PROJECT IDENTIFICATION

CITY OF LEXINGTON

JEFFERSON STREET SUBTERRANEAN CHANNEL IMPROVEMENTS — HOPKINS GREEN TO MASSIE STREET

Location Description

37.785580, -79.442696

Jefferson Street corridor between Hopkins Green (Nelson Street/US Route 60) and Massie Street (**Figure 1**). An underground channel runs beneath multiple privately owned structures along Jefferson Street. Flooding occurs at the Jefferson Street/North Main Street gateway — the city's primary northern entry point from Route 11 North.

Project Issue

Underground stormwater channel infrastructure failure risk — subterranean channel beneath private buildings has not been inspected or assessed, so the condition is unknown. Active flooding has been documented with photographic evidence at Jefferson Street/North Main Street gateway during significant rain events. The channel runs beneath private structures creating access, inspection, and structural failure risk.

Project Purpose

Assess condition of the Jefferson Street subterranean channel, evaluate feasible improvement alternatives, and eliminate recurrent flooding at the Jefferson Street/North Main Street gateway while reducing risk of catastrophic subsurface infrastructure failure.

Identified Constraints

a. Disruption to traffic
b. Existing infrastructure and utilities
c. Channel runs beneath privately owned structures — access for inspection, design, and construction requires coordination with multiple private property owners
d. Significant construction costs

Additional Information Needed

a. Location of utilities
b. Channel condition and structural integrity
c. Stormwater conveyance capacity
d. Frequency of flooding
e. Verify responsible party where piped underground, particularly under buildings

Project Proposal and Planning-Level Cost Estimate

To accurately assess the current conditions of the tunnels that run under Jefferson Street and adjacent buildings, a study should be conducted. This would inform City officials on the current state of these lines and the extent of repair or replacement needed. Flooding has also been an issue along this corridor, particularly at the intersection of Jefferson and North Main Streets (**Figure 2**). As a part of this study, the capacity of the existing stormwater conveyance should be determined and compared to the demands on the system during storms. Survey and construction at this site are constrained by the multiple private properties, buildings, and other infrastructure that the channel travels under.

The City of Lexington already has a plan in place to inspect the infrastructure of the subterranean channel using closed circuit television (CCTV) and traditional survey. This will inform a Preliminary Engineering Report (PER) to explore potential designs and solutions for the site. The implementation of a nature-based solution is restricted along the corridor; however, the City could consider and assess the feasibility of daylighting sections of the channel. This option would depend on the possibility of land acquisition or demolition of existing structures.

The current project planned by the City of Lexington has an estimated budget of $4,400,000 for the design and construction. This will be funded in part by the Stormwater Fund and bonding. Although this project would likely involve an improvement to grey infrastructure and not a nature-based solution, it would still be possible to apply for and procure CFPF funding to defray some of the associated expenses. The state of the current infrastructure may pose a threat to the stability of nearby buildings and roads, with the potential need for emergency repairs if left untreated. Because of the importance of this project, funding might be available and acquired through the CFPF.

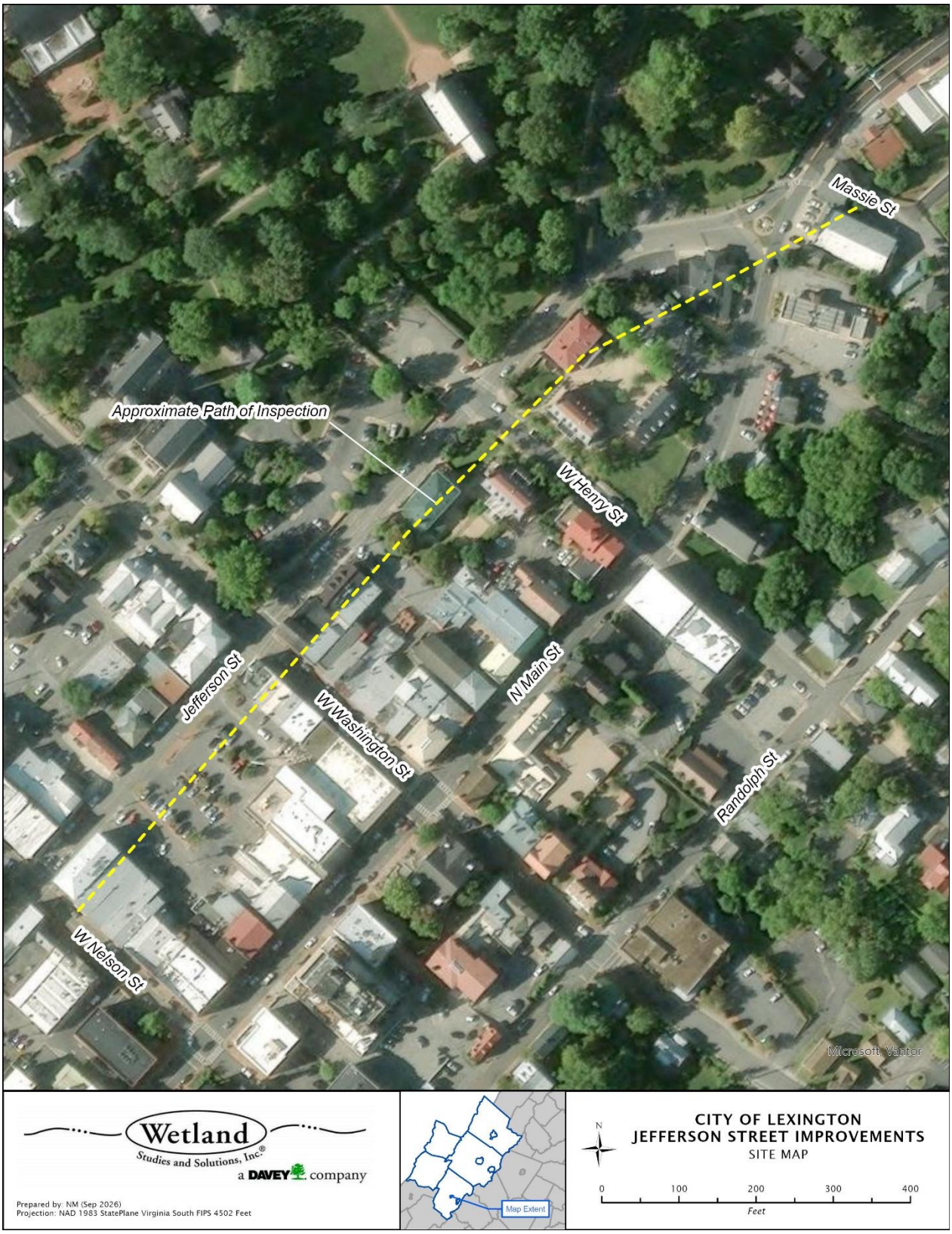

Figure 1. Approximate study location marked along Jefferson Street.



Figure 2. Area of previously noted flooding along the Jefferson Street and North Main Street gateway. Photograph was taken facing southwest.

Possible Alternatives and Additional Considerations

Certain designs could be considered upstream to decrease the strain on the conveyance that runs under Jefferson Street. Structures or BMPs could be implemented to promote attenuation or infiltration of floodwater. Due to the limited space available within the watershed and the majority of land being privately owned, the installation of rain barrels or rain gardens might be more feasible than construction of a regional BMP. Residents could access funds from the Virginia Conservation Assistance Program (VCAP), administered by the Natural Bridge Soil and Water Conservation District (NBSWCD). Though these would have minimal impact individually, taken as a collective there could be tangible improvements.

TMDL/MS4 Considerations

The City of Lexington does not hold an MS4 permit, so formal stormwater permitting considerations were not factored into the choice of project. The stormwater conveyance under Jefferson Street flows into Woods Creek, which drains into the Maury River. The Maury River has approved TMDLs for PCB levels and water quality violations of the *E. coli* standard. Woods

Creek is listed as impaired due to exceedances to the *E. coli* standard and the general life (benthic) standard. The most probable stressors in the Benthic Stressor Analysis were hydrologic modification and organic matter; hydrologic modifications cannot be quantified as a pollutant load and therefore are not able to undergo TMDL development. A TMDL was approved to address the *E. coli* impairment in Woods Creek. Studies and structural improvements to the stormwater conveyance under Jefferson Street would not provide benefits towards reaching TMDL goals for the Maury River or Woods Creek.

Lexington Capital Improvement Plan

The City of Lexington has developed a Capital Improvement Plan to budget and allocate funds for projects throughout the locality. Included in this plan are stormwater studies and construction projects planned between Fiscal Years 2027-2031. The subterranean conveyance along Jefferson Street has been identified in this plan, with the design and survey planned and budgeted for FY 2027 at a cost of $400,000. Construction to repair or replace this structure has been planned for FY 2028 at a cost of $4,000,000.

Assumptions

Watershed (via StreamStats 9/16/2026) is 0.32 square miles from intersection with Massie Street.

Recommended Next Steps

Evaluate CFPF and other flood-related funding options if not already assessed.

References

City of Lexington, VA. 2026. Lexington, Virginia Capital Improvement Plan FY 2027-FY 2031.

USGS. StreamStats v4.33.0. Accessed online 16 September 2026.

Virginia Tech Department of Biological Systems Engineering. 2013. Bacteria Total Maximum Daily Load Development for Colliers Creek, North Fork Buffalo Creek, South Fork Buffalo Creek, Buffalo Creek, Maury River and Cedar Creek and a Sediment Total Maximum Daily Load Development for Colliers Creek

Virginia Tech Department of Biological Systems Engineering. 2017. Bacteria TMDL Development and Proactive Approach to address the Benthic Impairment for Woods Creek Rockbridge County and City of Lexington, Virginia

Virginia Tech Department of Biological Systems Engineering. 2025. PCB Total Maximum Daily Load Development for the Middle and Upper James River, Maury River, and Jackson River Watersheds.

PROJECT IDENTIFICATION

CITY OF LEXINGTON

LIME KILN ROAD AND MCLAUGHLIN STREET EPHEMERAL SPRING DRAINAGE AND PEDESTRIAN SAFETY IMPROVEMENTS (ADA)

Location Description

37.784392, -79.449665

Intersection of Lime Kiln Road and McLaughlin Street; proximate to Wood's Creek Park and Harrington Waddell Elementary School (**Figure 1**).

Project Issue

An ephemeral spring discharges, causing drainage problems and severe winter icing hazard at a blind curve intersection near an elementary school and park. The current storm drain inlet placement prevents ADA-compliant ramp construction. The Myers Street sidewalk terminates at this intersection with no crosswalk or ADA ramps, requiring pedestrians including children to navigate a blind curve.

Project Purpose

Intercept and convey ephemeral spring discharge to eliminate icing hazard; install ADA-compliant pedestrian infrastructure at a blind curve intersection proximate to Harrington Waddell Elementary School and Wood's Creek Park.

Identified Constraints

a. Potential for traffic disruption
b. Minor utility relocation required
c. Roads and other infrastructure

Additional Information Needed

a. Precise location of spring
b. Frequency and volume of flow from spring
c. Current proposed design plans for storm sewer and sidewalk updates

Project Proposal and Planning-Level Cost Estimate

The City of Lexington has already identified this location in the Capital Improvement Plan (FY27-FY31) for upgrades to the stormwater system as part of a project to expand sidewalk access and upgrade existing sidewalk to proper ADA compliance. The project is currently slated to incorporate additional storm sewer to convey the flow from the spring into the public storm sewer. These improvements should address the drainage concerns that are noted as leading to icing of the intersection when the spring discharges and water flows into the roadway.

The discharge from the spring appears to currently be captured and conveyed approximately 180 feet downhill towards the McLaughlin Street/ Lime Kiln Road intersection via a metal pipe (**Figure 2**). The current plan in the CIP appears to propose fully piping this flow so that it directly connects to the storm sewer system, whereas it briefly daylights and may periodically divert away from the current culvert under McLaughlin Street. Depending on the extent of current design development and incorporation into the planned sidewalk upgrades, the planned piping could be substituted for a vegetated swale, which could retain and infiltrate some of the flow prior to entering the new conveyance system proposed.



Figure 1. Aerial map of the Lime Kiln Road intersection and locations of ADA and Pedestrian upgrades along Myers St and McLaughlin St. Other notable roads and infrastructure are marked.



Figure 2. Presumed current outlet of captured spring discharges along McLaughlin Street, across from the Lime Kiln Road intersection. Google Street View imagery captured facing approximately northeast (9/23/2026).

Significant savings were assumed in survey, design, and access/ESC in the table below due to this being a part of a larger proposed project. Separation of spring flow handling in the CIP budget could allow for a comparison of the two different approaches.

ITEM/DESCRIPTION	QTY	UNIT	UNIT COST	ITEM SUB-TOTAL	EXTENDED SUB-TOTAL
Survey and Design					**$30,000**
Construction Administration and Oversight					**$7,000**
Access and Erosion/Sediment Control					**$1,900**
Vegetated Dry Swale					**$71,150**
Mobilization	1	LS	$3,500	$3,500	
Excavation and Hauling	180	CY	$65	$11,700	
Vegetated Swale	180	CY	$300	$54,000	
Underdrain Pipe	200	LF	$3	$600	
Permanent Seeding and Straw	450	SY	$3	$1,350	
Contingency (30%)					**$33,015**
TOTAL ESTIMATED BUDGET					**$143,065**

Possible Alternatives and Additional Considerations

Ideally, discharge from the spring would be conveyed in a natural channel to the nearby Woods Creek. This possibility should be evaluated but may be unattainable given existing/proposed infrastructure. Stormwater piping currently runs along McLaughlin Street, presumably at an elevation that would impede a proposed natural channel. Once stormwater reaches the opposite side of McLaughlin Street, a nature-based conveyance could be constructed to tie in with Woods Creek. (It is assumed that currently the stormwater is piped to Woods Creek, though a full infrastructure survey was not available at this stage.) Grass swales or other conveyance BMPs could also be constructed in the area.

TMDL/MS4 Considerations

The City of Lexington does not hold an MS4 permit, so benefits for formal stormwater permitting were not considered in this design. Woods Creek, which runs close to the site, has an approved TMDL to address the bacteria water quality impairment and *E. coli* levels. The site is also located within the Maury River watershed, which has approved TMDLs for PCB and *E. coli*. The road and stormwater improvements throughout this area will not significantly decrease pollutants entering the creek or provide benefits toward TMDL reductions, though implementation of certain proposed BMPs could provide some bacteria reductions.

Lexington Capital Improvement Plan

This project has been included within the Capital Improvement Plan, with funding planned for Fiscal Year 2029 at a cost of $113,652.

Assumptions

As noted above, the budget estimates assume significant savings on survey, design, and access/ESC given that this is a part of a larger proposed project.

Recommended Next Steps

Evaluate planned work in the CIP and determine if modification to proposed dry swale installation is viable and desirable.

References

City of Lexington, VA. 2026. Lexington, Virginia Capital Improvement Plan FY 2027-FY 2031.

Virginia Tech Department of Biological Systems Engineering. 2013. Bacteria Total Maximum Daily Load Development for Colliers Creek, North Fork Buffalo Creek, South Fork Buffalo Creek, Buffalo Creek, Maury River and Cedar Creek and a Sediment Total Maximum Daily Load Development for Colliers Creek

Virginia Tech Department of Biological Systems Engineering. 2017. Bacteria TMDL Development and Proactive Approach to address the Benthic Impairment for Woods Creek Rockbridge County and City of Lexington, Virginia

Virginia Tech Department of Biological Systems Engineering. 2025. PCB Total Maximum Daily Load Development for the Middle and Upper James River, Maury River, and Jackson River Watersheds.

PROJECT IDENTIFICATION

CITY OF LEXINGTON

STORM DRAIN IMPROVEMENTS — MYERS STREET TO MCLAUGHLIN STREET

Location Description

37.785988, -79.446691

Myers Street to McLaughlin Street corridor (**Figure 1**); project integrated into the Jackson Avenue water and sewer improvement project.

Project Issue

Undersized stormwater drainage system identified in City's Capacity Analysis, which has been confirmed by Public Works field observation. Localized flooding is a risk to damage infrastructure during heavy rainfall as well as road safety hazard. The project scope is to be integrated with road improvement project for cost efficiency.

Project Purpose

Upgrade undersized storm drain system between Myers Street and McLaughlin Street by leveraging integration with the Jackson Avenue water and sewer improvement project for cost-efficient delivery.

Identified Constraints

a. Adjacent infrastructure and buildings
b. Traffic interruption
c. Schedule is dependent on the Jackson Avenue project timeline
d. Coordination with current planned improvements

Additional Information Needed

a. Location of utilities
b. Current capacity of stormwater system
c. Planned design for improvements project
d. Drainage area

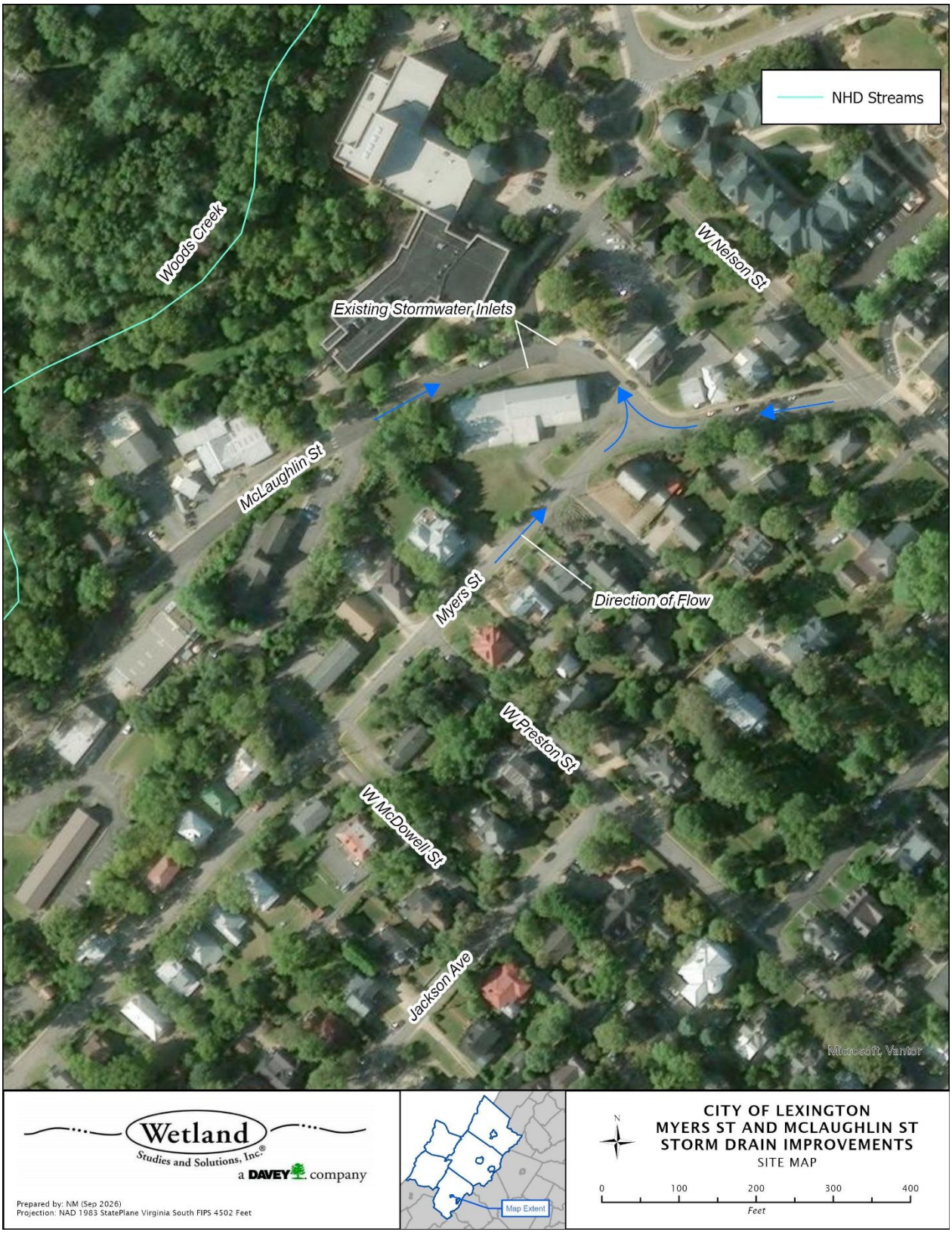

Figure 1. Myers St and McLaughlin St corridor with approximate direction of flow marked.

Project Proposal and Planning-Level Cost Estimate

An H&H study should be conducted before construction starts along the Myers and McLaughlin Street corridor. This would provide insight to the City on the locations where flooding is most severe and the constrictions within the existing system. The study would also provide information for the sizing of stormwater piping and number/spacing of additional curb inlets along the corridor. The extent or necessity of the study would depend on the data that has already been gathered in the City's Capacity Analysis and Public Works field work.

There are currently two curb inlets along McLaughlin Street at the Glasgow Street intersection, which are downhill of the problem area. Flooding does not appear to be due to a lack of capacity at these inlets, but simply due to the stormwater flowing across the roadway itself, causing safety hazards, damaging asphalt, and potentially inundating some structures (**Figure 2**). Improvements in this area should be integrated into the Jackson Avenue project and could include the installation of additional stormwater inlets on Myers Street near McLaughlin Street and an additional inlet on McLaughlin Street uphill of the current inlets, tying into the existing stormwater infrastructure. Road improvements could also be completed to ensure there is positive drainage throughout the corridor and address the damage from stormwater runoff.



Figure 2. Intersection of Myers Street and McLaughlin Street on Google Street View. Damage to the road, attributed by City staff to overland flow, visible along Myers Street.

ITEM/DESCRIPTION	QTY	UNIT	UNIT COST	ITEM SUB-TOTAL	EXTENDED SUB-TOTAL
Survey and Design					**$82,000**
Construction Administration and Oversight					**$15,000**
Access and ESC					**$29,475**
Construction					**$236,950**
Stakeout and As-Built	1	LS	$18,000.00	$18,000.00	
Mobilization	1	LS	$13,401.25	$13,401.25	
Excavation and Hauling	375	CY	$100.00	$37,500.00	
Curb Drop Inlets	3	EA	$10,000.00	$30,000.00	
Storm Sewer Pipe	275	LF	$300.00	$82,500.00	
Backfill	250	TON	$80.00	$20,000.00	
Curb & Gutter	275	LF	$50.00	$13,750.00	
Pavement Replacement	250	SQ YD	$80.00	$20,000.00	
Mill and Overlay	50	SQ YD	$25.00	$1,250.00	
Striping	275	LF	$2.00	$550.00	
Contingency (30%)					**$109,028**
TOTAL ESTIMATED BUDGET					**$472,453**

The table above presents the estimated costs for design and installation of a storm sewer system extension up to the intersection of Myers Street and McLaughlin Street, adding 275 linear feet of storm sewer under sidewalk. Significant savings could be attained on H&H modeling and survey if those part of the project can be folded into larger ongoing efforts at addressing stormwater in the area.

Possible Alternatives and Additional Considerations

Designs and solutions along this corridor are constrained by the development of the watershed. Much of this area is privately owned land, with little vacant space or publicly owned property. This limits the use of infiltration or detention practices throughout the watershed, which would decrease the volume or attenuate the flow of stormwater along these roads.

In addition to proposed infrastructure work, the City could encourage property owners to install rain barrels or rain gardens to harvest rainwater or increase infiltration. Residents can access funds through the Virginia Conservation Assistance Program (VCAP) that is administered through the Natural Bridge Soil and Water Conservation District.

<u>TMDL/MS4 Considerations</u>

The City of Lexington does not hold an MS4 permit, so benefits for formal stormwater permitting were not considered in this design. Woods Creek, which runs close to the site, has an approved TMDL to address the bacteria water quality impairment and *E. coli* levels. The site is also located within the Maury River watershed, which has approved TMDLs for PCB and *E. coli* pollution. A stormwater infrastructure improvement project along the Myers Street and McLaughlin Street corridor would not provide any reduction in these pollutants.

Lexington Capital Improvement Plan

This project has been included within the Capital Improvement Plan, with funding planned for fiscal year 2028 at a cost of $265,000 to be folded into the Jackson Avenue Phased plans. Jackson Avenue Phase I has been programmed for $4.8 million in fiscal year 2027 and $4.0 million in fiscal year 2029. Jackson Avenue Phase II has been planned for $4.5 million in fiscal year 2031.

Assumptions

For cost estimate purposes, 275 linear feet of stormwater conveyance and three drop inlets were assumed.

Recommended Next Steps

Evaluate planned work in the CIP and potential to acquire funding through CFPF.

References

City of Lexington, VA. 2026. Lexington, Virginia Capital Improvement Plan FY 2027-FY 2031.

Google. (n.d.). *[Intersection of Myers Street and McLaughlin Street, Lexington, VA].* [Street View]. Retrieved September 22, 2026.

USGS. StreamStats v4.33.0. Accessed online 22 September 2026.

Virginia Tech Department of Biological Systems Engineering. 2013. Bacteria Total Maximum Daily Load Development for Colliers Creek, North Fork Buffalo Creek, South Fork Buffalo Creek, Buffalo Creek, Maury River and Cedar Creek and a Sediment Total Maximum Daily Load Development for Colliers Creek

Virginia Tech Department of Biological Systems Engineering. 2017. Bacteria TMDL Development and Proactive Approach to address the Benthic Impairment for Woods Creek Rockbridge County and City of Lexington, Virginia

Virginia Tech Department of Biological Systems Engineering. 2025. PCB Total Maximum Daily Load Development for the Middle and Upper James River, Maury River, and Jackson River Watersheds.

PROJECT IDENTIFICATION

CITY OF LEXINGTON

RANDOLPH STREET AND HENRY STREET CULVERT REPLACEMENT — TOWN BRANCH

Location Description

37.784739, -79.440290

Intersection of Randolph Street and Henry Street; approximately 250 linear feet of culvert conveying Town Branch stream flows beneath Randolph Street in the vicinity of Henry Street.

Project Issue

Undersized and deteriorated stormwater culvert — approximately 250 LF of corrugated metal arch culvert has exceeded its design life. Town Branch Phase II Hydraulic Analysis noted as confirming culvert as inadequate to convey the 10-year storm event. There has been documented upstream flooding on east side of Randolph Street during heavy rainfall events. The primary affected property owner holds multiple parcels including commercial/office buildings and a coin laundry facility.

Project Purpose

Replace undersized, deteriorated Randolph/Henry Street culvert to eliminate documented upstream flooding on the east side of Randolph Street and restore adequate drainage capacity for at least the 10-year storm event.

Identified Constraints

a. Land acquisition or easements
b. Roads and other infrastructure
c. Cooperation with private landowners
d. Traffic disruption

Additional Information Needed

a. Location of utilities
b. Existing culvert capacity

Project Proposal and Planning-Level Cost Estimate

The City of Lexington has already completed some work to replace the existing culverts and size the new structures. Currently, it is planned to replace the arch culvert with 10’ x 4’ reinforced concrete box culvert. The City also plans to tie this culvert replacement into the subterranean channel improvements along Jefferson Street. Design is programmed for fiscal year 2027 in the CIP for $129,000, with construction not yet programmed but estimated at $2.1 million.

In conjunction with the culvert replacement, the City of Lexington could construct a series of small 'pocket' parks along Town Branch (**Figure 1**). There are sections that are currently daylighted throughout the City before entering existing culverts that run under buildings and roads. The area surrounding these sections of accessible stream channel could be converted into pocket parks, increasing public green space throughout the City. There is noted erosion along the banks of the stream (**Figure 2**, **Figure 3**), which can be addressed in the creation of the parks. Native vegetation could be planted along the streamside to stabilize banks, and the banks could be graded back in cases of more severe bank instability. Certain other infrastructure that encourages use by the public, such as gazebos, trails, or benches, could be constructed along the stream in these parks. Property and/or easement acquisition would be required throughout the corridor, with the proposed demolition of one unused building. Four proposed locations for parks are: behind the Visitor's Center (**Figure 2**), behind First Baptist Church along Henry Street (**Figure 3**), between the Exxon and First Baptist Church, and at the corner of Massie Street and US Route 11 Business. Each of these locations would depend on the presence of easements and/or the acquisition or agreed use of property.



Figure 1. Site map displaying the path of Town Branch and proposed park locations along the stream.



Figure 2. Section of Town Branch that is daylighted before running under Randolph Street. Photograph taken facing southeast. This is one proposed location for a park.



Figure 3. Town Branch as it runs behind First Baptist Church, between Henry Street and Parry Lane. This is another location for a park. Photograph taken facing approximately southeast.

ITEM/DESCRIPTION	QTY	UNIT	UNIT COST	ITEM SUB-TOTAL	EXTENDED SUB-TOTAL
Survey and Design					**$90,000**
Survey	1	LS	$20,000	$20,000	
H&H Study	1	LS	$20,000	$20,000	
Design	1	LS	$50,000	$50,000	
Contingency (30%)					**$27,000**
TOTAL ESTIMATED BUDGET					**$117,000**

The table above presents estimated costs for park design and supporting survey and H&H modeling. Significant savings could be achieved on H&H modeling and survey if those are already partially covered under planned or completed work regarding the culvert replacement. As park facilities can vary widely due to local constraints and stakeholder priorities, estimation of costs associated with construction-phase efforts will require additional study and scoping.

Possible Alternatives and Additional Considerations

The City of Lexington could consider constructing infiltration or detention practices throughout the Town Branch watershed. This could include detention basins, swales, or other nature-based BMPs. These designs are expected to be size limited throughout the area, as much of the watershed is developed with little vacant space for construction. Due to the lack of space, rain barrels or rain gardens/micro-bioretention basins could be implemented on private residencies and may provide minor attenuation during smaller storms. Landowners could access funds through the Virginia Conservation Assistance Program, which is administered by the Natural Bridge Soil and Water Conservation District in Lexington.

Slip-lining or similar minimally invasive culvert replacement methods may offer a viable structural alternative, less construction disturbance, and a significant reduction in costs. However, these methods would not offer meaningful additional flow capacity or flood reduction.

TMDL/MS4 Considerations

The City of Lexington does not hold an MS4 permit, so benefits for formal stormwater permitting were not considered in this design. Woods Creek, which Town Branch eventually drains into, has an approved TMDL to address the bacteria water quality impairment and *E. coli* levels. The site is also located within the Maury River watershed, which has approved TMDLs for PCB and *E. coli* levels. Neither resizing and replacing the culverts nor creating parks throughout the area would assist in decreasing pollutant levels or achieving goals related to the TMDLs.

Lexington Capital Improvement Plan

The culvert replacement has been included within the Capital Improvement Plan. The City has planned the Randolph/Henry Street Stormwater Project Design to be funded in fiscal year 2027 at

a cost of $129,000. The construction project is estimated to cost $2,100,000 but has not yet been programmed.

Assumptions

Watershed (via StreamStats 10/12/2026) is 0.23 square miles at Parry Lane.

Recommended Next Steps

Assess interest in pursuit. Evaluate existing H&H modeling information generated for culvert replacement and applicability to this proposed effort.

References

City of Lexington, VA. 2026. Lexington, Virginia Capital Improvement Plan FY 2027-FY 2031.

Virginia Tech Department of Biological Systems Engineering. 2013. Bacteria Total Maximum Daily Load Development for Colliers Creek, North Fork Buffalo Creek, South Fork Buffalo Creek, Buffalo Creek, Maury River and Cedar Creek and a Sediment Total Maximum Daily Load Development for Colliers Creek

Virginia Tech Department of Biological Systems Engineering. 2017. Bacteria TMDL Development and Proactive Approach to address the Benthic Impairment for Woods Creek Rockbridge County and City of Lexington, Virginia

Virginia Tech Department of Biological Systems Engineering. 2025. PCB Total Maximum Daily Load Development for the Middle and Upper James River, Maury River, and Jackson River Watersheds.

PROJECT IDENTIFICATION

CITY OF LEXINGTON

STORM DRAIN IMPROVEMENTS — WALLACE STREET TO SOUTH MAIN STREET

Location Description

37.774605, -79.448659

Wallace Street to South Main Street corridor in the vicinity of the City Fire Station; adjacent to the Windermere subsidized housing development.

Project Issue

Undersized stormwater outfall infrastructure — Lexington's capacity study identified deficiencies in this corridor; subsequent residential flooding event confirmed need for corrective action; project area proximate to City Fire Station (critical facility) and adjacent to Windermere subsidized housing development (**Figure 1**).

Project Purpose

Upgrade stormwater outfall infrastructure along Wallace Street to South Main Street to eliminate documented residential flooding and address capacity deficiencies identified in the capacity study.

Identified Constraints

a. Interruption of traffic or fire department operations
b. Adjacent infrastructure and roads

Additional Information Needed

a. Path and capacity of stormwater conveyances
b. Presence of utilities
c. Census designation for the Windermere subsidized housing – community may qualify as a low-income census tract

Project Proposal and Planning-Level Cost Estimate

City of Lexington officials have identified deficiencies in the stormwater conveyance and outfall along Wallace Street in their capacity study. This system drains the neighborhood along Wallace Street and Maple Lane, with the outfall near the Lexington Fire Department (**Figure 2**). An upgrade of these stormwater conveyances should be constructed. The implementation of a nature-based solution is restricted along the corridor by the density of houses, though it is possible that a regenerative stormwater channel or dry swale could be implemented, given the relatively small drainage area (12.8 acres). These alternatives should be evaluated as part of the planned design process. More detailed estimation of costs associated with constructing a dry swale or similar practice should be incorporated into the design process.

The current project planned by the City of Lexington has an estimated budget of $846,000 scheduled for Fiscal Year 2028. This is proposed to be funded by the Stormwater Fund. Although this project would likely involve an improvement to grey infrastructure and not a nature-based solution, it would still be possible to apply for and procure CFPF funding to defray some of the associated expenses. The current infrastructure has been identified as inadequate and should be updated to provide flood relief for residents. Because of the importance of this project, funding might be available and acquired through the CFPF. If the design can be modified to include nature-based design elements, higher levels of CFPF funding may be available.

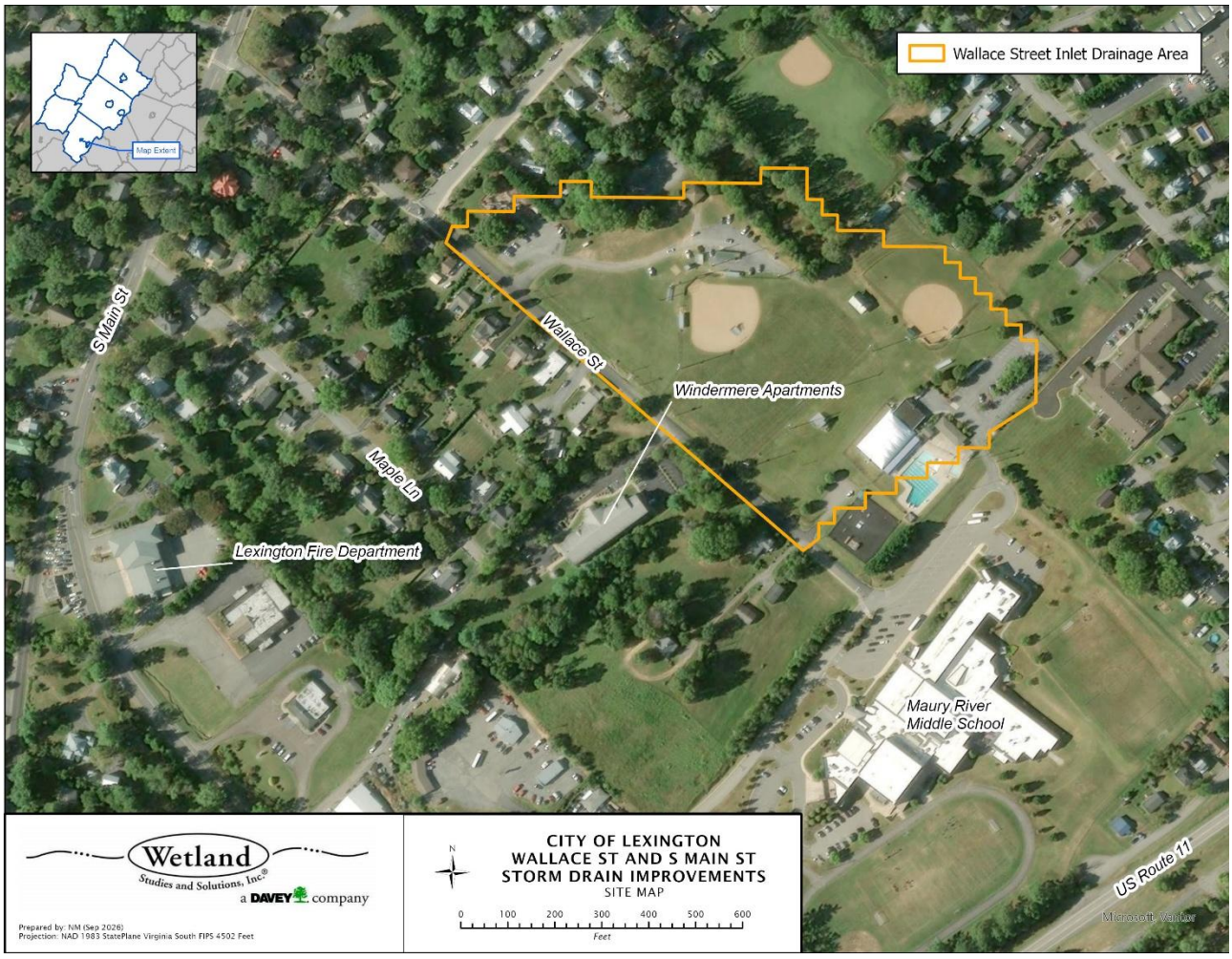

Figure 1. Area that drains to the outfall by the fire department, with notable roads and buildings marked.



Figure 2. Limited drainage capacity along Wallace Street and upstream community, located between the fire station and South Main Street.

Possible Alternatives and Additional Considerations

Residents along Wallace Street and Maple Lane could install rain barrels or rain gardens throughout private properties in the community, utilizing the Virginia Conservation Assistance Program to fund the projects. This would provide a slight decrease in volume for the stormwater conveyance from Wallace Street.

Stormwater BMPs or other green infrastructure projects could also be considered through the drainage area. There is currently a vacant lot behind the fire department and adjacent funeral home. This could be a reasonable location to construct a BMP aimed at peak flow attenuation. While it would require significant excavation, a dry swale or similar infiltration practice could be installed in part of the grassed area between the playground and ball field on the north side of Wallace Street. This could reduce the stormwater volume to the south side of Wallace Street. Certain designs may also provide pollutant reduction and ecological uplift benefits.

TMDL/MS4 Considerations

The City of Lexington does not hold an MS4 permit, so formal stormwater permitting considerations were not factored into the choice of project. This area eventually drains into Woods Creek, which is a Tributary of the Maury River. The Maury River has approved TMDLs for PCB

levels and water quality violations of the *E. coli* standard. Woods Creek is listed as impaired due to exceedances to the *E. coli* standard and the general life (benthic) standard. The most probable stressors were hydrologic modification and organic matter; hydrologic modifications cannot be quantified as a pollutant load and therefore are not able to undergo TMDL development. A TMDL was approved to address the *E. coli* impairment in Woods Creek. Improvements to the stormwater infrastructure in this area would likely provide no benefits toward pollutant reduction TMDL goals for the Maury River or Woods Creek.

Lexington Capital Improvement Plan

This project has been included within the Capital Improvement Plan. The storm drain improvements have been budgeted for fiscal year 2028 at a cost of $846,045.

Assumptions

Watershed (via StreamStats 9/17/2026) is 12.8 acres from the inlet along Wallace Street.

Recommended Next Steps

Evaluate potential to fund through CFPF.

References

City of Lexington, VA. 2026. Lexington, Virginia Capital Improvement Plan FY 2027-FY 2031.

Google. (n.d.). *[Storm drain inlet along Wallace Street, Lexington, VA].* [Street View]. Retrieved September 17, 2026.

USGS. StreamStats v4.33.0. Accessed online 17 September 2026.

Virginia Tech Department of Biological Systems Engineering. 2013. Bacteria Total Maximum Daily Load Development for Colliers Creek, North Fork Buffalo Creek, South Fork Buffalo Creek, Buffalo Creek, Maury River and Cedar Creek and a Sediment Total Maximum Daily Load Development for Colliers Creek

Virginia Tech Department of Biological Systems Engineering. 2017. Bacteria TMDL Development and Proactive Approach to address the Benthic Impairment for Woods Creek Rockbridge County and City of Lexington, Virginia

Virginia Tech Department of Biological Systems Engineering. 2025. PCB Total Maximum Daily Load Development for the Middle and Upper James River, Maury River, and Jackson River Watersheds.