply (Use I-P) COMAR 26.08.02.08.

https://dsd.maryland.gov/regulations/Pages/26.08.02.08.aspx

Seneca Creek and its tributaries upstream of MD 355 are impaired by chlorides (salts), total suspended solids, and sediment. MDE identified the probable pollutant source as urban runoff (stormwater) which loads contaminants into the stream.

https://mde.maryland.gov/programs/water/TMDL/Pages/Seneca-Creek.aspx

Excessive sediment and suspended solids in the water column reduces clarity, and when deposited on the streambed makes it difficult or impossible for fish and aquatic insects to survive and reproduce. Recently, MDE has taken action on chlorides from road salt as a significant hazard to water quality and drinking water. M83 would create significant and serious **new** sources of road salt pollution from its numerous proposed bridges and stream crossings.

https://mde.maryland.gov/programs/water/319NonPointSource/Documents/Salt_Files/FinalMD2024ChloridePollutionReductionStrategy.pdf

Watershed volunteers sampling macroinvertebrates on Seneca Creek

Wildcat Branch and its tributaries are designated as Water Contact Recreation, Nontidal Cold Water Aquatic Life and Public Water Supply (Use III-P) (COMAR 26.08.02.03-3).

https://dsd.maryland.gov/regulations/Pages/26.08.02.03-3.aspx

Wildcat Branch is a **Trout Reproducing Coldwater Stream**. The stream is impaired by **high temperature**, which limits its ability to support its reproducing trout population. Maryland regulations for trout waters states: "*(d) It is the policy of the State that riparian forest buffer adjacent to Class III waters shall be retained whenever possible to maintain the temperatures essential to meeting this criterion.*" Construction of M83 through the Wildcat Branch SVP would result in removal of forest canopy and is thus **inconsistent with the State policy.**

Conclusions

In 2025, the **Montgomery County Planning Board** voted to recommend removal of M83 (5-mile Northern Segment) from the Master Plan of Highways and Transitways (MPOHT) because:

1. **The proposed M83 highway does not support Thrive Montgomery 2050 nor Montgomery County's Climate Action Plan.**
2. **Retaining proposed M83 in the master plan would amount to making a false promise to Upcounty residents.**
3. **Retaining proposed M83 in the master plan impedes development of more robust transportation solutions.**

Long-term sustainable health of the Seneca Creek Watershed and its many residents can only be ensured by better care. The construction of M83 highway would cause widespread, irreparable damage. On the other hand, M-NCPPC has recognized the benefits of removal of M83 from the MPOHT and implementation of modern transit. **The Montgomery County Council must act to protect the Seneca Creek Watershed by removing M83 from the Master Plan of Highways and Transitways, as recommended on April 10, 2025 by the Montgomery County Planning Board.**

> *"Removing M-83 would have significant positive impacts on heat-related impacts, exposure to noise, forest cover, non-forest tree canopy, other green areas, pervious cover, stormwater quality and quantity, and air quality."*
>
> ***- Montgomery Planning Draft Climate Assessment for the MPOHT 2024 Technical Update***

Revised Update since June 2025 printing:

1. **M83 is Removed from the 2025 Master Plan of Highways and Transitways Technical Update - By an Overwhelming Montgomery County Council Majority Vote (10-1) on July 29, 2025.**
2. The Montgomery County Council also approved an amendment to fund a comprehensive upcounty transportation study to ensure sufficient transportation capacity to serve existing and future travel demand in the Clarksburg to Montgomery Village corridor.

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Appendix A - Definitions and Criteria PROS Plan (pp 84-86)

Sensitive Areas from Article 66b (State of Maryland)

1. Streams, wetlands, and their buffers;
2. 100-year floodplains;
3. Habitats of threatened and endangered species;
4. Steep slopes;
5. Agricultural and forest lands intended for resource protection or conservation; and
6. Other areas in need of special protection, as determined in the plan.

Biodiversity Areas (M-NCPPC)- Areas of parkland which contain one or more of the following:

1. Areas of contiguous, high quality forest and/or wetland which show little evidence of past land-use disturbance.
2. Rare, threatened, endangered, or watch-list species.
3. Exceptional examples of notable plant community types found in Montgomery County (i.e., mesic forest on acidic bedrock, central Maryland floodplain forest, dry forest on acidic bedrock, central Maryland swamp forest, mixed forest on diabase bedrock, riverside outcrops of the Potomac basin, mixed forest on Triassic shale bedrock, mixed forest on serpentine bedrock, Potomac River over-wash savannah, and coastal plain forest complex).
4. Areas of exceptional scenic beauty.

Forest Interior Habitat (M-NCPPC)

1. Existing forest with trees generally larger than 5 inches diameter at breast height (dbh).
2. At least 100 acres in size.
3. High area to edge ratio.
4. Forested buffer of at least 300 feet in width around the interior forest.

High Quality Forest (M-NCPPC)

1. Shade tolerant species are present in all age/size classes. Area is dominated by trees in larger size classes (11 inches dbh or larger).
2. Natural mortality and windfall create randomly distributed canopy gaps, resulting in small clearings that soon become pockets of regenerating growth.
3. There is an accumulation of dead wood of varying sizes and stages of decomposition, standing and down, accompanied by decadence (i.e., dead limbs, tree cavities, and larger hollows) in the dominant trees. Snags for cavity nesting are abundant.
4. There is little evidence of past land-use disturbance. Pit and mound topography is often an indication that the land has not been disturbed for a significant amount of time.
5. There is a high degree of structural diversity characterized by multiple growth layers (canopy, understory trees, shrubs, herbaceous and ground layers) that reflect a broad spectrum of ages.

Appendix B - Maryland DNR Environmental Review for Midcounty Corridor Study

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Joseph P. Gill, Deputy Secretary

March 13, 2012

Mr. Greg Hwang
Montgomery County Dept. of
Transportation
100 Edison Park Drive, 4th Floor
Gaithersburg, MD 20878

RE: Environmental Review for Midcounty Corridor Study – February 2011 ARDS, Montgomery County, Maryland.

Dear Mr. Hwang:

The Wildlife and Heritage Service's database indicates that there are the following sites supporting rare, threatened or endangered species (RT&Es) or protected habitats within the study area as delineated on your map. Please note that the utilization of state funds, the need to obtain a state-authorized permit, or changes to the plan might warrant additional evaluations that could lead to protection or survey recommendations by the Wildlife and Heritage Service. As the project progresses, we would request that coordination with WHS continue, in order to avoid impacts to these important sites:

REDACTED¶

- Our analysis of the information provided also suggests that the forested area on or adjacent to the project site (within the overall study area) contains Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird Species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of FIDS habitat is strongly encouraged by the Department of Natural Resources. The following guidelines will help minimize the project's impacts on FIDS and other native forest plants and wildlife:

  1. Avoid placement of new roads or related construction in the forest interior. If forest loss or disturbance is absolutely unavoidable, restrict development to the perimeter of the forest (i.e., within 300 feet of the existing forest edge), and avoid road placement in areas of high quality FIDS habitat (e.g., old-growth forest). Maximize the amount of remaining contiguous forested habitat.
  2. Do not remove or disturb forest habitat during May-August, the breeding season for most FIDS. This seasonal restriction may be expanded to February-August if certain early nesting FIDS (e.g., Barred Owl) are present.

Tawes State Office Building – 580 Taylor Avenue – Annapolis, Maryland 21401
410-260-8DNR or toll free in Maryland 877-620-8DNR – www.dnr.maryland.gov – TTY Users Call via the Maryland Relay

Appendix B, continued

3. Maintain forest habitat as close as possible to the road, and maintain canopy closure where possible.
4. Maintain grass height at least 10" during the breeding season (May-August).

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER #2012.0132.mo
Cc: D. Brinker, DNR
T. Redman, DNR

Appendix C - Montgomery Planning, summary of park impacts, Mid-County Highway Alternatives Review 2013

Alternative 8A/9A – Master Plan Alignment

	Alternative 8A and 9A
Total Acres of Park Impact	**40.47 acres**
Supports Biodiversity Area	**20.65 acres**
Forest Interior Dwelling Species (FIDS) Habitat	**79.63 acres**
Supports Resource Based Recreation	**High**
Forest	**32.03 acres**
Streams and their buffers	**7.47 acres**
Wetlands and their buffers	1.47 acres
Areas of high and moderate prehistoric archaeological potential	**31.29 acres**
Areas of high and moderate historic archaeological potential	**4.13 acres**
Natural Surface Trail	**545 ft.**
Managed Open Space	2,474 sq. ft.

Numbers in **RED denote the largest impact to a specific resource among all alignments*

Table VII-3: Impacts of the Preferred Alternative - Alternative 9A

RESOURCES IMPACTED	ALTERNATIVE 9A		CHANGE IN IMPACTS
	INITIAL DESIGN	CURRENT DESIGN	
PROPERTY IMPACTS			
Residences Displaced (no.)	**0**	**0**	**0**
Businesses Displaced (no.)	**0**	**0**	**0**
Total Number Parcels from which Property will be Acquired (no.)	**197**	**161**	**-36**
Total Right-of-Way/Easements (ac)	**111.7**	**89.0**	**-22.7**
NOISE IMPACTS			
Residences within 67 dBA Noise Contour (no.)	**NA**	**217**	**NA**
PARK IMPACTS			
Wildcat Branch Tributary Park (M-NCPPC Department of Parks) (ac)	NA	0.88	NA
Seneca Crossing Local Park (M-NCPPC Department of Parks) (ac)	NA	3.65	NA
North Germantown Greenway Stream Valley Park (M-NCPPC Department of Parks) (ac)	NA	24.89	NA
Great Seneca Stream Valley Park (M-NCPPC Department of Parks) (ac)	NA	14.72	NA
Blohm Park (City of Gaithersburg) (ac)	NA	2.56	NA
South Valley Park (Montgomery Village) (ac)	NA	2.27	NA
Total (ac)	**43.8**	**49.0**	**+5.2**
PRIME, STATEWIDE IMPORTANT FARMLAND			
Acres	**23.2**	**17.7**	**-5.5**
WATER RESOURCES			
WETLANDS			
Wetland Fill (ac)	NA	0.9	NA
Wetland Conversion (ac)	NA	1.7	NA
Total Permanent (ac)	**13.5**	**2.6**	**-10.9**
Temporary (ac)	**NA**	**0.8**	**NA**
WETLAND BUFFER			
Permanent (ac)	**NA**	**1.0**	**NA**
Temporary(ac)	**NA**	**0.2**	**NA**
STREAMS			
Perennial/Intermittent (LF)	5,257	256	-5,001
Ephemeral (LF)	1,427	229	-1,198
Total Piped (LF)	**NA**	**485**	**NA**
Total Relocated (LF)	**NA**	**989**	**NA**
FLOODPLAIN IMPACTS			
Permanent (ac)	**22.8**	**4.8**	**-18.0**

Appendix D, continued

RESOURCES IMPACTED	ALTERNATIVE 9A		CHANGE IN IMPACTS
	INITIAL DESIGN	CURRENT DESIGN	
Temporary (ac)	NA	0.6	NA
FOREST IMPACTS			
Acres	74.8	72.9	-1.9
SPECIAL PROTECTION AREAS			
Impervious Surface in SPA (ac)	21.1	7.2	-13.9
FIDS HABITAT			
Direct (ac)	67.2	19.4	-47.8
Indirect (ac)	NA	74.1	NA
THREATENED & ENDANGERED SPECIES (no.)			
Number of Species Impacted	0	0	0
CULTURAL RESOURCES			
Potential Historic Structures and Districts (Surveyed/Unrecorded)	6/6	7*/1	--*
Anticipated Archeological Sites (Prehistoric/Historic)	5/15	5/15	--*

** Additional survey of historic structures and districts has been completed since the ARDS, further consultation would occur with MHT prior to completion of the Final EER to determine the effect of the Preferred Alternative on Cultural Resources.*
NOTE: NA indicated impact topics for which data is unavailable for the initial alternative design.

Appendix E - MCDOT - Master Plan Alignment for M83 Alternative 9A

Midcounty Corridor - Public Outreach
https://www.montgomerycountymd.gov/corridor/PublicOutreach.html#May

- Plan Sheet 1A -Ridge Road, Brink Road, Agricultural Reserve, Wildcat Branch SVP, All Souls Cemetery, Seneca Crossing Local Park, North Germantown Greenway SVP
  http://www.montgomerycountymd.gov/corridor/resources/files/pdf/May2013_DraftEER/may2013EER_Alt9_CutSheet1A-100sc.pdf
- Plan Sheet 2A -North Germantown Greenway SVP, Dayspring Creek, Dayspring Silent Retreat Center
  http://www.montgomerycountymd.gov/corridor/resources/files/pdf/May2013_DraftEER/may2013EER_Alt9_CutSheet2A-100sc.pdf
- Plan Sheet 3 -Germantown Road, Great Seneca SVP, Seneca Creek Greenway Trail, Brandermill Tributary
  http://www.montgomerycountymd.gov/corridor/resources/files/pdf/May2013_DraftEER/may2013EER_Alt9_CutSheet3-100sc.pdf
- Plan Sheet 5 -Middlebrook Road, Great Seneca SVP, Seneca Creek Greenway Trail, Seneca Creek, Seneca Spring Way, Game Preserve Road
  http://www.montgomerycountymd.gov/corridor/resources/files/pdf/May2013_DraftEER/may2013EER_Alt9_CutSheet5-100sc.pdf
- Plan Sheet 6 -Blohm Park, Whetstone Run, Montgomery Village
  http://www.montgomerycountymd.gov/corridor/resources/files/pdf/May2013_DraftEER/may2013EER_Alt9_CutSheet6-100sc.pdf
- Plan Sheet 7 -Montgomery Village Ave, Goshen Road
  http://www.montgomerycountymd.gov/corridor/resources/files/pdf/May2013_DraftEER/may2013EER_Alt9_CutSheet7-100sc.pdf

TAME

M-83

Transit Alternatives to Mid-County Highway Extended

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